Return on Investment
2013 Programs of Distinction

A Message from the Vice Provost of the University of Missouri Extension.........................1
University of Missouri Impact on Mercer County .................................................................2, 17
Farm Family Day at Missouri State Fair..................................................................................2
Extension Council Letter to the Mercer County Constituents................................................3
2013 Financial Report.............................................................................................................4
Mercer County Staff and Extension Council.........................................................................5
Continuing Education through University Extension in Mercer County .........................6

Agriculture
  Agricultural Update...............................................................................................................7
  Livestock Education...........................................................................................................8
  Show Stock Clinic...............................................................................................................9
  Horticulture.......................................................................................................................10

Family Financial Education
  Missouri Taxpayer Education Initiative ...........................................................................11

Community Development
  Water Festival.................................................................................................................12

Family Environmental Services
  Family Nutrition Education Programs ............................................................................13
  Housing and Environmental Design...............................................................................14

Youth Development
  4-H.................................................................................................................................16

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December 2013

Dear County Commissioners and Associated Friends of MU Extension:

As we enter 2014, we at University of Missouri Extension celebrate our 100-year partnership with you, with the State of Missouri and with the federal government. Through the Smith-Lever Act of 1914, the Cooperative Extension Service was established to provide practical application of research knowledge “to persons not attending or resident in said colleges in the several communities.” Over the years, the mission to bring you relevant, reliable and responsive education to improve lives and local economies remains the same. Yet, we also have changed to help you meet emerging issues and to take advantage of emerging opportunities.

Every day, MU Extension helps create value for citizens. For example:

- Throughout the state, MU Extension provides information to help address issues and opportunities related to Missouri’s economic infrastructure, public services, economic development, jobs and educational access. Counseling more than 3,000 business clients in FY12 resulted in 9,328 new jobs, sales increases of $188 million, $213 million in new business financing, and government contracts of more than $195 million.

- Our state and nation are in need of workers who are highly proficient in science, technology, engineering and math (STEM). Research has shown that 4-H members develop an increased interest in science three times higher than their non-peers. Both non-traditional activities, such as robotics, and more traditional activities, such as livestock judging and food preparation, are doorways to science-related careers.

- Livestock production accounts for about 53 percent of the state’s agricultural receipts. MU Extension’s Tier Two Show-Me-Select Replacement Heifer Program, which improves reproductive efficiency of beef herds, has garnered producers $237 to $357 per heifer, depending on breeding protocol followed. Statewide economic impact of the program has exceeded $65 million.

These are just three examples of MU Extension’s impact – made possible through your support of MU Extension in your community. I look forward to our continuing partnership, and as always, your ideas for improving our partnership are welcome.

Sincerely,

Michael D. Ouart
Vice Provost and Director

University of Missouri, Lincoln University, U.S. Department of Agriculture and Local Extension Councils Cooperating

EQUAL OPPORTUNITY/ADA INSTITUTIONS
University of Missouri Impact on Mercer County

- Mercer County Population: 3758

UM Students from the County in 2013
- 18 students
  - 17 - MU
  - 1 - UMKC
- 15 - Undergraduates
- 3 - Graduates
- 17 - Full-time students
- 1 - Part-time students

UM Employees and Retirees Residing in the County in 2013
- 2 people employed by UM

UM Alumni Residing in the County in 2013
- 61 alumni
  - 53 - MU
  - 5 - UMKC
  - 0 - Missouri S&T
  - 3 - UMSL
- 24 Selected School Alumni
  - 2 - Medicine
  - 3 - Nursing
  - 1 - Pharmacy
  - 16 - Agriculture
  - 2 - Engineering

UM Alumni Teaching K-12 in the County in 2013
- 5 teachers
- 8% of all county teachers
- 1 principal or administrator
- 25% of all county principals and administrators

UM Services Received in the County in 2013
- 40 patients seen at UM Health Care, with $10,060 of uncompensated care.
- 2 patients seen at the UMKC School of Dentistry with an average of $26 per patient in uncompensated care.
- 1,284 contacts with MU Extension through MU Extension events held in district counties.

Source- Office of Government Relations, 309 University Hall Columbia, Missouri

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Farm Family Day at the Missouri State Fair

The Batson family was Mercer County’s 2013 Farm Family Representative to Farm Family Day at the Missouri State Fair. Pictured are (from left to right) Debbie, Allison, Lindsey, Kelsey and Mike. The Batson family has a row crop and cow-calf operation.
January 31, 2013

Dear Mercer County Constituents,

The mission of University of Missouri Extension is to provide relevant, reliable and responsive information to the public. In pursuit of that goal in Mercer County, our office is staffed with a part-time office manager and a part time Extension Associate (4-H). Additionally, there are a variety of specialists to serve the citizens of Mercer County from county offices across NW Missouri through workshops, consultations and educational programming.

The work represented in this annual report is only a partial listing of the total educational programming that goes on in the county. We take pride in knowing that this is just a sample of the outstanding work generated within the county by extension personnel. From their efforts, citizens of the county learn to be effective in managing time, money and resources when achieving their goals. Workshop participants gain knowledge in agricultural best practices, health and nutrition, communication, family dynamics and youth enrichment activities that will enhance their ability to be life-long learners and productive citizens.

In recognizing the reality of today’s economic climate, coupled with the tightening of county, state and federal budgets, University of Missouri Extension has strived to remain relevant. Extension works to pave the way for citizens to remain the primary focus of their mission by delivering crucial information in programs that build jobs within our rural community, strengthen businesses, improve families and create economic wealth through estate planning and financial planning and instruction.

We hope that you enjoy reading about our mission to provide relevant, reliable and responsive information to the citizens of Mercer County. A huge thank you goes out to the Mercer County Commission, Mercer County 4-H Foundation, City of Mercer and all the businesses and individuals that contributed financially to the success of our well-being.

Sincerely,

Lisa Byers  
Extension Council Secretary

Marsha Shaw  
County Council Chair

Shaun Murphy  
County Program Director

University of Missouri, Lincoln University, U.S. Department of Agriculture and Local University Extension Councils Cooperating

University of Missouri Extension does not discriminate on the basis of race, color, national origin, sex, sexual orientation, religion, age, disability or status as a Vietnam-era veteran in employment or programs.
## 2013 Financial Report

<table>
<thead>
<tr>
<th>Income</th>
<th>Expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governmental Appropriations</td>
<td>Payroll Expenses $8,011.47</td>
</tr>
<tr>
<td>County $10,000.00</td>
<td>Non-Payroll Expenses $5,605.19</td>
</tr>
<tr>
<td>City of Princeton $0.00</td>
<td>Travel $1,806.66</td>
</tr>
<tr>
<td>City of Mercer $1,500.00</td>
<td>Postage $240.00</td>
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<tr>
<td>Gifts/Grants/Contracts $400.00</td>
<td>Telephone $785.00</td>
</tr>
<tr>
<td>Resale/Educational Services</td>
<td>Rent/Lease Equipment $484.00</td>
</tr>
<tr>
<td>Postage Fund $450.00</td>
<td>Reproduction/Copy Services $407.40</td>
</tr>
<tr>
<td>Miscellaneous $256.81</td>
<td>Supplies/Services $803.44</td>
</tr>
<tr>
<td>Other Contract Services</td>
<td>Insurance (Surety Bond) $100.00</td>
</tr>
<tr>
<td>Total Income $13,791.22</td>
<td>Petty Cash $226.61</td>
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<tr>
<td>Total Expenses $19,964.11</td>
<td>Soil Test Expenses $796.00</td>
</tr>
<tr>
<td>Net ($6,172.89)</td>
<td>Publications for Resale $60.00</td>
</tr>
<tr>
<td></td>
<td>Furniture/Equipment $81.39</td>
</tr>
</tbody>
</table>

The Mercer County Extension Council and office would like to thank the Mercer County Commissioners and City of Mercer for their support of the University Extension.

Additional thanks to Murphy Brown, the Mercer and Harrison County Soil and Water Districts, Princeton First Baptist Church, and Breadaux Pizza for their support of the Water Festival.

Students explore Erosion in a Bottle during the Water Festival.

Youth experiment with microscopes during the CSI session at the Water Festival.
Staff and Extension Council

Staff Serving Mercer County Extension

County Program Director:  Shaun Murphy
Office Manager:  Deb Stratmann
Youth Program Associate:  Lisa Delameter
Livestock:  Shawn Deering
Agriculture Business:  Kevin Hansen
Agronomist:  Heather Benedict
Horticulturalist:  Tim Baker
Natural Resource Engineer:  Jim Crawford
Human Development and
  Family Studies:  Jessica Trussell
Housing and Environmental Design:  Connie Neal
Family Financial Education:  Meredith Berry
Family Nutrition Education Program –
  Manager:  Constance Mowrer
  Project Director:  Penny Crawford
Youth Specialist:  Shaun Murphy
Missouri Procurement Technical Assistance Center
  (PTAC) Business:  Clint Dougherty

Mercer County Extension Council

Council Chairperson:  Marsha Shew
Vice Chairperson:  Debbie Goodknight
Secretary:  Lisa Byers
Treasurer:  Sheryl Thompson
David Bomgardner
Brad Bruse
Cheston Easter
Maureen Funk
Shane Grooms
Fred Preston
Kathy Schwenneker
Veta West

Above and below: Chairperson Debbie Goodknight presenting Lisa Cast and Sheryl Thompson with Leaders Honor Roll Certificates

Leaders Honor Roll selections for 2013 were Lisa Cast and Sheryl Thompson. The honor roll recognizes two people each year who have exhibited leadership in the community and given long-term commitment and support to University of Missouri Extension.

Above: New 2013 Council Members:
Kathy Schwenneker, Cheston Easter, Veta West, Brad Bruse
Continuing Education through University Extension in Mercer County

MU Conference Office
The MU Conference Office (MUCO) 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. For FY 2013, MUCO registered 13,982 Missourians in MU Extension conferences. In FY 2013, MUCO's portfolio of conferences included the Nanofrontiers Symposium at MU; Write to Learn at the Lake of the Ozarks; Midwest Symposium on Therapeutic Recreation in St. Louis; in addition to the National eXtension Conference in Oklahoma City, Okla., and Maize Genetics Conference in St. Charles, Ill. Thirty Mercer County residents used MUCO's services in 2013.

FRTI
MU Extension’s Fire and Rescue Training Institute (MU FRTI) provides comprehensive continuing professional education and training to Missouri’s fire service and emergency response personnel. The institute directly impacts the well-being and protection of Missouri’s 23,600 firefighters and the Missourians they serve. Courses prepare firefighters for medical emergencies, hazardous materials response, and disaster preparedness and mitigation, as well as fires. During FY 2013, the institute provided 185,510 instructional hours of training and conducted 597 individual courses. MU FRTI served 12,066 Missourians from all 114 Missouri counties, and 1,802 out-of-state students. One person from Mercer County participated in this training. For more information, see mufrti.org.

LETI
The Law Enforcement Training Institute (LETI) 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. LETI is now taking that expertise to nontraditional areas, offering seminars to the general public in personal safety, workplace violence and citizen response to armed subjects. During 2013, LETI served 684 students from 70 Missouri counties and the City of St. Louis, as well as 293 students from 34 other states. For more information, see leti.missouri.edu.

MTI
The Missouri Training Institute (MTI) 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. Training programs cover human resource management, supervision, management, leadership, team building, effective decision making, dealing with generational differences and business writing. The institute’s consulting services cover human resources, strategic planning, board development and board retreats. In FY 2013, 12,907 people from all 114 Missouri counties enrolled in the institute’s 518 programs. One resident of Mercer County used MTI’s resources in 2013. For more information, see mti.missouri.edu.

MUNO
Working independently and in partnership with other organizations, MU Nursing Outreach (MUNO) provides face-to-face and web-based educational programs, mostly for nurses but also other healthcare professionals including social workers, dietitians, nursing home administrators, psychologists, counselors and health educators.

MU Nursing Outreach's educational activities attracted 2,671 nurses and other healthcare providers from Missouri and 145 out-of-state participants. Multidisciplinary programs that were co-sponsored with Continuing Medical Education reached an additional 1,182 nurses. Nurses from 91 (80 percent) of Missouri’s 114 counties and the City of St. Louis attended continuing education programs sponsored by MUNO.

MUNO serves a predominantly rural audience with 79 percent of the Missouri participants residing outside the metropolitan St. Louis and Kansas City areas. In addition to Missouri, nurses from 22 other states benefitted from MUNO’s educational programs. For more information, see nursingoutreach.missouri.edu.

CME
MU Extension's Office of Continuing Medical Education (CME) improves the health of Missourians by providing education and programs to increase doctors’ scope of diagnosis and health care treatment options. Continuing Medical Education programs incorporate the most up-to-date research and clinical guidelines available. In FY 2013, more than 1,700 programs reached 27,195 healthcare professionals across the state. For more information, see medicine.missouri.edu/cme/.
**Agriculture – Agronomy and Livestock**

### Agricultural (Ag) Update

<table>
<thead>
<tr>
<th>The Event</th>
<th>Participants and hours of collective participation</th>
<th>Program learning objectives</th>
<th>What Did They Learn?</th>
</tr>
</thead>
</table>
| Annual agricultural updates are held in all counties in northwest Missouri. | Sixteen people attended the annual agricultural update presented by four specialists in Mercer County. The attendees were mostly from Mercer County and a few from surrounding counties. Collective hours of participation totaled 56. | Ag update attendees:  
- receive training to obtain or renew private pesticide applicator license.  
- learn of some of the research and new trends in agriculture.  
- receive information on how to prevent the loss of calves and to avoid an unproductive time in the cycle of the cows. | **Short-term**  
Pesticide applicators learned how to test their water easily and cheaply in order to get the most effectiveness out of their chemicals.  
The meeting allowed attendees to meet with some specialists not headquartered in Mercer County who are available to serve the residents of the county.  
**Long-term**  
Those who attend the ag update were able to apply the herbicide properly to avoid its introduction into Missouri water systems. |

Water testing is also important to those who decide to apply their own pesticides. This is because hard water or water with the wrong pH can deactivate the pesticides.

Other topics of interest to those in attendance included preventing open cows in a breeding system and the economics of herbicide resistant weeds. The presentation on cattle breeding included an update of the disease trichomoniasis in Missouri. This venereal disease of cattle prevents calving.

### Ag Program Feature:

**Show-Me-Select Replacement Heifer Program**

When you support MU Extension's Show-Me-Select Replacement Heifer Program beef cattle producers successfully adopt research-proven reproductive and genetic technologies developed at the University of Missouri which add value to heifers in beef herds across the state. This leads to improved profitability and sustainability of family-owned operations, positively benefitting Missouri's economy by over $60 million since its inception in 1997.

Livestock Specialist Shawn Deering is also a Pork Quality Assurance (PQA) Plus advisor who can provide guidance and on-farm assessments for enrolled producers.

All programs listed were available to Mercer County producers in 2013.
<table>
<thead>
<tr>
<th><strong>County Learners</strong></th>
<th><strong>Topic</strong></th>
<th><strong>What Did They Learn?</strong></th>
<th><strong>How Did Participants Benefit?</strong></th>
<th><strong>How Does This Work Make NW Counties and Missouri Better?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>FFA Students</td>
<td>Hundley-Whaley Research Center FFA Field Day</td>
<td>New agricultural production technologies and career options.</td>
<td>FFA students are exposed to cutting edge technology and the potential careers that are available in agriculture.</td>
<td>The average age of the farmer or livestock producer in the United States is continually increasing. The general population is becoming more and more removed from agriculture. Even though a student is enrolled in FFA, it does not mean that they have a farming background. By hosting events such as the Hundley-Whaley FFA day, we are exposing young people to agriculture, the University of Missouri system, and hopefully the resources and education that University of Missouri Extension can provide.</td>
</tr>
<tr>
<td>Private Pesticide Applicators</td>
<td>Ag Update and Pesticide Applicator Training</td>
<td>Initial training and recertification for private pesticide applicators and update on current agricultural topics.</td>
<td>Applicators completed the legal requirements to obtain or renew their private pesticide applicators license.</td>
<td>In the rural areas of Missouri, a healthy agricultural community is the backbone of economic growth and sustainability. University of Missouri Extension events provide relevant, research based information that allows producers to make informed decisions. These decisions impact their financial bottom line and ultimately determine whether or not they stay in business.</td>
</tr>
<tr>
<td>Forage and Hay Producers</td>
<td>Focus on Forages V</td>
<td>How to manage forages for better production, lower cost and improved feed value.</td>
<td>Producers are able to produce more forage on fewer acres.</td>
<td>Over the past few years, a great deal of northwest Missouri pasture and hay ground has been converted to row-crop production. University of Missouri Extension regional livestock and agronomy specialists are helping producers manage their limited forage resources for increased production and decreased cost.</td>
</tr>
<tr>
<td></td>
<td>Hundley-Whaley Cover Crop Plot Tour and Information Session</td>
<td>How to incorporate cover crops for agronomic benefit and livestock forages.</td>
<td>Cover crops help reduce erosion and improve soil health. We are trying to demonstrate that they also can provide forage for beef cattle.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hundley-Whaley Research Center Field Day</td>
<td>New technologies and practices to improve row-crop production and increase forage production.</td>
<td>Attendees are able to see current technologies and assess value in their own farming operations.</td>
<td></td>
</tr>
<tr>
<td>Beef Cattle Producers</td>
<td>Fall Beef Producers Seminar</td>
<td>Improved forage production options to reduce costs and tools to help with herd sire selection.</td>
<td>Ideas and strategies to reduce costs and improve beef production.</td>
<td>By assisting beef producers with forage management, ration formulation, genetic selection, and production goals, University of Missouri Extension Livestock Specialists are able to help cattlemen reduce input costs and improve returns. This has a positive effect on the local and state-wide economy.</td>
</tr>
<tr>
<td></td>
<td>Ration Balancing and Nutrition Consulting</td>
<td>Lower cost feed rations that also improve gain and calf performance.</td>
<td>Decreased feed costs and increased returns. Education on the use of by-product feeds. One producer shared that he was able to cut his feed costs in half.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Show-Me-Select Replacement Heifer Program</td>
<td>Best management practices for the development of beef replacement heifers.</td>
<td>Participants have better developed and more reproductively sound replacements. Heifers are also eligible to participate in special Show-Me-Select heifer sales.</td>
<td></td>
</tr>
</tbody>
</table>
**AGRICULTURE – LIVESTOCK**  
**SHOW STOCK CLINIC**

<table>
<thead>
<tr>
<th>Number of County Learners</th>
<th>Total Hours of Collective Workshop Participation</th>
<th>What Did They Learn?</th>
<th>What Action Did They Take?</th>
<th>How Does This Work Make This County and Missouri Better?</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>40</td>
<td>Participants learned basic care, feeding and show ring preparation of swine, goats, sheep and bottle calves. Participants reported they learned about water quality, deworming rotations, disease prevention and showmanship techniques. They also learned what judges look for while they’re in the ring.</td>
<td>Participants of this class rotated between speakers to learn about nutrition, health and showmanship and received hands on training in care of their animals. Of the participants, 35% reported they will train and work with their animal more as a result of this clinic, and 47% reported they feel more comfortable grooming their animal and feel more prepared to enter the show ring. 30% of the participants reported they will change the way they feed and water their animals as a result of this clinic.</td>
<td>Youth exhibiting livestock are often future leaders in the livestock industry. Learning proper care for their animals prepares them to be better stewards and increases the quality of meat that goes into our food systems. This clinic gives youth the confidence they need to exhibit and care for livestock projects, as 90% of the participants reported they feel more comfortable with their animal after this clinic.</td>
</tr>
</tbody>
</table>

County residents who participated in the Show Stock Clinic learned about showmanship, as well as care for their animals.

**4-H Public Value - 4-H grows future scientists**

4-H project work helps youth explore interests from animal science to aerospace, resulting in increased interest in science at a rate three times that of non-4-H peers. Interest in science is a predictor for young people to choose science-related careers. This interest in science, along with 4-H members’ 70 percent greater likelihood to go to college than youth participating in other out-of-school programs, is helping grow future scientists. Future scientists are critical to our state, national and global economy; three-quarters of Missouri’s $10.6 billion in products and services exported in 2005 were science, engineering and technology-based industries (Lerner and Lerner, Wave 6; MERIC).
**Horticulture – Master Gardeners**  
**Education Plus Service for Better Communities**

**Program Name: Master Gardener**  
**Serving Daviess, Grundy, Harrison, Mercer, Caldwell, Livingston, Ray, Carroll, Lafayette, & Saline Counties in Northwest Missouri**

<table>
<thead>
<tr>
<th>Number of Learners</th>
<th>Topic</th>
<th>What Did They Learn?</th>
<th>How Did Participants Benefit?</th>
<th>How Does This Work Make My Assigned Area and Missouri Better?</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 Active Master Gardeners in ten counties</td>
<td>Master Gardener classes held in St. Joseph and Gallatin</td>
<td>Basic plant botany, Soils and fertility, Plant disease identification and control, Vegetable crop production, Insect identification and control, Home fruit production, Plant propagation, Landscape design, Use of native plants in the landscape, Turf establishment and maintenance, Growing woody ornamentals, Annual and perennial flowers, Pesticide use and safety, Continuing education in numerous horticultural topics, Bees and bee culture</td>
<td>Master Gardener class trainees receive twelve weeks of in-depth training on all aspects of horticulture. This instruction benefits them in their private gardens and landscapes, as they apply that knowledge to problems that inevitably arise. Participation in a local Master Gardener group also benefits that individual through continuing education. Throughout the year, additional horticultural instruction is given periodically. Master Gardener groups offer an important point of social gathering in a community, around a shared topic of interest.</td>
<td>Master Gardeners provide a phenomenal amount of volunteer service to the community. This can take many forms. Most groups participate in some kind of community beautification program, where a public area is maintained for beauty and enjoyment. The Daviess County Master Gardeners, for example, participate in the MODot Adopt-A-Highway program for a section of Highway 13 around their flower beds on the north edge of Gallatin. The flower beds were reconstructed in 2010 to include new hardscape features such as boulders, as well as new plants including ornamental grasses. This project has received many positive comments in the community.</td>
</tr>
<tr>
<td>Over 300 volunteer hours</td>
<td>Master Gardener projects provide volunteer service to communities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over 300 direct contacts</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Master Gardeners perform many hours of volunteer work each year, beautifying Daviess County. A local fire department requested a simple, low-maintenance design, to go around their flagpole. The Daviess County Master Gardeners designed and constructed this attractive planter.

Continuing education is part of the Master Gardener experience. Here, the Daviess County group tours a commercial tomato greenhouse to learn how growers produce early, top-quality, tasty tomatoes.

Master Gardeners are also educators. Here two Daviess County Master Gardeners teach the Master Gardener group in Grundy County how to make large-scale concrete leaf impressions for water gardens and landscaping. The Daviess county group had made these in a very successful fundraising effort to support their beautification projects around the county.

In addition to his contacts with Mercer County residents through commercial and home visits, telephone and online consultations, Tim Baker also writes a bi-weekly column which appears in Mercer County newspapers. Along with other Northwest Region Extension specialists, he takes part in the Extension Connection radio program which airs on radio stations KAAN (Bethany), KCHI (Chillicothe) and KTTN (Trenton).
Missouri Taxpayer Education Initiative

<table>
<thead>
<tr>
<th>The Event</th>
<th>Participants and hours of collective participation</th>
<th>Program details</th>
<th>Public Value</th>
</tr>
</thead>
</table>
| The Missouri Tax (MoTax) Education Initiative assists people by preparing and electronic filing income tax returns and by providing financial education to help families maximize their tax refunds. This educational initiative reaches its audience through the “3 P’s”:  
- Promotion of tax credits and free tax services.  
- Preparation and e-filing of tax returns.  
- Planning for financial stability and wealth building. | Eight income tax returns were completed in Princeton. Total refunds were $2,939. Federal refunds totaled $1,802. Missouri state refunds totaled $1,137. | Provides assistance to MO taxpayers in preparing tax documents while encouraging planning for the future. | When you support the Missouri Taxpayer Educational Initiative, taxpayers learn basic financial management strategies, leading to families being able to repair or replace a vehicle, which assists in stimulating the local and state economy. |

**Named program: MoTax Initiative**

<table>
<thead>
<tr>
<th>Participant changes</th>
<th>Outcomes</th>
<th>Public value</th>
</tr>
</thead>
</table>
| - Save an average of $200 in tax preparation fees per year  
- Avoid high-cost refund anticipation loans  
- Learn basic financial management strategies | - Families being able to purchase necessities  
- Increased cash flow  
- Getting and staying current on bills  
- Reduced family debt  
- Establishment or increase of emergency savings  
- Repair or replacement of a vehicle | - Stimulating the economy, beginning in the taxpayer’s community, through federal and state tax refund dollars and dollars from tax credits  
- Reducing demand for public assistance  
- Stabilizing the county tax base |

**Program Feature:**

**Family Financial Education**
When you support MU Extension’s Financial Education Programs, participants spend and borrow responsibly, save more and gain control over their financial health. These behaviors benefit other community members by reducing predatory lending, reliance on public assistance programs and crime.
<table>
<thead>
<tr>
<th>The Event</th>
<th>Participants and hours of collective participation</th>
<th>Program learning objectives</th>
<th>What Did They Learn?</th>
</tr>
</thead>
</table>
| The Mercer County Annual Water Festival provides concentrated, hands-on learning in a fun and memorable atmosphere, presented by professionals in environmental and natural resource fields. Mercer County Extension works in partnership with other community organizations to host the event. | In 2013, 100 3rd and 4th graders from Princeton, Spickard, Bethany, Ridgeway, and Cainsville participated in the five-hour Water Festival. Educators included nine MU Extension specialists and two Missouri Department of Conservation professionals. | Help students understand:  
- where our water comes from  
- water pollution prevention  
- ground water, stream table and water cycle  
- soils and soil erosion  
- birds and beaks  
- relationships between human activities and groundwater qualities. Having abundant, clean water is both a privilege and a responsibility. To protect our water for future generations, we must instill in our youth an awareness of its benefits and promote stewardship of our environment. | **Short-term**  
All teachers found the program to be very educative and necessary for students. Students also showed increased awareness of water pollution and the amount of water available for human use.  
Average increase in scores from pre-test to post-test was 25 percent, with the lowest increase being 3 percent, and the highest increase being 66 percent.  
Students learn that polluting the ground also pollutes the water, and that once in underground aquifers, it can spread. **Long-term**  
Real life demonstrations helped students to increase their understanding of the relationship between water, animals and trees/vegetation. |

Left, top to bottom:  
Debbie Davis, Extension Specialist, talking with students about source water protection.  
Students gather around the Enviroscape to learn about groundwater.  
Extension Specialist Becky Simpson discusses the Web of Life with students at the Water Festival.  
Above: Students gather for the Water Festival.
Family Nutrition Education Programs (FNEP)

<table>
<thead>
<tr>
<th>The Program</th>
<th>Participants and hours of collective participation</th>
<th>What did they learn?</th>
<th>How does this programming make Mercer County and Missouri better?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Nutrition Education Program (FNEP)</td>
<td>Four hundred fifteen adults in Mercer County received nutrition and health education through FNEP.</td>
<td>Participants in FNEP become more aware of nutrition, make healthier meal and snack choices, eat breakfast more often, are more willing to try new foods, increase their physical activity and in general make healthier food choices.</td>
<td>Those who practice healthy eating and activity behaviors are more likely to enjoy a high quality of life as an adult and into old age. A healthy labor force is critical to attracting and keeping jobs in Missouri. In addition, this important programming effort serves to reduce healthcare costs over the participant’s lifetime, saving taxpayers money in reduced public healthcare benefits and insurance premiums.</td>
</tr>
</tbody>
</table>
| Food Power                                       | Three hundred twenty-nine students in the North Mercer and Princeton R-V Elementary schools received nutrition and health education through the Food Power program. | Evaluation data collected reflects the positive impacts that occur in every county with FNEP. The following are students’ changes reported by teachers after FNEP classes.  
  - 91% reported one or more changes  
  - 91% reported students are more aware of nutrition  
  - 68% make healthier meal and/or snack choices  
  - 49% eat breakfast more often  
  - 82% are more willing to try new foods  
  - 82% improved hand washing  
  - 37% improved food safety other than hand washing  
  - 65% increased physical activity |                                                                                                                                                                                                                                                                  |

- **Food Power students learn the importance of exercise.**
- **Students learned about balanced nutrition through My Plate, as well as how to read food labels at the Food Power program.**
## HOUSING AND ENVIRONMENTAL DESIGN

**EDUCATION PROGRAMS AND ASSISTANCE TO CITIZENS**

Building Strong Families; Rent Smart; Healthy Homes; Energy and Weatherization

*Serving Andrew, Atchison, Buchanan, Caldwell, Carroll, Clinton, Daviess, DeKalb, Gentry, Grundy, Harrison, Holt, Lafayette, Livingston, Mercer, Nodaway, Ray, Saline and Worth counties in northwest Missouri*

### Housing and Environmental Design Specialist

**CONNIE NEAL**

<table>
<thead>
<tr>
<th>Number of Mercer County Learners</th>
<th>Topic</th>
<th>What Did They Learn?</th>
<th>How Did Participants Benefit?</th>
<th>How Does This Work Make My Assigned Area and Missouri Better?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Six Green Hills Community Action Agency (GHCAA) participants</strong></td>
<td>Renters Rights from the Rent Smart program</td>
<td>Landlord/Tenant rights and responsibilities according to the Missouri Landlord/Tenant Laws.</td>
<td>Participants benefited by learning their rights and responsibilities as tenants and expectations of landlords as outlined in the Missouri Landlord/Tenant Laws handbook. Each participant received a copy of the booklet as well.</td>
<td>It provides a practical education opportunity to help people acquire and keep decent rental housing.</td>
</tr>
<tr>
<td></td>
<td>Money Matters - budgeting</td>
<td>Participants learned how to identify their own personal money styles, practice family resource allocation and learn the importance of a spending plan.</td>
<td>Participants benefited by understanding what motivates personal financial decisions, trade-offs among competing resource demands within the family, increase communication skills within the family and reduce family stress.</td>
<td>Families make fewer demands on community and agency resources. It also reduces the demand for predatory financial products and services.</td>
</tr>
<tr>
<td></td>
<td>Healthy Homes – Green Cleaning</td>
<td>Participants learned how to reduce indoor pollutants by limiting the number of chemicals used and by following three basic guidelines for improving their indoor environment.</td>
<td>Participants benefited by learning how to improve their indoor environment, save money and help conserve natural resources. Participants received recipes and the supplies for making their own cleaning products.</td>
<td>It provides citizens with the information needed so that they can simplify their cleaning, save money and improve their indoor environment.</td>
</tr>
<tr>
<td><strong>Seven Green Hills Community Action Agency (GHCAA) participants</strong></td>
<td>Energy and Weatherization</td>
<td>Measures they can take to save energy and money. Participants learned tips for weatherizing their home.</td>
<td>Participants benefited by learning the importance of an energy audit which the GHCAA provides free of charge. They learned measures they can take to save energy and money by replacing their light bulbs, using caulk, weather stripping and replacing faucets with energy efficient devices. All participants received an energy and weatherization kit from the GHCAA.</td>
<td>By increasing the energy efficiency of homes by including the importance of weatherization and insulation of homes as well as strategies for saving energy and water.</td>
</tr>
</tbody>
</table>
Clockwise from top left:
North Mercer R-3 children participate in after school activity presented by Youth Program Associate Lisa Delameter; Dena Reger gives Rachelle Parks a tour of the GRM facility on Career Day; Emma Shipley exhibiting at the Mercer County Fair.
Youth Development – 4-H

<table>
<thead>
<tr>
<th>Sample Events</th>
<th>Participants and hours of collective participation</th>
<th>Program learning objectives</th>
<th>How does this benefit Mercer County and Missouri citizens?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>4-H Clubs</strong></td>
<td>Mercer County 4-H clubs offer long-term educational experiences in which members learn life skills such as decision making, public speaking and working with others. Members learn by doing under the guidance of adult volunteers, who teach projects ranging from aerospace and arts to veterinary science and sport fishing. Clubs also involve children and teens in community service, camping and educational trips.</td>
<td>Mercer County 4-H focuses on learning by doing through experiential learning. This learning better prepares youth for jobs – critical for economic recovery. Youth are given the opportunity to put learning into action through opportunities in leadership, citizenship, teamwork, community service and other life skills.</td>
<td>4-H is a great return on investment. For every $1 invested from public resources for Missouri 4-H, the programs leveraged $3.42 for our citizens. According to a Carnegie report, the value of youth development programming provided by MU Extension 4-H faculty and staff is $9,968,600 or a return on investment of $1.47 on the public investment.</td>
</tr>
<tr>
<td><strong>4-H School programs</strong></td>
<td>Mercer County 4-H school enrichment programs are short-term educational experiences that supplement learning in the classroom. Most are led by teachers or 4-H volunteers. The most popular 4-H school program in Mercer County is Embryology. Schools that participated in 2013 were Cainsville R-1, North Mercer R-3 and Princeton R-V Schools.</td>
<td>Life skills are defined in a variety of ways. 4-H, in recent years, has given special attention to youth interest, attitudes and engagement in science, engineering and computer technology. Active 4-H members spend almost ten times more of their out-of-school time engaged in science-based activities than their non-4-H peers. Project work builds important life skills.</td>
<td>County 4-H clubs offer long-term educational experiences in which members learn life skills such as decision making, public speaking, citizenship and working with others. Members learn by doing under the guidance of adult volunteers.</td>
</tr>
<tr>
<td><strong>Show-Me 4-H Wares</strong></td>
<td>The Show Me 4-H Wares program is part of the MU Extension 4-H entrepreneurship project, through which youth learn how to start a small business or a social venture that addresses a need in their community. For more information on this and similar programs, see the “Cloverpreneurs” page on Facebook, or visit <a href="http://www.4h.missouri.edu/programs/entrepreneur/">http://www.4h.missouri.edu/programs/entrepreneur/</a>.</td>
<td>4-H’s S.E.T. (Science, Engineering and technology) program helps close the gap in the demand for trained scientists and engineers. 4-H provides 332,090 youth contacts and 19,018 adult contacts in projects such as robotics, water quality, conservation, livestock, veterinary science, and computers.</td>
<td>In 2012, the Missouri 4-H Program enrolled 13,247 volunteers. Missouri 4-H volunteers donate an average of 6 to 10 hours/week or 72 to 120 hours annually. The Independent Sector values a Missouri volunteer’s time at $18.70 per hour. Accordingly, Missouri 4-H volunteers are providing $15 to $25 million in volunteer services annually. Studies show the youth in programs like 4-H are 70% more likely to attend college and increase their earning potential $2.01 million dollars over their lifetime. This would create $14 billion of earning potential.</td>
</tr>
</tbody>
</table>

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Left: Sierra Bruse and her prize duck.
Impact on Mercer County, Missouri

UM Research Expenditures Funded by Federal and Private Sources

Between FY2007 and FY2012, UM brought in more than $1.1 billion in federal and private research funds.

Electronic Services to the State in 2013
- The Missouri Research & Education Network (MOREnet) provided internet connectivity and technical services to members that include:
  - 63 higher education institutions with more than 293,000 students.
  - 500 K-12 schools with 865,700 students and 82,700 faculty.
  - 134 public libraries connecting 339 library buildings that serve 5.4 million Missourians.
  - MOREnet returned $14 million in telecommunications expenditures to companies doing business in Missouri.

Economic Development Highlights
- With $3.0 billion in total revenues, UM would have been the 16th largest publicly held Missouri-headquartered company in the state in 2013.
- With more than 31,000 employees in the state, UM was Missouri’s 2nd largest employer in 2012.
- In 2011, UM’s $173.5 million in federal research expenditures represented 93% of these expenditures at Missouri public universities.
- In 2013, UM’s $23.2 million in National Science Foundation (NSF) awards represented 89.3% of all NSF awards made to Missouri public universities. UM earned $7.8 million in licensing income in 2013.
- UM received 160 new invention disclosures in 2013.
- 4 startups were created around UM technologies in 2013.
- UM was issued 37 U.S. patents and filed 90 new U.S. patent applications in 2013.

Financial Aid Provided to UM Students in 2013
- $876.3 million
  - $441.0 million - MU
  - $200.8 million - UMKC
  - $97.5 million - Missouri S&T
  - $137.0 million - UMSL

Impact on Education
- UM enrolled 46% of first-time undergraduates attending four-year public institutions in 2012.
- UM awarded 49% of the 1,130 doctoral degrees earned in Missouri in 2011.
- UM awarded 42% of the 1,937 first professional degrees earned in Missouri in 2011.
- UM awarded 54% of the 28,798 bachelor’s or higher degrees awarded by Missouri’s four-year public institutions in 2011.

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

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

Prepared in December 2013, based on the best available data.
Data Sources Include: Missouri Office of Administration • UM IRP • Office of Social and Economic Data Analysis (OSEDA) • Center for Applied Research and Environmental Systems (CARES) • MU • UMKC • Missouri S&T • UMSL • UM System • UM Health Care • MU Extension • US Census Bureau • US Dept of Health and Human Services • National Science Foundation
Above and below: County 4-H members participated in showing the animals they raised.

Right: 4-H members participated in Career Day.

Above: County residents visit with Council members Maureen Funk and Kathleen Schwenneker to learn about services and opportunities available through Extension.

Below: County residents attended the Livestock Show Clinic to learn showmanship.

UNIVERSITY OF MISSOURI
Extension
Mercer County

Helping youth and adults become lifelong learners while strengthening their community and families.