

2013



UNIVERSITY OF MISSOURI EXTENSION

Improving lives
and communities
in Missouri

Message from the Vice Provost

For 100 years, University of Missouri Extension has extended university-based knowledge beyond the campus into all 114 counties of the state. In doing so, extension has strengthened families, businesses and communities. This local presence, combined with input from nearly 2,000 local county council members, demonstrates a level of local commitment, reach and accomplishment that is unmatched by any other university in Missouri.

Extension programs provide Missouri-specific answers that are research-based and non-biased. In the age of the Internet, when anyone can claim to be an expert, it's clear that extension's role as a trusted resource is vital.

Looking back on FY 2013, I am proud to note that MU Extension faculty made nearly 2.3 million personal contacts with those they serve. Professionals in business, public safety, health, government, labor, education and agriculture routinely turned to extension for solutions. Extension's 4-H youth program reached more than 276,000 young people ages 5 to 18 in every corner of the state. Senior adults improved their lives with the Osher Lifelong Learning Institute, and thousands of additional daily contacts took place through our comprehensive website.

May 8, 2014 marks extension's centennial celebration. MU Extension will recognize the milestone with a centennial event in early May. Additionally, throughout the year, there will be a variety of local centennial events across the state. If you are interested in centennial celebrations, you can learn more by visiting extension.missouri.edu/centennial. We look forward to seeing you.

Please be assured that while your extension family will celebrate this milestone, we are keenly focused on building for the future and delivering solutions that represent our five thematic areas of expertise and delivery:

- Educational attainment
- Environmental concerns
- Community, economic, business and workforce development
- Global food systems
- Health systems

This year's annual report highlights our work in these five thematic areas, which represent the individual and societal challenges of the 21st century. As you read through the pages, you will learn how MU Extension is successfully helping transform Missouri lives, businesses and communities.

Thank you for your support of MU Extension. We look forward to our continuing relationship with you and our partners across the state.



Michael D. Quart, vice provost and director

Visionary programming

Working together across disciplines to help solve real problems for Missourians



During Fiscal Year 2013, MU Extension implemented a new way of programming — **program integration**. This visionary approach to programming enables MU Extension to coordinate the efforts and resources of various programs in a more effective interdisciplinary response to issues and needs of Missourians.

For example, in addressing environmental concerns, MU Extension now looks beyond the traditional, single-program area and harnesses the knowledge, research and expertise of multiple areas such as agriculture and natural resources, engineering, youth development, and human environmental sciences. Program integration is a structured approach to interdisciplinary work using five theme areas and teams.

MU Extension created thematic teams pulled from the expertise found within the University of Missouri, along with other partners and organizations, to develop and deliver programs in each of the following theme areas.

Educational attainment

Engage children and adults in lifelong learning to increase their educational attainment.

Environmental concerns

Conduct research and educate citizens about energy efficiency,

increased use of renewable energy, new ideas for reducing energy dependence, water quality, and environmental impact on health and safety of citizens.

Community, economic, business and workforce development

Address issues and opportunities of Missouri's economic infrastructure, communities, public services, economic development, jobs and educational access.

Global food systems

Improve affordable, accessible, safe and healthy food.

Health systems

Improve individual, family and community health.

In the fast-changing extension landscape, many issues cannot be adequately addressed by traditional, single-program efforts — they require a more comprehensive, multidisciplinary approach.

Program integration enables MU Extension to more easily mobilize cross-program expertise and resources and offer more comprehensive solutions that can improve the lives of Missourians.

On the cover

Left: MU Extension's Fire and Rescue Training Institute conducts a swiftwater rescue course that prepares emergency response personnel to operate in moving water search and rescue incidents.

Top right: Hank Stelzer, MU Extension forestry specialist, shows how leaving the branch collar in place when pruning allows the tree to heal faster.

Bottom right: Megan Webb, left, MU Extension nutrition and health education specialist, coaches the Healthy U students in Sedalia through one of many exercises during class. Read more about how MU Extension is helping this community shed pounds and improve health on page 5.

Contents

Message from the Vice Provost.....	2
Visionary programming	3
Health systems.....	4
Educational attainment.....	6
Global food systems	10
Community, economic, business and workforce development.....	12
Environmental concerns	16
MU Extension program summaries.....	18
MU Extension partners.....	20
MU Extension statistical data.....	22



Health systems

Improve individual, family and community health.

MU Extension launches Health Insurance Education Initiative

The Affordable Care Act that passed in 2010 created health insurance reforms and regulations that now affect all Missourians, whether directly or indirectly. The new law mandated that everyone, except those with a hardship exemption, enroll in health insurance or pay a penalty. It further required that, by 2015, all businesses with 50 or more full-time employees offer them affordable health insurance or make a shared responsibility payment to the government. Businesses with fewer than 25 employees can now get a tax credit for offering affordable health insurance to their employees.

29,000

MU Extension's **Continuing Medical Education** program helps improve the health of Missourians by bringing the latest research and clinical guidelines to health care practitioners. In 2013, more than 1,700 programs reached 29,000 health care professionals in Missouri and beyond.

The program partnered with the Missouri Arthritis and Osteoporosis Program to deliver 26 multisession health education programs on arthritis and chronic disease management.

MU Extension created the Health Insurance Education Initiative to help individuals and business owners understand their options and responsibilities under the Affordable Care Act and provide resources to help them make fully informed health insurance decisions. State MU Extension faculty, Molly Vetter-Smith, health education specialist, Brenda Procter, personal financial planning associate professor, and Graham McCaulley, personal financial planning extension associate, lead the Initiative. They created a curriculum covering basic components of the new law, including a range of coverage and payment options, tax credits and penalties, unique effects on different groups, how employer-based insurance affects employees, changes to Medicare, and how to get enrollment assistance. The curriculum includes speaker notes that provide a high level of detail and background information and make the curriculum a helpful training resource for those working with consumers. It is available for purchase outside Missouri and is designed for use by extension or community agencies that have a nonpartisan mission.

The Initiative is an integrated program that taps into all appropriate program areas within MU Extension. Eighty faculty from family financial education, nutrition and health, human development, agriculture, business development, community development, labor education and 4-H youth development are trained to deliver the program in all 114 Missouri counties. MU Extension already has offered over 150 workshops, reaching approximately 1,800 Missourians.



Human Environmental Sciences Extension faculty and staff reached more than 600,000 Missourians this year with educational programming.

3,038

The **Focus on Kids** program helped 3,038 separating and divorcing parents in Missouri learn how to work cooperatively for the sake of their children. This face-to-face program helps divorcing parents raise their children in healthy, low-conflict environments, reducing the need for community health services for children of divorce.

62%

Sedentary lifestyles are a key factor in the overweight and obesity epidemic. As a result of attending an MU Human Environmental Sciences Extension program, 62 percent of young people and 94 percent of adults indicated that they increased their physical activity levels. Participants reported increased balance, flexibility and strength. Participants remain active, live independently and contribute to society for a longer time. A healthy population also keeps more discretionary income circulating within the local community.

94%

Sedalians lose weight, improve health, inspire community

As a counterpoint to overindulgent eating, frequent snacking and high-caloric intake, a special group of people in Sedalia dedicated the past year to fighting a common affliction: excess weight. At the same time, they want to be inspirational examples of healthy lifestyle changes for fellow community members facing the same problem.



Megan Webb (left), Healthy U coach from MU Extension, leads Healthy U students through one of many exercises during class.

To overcome long-held habits of excessive eating and infrequent exercise, this dedicated dozen joined a new 12-month program in 2012 — Healthy U — designed by the Pettis County Healthy Living Action Group (HLAG), a local network concerned with promoting healthy lifestyles. HLAG includes Bothwell Regional Health Center, University of Missouri Extension, Katy Trail Community Health and several other Pettis County groups.

Healthy U encourages participants to adopt balanced diets and reverse sedentary habits, says Megan Webb, MU Extension nutrition and health education specialist. It also requires them to share their experiences — challenges, triumphs and revelations — with the community through news media interviews, blogs, civic club talks and community events.

"The idea is not just to impact the 12 students, but for them to influence the community," says Webb, who also serves as a counselor and coach for Healthy U students. "It's inspiring for the community to see the progress they're making."

"One of the things we're really looking for with our 12 Healthy U students is that they are representative of our community so that everybody can potentially identify with one of them," says Sarah Nail, HLAG chair, Healthy U program developer, and community outreach coordinator for BRHC.

After nearly a year of weekly meetings and continual dedication to improving eating habits and increasing exercise, the Healthy U dozen is seeing goals become reality. All have dropped weight; some have lost nearly 100 pounds.

"I just got tired of being tired, and tired of watching life go by while I was just sitting," says Healthy U student Bob Satnan, editor of the Sedalia Democrat. "My daughter is a senior this year and my son is in eighth grade. It dawned on me that if I didn't do something I might not see either one of them graduate. It's a lifestyle change. This is about getting myself to a weight that's manageable."

Another Healthy U student, high school teacher Alicia Maggert, is proud that she and her comrades serve as examples for others: "I can stand up here and tell you all the right things — how many calories to eat, how many pounds to lose every week, what exercises to do — but at the end of the day it's not a matter of what you say. It's what you do."

Members of the Healthy U class of 2012 graduated Jan. 3, 2013. "They plan to continue healthy eating habits and lifestyle practices," says MU Extension's Webb. "That same day a new group of 12 started its yearlong trek to improved health."

Nursing Outreach's Enhanced MU Leadership Development Academy for RNs and Nursing Home Administrators In Long-Term Care transitioned to an eight-day, face-to-face format with webinars to condense the time required.

80%

Nurses from 91 of Missouri's 114 counties attended **Nursing Outreach** continuing education activities.

MU Extension's **Eat Well, Be Well With Diabetes** program reached 717 Missourians. Participants reported improvement in eating habits, monitoring blood sugar levels, making healthy food choices and preparing healthy foods. Before the program, 13.9 percent used the plate method or carbohydrate counting at meals. After the program this number jumped to 79 percent.

79%

Educational attainment

Engage children and adults in lifelong learning to increase their educational attainment.

4-H'ers teach kids how science can help feed the world

Brenda Pineda and Tinaira Tieucl stand in front of a classroom, teaching 30 students how to build DNA structures using candy. 4-H'ers Pineda and Tieucl are teaching "Biotech to Feed the World," a workshop in which students learn the importance of using biotechnology to reduce hunger as the world population continues to grow.

"Most people in the U.S. don't understand that people in other countries worry about how they're going to eat every day," said Tieucl, a St. Louis County 4-H'er. "So with biotechnology, we're trying to inform people and help them grow more food so they can eat just like we can."

Biotechnology applies biological science to the advancement of engineering, medicine, agriculture and food technology. Biotechnologists manipulate and transfer the genes of organisms to produce a desired trait in certain plants and animals.

The biotech workshop was part of the State 4-H Congress on the University of Missouri campus. MU Extension 4-H'ers ages 14 to 19 participated in educational workshops.

Pineda and Tieucl are part of a group of 4-H Ambassadors from around the state who are teaching other young people about biotechnology. They will take what they learned at the state congress and create science lessons for others in their 4-H clubs back home.

During the session, young people participated in activities such as extracting DNA from strawberries using rubbing alcohol, dishwashing detergent and other household items, and building DNA models out of licorice and gumdrops.

Donna Garcia, MU Extension 4-H urban youth development specialist, hopes the program will get more people interested in biotechnology. "One of the concerns with biotechnology, of course, is being able to feed those who are underfed," Garcia said. "We're not taking a political stance, but what we are doing is examining biotechnology. If informed on biotechnology, kids will be able to form their own opinions on this issue."

Pineda and Tieucl knew little about the need for biotechnology, but after taking the training courses the two were more than willing to teach others about it.

"We want urban youth to realize that it's not just going to the store to get what you're going to get, it's a bigger process behind the materials and the food we get on a daily basis," said Pineda, who is with Jackson County 4-H.

"One of the things that I really appreciate about this program is watching diverse groups of young people who don't know each other, but they're able to come together, work together towards a common goal," Garcia said. "And to me, it has just been phenomenal to watch that happen."

In FY 2013, the MU Conference Office collaborated with seven MU colleges and schools, 16 administrative units, five federal and state agencies, and 11 associations and entities to deliver 79 conferences that generated \$3.15 million in gross revenue. These conferences were attended by 21,352 people, of whom 13,982 were Missourians. Conferences included the 4th Annual NanoFrontiers Symposium, a regional academic meeting bringing together the National Institutes of Health, the U.S. Department of Defense, and other government and industrial organizations. MU academic units worked with the MU Conference Office to hold conferences that included engineering, biomedical sciences, physics and nuclear science.



Brenda Pineda, left, explains the strawberry DNA experiment to participants in the Biotech to Feed the World workshop. Pineda, a 4-H Congress ambassador, took a biotechnology training class to prepare for a leadership role in the workshop.

276,921

Missouri 4-H reached more than one in five Missourians ages 5 to 18 (276,921 young people) with a 4-H educational program, experience or activity.



A Biotech to Feed the World participant pours rubbing alcohol into a test tube to extract strawberry DNA.

21,352

In FY 2013, the MU Conference Office collaborated with seven MU colleges and schools, 16 administrative units, five federal and state agencies, and 11 associations and entities to deliver 79 conferences that generated \$3.15 million in gross revenue. These conferences were attended by 21,352 people, of whom 13,982 were Missourians. Conferences included the 4th Annual NanoFrontiers Symposium, a regional academic meeting bringing together the National Institutes of Health, the U.S. Department of Defense, and other government and industrial organizations. MU academic units worked with the MU Conference Office to hold conferences that included engineering, biomedical sciences, physics and nuclear science.

\$1.2 million

MU Extension's **Engineering Continuing Education** program continued growing its Pollution Prevention (P2) program — a collaboration with the Missouri Environmental Assistance Center, the Environmental Protection Agency, MU's College of Engineering and Missouri companies. Trained engineering interns are sent into Missouri companies to identify and analyze cost-effective ways to reduce energy costs.

Missouri companies who partner with the P2 program experience an annual, recurring cost savings of \$1.2 million annually. The P2 program epitomizes MU Extension's mission. It prepares the next generation, engages Missouri companies, conserves raw materials and natural resources, emphasizes occupational health and safety, and demonstrates problem solving at its best.

96 **Nursing Outreach's** 6th Evidence-Based Practice on the Frontline conference in April 2013 attracted 96 nurses from Missouri, Kentucky and Illinois. This is one of the few conferences that targets staff nurses. Participants learned how to apply scientifically proven evidence to deliver high-quality health care to patients.

In addition to **Nursing Outreach's** own educational activities, which served 2,905 nurses and other health care providers, another 1,182 nurses participated in co-sponsored multidisciplinary programs with MU Extension's **Continuing Medical Education** program.

The **Labor Education** program works with leaders and members of workplace-based organizations across Missouri to help them develop skills to contribute to their organizations, to act effectively in the workplace and to be informed and active participants in their communities. Labor Education reached 1,217 participants through 48 courses and conferences.

1,217

During the winter of 2012–2013, crime seemed to surge in central Missouri. A student in MU Extension's **Osher Lifelong Learning Institute** suggested a course that would bring into our classrooms "Those who protect us by law."

In response, the institute introduced an eight-week course that brought the police chief, county prosecutor, county public defender, circuit court judge, and director of the MU Extension's Law Enforcement Training Institute into the classroom. These guest teachers displayed virtual dramatizations of crime scenes in the very same manner of the police academy — adding lengthy sessions about behaviors that make unsuspecting and uninformed citizens vulnerable. These top brass in law enforcement and the judiciary told it like it is in frightening detail.

age 50+

Yet, what might have been anxiety-provoking in the newspaper or on TV proved empowering to our students age 50 and older.



Educational attainment

Engage children and adults in lifelong learning to increase their educational attainment.

The **Missouri Training Institute** in MU's Trulaske College of Business provides continuing education, custom-designed training programs and business consulting services for business and industry, public and nonprofit organizations and educational institutions.

12,937

In 2013, 12,937 people from all 114 Missouri counties enrolled in the institute's 518 programs.

The institute provided training, consulting and coaching services for a variety of organizations that include:

- ACT Inc.
- ABC Labs
- Alliance Water Services
- Ameren UE
- Gates Rubber
- Missouri Employers Mutual
- Boone Hospital
- Missouri Ethics Commission
- Missouri Department of Natural Resources
- Missouri Workforce Development Association

Missouri Summer Fire School prepares first responders for disasters

Last year, tornadoes wreaked havoc on communities throughout the Midwest, stretching emergency services thin. Each year, the Missouri Summer Fire School helps first responders prepare for the many challenges they might face in the aftermath of natural disasters and other emergencies.

In June 2013, more than 500 firefighters and first responders from 17 states attended the 81st Summer Fire School, organized by MU Extension Fire and Rescue Training Institute (MU FRTI) and held on the campus of Lincoln University in Jefferson City.

Kevin Zumwalt, associate director of MU FRTI, says the school concentrates on hands-on, practical skills, covering topics that extend beyond putting out fires, including technical rescue, hazardous materials, command and control of emergency operations, and house-to-house and wide-area searches. When a widespread disaster strikes, responders may have to draw on a number of different skills, Zumwalt says.

"How we extricate people from automobiles and school buses is going to relate to a disaster situation such as a tornado," he says. "Even the trench rescue class provides fundamental skills applicable to getting someone out of a collapsed structure."

Teamwork is vital for effective response to a large-scale emergency, Zumwalt says. Many types of first responders have to work together, including fire service, law enforcement and emergency management personnel.

"We really emphasize safety in disaster situations," says Ken Vomund, fire school instructor and assistant chief of the O'Fallon Fire Protection District. "You don't go in a house by yourself to search something. We work together as a team and we leave together as a team."

The school draws everyone from rookies to seasoned veterans with decades of experience. "You get them all in class together and there is no age difference when it really comes down to it," Zumwalt says. "The new guys are learning from the old guys, the old guys are learning from the new guys, and it's a good mix."

MU began conducting training sessions for Missouri fire departments in the 1930s. Today, MU FRTI provides emergency response training on a wide range of subjects, including emergency medical care, industrial safety and counterterrorism.

"There's always new stuff to be learned," Zumwalt says. "Whether you're a one-year firefighter or a 40-year firefighter, you can always learn something new."

For more information online, go to mufrti.org.

More than 90 percent of participants in **Homebuyer Education** courses secured funding to buy a home. Participants received reduced interest rates, saving them thousands of dollars each over the course of the loan. Research shows that people who attend these courses before buying a home are less likely to default on their loans.

90%



Missouri Summer Fire School includes many hands-on training exercises to prepare first responders for a variety of rescue scenarios that might take place in the aftermath of a fire, accident or natural disaster.

ASPCA's \$50,000 grant provides scholarships to animal cruelty investigation program

A \$50,000 grant from the American Society for the Prevention of Cruelty to Animals is providing scholarship opportunities for students studying animal cruelty investigation at MU Extension's Law Enforcement Training Institute (LETI).

LETI's National Animal Cruelty Investigations School licenses students as Certified Humane Investigators and is open to employees of agencies associated with animal welfare, including law enforcement officers, shelter professionals and veterinarians.

"The ASPCA's grant allows jurisdictions to receive partial scholarships for their employees to attend our training and thus provide greater expertise in their animal neglect and abuse investigations," said John Worden, LETI director.

The ASPCA grant has enabled LETI to offer almost 170 partial scholarships, giving employees of agencies and organizations with limited budgets the opportunity to learn the skills required to investigate animal cruelty cases in their communities, including animal fighting, puppy mill and animal hoarding cases.

Many alumni of the program have become leaders in the field of anti-cruelty investigations. These alumni have played leading roles in many large-scale animal cruelty investigations, including the largest dog fighting seizure in U.S. history.

Classes are held at MU as well as in cities in 13 states, including Arizona, Arkansas, Colorado, Florida, Georgia, Kansas, Maine, Montana, New York, North Carolina, Tennessee and Texas. Over a four-week period, students learn all aspects of animal cruelty investigations from a nationally recognized faculty of law enforcement personnel, veterinarians, animal control officers and other animal welfare professionals. Program topics include evidence collection, exotic animal handling, animal law, interpreting animal behavior and criminal questioning techniques.

\$5,229,730

The **Missouri Taxpayer Initiative** helps low-income Missourians with free tax preparation. Tax specialists helped 4,583 participants prepare their federal tax returns in 2013, resulting in \$5,229,730 in refunds.

FY 2013 was a pivotal year for **MU Extension's ExCEED program**. Many of the long-term partner communities and regions have reached maturity and are realizing their goals.

- Brookfield has created loft apartment space downtown and has opened a One Stop Center to support entrepreneurship and business development.
- The Old Trails Regional Partnership and the Mississippi River Hills Association reached major milestones that included functional organizations, increased recognition as regions, successful leveraging of resources, and increased economic returns.
- In partnership with the Community Foundation of the Ozarks, ExCEED facilitated community and economic exploration and planning with the city of Sarcoxie and Shannon County.

Global food systems

Improve affordable, accessible, safe and healthy food.

Free app from MU Extension helps you identify that unwanted weed

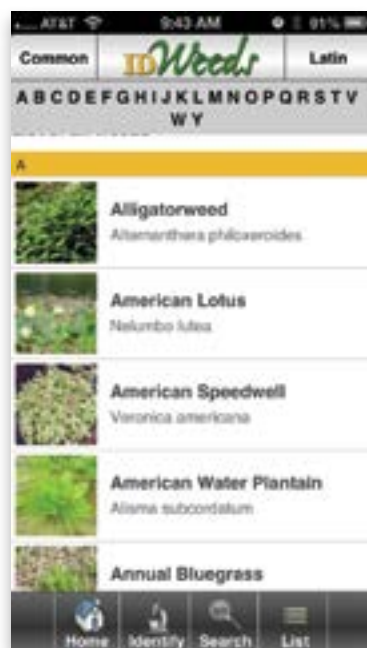
University of Missouri Extension has a free app for iPhones, iPads and Android devices to help people easily identify weeds in the field, lawn or garden.

The app, called ID Weeds, has information on more than 400 plant species that could be encountered as weeds in crop fields, pastures, lawns, gardens or aquatic areas in Missouri and surrounding states, said Kevin Bradley, MU Extension weed scientist.

ID Weeds lets users narrow the list of suspects with a series of drop-down boxes for various plant characteristics. Don't worry if you're not familiar with technical terms such as "ligules" or "spatulate." For most characteristics, users can click on "what's this?" to see an illustration.

Clicking on "Identify" will produce a list of weeds that match the characteristics you've chosen. The more characteristics you specify, the shorter the list will be. Selecting a weed on the list brings up detailed information and one or more photographs.

You can also look up a weed by searching for its common or scientific name, or select from an alphabetical list, from "Alligatorweed" to "Yucca."



"Proper identification of weeds is important so that you choose an appropriate and cost-effective method of control," said Bradley, who is also an associate professor of plant sciences in the MU College of Agriculture, Food and Natural Resources.

Released December 2012, ID Weeds has averaged about 1,000 downloads per week on Apple's App Store. The app was developed by James Meng, a programmer for MU Extension Technology and Computer Services (ETCS). ID Weeds is compatible with iPhone, iPod Touch and iPad running iOS 5.1 or later, and devices running Android 2.2 or later.

To download:

iPhone and other iOS devices: itunes.apple.com/app/id-weeds/id559906313.

Android: Search for "ID Weeds" at play.google.com/store.

A Web version is available at weedID.missouri.edu.



Above: Tim Reinbott, superintendent of the University of Missouri's Bradford Research and Extension Center, showed high tunnels to agriculture educators from across the state at a recent workshop.

Left: Floating row covers placed over crops inside a high tunnel provide extra protection from the cold.

High tunnels mean fresher produce, more cash to producers

"We are in a food production revolution," University of Missouri Extension horticulture specialist David Trinklein told agriculture educators recently at MU's Bradford Research and Extension Center. High tunnels have grown in popularity in recent years, partly because of increased interest in locally grown produce, which tends to be fresher and more flavorful, Trinklein said.

Farmers use high tunnels to extend the growing season, boost production and increase marketing opportunities, he said. "Prices are very strong and interest has been growing," he said.

Although high tunnels resemble greenhouses, they are quite different. High tunnels primarily use solar heat to warm the soil and air. They are less expensive to build and maintain than greenhouses.

Often referred to as "a poor man's greenhouse," high tunnels are constructed "with economy in mind," Trinklein said. They are typically constructed using a single layer of plastic over metal ribs. Side and end walls can be rolled up or down as

needed to adjust temperatures through venting. Commercial greenhouses may cost more than \$20 per square foot to construct, while high tunnels may cost as little as \$3 to \$5 per square foot.

By maturing more rapidly, produce from high tunnels brings in significantly more dollars per plant than conventionally grown plants, with early-season crops commanding the best prices of the season.

Tomatoes are one of the most popular high tunnel plants. "Tomatoes are king," Trinklein said. "Early-season tomatoes are big, big moneymakers." He further noted that some early-season tomatoes fetched \$4 per pound at farmers market auctions last year. Crops such as lettuce and salad greens can be grown in fall and winter, making them marketable to high-end restaurants.

For more information on high tunnels, go to extension.missouri.edu and enter "high tunnels" in the search box.

MU Extension works with veterinarians and animal owners

MU Extension's **Veterinary Medical Extension and Continuing Education (VMECE)** provides educational opportunities and up-to-date information for veterinarians and animal owners. In 2013, the program offered continuing education for veterinarians seeking continuing education credit to renew their veterinary licenses. Team members also presented information about production-related topics or animal disease to more than 1,000 people at 19 different meetings across the state.

Faculty from VMECE often work with other MU faculty to increase economic viability of livestock operations. For example, VMECE faculty helped with the launch of a new program called Quality Beef by the Numbers which is sponsored by the College of Agriculture Food and Natural Resources (CAFNR) and MU Extension. The objective of the program is to add value to beef cattle produced and marketed in the U.S. through the use of reproductive and genetic technology.



Dr. Craig Payne, director of MU Extension's Veterinary Medical Extension and Continuing Education, talks with cattle producers at the annual Missouri Beef Tour about cattle handling and facility design.

MU Extension faculty partnered with Missouri's Natural Resource Conservation Service and soil and water conservation districts to conduct 23 multiday **regional grazing workshops** across the state. Of producers attending, 98 percent said they will implement at least three management practices taught at the workshop, and half indicated that they will apply for cost-share funds to improve their fencing and watering facilities.

The investment by producers in improvements as a direct result of these workshops exceeded **\$5 million.**



Community, economic, business and workforce development

Address issues and opportunities of Missouri's economic infrastructure, communities, public services, economic development, jobs and educational access.

Kemper Military School campus is redeveloped to serve the community

\$524,948

In FY 2013, the **MU Conference Office** coordinated 21 conferences in Columbia hotels. These conferences infused \$524,948 directly into the local economy for food, beverage, facility rental, lodging and local transportation expenditures (not including money that participants paid for their own lodging, meals and shopping).

The Columbia Convention and Visitors Bureau estimates on average, a Columbia visitor spends \$292 for a one-night stay in Columbia.

Kemper Military School, Boonville, Mo., was founded in 1844. The "West Point of the West" boasts many nationally famous alumni. It survived the Mexican-American War, Civil War, Spanish-American War, World War I, World War II and Vietnam War.

But it didn't survive the 21st century. Declining enrollments brought about Kemper's closure in 2002. Ten beautiful, neocolonial buildings, including red-brick academic halls, a gracious president's home and large residence halls, sat vacant.

The 46-acre campus played a large role in the city's identity as a popular 19th century Missouri river town destination. Boonville, already hit hard by plant closings, had lost its sole institution of higher education and hundreds of cadets, as well as jobs for instructors and administrative support staff. Residents had to commute to Fayette, Marshall, Sedalia or Columbia for higher education.

The city did not want to see the campus abandoned, so it purchased Kemper in 2003. But over time, the buildings fell into disrepair, roofs sagged and portions of the campus were surrounded by high wire fencing. Worse, a large tower atop the administrative building collapsed in 2010.

So Mayor Julie Thacher reached out to Jim Gann, a Boonville resident and director of technology business development at MU Extension's Small Business and Technology Development Centers (SBTDC). With funding from the U.S. Department of Commerce Economic Development Administration, Gann worked with area stakeholders on a plan. He facilitated a series of community stakeholder meetings and researched historic preservation and realistic tenants. After preliminary visioning, Gann continued discussions with city residents, concerned stakeholders and higher education institutions. He sought advice on getting buildings up to code for education, recreation, hotel and housing.

An innovative proposal emerged: offer Kemper and its redeveloped facilities to higher educational institutions as an open, plug-and-play campus. Gann facilitated negotiations with several higher education institutions to use the campus. State Fair Community College of Sedalia was attracted to the campus and its location, and eventually opened a new campus on the Kemper grounds. The city agreed to lease the refurbished library, and a full slate of classes began in the fall of 2012. This new campus and the program are expected to draw hundreds of students, many of them local residents, and create up to 100 part- or full-time jobs.

While there is still much redevelopment to do, more improvements are in the works, and new tenants are being reviewed for suitability and best fit to fully rejuvenate the campus, maintain its historic appeal and attract more investment.



Aid after disasters

Community Emergency Management Program specialists helped Missouri communities devastated by floods, tornadoes and drought to focus on revival of resilient families, business, farms and communities.

Kemper's former library, Math Hall, is now the main building for State Fair Community College in Boonville.

Cade Reynolds: From 4-H Clover Kid to e-commerce entrepreneur

Cade Reynolds isn't your typical 16-year-old 4-H member. He's the owner of CSR Enterprises, short for Cade Scott Reynolds Enterprises, and builds websites using Joomla, a content management system used all over the world to power websites.

Cade describes himself as "computer savvy." Amy Patillo, MU Extension 4-H youth specialist for Howell County, describes him as a "natural" with Web design. Cade began his 4-H career as a Clover Kid.

Cade attended a Joomla session at the 2012 State 4-H Congress. Patillo said he navigated the system quickly and began moving around the room working with other 4-H members to see how he could help them. "In less than four hours, 95 percent built their own Joomla website, installed a Joomla template, uploaded graphics and built a blog site," she said.

She was so impressed with Reynolds' abilities that she invited him to attend the Joomla World Conference in San Jose, Calif., at the eBay headquarters when she was invited to speak.

The funds for Cade's first flight, hotel and travel expenses were made possible by members of his community, the Ste. Genevieve County MU Extension Center, the state 4-H program, and the MU Extension Community Economic and Entrepreneurial Development program (ExCEED). The Joomla video team paid for his conference admission and put him on the video team at the conference. He was the youngest person in attendance.

Through the conference he has been able to rub elbows with employees of eBay, Google, Sears and other big-name companies.

At the 2013 State 4-H Congress held in Columbia, the high school junior made a presentation during the "Geek Out With Us! Ecommerce and Joomla!" Web design session.

For more information about the University of Missouri Extension 4-H Center for Youth Development, go to 4h.missouri.edu.



Cade Reynolds, a 16-year-old high school junior from Ste. Genevieve, designs Web pages using Joomla. He learned his skills through his county's 4-H program and was a presenter at the June 2013 Missouri 4-H State Congress in Columbia.

9,328

During fiscal year 2013, the **Business Development Program** helped clients create or retain 9,328 jobs.



Community, economic, business and workforce development

Address issues and opportunities of Missouri's economic infrastructure, communities, public services, economic development, jobs and educational access.

MU Extension's Labor Education

program works with state and national workplace-based organizations to help them develop skills to contribute to their organizations, to act effectively in the workplace, and to be informed, active participants in their communities.

Major partners in these efforts include:

- Missouri AFL-CIO and affiliates
- Sheet Metal Workers Joint Apprenticeship Committees
- Missouri Coalition of Public Sector Unions and affiliates
- Westminster College and the National Churchill Museum
- Office of Professional Employees International Union, AFL-CIO
- International Union of Operating Engineers National Training Center
- District 11 of United Steelworkers of America
- United Association of Journeymen and Apprentices of the Plumbing and Pipe-fitting Industry of the U.S. and Canada

MU Extension's Community Arts Pilot Project takes root in Lexington

The historic community of Lexington is the site of a University of Missouri Extension Community Arts Pilot Project designed to provide an economic boost through community development.

The project makes the resources of MU's Art Department and MU Extension available to the Lexington community over a two-year period, said Lee Ann Woolery, project director and community arts specialist for MU Extension. MU students and faculty, along with MU Extension staff, will work with Lexington residents on projects designed to enhance quality of life and stimulate economic development.

Abigail Tempel, a project committee member, said MU Extension's resources will provide an opportunity for the youth of Lexington to explore the arts as an economic development tool and to encourage youth to stay in the community.

"We have quite a story to tell," Tempel said. "Any opportunity we have to promote the town and show people our quality of life is important. Partnering with MU Extension not only allows us to promote the Civil War history, the river history and our unique architecture, but also agribusiness, so that MU students and our own students appreciate how important they are as economic development tools."

Lexington, like many small rural towns, has limited financial and volunteer resources, and the project will infuse new blood into efforts to promote the town. "It will help us further build Lexington as an arts destination point for tourists," Tempel said. "Studies have shown that patrons appreciate the town and further upgrade the quality of life and the appeal of that town for new business and new residents."

The project will allow Lexington to tap MU's extensive resources in music, theater, fine arts, film, journalism, architectural studies and art education, she said. MU faculty and students will go to Lexington to exhibit their art, hold workshops, work on collaborative educational projects and teach master classes. Lexington's students will be able to attend summer art camps, workshops and other activities to explore what MU offers for emerging artists as part of the intellectual and research exchange.

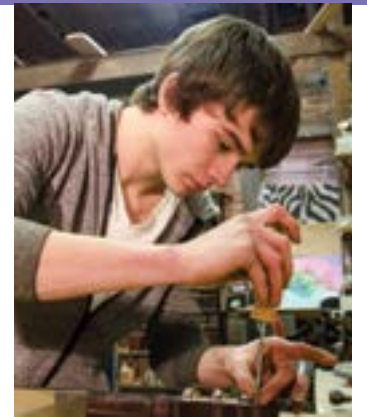
"Through this MU Extension program, we're looking at how the arts can be an economic development tool." — Lee Ann Woolery

Woolery said that the project committee hopes to promote the town's proximity to Kansas City as a drawing card and encourage artists to commute to Lexington to take advantage of large buildings suitable for studio and gallery spaces, which are available at far more affordable rates than in metropolitan areas. This, combined with the rich history of the town and a vibrant volunteer group, makes Lexington an ideal site to attract new artists, she said.

Learn more about the Community Arts Pilot project at extension.missouri.edu/communityarts.



Right: Seth Ritter works on his "found art" project, a guitar or banjo made out of objects he's found. The Lexington high school student has his own studio in a refurbished 1850s downtown Lexington building. Ritter serves on an advisory committee overseeing the Community Arts Pilot Project.



Left: Lexington, Mo., is the first community to be a part of MU Extension's Community Arts Pilot Project.

Habitata brings back American jobs, transforms neighborhood

In an abandoned grocery store in an abandoned St. Louis neighborhood, Habitata Building Products, LLC, makers of Halcyon Shades, has brought American jobs back from Mexico and in the process transformed a neighborhood. MU Extension's **Small Business and Technology Development Centers** (SBTDC) helped.

Not too long ago, Habitata's neighborhood, McRee Town, was one of the worst in the St. Louis metro area. Crime was rampant and buildings were vacant or falling down. The city of St. Louis decided on a draconian solution — level it and start over.

Halcyon Shades chose to put its manufacturing facility in McRee Town because the owners believed in the city and its people. They found an empty grocery store and repurposed it into a factory, storage facility and offices. As a result of their efforts and those of others, McRee Town is now called Botanical Heights and is a national model of urban renewal.

But it almost didn't happen. In 2006, Halcyon Shades was owned by a global conglomerate that made the regrettable decision to move the operation from Virginia to Puebla, Mexico, to take advantage of lower wages. It soon realized it had made a mistake. While labor was cheap, freight costs to take materials in and products out of Mexico made the operation unprofitable and unmanageable. The parent corporation started taking steps to shut Halcyon Shades down.

Co-founders David Kenyon and Jane Quartel knew Halcyon well and believed in the value of the custom-made, ultra-energy-efficient, semi-transparent window shades. Both feared the brand would be lost in the bankruptcy, a personal loss for them but a far bigger loss for the environment.

Kenyon and a new partner, Kevin Schaedler, had meanwhile founded a renovation and building products firm they called

Habitata with little more than a couple of old trucks and a customer list. Within a month, they had outfitted the old grocery store as a shade factory, hired and trained workers and moved Halcyon's materials and equipment 4,000 miles from Mexico to St. Louis while still fulfilling order commitments.

Habitata is a true equal opportunity employer, hiring mentally disabled employees, veterans, newly released felons and chronically unemployed people from the St. Louis area as a matter of ordinary hiring practice.

"We're not a halfway house," Quartel says. "But your history doesn't necessarily say who you are. Your character says who you are. We're mining for character. We expect 150 percent, but we give 150 percent, too. It's a cohesive team, but we have high expectations of our employees." Current employees also have a say in new hires and are expected to mentor them, further reinforcing personal bonds and company loyalty.

Kevin Wilson, director of the St. Louis SBTDC, was integral in Halcyon's transformation from a small building company to a model of environmental and socially conscious manufacturing with nearly \$3 million in sales and 12 employees, four of them veterans.

"This is a place where you come to work and leave happy and fulfilled," says Kenyon, a former trial lawyer. Kenyon practices what he preaches. When the company hit hard times in 2010, he gave up his salary and stepped down as CEO to save employees' jobs. And he tells his workers: "You will save the environment. You will have made some money for your family and your company. You will have done something for the community by just showing up to work in an abandoned grocery store."

Environmental concerns

Conduct research and educate citizens about energy efficiency, increased use of renewable energy, new ideas for reducing energy dependence, water quality, and environmental impact on health and safety of citizens.

Home Energy Score offers 'miles per gallon' rating for houses

If you're shopping for a car, you can compare miles per gallon. If you're looking at refrigerators or other big appliances, you can check the EnergyStar label. But if you're an energy-conscious homebuyer, it's not easy to compare the efficiency of different houses.

That's changing this year with the launch of the U.S. Department of Energy's Home Energy Score, a voluntary national rating system for measuring a home's energy efficiency and recommending how to improve it. University of Missouri Extension has developed an online training course for certifying Home Energy Score assessors.

The program aims to reduce nationwide energy consumption, and help families save money and make informed decisions about buying a home or upgrading the efficiency of their current home, said Mary Myers, director of continuing education in the University of Missouri College of Engineering.

"It's good for the potential homeowner because they can have an apples-to-apples rating of different homes they might buy and can get a specific slate of improvements that would impact efficiency, instead of spending money that may or may not help the efficiency," Myers said.

Another goal is to create jobs by employing potentially thousands of trained assessors across the country and by spurring consumer demand for everything from insulation to energy-efficient heating and cooling systems. "We create other jobs in the construction business and manufacturing when people take the recommendations from these assessors and increase the efficiency of their houses," Myers said.

A 2009 report from the White House Council on Environmental Quality noted that one barrier to making existing homes in the U.S. more energy efficient was that "most consumers do not have access to straightforward and reliable information about their home's energy use." Right now, the only way to get an accurate look at a home's energy efficiency usually is to opt for a full-scale energy audit, which can cost up to \$1,000 and requires a team of technicians with specialized equipment such as blower doors and infrared sensors.

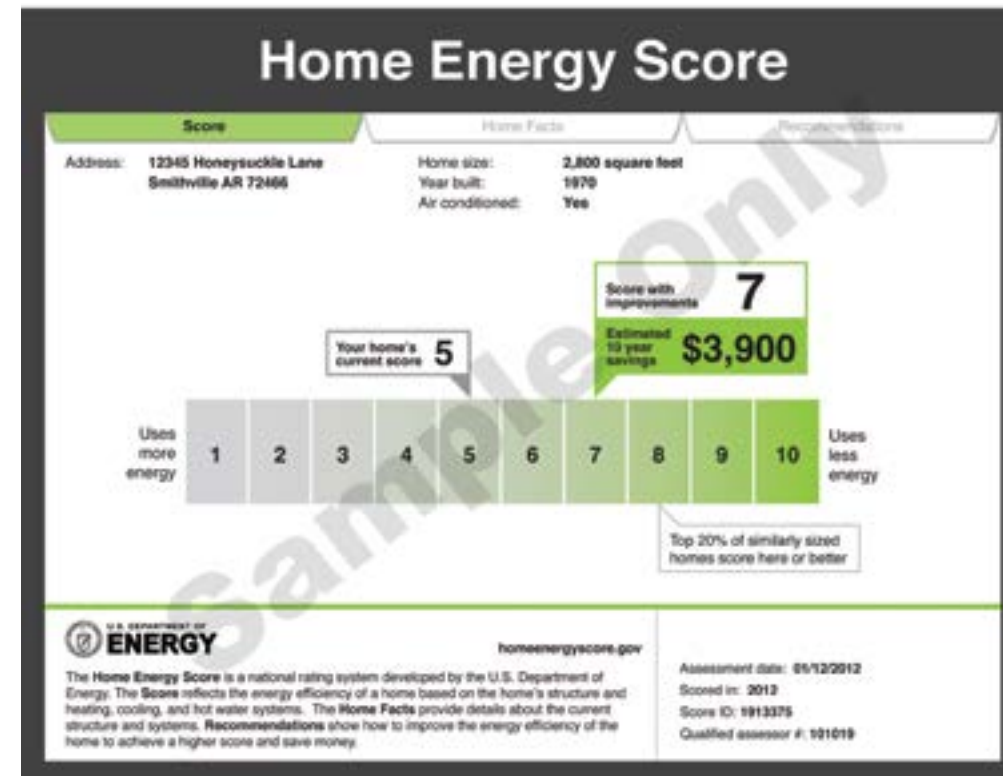
By contrast, a trained assessor using the Home Energy Score system can walk through a house, rate its energy efficiency on a scale of 1 to 10, and recommend energy improvements, Myers said. The process takes less than an hour and is expected to cost homeowners less than \$50.

To determine a Home Energy Score, an assessor collects information about the house. "We go in and get the square footage of the home, we look at insulation in the attic, the AC, the furnace, anything that could be a contributing factor in the energy output of the home," said Gabe Kelley, who recently completed the online training and field testing.

Web-based software analyzes that information to produce a score and recommendations. In areas

\$1,058

The **Missouri Agricultural Energy Saving Team: A Revolutionary Opportunity** program completed home energy audits for participating farm owners. Home-owners who retrofitted their homes realized an average of \$1,058 in annual energy savings per home.



First page of a sample Home Energy Score report. The scoring system was refined during a series of pilot of studies in 10 states. In June 2012, the final pilot study, conducted on a handful of homes in mid-Missouri, employed Home Energy Score Qualified Assessors (HESQAs) who completed the MU Extension training program. Graphic: Lawrence Berkeley National Laboratory

where wireless Internet access is available, the assessor can enter the information into a laptop or tablet computer, generate a report and email it to the client right on the spot. The report includes estimated energy cost savings over 10 years if the owner makes the recommended upgrades.

Spirit Foundation, a Missouri-based nonprofit that specializes in job training in the fields of energy efficiency and sustainability, is administering and coordinating the training program. MU Extension is also coordinating with the U.S. Navy to offer the training to wounded veterans returning from Afghanistan.

Home Energy Score assessors will go to work for Energy Department partners, including utility companies, Spirit Foundation, the American Society of Home Inspectors and the Clinton Foundation's building retrofit program. "Eventually, the general public will be able to go through the MU training and conduct Home Energy Scores," Myers added.

"Legislation is also pending to offer homeowner incentives for completing a Home Energy Score and implementing its recommendations," she said. "This will create jobs nationwide, involve communities in sustainability and lower America's dependence on foreign oil."

For more information, see www.HomeEnergyScore.gov and www.HomeScore.org.

efficiency

The **Business Development Program's Environmental Assistance Center** helps businesses identify funding for implementing energy efficiency strategies. The center works closely with the Property Assessed Clean Energy program, USDA Rural Energy for America Program and utility companies offering rebates to businesses.

30,840 acres

Two-hundred Missouri landowners attended **My Missouri Woods** workshops. Seventy-five percent of those landowners worked with a professional forester to develop and implement a management plan on 30,840 acres. The workshops are part of MU Extension's **Agri-culture and Natural Resources** program.

MU Extension program summaries

Agriculture and Natural Resources

Marc Linit, PhD, associate dean
David Baker, program director and assistant dean,
College of Agriculture, Food and Natural Resources

cafnr.missouri.edu/extension

The MU Agriculture and Natural Resources Extension program is built upon Missouri's diverse array of natural and human resources and its sophisticated business base.

The central goal of the program is to improve quality of life, enhance the economic viability of Missouri enterprise and, at the same time, protect the environment and the state's natural resources for all Missourians.

MU Nursing Outreach

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

nursingoutreach.missouri.edu

MU Nursing Outreach provides high-quality, affordable and accessible professional development programs for Missouri's nurses. With the half-life of nursing knowledge being less than five years, it is crucial for professional nurses to have the latest, evidence-based knowledge and skills.

In addition to Nursing Outreach's own educational activities, which served 2,905 nurses and other health care providers, another 1,182 nurses participated in co-sponsored multidisciplinary programs with MU Extension's Continuing Medical Education program.

Community Development

Marc Linit, PhD, associate dean
Mary Simon Leuci, EdD, program director and assistant dean, College of Agriculture, Food and Natural Resources

extension.missouri.edu/cd

The Community Development program helps Missourians and their communities tap into local strength by focusing on five major themes: leadership development, decision making, economic viability, inclusion and empowerment, and emergency preparedness.

In FY 2013, the program helped communities and organizations

- acquire \$10.8 million in grants and other resources,
- create 43 new nonprofit organizations, and
- enact organizational policies and plans in 24 communities.

Human Environmental Sciences

Jo Britt-Rankin, PhD, program director and associate dean, College of Human Environmental Sciences

extension.missouri.edu/hes

Human Environmental Sciences Extension provides Missourians with face-to-face, Web- and Internet-based education to help build stronger futures and healthier lives.

In FY 2013, the program reached more than 600,000 Missourians in all 114 counties with programs in housing, personal finance, relationships, nutrition, health and physical activity.

4-H Center for Youth Development

Ina Metzger Linville, PhD, director

4h.missouri.edu

For more than a century, 4-H programs have helped young Missourians learn leadership, citizenship and life skills, meet key developmental needs and pursue educational goals.

During FY 2013, 4-H programs reached 276,921 young people ages 5 to 18 in every corner of the state — one out of every four Missourians in this age group. 4-H provides a great return on investment. Each dollar of public resources invested in Missouri 4-H leverages \$12.75 to serve young people and families statewide.

Labor Education

Paul Rainsberger, JD, director

labored.missouri.edu

The MU Extension Labor Education program works with members and leaders of a variety of workplace-based organizations across Missouri to help them develop skills to contribute to their organizations, to act effectively in the workplace, and to be informed and active participants in their communities.

Business Development

Steve Devlin, program director and associate dean, entrepreneurship and economic development, College of Engineering

missouribusiness.net

During FY 2013 the Business Development program helped clients

- start 261 new businesses,
- create or retain 9,328 jobs,
- increase sales by more than \$188 million,
- acquire more than \$213 million in new financing,
- pursue and acquire \$1.4 million in research grant awards,
- win 3,271 local, state and federal government contracts totaling more than \$195 million.

Fire and Rescue Training Institute

David E. Hedrick, director

mufrti.org

MU Extension's Fire and Rescue Training Institute provides comprehensive continuing professional education and training to Missouri fire service, emergency responders and allied personnel.

As one of only eight fire training systems housed within a university in the United States, FRTI maintains a prominent reputation as one of the leading statewide fire training systems.

Law Enforcement Training Institute

John Worden, director

leti.missouri.edu

The Law Enforcement Training Institute develops and provides state-of-the-art training and education programs to law enforcement practitioners, civilian professionals and laypersons.

For 65 years, the institute's faculty and affiliated professionals have provided basic pre-service and specialty in-service instruction to both law enforcement academy students and veteran officers who serve in local, state and national public safety.

Osher Lifelong Learning Institute

Lucille D. Salerno, PhD, director

learnforlife.missouri.edu

MU Extension's Osher Lifelong Learning Institute delivers quality courses designed to complement the interests, concerns and lifestyles of the over-50 adult. Many over-50 adults enjoy learning for the pleasure of learning. And the institute realizes that older citizens need intellectually stimulating courses that fulfill this need.

Courses are led by cutting-edge professionals and active and emeritus MU research professors in a learner-friendly style.

Engineering Continuing Education

Mary A. Myers, PhD, director

The MU Engineering Continuing Education program provides timely programs uniting MU College of Engineering and MU Extension resources for Missouri's professional engineering community.

The Pollution Prevention (P2) program epitomizes MU Extension's mission. It prepares the next generation; it engages Missouri companies; it conserves raw materials and natural resources; it emphasizes occupational health and safety; it demonstrates applied problem solving at its best.

Continuing Medical Education and Cooperative Extension Health Education

Allison Rentfro, PhD, director
Molly Vetter Smith, state health education specialist

som.missouri.edu/CME

The Continuing Medical Education program works to improve the health literacy of Missourians by developing, implementing and evaluating both clinic-based and community-based chronic disease prevention and self-management interventions.

Missouri Training Institute

Alan St. John, director

mti.missouri.edu

The Missouri Training Institute, housed in MU's Trulaske College of Business, is an MU Extension program that provides continuing education, custom-designed training programs and business consulting services for business and industry, public and nonprofit organizations, and educational institutions.

Training programs cover human resource management, supervision, management, leadership, team building, effective decision making, generational differences and business writing. Consulting services include human resources, strategic planning, board development and board retreats.

Veterinary Medical Extension and Continuing Education

Craig Payne, DVM, director

vmth.missouri.edu

Veterinary Medical Extension and Continuing Education collaborates with organizations, industry and other MU faculty to provide educational opportunities and up-to-date information for veterinarians and animal owners.

The program addresses issues that have widespread impact on Missouri veterinarians and livestock owners.

MU Conference Office

Jewel Coffman, interim director

MUconf.missouri.edu

The MU Conference Office was created in 1963 to provide high-quality, professional, full-service meeting management for a variety of noncredit educational programs such as conferences, workshops, seminars and symposia.

Whether a meeting is hosted on the MU campus, elsewhere in Missouri or anywhere in the world, the office's professional staff helps create the best learning environment for participants.

University partners

Missouri University of Science and Technology
 University of Missouri-Kansas City
 University of Missouri-St. Louis

Missouri University of Science and Technology

Missouri S&T's Office of Technology Transfer and Economic Development (TTED) helps grow Missouri's economy by advancing technology commercialization, encouraging entrepreneurship and facilitating business opportunities. TTED hosts a Small Business and Technology Development Center (SBTDC), part of the Missouri SBTDC statewide network, to provide training and counseling to aspiring entrepreneurs and small business owners. It also operates a Procurement Technical Assistance Center (PTAC) to help Missouri businesses compete for local, state and federal government contracts.

This year the Center launched VentureLab co-working space within the Technology Development Center. VentureLab is designed to provide a professional work environment and access to business and technology support, through the SBTDC office for very early stage companies. These companies currently include a number of student startups, faculty and community-centered early stage ventures.

The SBTDC provided over 1,600 hours of direct counseling to 139 distinct clients in the Central Missouri region. This counseling led to the creation of 15 new business, and helped clients purchase two existing business. Our clients saw an aggregate sales increase of \$6.7 million, and added 35 new jobs in spite of the continuing tough economic conditions.



Missouri S&T researchers Steve Jung, recent Missouri S&T alumnus and current CTO of Mo-Sci Corporation, and Delbert Day, curator's professor emeritus of ceramic engineering at Missouri S&T, continue development of a bioactive healing glass method. This product helps massive and difficult wounds to heal faster, eliminating the need for costly surgical debridement in many cases.



Toomey Hall on the Missouri S&T campus.

TTED's Technology Transfer Office received 41 invention disclosures, filed 22 patent applications, and executed 10 licenses and options. The current license and options generated nearly \$250,000 in income for the university. The university was issued 15 new patents in the past year, including critical patents in our bioactive glass and non-destructive screening portfolios. These patents will allow continued development of new products to help massive and difficult wounds to heal faster. We are also working to develop new tools to improve the safety and security at large events and venues such as football games and marathons.

University of Missouri-Kansas City

The Urban Mission work at UMKC is directly partnered with MU Extension and the UMKC Institute for Human Development. This partnership reaches into the community and builds the capacity of individuals and organizations as they respond to community issues. The Urban Mission work cuts across issues related to education, transition of youth to adulthood, healthy lifestyles, employment, and other issues related to community development. Highlights include:

- The Alianzas program supports MU Extension and its partners, as well as Missouri communities to recognize and respond to the unique challenges of Hispanic and Latino residents in Missouri, using a community-based, collaborative learning approach.
- In FY 2013, the Community Neighborhood Transformation Initiative was established in partnership with MU Extension, UMKC, School of Nursing, UMKC-IHD, and two neighborhood associations in Kansas City, Missouri. The goal of this partnership is to develop and support a community health model to increase healthy lifestyles for neighborhood residents.
- The newly developed program, Self-Determination Academy Initiative, will "encourage transition-aged urban youth to employ self-regulating, goal setting, and problem-solving skills in order to make purposeful decisions regarding education-related goals."
- The UMKC Innovation Center inspires and innovates entrepreneurial efforts through partnership with the university and the community. With several high-impact business outreach programs — the Small Business and Technology Development Center, the Procurement Technical Assistance Center and KCSourcelink — the center helps emerging and existing business owners create 366 new jobs and 45 new startups in 2013.



Partnering with the Latino Civic Engagement Collaborative, the Urban Mission work assisted in the Hispanic Needs Assessment — the first of its kind in nearly 25 years — giving local service providers and policymakers up-to-date and region-specific data.

University of Missouri-St. Louis

The University of Missouri-St. Louis works cooperatively with MU Extension through the Community Partnership Project (CPP), designed to connect UMSL and MU Extension faculty with community partners and support training, technical assistance and applied research efforts that strengthen neighborhoods and communities. Highlights of the previous year include:

- UMSL faculty worked with MU Extension's St. Louis Healthy Corner Store Project team to develop and manage the project, and expand it to additional St. Louis neighborhoods. The Community Partnership Project also connected UMSL and MU Extension faculty with the St. Louis Healthy and Sustainable Housing Initiative, designed to promote healthy housing practices that improve health outcomes of women and children.
- The Community Partnership Project launched a new "What's Brewing" breakfast series that gathered faculty and community leaders in neighborhoods across the region to explore and discuss urban issues. Community Partnership Project Seminars highlighted the research of UMSL faculty and linked that research with panels of practitioners in the St. Louis area.
- Through the annual Neighborhood Leadership Academy, 17 leaders were awarded the Chancellor's Certificate in Neighborhood Leadership and returned to their communities armed with skills to develop and sustain leadership, create and implement community improvement initiatives, and manage community-building organizations.
- CPP connected MU Extension faculty with social work classes that assisted with the Healthy Corner Store Project, as well as planning efforts by St. Vincent Greenway, Inc. The CPP Community Building Fellowship program connected MU Extension faculty to graduate students to assist with education, evaluation and outreach efforts of the St. Louis Healthy Corner Store Project.



"Nothing happens unless first a dream." Carl Sandberg's quote is carved into the stone archway outside the Thomas Jefferson Library on the University of Missouri-St. Louis campus.



MU Extension statistical data

Steve Ball, MU Extension state fitness specialist, works at his treadmill desk. Recent studies suggest that sitting at a desk all day can cancel out the health benefits of regular exercise. Treadmill desks let workers walk at 1-2 mph, burning as many as 100 calories per hour. The benefits for employees, Ball said, include weight loss, improved posture, less back stress, better focus, reduced mental stress and anxiety, and enhanced job satisfaction. "Active employees are healthy employees," he said. "We've got to get people up and moving."



Summary of continuing education noncredit activities — FY 2013

Continuing Education Unit	Number of Activities	Attendance Total	Individual Hours of Instruction	Student FTE*
Continuing Medical Education	1,714	29,407	2,814	239.4
Fire and Rescue Training Institute	597	13,868	10,057	618.4
Labor Education	27	798	343	24.8
Law Enforcement Training Institute	59	978	2,919	262.1
Missouri Training Institute	518	12,937	1,887	126.6
MU Nursing Outreach	111	2,816	686	61.7
Osher Lifelong Learning Institute	58	770	515	24.4
Veterinary Medical Extension and Continuing Education	1	3	1	0.0
MU Conference Office**				
Agriculture, Food and Natural Resources	17	4,695	368	275.5
Agriculture, Food and Natural Resources Extension	1	118	10	5.2
Business	1	21	23	2.2
Education	2	391	23	24.3
Engineering	4	510	106	33.0
4-H Youth Development	2	406	45	26.3
Human Environmental Sciences Extension	1	127	16	8.8
Journalism	3	177	45	11.0
Medicine	3	358	68	32.6
MU Administration	17	2,752	250	152.5
MU Extension	5	997	67	80.3
Veterinary Medicine	1	81	12	3.5
Conference Office-hosted	16	8,413	350	750.2
Conference Office totals	73	19,046	1,382	1,405.4
TOTALS	3,158	80,623	20,604	2,763

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

* Student FTE = Student full-time equivalent

** Six other MU Conference office activities with attendance totaling 2,306 have been distributed among their related academic areas and are represented in the MU Extension unit totals in this table.

Educational contacts cooperative extension — FY 2013

Program Area	Direct Contact Total	Indirect Contact Total	Total Contacts
Agriculture and Natural Resources	112,966	293,861	406,827
Human Environmental Sciences	1,022,280	354,041	1,376,321
Business Development	33,362	1,362	34,724
Community Development	13,752	171,233	184,985
4-H Youth Development	143,186	147,176	290,362
Totals:	1,325,546	967,673	2,293,219

This chart includes both direct and indirect educational contacts. Direct contact occurs when participants are actively engaged in a learning process, whether in a group or individual setting, that promotes awareness and understanding of research-based knowledge and adoption of research-based practices. Indirect contact occurs when the distribution of information and resources does not meet the above definition of direct contact. This can include public events and dissemination of printed materials that deliver educational content.



Photo courtesy of Rural Missouri magazine.

Above: MU Extension plant scientist Peter Scharf is concerned about increased topsoil erosion resulting from heavy rains. Across much of northern Missouri, an inch of soil loss in a corn-soybean rotation translates into an annual financial loss of \$14 per acre at today's prices. Scharf and other MU Extension specialists work with producers to promote terracing, no-till practices and planting of properly managed cover crops to help reduce soil erosion.

Left: A course offered through MU Extension's Osher Lifelong Learning Institute helped to soothe cultural and religious differences in rural Morgan County. The eight-week course compared history and culture of different religions. Brought to the community by instructional TV and widely attended, the course helped community members learn about different religious practices. Understanding religious and cultural differences of groups, such as the Mennonites in Morgan County, helps communities better value and embrace cultural uniquenesses.

Success breeds confidence

...and confidence breeds success. This philosophy is at the heart of MU Extension's **Kids in the Kitchen** program.

Kids in the Kitchen is a statewide program, developed by MU Extension's **Human Environmental Sciences** program that gives young people hands-on cooking experiences and healthy living and lifestyle information, said Jim Ronald, **4-H** youth specialist for MU Extension. "It's about kids becoming more independent."

In a class in Columbia, children with disabilities learned cooking skills like reading recipes, and using kitchen tools such as mixers, knives and choppers. While cooking is an important life skill, the kids also learn self-assurance.

"The goal of this program is to help the kids learn independent living skills," said Natalie Cheng, Mizzou student. "We encourage the students to take the recipes home and cook with their families."

Independent living is important for everyone, but it's very important for these kids. This particular class is led by Mark Ohrenberg, youth advocate and community service specialist for Services for Independent Living, a Columbia-based nonprofit.

"Everyone does a task in different ways. Giving young people an opportunity to make recipes builds confidence," Ohrenberg said.



Mark Ohrenberg shares a joke with volunteer Natalie Cheng and two participants in MU Extension's Kids in the Kitchen program.



Thomas Hart Benton's mural in the Missouri Capitol in Jefferson City includes this scene of outlaw Jesse James. The walls of the House Lounge in the Capitol come to life with Benton's vibrant, colorful paintings. The mural and its creation are profiled in the documentary "Tom Benton's Missouri," which has been remastered in a high-definition format. During FY 2013, the HD edition premiered around the state celebrating the film's 20th anniversary.

The new version is available online at tombenton.missouri.edu in a free, downloadable HD format and includes an educator's guide that provides lesson plans, background information on the mural, and lyrics and music from the film.

The digital documentary is a collaboration between MU Extension, campuses, professors and students, as well as teachers of Missouri. "This comprehensive study guide is full of interdisciplinary and cooperative learning lessons focusing on three enduring ideas found in the Benton murals – power, story and regional social identity," says Luce Myers, lecturer in art at Missouri S&T. "It includes Missouri National History Standards for fourth grade and is a good companion for teachers who want to make that history come alive."

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