2014 PROGRAMS OF DISTINCTION

Human Environmental Services

Family Financial Education ................................................................. 6
  Adults
Family Financial Education ................................................................. 7
  Elementary and College
Tax Preparation .................................................................................... 8
Housing and Environment ................................................................. 9
Family Nutrition Education ................................................................. 10

Agriculture

Artificial Insemination School ................................................................. 11
Hay School ......................................................................................... 12
Farm Lease ......................................................................................... 13
Horticulture ......................................................................................... 14

Positive Youth Development

4-H Camp, Demonstrations, Fair, Embryology and
Show-Me-Quality-Assurance ................................................................. 15
Water Festival ...................................................................................... 16

Community and Business Development

Annual County Input ........................................................................... 17

Recognition of Community Members

Grundy County Farm Family ................................................................. 18
Century Farm Family ........................................................................... 18
4-H Hall of Fame .................................................................................. 18

Continuing Education

Campus based programs ...................................................................... 19
December 2014

Dear County Commissioners and Friends of MU Extension:

Over the past year, with a theme of Celebrating the Past and Building for the Future, MU Extension marked a century of service to Missouri. While the celebrations have come to an end, the focus on building for the future is strong. The university’s commitment to the mission of bringing relevant, reliable and responsive education to improve lives and local economies is alive and well.

To maintain our position as a valued and trusted resource for Missourians, MU Extension continues to strengthen existing programs, build relationships and explore new opportunities to benefit Missourians. For example:

- In the area of agriculture, the Show-Me Select Heifer Replacement program continues to improve the breeding performance of heifers as it helps participants realize record prices for their efforts. Producers from 103 of Missouri’s 114 counties have enrolled heifers in the program. In a record-setting sale, 168 bred replacement heifers sold for an average of $3,033 at the Fruitland (Missouri) Livestock Auction.
- Strengthening communities through art, innovation and creativity, Extension’s Community Arts Program is piloting an initiative in Lexington to help the community enhance its image with art businesses and opportunities that reflect the talent of regional artists and benefit a nine-county tourism alliance. The Community Arts Program is also at work in the St. Louis area, overseeing the Saint Louis Storytelling Festival, which engages approximately 25,000 people each year.
- Knowing the value of dialogue with those it serves, MU Extension has made a concerted effort with the Mizzou Alumni Association to introduce MU Chancellor R. Bowen Loftin to extension programs, participants, key stakeholders and alumni from all corners of the state. These tour events, which will continue into 2015, are designed to foster understanding and support that lead to a stronger local extension effort across the state.

These are just a few examples of MU Extension’s focus on building for the future and continuing to making an impact in local communities.

I thank you for your support of MU Extension and our efforts in your community. I look forward to our continuing partnership and welcome your ideas for improving our partnership.

Sincerely,

Michael D. Ouart
Vice Provost and Director
Grundy County Extension Council Members
(an elected council):

Kristi Urich - Chair
Larry Christy- Vice-Chair
Ruth Ann Shipps-Secretary and Regional Council Representative
Kathi Brewer -Treasurer
Sarah Lowrey- Regional Council Representative
Jacob Black
Joe Brinser
Suzanne Gilhully
Jeff Jarrett
Becky Hall
John McCullough
Bob Witten

Duties and Responsibilities of Council Members
Understand and advocate for the goals, aspirations and concerns of people of Grundy County.
Provide regular, thoughtful participation in developing educational programs to assist people in reaching their goals.
Be an advocate for access to education that empowers people.
Learn about the wealth of resources provided by MU and the University of Missouri System.
Assist with council elections.
Work with MU Extension faculty and others to generate support from outside resources.
Secure and administer the county’s share of funding for MU Extension programming in collaboration with the county commission.
Advise and consult with University administration concerning the assignment of MU Extension faculty to Grundy County.

Extension Faculty and Staff Based in Grundy County
Meridith Berry
County Program Director and Family Financial Education Specialist
April Meighen
4-H Youth Program Assistant
Vickie Pash
Office Manager

Additional Faculty and Staff Serving Grundy County
Tim Baker
Horticulture Specialist
Heather Benedict
Agronomy Specialist
Jim Crawford
Natural Resource Engineer
Shawn Deering
Livestock Specialist
Tracy Daugherty
Community Development
Micah Doty
Nutrition Program Associate
Janet Hackert
Nutrition and Health Education
Gentrie Shafer
Livestock Specialist
Tracy Minnis
Nutrition Program Associate
Shawn Murphy
4-H Youth Development Specialist
Connie Neal
Housing and Environmental Design Specialist
Jessica Trussell
Human Development Specialist
Matt Trussell
Small Business Development Counselor
Whitney Wiegel
Ag Business Specialist

Grundy County Commissioners
Right: 2nd District Commissioner, Joe Brinser; Presiding Commissioner Rick Hull; 1st District Commissioner, Gene Wyatt

Karma Metzgar
Northwest Regional Director
January 6, 2015

Grundy County Commission
Courthouse
Trenton, MO 64683

Dear Commissioners:

First of all, thank you for all you do for the people of Grundy County and for Grundy County Extension. When you support University of Missouri Extension, Grundy County benefits!

Extension has taken a proactive approach to the changing political directions to address the Affordable Care Act. In 2014, we held two separate forums to discuss the new law and answer questions about accessing health care. We also participated with the Area Agency on Aging in a health fair where we answered individual’s questions about the health care law.

Our youth program associate, Lisa Delameter, moved out of the state in the fall. We were fortunate to hire April Meighen to fill her position. In 2014, there were six clubs with 78 members. We also had over 180 students participate in the embryology project in the county elementary schools and preschools.

Our full time specialist finished retooling for her position and was able to start programming in August of 2014. Her programs focus on the economic wellbeing of our citizens as well as financial literacy. She has offered programs for elementary, high school, college, and adult audiences. She also brought back the Water Festivals that focuses on water and soil stewardship for fifth graders. Training children to respect our natural resources has a remarkable payoff as they become the decision makers in the future.

Other specialists serving our county brought in programs focusing on agriculture, horticulture, farm management, nutrition and exercise, family relationships, home ownership, green living, and business development. We are fortunate to have so many specialists who serve our county. We continue to seek out the needs of the citizens of Grundy County to improve their lives with relevant education.

This report details some of the programs offered in the county this past year. Please look at the effects your support has had on the lives of your constituency. Again, we thank you for the funding.

Best regards,

[Signatures]

Extension Council Secretary  County Council Chair  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.
<table>
<thead>
<tr>
<th>Number of Grundy County learners</th>
<th>Total hours of collective workshop participation in 2014</th>
<th>What did they learn?</th>
<th>How did participants benefit?</th>
<th>How does this work make Grundy County and Missouri better?</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>19.5</td>
<td>Participants used an interactive response system to learn about soft job skills, compounding interest, predatory lenders, and personal credit.</td>
<td>Six participants indicated they would look into setting up retirement plans. Seven participants indicated they would save more money for the future.</td>
<td>The research of E. Thomas Garman shows that financially distressed workers are absent more frequently and also have higher turnover rates. Employee theft is also higher. Financially distressed workers spend more time at work on their financial issues and less on their employer’s priorities. Financial education helps employees focus on their productivity and that’s economic development for Missouri.</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>Participants learned to set up a budget and to carefully examine the terms of a lease agreement for rental properties</td>
<td>One of the participants planned on rereading the current lease to identify her options in moving out. Both participants said they were going to be more deliberate in saving small amounts each day by controlling their spending. One participant said she always pays for her purchases with bills and puts the change in a savings container.</td>
<td>A study out of Rutgers University ties financial dependency to an inability to leave abusive relationships. Financial literacy eliminated the dependency that keeps women trapped in potentially dangerous relationships.</td>
</tr>
<tr>
<td>Number of Grundy County learners</td>
<td>Total hours of collective workshop participation in 2014</td>
<td>What did they learn?</td>
<td>How did participants benefit?</td>
<td>How does this work make Grundy County and Missouri better?</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>---------------------------------------------------------</td>
<td>----------------------</td>
<td>-------------------------------</td>
<td>----------------------------------------------------------</td>
</tr>
<tr>
<td>11</td>
<td>11</td>
<td>Participants learned how to pay for college with funds other than student loans.</td>
<td>100% of students strongly agreed that this was a topic that was important to them.</td>
<td>The number one reason students fail to finish a degree program is inadequate financial resources. Often, students who take out loans use the money recklessly without thought to paying back the loan. The average student loan debt is $25,500 and accounts for 37% of debt for adults age 20-29.</td>
</tr>
<tr>
<td>46</td>
<td>276</td>
<td>Participants learned the importance of managing borrowed money.</td>
<td>100% of students were in agreement that they learned something during the presentation that had impact on them.</td>
<td>Research studies show young adults between the age of 18 and 24 have the fastest growing credit card debt. Connecting consequences in the future to decisions made today will help students to make financially healthier choices. This will lead to more financial stability, fewer defaults on loans, and better opportunities for the future.</td>
</tr>
</tbody>
</table>

Students learned basic economic principles as outlined in the Missouri Show Me Standards for grades K-6 as appropriate for their grade level.

Concepts included: wants and needs, cost and benefit analysis, opportunity costs, taxes comparative and absolute advantage, characteristics of money, barter systems, saving money, impact of technology on production, specialization, and public and private goods.

A pre and posttest were given to the participants. The tests show as much as an 81% increase in correct answers.

Teachers will reinforce the lessons in economics as they teach the regular curriculum.

Providing a foundation to elementary students in economics and financial literacy will help them make better decisions as they begin making more independent decisions with their own money.

In a 2012 paper, *Financial prudence among youth*, the authors state "good financial practices are a matter of habit, and good or bad, habits are mastered in early life."

Less student debt means these adults will have the resources to purchase homes and start businesses. There is an economic impact for Grundy County.

Fifth and sixth graders at Spickard learn economic basics in a financial literacy program.
<table>
<thead>
<tr>
<th>Number of Grundy County learners</th>
<th>Total hours of collective workshop participation in 2014</th>
<th>What did they learn?</th>
<th>How did participants benefit?</th>
<th>How does this work make Grundy County and Missouri better?</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>22</td>
<td>Participants learned the power of compounding interest. They learned how to make small changes in their daily habits to save more of their income.</td>
<td>Grundy County&lt;br&gt;The Aggregate Gross Income was $323,192. Federal refunds totaled $7,913 Federal taxes owed $698. Missouri tax refunds $3,438 Missouri taxes owed $497. Earned Income credit $691 Property Tax Credit $2,314 Retirement Savings Credit $434.</td>
<td>The Missouri Taxpayer Educational Initiative and VITA program saves an average of $200 in tax preparation fees per year, leading to families having increased cash flow, which assists in stimulating the local, county, and state economy. Financial counseling during the tax preparation provides participants with important information about savings, risk management, and money management. This helps the participants and their families to be less dependent on others for financial support. When you support the Missouri Taxpayer Education Initiative, taxpayers learn basic financial management strategies, which lead to reduced family debt. Communities benefit from a stabilized county tax base.</td>
</tr>
<tr>
<td>Number of Grundy County learners</td>
<td>Total hour of collective workshop participation in 2014</td>
<td>What did they learn?</td>
<td>How did participants benefit?</td>
<td>How does this work make Grundy County and Missouri better?</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>--------------------------------------------------------</td>
<td>----------------------</td>
<td>-----------------------------</td>
<td>-----------------------------------------------------</td>
</tr>
<tr>
<td>55 Green Hills Community Action Agency (GHCAA) participants</td>
<td>110</td>
<td>Participants learned the “7 Keep Its” to a healthy home. They learned how to determine if their home is healthy and the measures they can take to make any needed improvements.</td>
<td>Participants benefited by learning how to improve indoor air quality and reduce family members’ exposure to many indoor pollutants. Participants also received a Healthy Homes booklet.</td>
<td>It provides a relevant and practical education opportunity by providing citizens with the tools and resources to maintain a healthy home while reducing allergens and improving indoor air quality.</td>
</tr>
<tr>
<td>11 Green Hills Community Action Agency (GHCAA) participants</td>
<td>22</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, understand 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>24 Green Hills Community Action Agency (GHCAA) participants</td>
<td>48</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>4 participants from the Green Hills Women’s Shelter</td>
<td>12</td>
<td>Participants learn the basics of budgeting, the rental application process, how to maintain positive landlord-tenant relationships, credit reports, and indoor air quality information and how to keep their homes safe and clean.</td>
<td>Participants benefit by applying the information that they receive in the training to their own lives. They learn how to budget their money and how to be a successful renter by maintaining positive landlord-tenant relationships. The better understand the Missouri Landlord-Tenant Laws and the importance of documentation and record keeping. They also learn steps they can take to improve their indoor air quality and keep their home clean and safe.</td>
<td>The Rent Smart program is designed to provide training and educational resources for individuals, agencies and organizations serving low-income populations so they can obtain and maintain affordable rental housing successfully.</td>
</tr>
<tr>
<td>Number of Grundy County learners</td>
<td>Schools</td>
<td>What did they learn?</td>
<td>How did participants benefit?</td>
<td>How does this work make Grundy County and Missouri better?</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------</td>
</tr>
<tr>
<td>1591</td>
<td>Rissler Elementary, Spickard, Laredo, Pleasant View, Galt R-V</td>
<td>Nutrition education for youths provides information in kid-friendly terms and lessons with hands-on activities. Activities include opportunities for taste-testing healthy foods and practicing skills that lead to good health. Education for adults includes nutrition, food safety, physical activity, and food resource management.</td>
<td>Ninety eight percent of teachers noted one or more changes in the behavior of their students. These changes included willingness to try new foods, eating breakfast more often, improved hand washing, choosing more healthful snacks, and being more physically active. The teachers themselves reported their own behaviors changed so they were better models for their students by eating nutritiously, being active, and washing hands.</td>
<td>Habits are learned early in life. Teaching children to make healthful decisions will make them healthier adults less likely to suffer from obesity, diabetes, heart disease, or stroke. This will also lower the cost of healthcare in the future.</td>
</tr>
</tbody>
</table>

While teaching the first lesson in kindergarten we proceed to teach the children the correct way to wash their hands. I also have the kids lock their hands clean after we wash and dry, so they will not get any germs on them before we have our tastings. While teaching at Rissler Elementary in Trenton, a paraprofessional shared with me that she had run into a kindergarten student at a local restaurant over the weekend. She was thrilled to witness that the little girl told her parents they needed to wash their hands before they ate and when they came out of the bathroom the little girl was locking her hands clean.

Also at Rissler, a kindergarten teacher asked me if I taught where her granddaughter goes to preschool. I told her yes and she proceeded to share with me, she was pretty sure I did because her granddaughter told her, "After we wash our hands, we need to lock them clean before we eat with them!"

This is another simple way our program is making a difference. Children don’t always understand the importance of hand washing until we teach the hand washing lesson. It is very rewarding when those little ones go home and share with their family what they have learned.
<table>
<thead>
<tr>
<th>Number of Grundy County learners</th>
<th>Total hours of collective workshop participation in 2014</th>
<th>What did they learn?</th>
<th>How did participants benefit?</th>
<th>How does this work make Grundy County and Missouri better?</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>115.5</td>
<td>This class is intended to give cattle breeders the skills to implement an AI program into their existing beef herd. Materials presented show participants why they should be motivated to effect change in their beef herds giving them economic motivation to implement an AI program. Common misconceptions are addressed to evoke the attitude change necessary for successful herd improvement.</td>
<td>100% of participants reported they are more comfortable making reproductive decisions after this course. 5/7 participants already utilize AI on their farm and the remaining 2 plan to incorporate it into their production system.</td>
<td>Artificial insemination has been shown through research to be the fastest way to change genetics of a beef herd. Understanding the process and the actual physical application of materials has been the largest barrier to implementation for many medium and small producers. This program gave the participants the skills and knowledge needed to start making greater strides in increasing production in their cattle operation.</td>
</tr>
</tbody>
</table>

Grundy County cattle producers learn techniques for successful artificial insemination through hands on learning with certified instructors.
<table>
<thead>
<tr>
<th>Number of Grundy County learners</th>
<th>Total hours of collective workshop participation in 2014</th>
<th>What did they learn?</th>
<th>How did participants benefit?</th>
<th>How does this work make Grundy County and Missouri better?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 beef producer was enrolled in the program.</td>
<td>30</td>
<td>Participants learn about the importance of pre-breeding examinations and how it affects their operation on an economic and productivity level.</td>
<td>Participants of this program make better management decisions based on results found during the pre-breeding exam.</td>
<td>The Show-Me-Select program focuses on increased adoption rate by farmers in Missouri of management practices that offer potential to improve long-term reproductive efficiency of their herds and resulting profitability.</td>
</tr>
<tr>
<td>1 Beef Producer in Grundy County purchased heifers in the Show-Me-Select heifer sale held in December, where 150 heifers sold for an average price of $2,883.00.</td>
<td>There is a minimum of 30 hours of one-on-one producer visits throughout the year.</td>
<td>Participants also gained knowledge in nutrition, selection and marketing of their animals.</td>
<td>Participants also made more sound advertising decisions based on sale requirements.</td>
<td>Focus is put on increasing marketing opportunities and adding value to Missouri-raised heifers with the creation of reliable sources of quality replacement heifers in terms of genetics and management.</td>
</tr>
</tbody>
</table>

Beef heifers in the Show-Me-Select program.
<table>
<thead>
<tr>
<th>Number of Grundy County learners</th>
<th>Total hours of collective workshop participation in 2014</th>
<th>What did they learn?</th>
<th>How did participants benefit?</th>
<th>How does this work make Grundy County and Missouri better?</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>9</td>
<td>Attendees learned the value of good communication and how it can make for a better farm lease. Topics covered were: current farmland rental, rates and future trends, specific items to include in a farm lease, how to legally terminate a farm lease in Missouri, recreational leases, and crop and livestock arrangements.</td>
<td>As a result of taking the class: 87% of attendees now have a better understanding of fair rental rates in their area. 100% of attendees know the legal, correct way to terminate a farm lease. 100% of those that attended understand that a lease is a legal, binding contract.</td>
<td>Participants gain insight from both the landowner and tenant perspective, cumulating in leases that are fair for both parties. This promotes optimal land use leading to more sustainable profitability. It encourages better landlord-tenant communication which lowers conflict and avoids costly litigation.</td>
</tr>
</tbody>
</table>
Tim Baker  
Horticulture Specialist  
Commercial and Home Horticulture  
Missouri Grown  
Home Horticulture and Environment  
Turfgrass Management/Green Industry

<table>
<thead>
<tr>
<th>Number of learners</th>
<th>Topics</th>
<th>What did they learn?</th>
<th>How did participants benefit?</th>
<th>How does this work make Grundy County and Missouri better?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 4500 commercial and home contacts in ten counties</td>
<td>On-site visits with Commercial Ag producers</td>
<td>Identification and control of plant diseases and insects</td>
<td>Commercial producers growing horticultural crops have great potential for profits. However, diseases and insects can act very quickly to wipe out a crop and produce significant losses. By timely intervention, these growers' crops may be saved.</td>
<td>Keeping the rural economy going means keeping families on the farm, and doing so profitably. Commercial horticultural production has some of the greatest potential for profits in modern agriculture. By keeping these farming enterprises going, and dealing with problems as they arise, the farmer is kept on the farm, and the trickle-down effect of his success is spread across the entire community as he purchases inputs for his farm and conducts everyday commerce with his friends and neighbors.</td>
</tr>
<tr>
<td>Working with Produce Auction</td>
<td>Identification and control of plant diseases and insects</td>
<td>Proper use of pesticides</td>
<td>Commercial fruit and vegetable producers are coming under increasing pressure to conform to the standards of Good Agricultural Practices (GAPs). By offering training in GAPs, extension helps these growers produce safer food. They are also made aware of the regulatory environment surrounding GAPs, and how to satisfy requirements in this area.</td>
<td>Producing a good and safe food supply is critical for our nation. Whether it is through the safe handling of pesticides or following Good Agricultural Practices, a farmer who produces high quality and safe food passes on a product that inspires confidence in the consumer. Food such as this is more nutritious, producing better health. This ultimately leads to decreased health care costs.</td>
</tr>
<tr>
<td>Meetings for Commercial Ag producers</td>
<td>Identification and control of plant diseases and insects</td>
<td>Introduction to Good Agricultural Practices and food safety</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educating homeowners for their horticultural needs</td>
<td>Introduction to Good Agricultural Practices and food safety</td>
<td>Marketing options</td>
<td>The proper use of pesticides is critical for both grower and consumer safety. Growers trained in this area learn to safely use these materials, leading to better health.</td>
<td></td>
</tr>
<tr>
<td>County Ag Updates and Pesticide Applicator Training</td>
<td>Marketing options</td>
<td>Starting a horticultural farming operation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Starting a horticultural farming operation</td>
<td>Landscaping for homeowners</td>
<td>Commercial fruit and vegetable producers are coming under increasing pressure to conform to the standards of Good Agricultural Practices (GAPs). By offering training in GAPs, extension helps these growers produce safer food. They are also made aware of the regulatory environment surrounding GAPs, and how to satisfy requirements in this area.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Landscaping for homeowners</td>
<td>Plant care for homeowners</td>
<td>Homeowners seeking help with horticultural problems learn not only how to combat the problem, but end up increasing property values.</td>
<td>Homeowners who practice horticulture, whether it is producing food or planting ornamentals, increase the value of their homes. When this is practiced on a community-wide scale, the effect can be remarkable. Communities with poorly-developed landscaping are not as attractive as those where homeowners seek to beautify their properties. Collectively, these improvements lead to increased property values throughout the entire community.</td>
</tr>
</tbody>
</table>

Helping homeowners with plant problems is an important part of Horticulture Specialist Tim Baker’s responsibilities. A concerned homeowner in Trenton called requesting an analysis of her ash tree. Upon investigating the tree, Mr. Baker found a “D”-shaped exit hole in the bark, which can be an indicator of Emerald Ash Borer, a devastating insect. Mr. Baker worked with local forestry contacts with the Missouri Department of Conservation. Fortunately the final decision was that it was not EAB.
<table>
<thead>
<tr>
<th>Number of Grundy County Learners</th>
<th>Total Hours of Collective Participation in 2014</th>
<th>What Did They Learn?</th>
<th>What Action Did They Take?</th>
<th>How Does This Work Make Grundy County and Missouri Better?</th>
</tr>
</thead>
<tbody>
<tr>
<td>78 4-H members</td>
<td>3,102 4-H learning hours, 9,000 adult volunteer hours</td>
<td>Grundy County 4-H serves youth through six organized clubs, school enrichment groups, camps and more. <strong>Grundy County 4-H clubs</strong> offer long-term educational experiences in which members learn life skills such as decision making, public speaking and working with others.</td>
<td>4-H Youth are equipped with the knowledge, skills, attitudes and health for the 21st century workforce. Missouri 4-H members spend almost nine times more of their leisure time than peers engaged in projects anchored in science. As a result, 4-H members are three times more likely to go into science related careers than similar peers (Lerner and Lerner, 2008).</td>
<td>Youth who earn their bachelor’s degree increase annual earnings by $2.01 million over their lifetime (Porter, 2003). If 70 percent of the Grundy members participating in 4-H events on the MU Campus go on to earning their bachelor’s, 4-H would help young people earn $40 million more in lifetime earnings.</td>
</tr>
<tr>
<td>139 youth and volunteers</td>
<td></td>
<td>The youth of Grundy County have demonstrated advanced learning through the following activities: <strong>Regional and State 4-H Attendance</strong> 4-H Camp – 9 members State/Regional 4-H Events or Contests – 67 Fairs – 72 <strong>Grundy County 4-H school enrichment programs</strong> are short-term educational experiences that supplement learning in the classroom. Most are led by teachers or 4-H volunteers with assistance and leadership from 4-H staff. The most popular 4-H school program in Grundy County is Embryology, or Hatching Chicks in the Classroom.</td>
<td>Fostering career development is the fact that Missouri 4-H members are connected to college campuses and faculty. MU Extension 4-H connects 8,500 young people to University of Missouri campuses. Being on campus is a predictor of youth going onto higher education (Hoover, 2006).</td>
<td>Volunteers create, support and are part of the 4-H community. Missouri 4-H volunteers responding to a survey report they contribute on average 100 hours per year. Valuing their time at $21 per hour, based on average Missouri incomes, the contribution of Grundy 4-H volunteers was worth more than $189,000 in 2014. More importantly, these adults serve as mentors for our youth helping them transition into contributing adults.</td>
</tr>
<tr>
<td>182 School Enrichment Youth</td>
<td></td>
<td>Students incubate chicken eggs and watch them hatch. The embryology program is one of the most popular school enrichment programs.</td>
<td>Youth who earn their bachelor’s degree increase annual earnings by $2.01 million over their lifetime (Porter, 2003). If 70 percent of the Grundy members participating in 4-H events on the MU Campus go on to earning their bachelor’s, 4-H would help young people earn $40 million more in lifetime earnings.</td>
<td>Youth who earn their bachelor’s degree increase annual earnings by $2.01 million over their lifetime (Porter, 2003). If 70 percent of the Grundy members participating in 4-H events on the MU Campus go on to earning their bachelor’s, 4-H would help young people earn $40 million more in lifetime earnings.</td>
</tr>
</tbody>
</table>
**NW Missouri Water Festival Team:** Tim Baker, Meridith Berry, Debbie Davis, Tom Fowler, Beverly Maltzberger, Shaun Murphy, Rebecca Simpson, Jessica Trussell

**Teaching Partners:** Missouri Department of Conservation, Grundy County Soil and Water Board, North Central Missouri College agriculture students

<table>
<thead>
<tr>
<th>Number of Grundy County learners</th>
<th>Total hours of collective workshop participation in 2014</th>
<th>What did they learn?</th>
<th>How did participants benefit?</th>
<th>How does this work make Grundy County and Missouri better?</th>
</tr>
</thead>
<tbody>
<tr>
<td>142</td>
<td>852</td>
<td>A total of nine stations were part of the day long workshop. The content of the sessions were based on the Missouri Show Me Standards for 5th grade science. This included: point and non-point pollution, erosion, biomes and animal structures, biotic and abiotic materials, stream erosion, reading a topographical map, the water cycle, food webs, using scientific equipment, and soil and water stewardship.</td>
<td>Missouri Assessment Program test results showed that of the four schools that participated in the water festival, three schools had stronger scores in 5th grade science than did the students in the previous years. In one school, nearly 90% of students scored in the highest category (advanced) in science. Two schools had no students (0%) in the below basic, and two schools had no students (0%) in the basic category.</td>
<td>Teaching children the importance of stewardship for our soil and water will ensure that these resources will be cared for in the future. Children will bring home information and share it with parents. As parents learn more about environmentally friendly practices, our natural resources will be sustained for future generations.</td>
</tr>
</tbody>
</table>

Photos: top left then counter clockwise. Students learn how ground cover slows erosion. Animals have specialized structures that allow them to thrive in their environment. Using microscopes, students can see that clear water is not necessarily clean water. The stream table demonstrates the impact channelization has on the stream bank.
<table>
<thead>
<tr>
<th>Number of Grundy County Learners</th>
<th>Total Hours of Collective Participation in 2014</th>
<th>What Did They Learn?</th>
<th>What Action Did They Take?</th>
<th>How Does This Work Make Grundy County and Missouri Better?</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>16</td>
<td>Participants identified the strengths and opportunities in Grundy County for entrepreneurial growth and capacity.</td>
<td>By categorizing and communicating entrepreneurial assets to the University of Missouri, Grundy County is in a position to expand business opportunities stemming from the research at the university.</td>
<td>New business in Grundy County increases job opportunities, increases tax revenue, and revitalizes derelict structures and areas.</td>
</tr>
</tbody>
</table>

Members of the extension council and leaders from the community took part in the annual county input process.
Celebrations and Recognitions

This year marked the 100th anniversary of extension in Missouri. About 80 people gathered at the Grundy County courthouse to celebrate the occasion. Our county commissioner and council member, Joe Brinser, fueled up his grill and cooked hotdogs and pork burgers for everyone. Debbie Carman from the Chamber of Commerce delivered a certificate of recognition to extension, and band members from Trenton High School performed music from their state competition. Before the rain came down, the celebration was moved indoors. The acoustics of the courthouse created a beautiful ambiance for the musicians and a welcoming place to eat and visit.

The Foster family of Grundy County was one of 110 farm families recognized at the 2014 Missouri State Fair in Sedalia for their involvement in agriculture. Back row from left to right are Dr. Jack Magruder, Chair, Missouri State Fair Commission; Dr. Marc Linit, Senior Associate Dean, Research and Extension, University of Missouri; Barbara Hayden, Missouri State Fair Commission; Richard Fordyce, Director, Missouri Department of Agriculture; Blake Hurst, President, Missouri Farm Bureau; Ted Sheppard, Missouri State Fair Commission. Pictured in the front are Matt and Keri Foster with their children Logan, Morgan, and Jordan.

(Right) Meridith Berry, Grundy County program director receives a recognition certificate from the Trenton Chamber of Commerce director, Debbie Carman in celebration of the 100th anniversary of extension in Missouri. Left to right: Tammy Hanes and granddaughter Zoey Hanes, Dawn Griffin, Bonita Price, Michelle Vandevender, Kristi Urich (Extension council chair), Linda Eads, Sharon Barnett, Meridith Berry, Debbie Carmen, Karma Metzgar (Regional Director of Extension), Gene Wyatt (County Commissioner), Betty Spickard, Sue Huffstutter, Bob Witten, Rick Hull (Presiding Commissioner), Joe Brinser (County Commissioner), Ralph Boots

Century Farm

Susanne Gilhuly received a Century Farm designation at the 2014 Farm Bureau annual meeting. The farm was established in 1892 by Susanne’s grandparents, Rasselas & Mary Lambert. Farm Bureau has been a partner since 2008 in recognizing the century farms. Farm Bureau county president, David Meservey, presents Susanne with her Century Farm sign. The Gilhuly farm is the 60th farm in Grundy County to receive this designation.

Hall of Fame

Les and Betty Spickard of Trenton, Missouri were inducted into the Missouri 4-H Hall of Fame for their support of 4-H programs in Grundy County.
MU Extension is continuing education

MTI
The Missouri Training Institute provides continuing education programs in business, 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 2014, 14,174 people from all 114 Missouri counties enrolled in the institute’s 510 programs. For more information, visit mtti.missouri.edu.

MU Conference Office
The MU Conference Office provides 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 campus, in out-state Missouri or anywhere in the world, the office’s professional staff provides assistance to create the best learning environment for participants. In FY2014, the conference office registered 13,484 Missourians for MU Extension conferences. Participants attended conferences for teacher education in math, science and writing; agricultural lending; plant science; and therapeutic recreation. For more information, visit muconf.missouri.edu.

Continuing Medical Education
The Office of Continuing Medical Education provides rural primary-care physicians with access to education as necessary for them to meet state licensure requirements, learn specialty medicine and for health education. Distance learning via the Missouri Telehealth Network provides access to weekly grand rounds from various School of Medicine departments. In FY 2014, more than 1,800 programs reached 27,322 health care professionals across the state and around the world.

FRTI
MU Extension’s Fire and Rescue Training Institute (FRTI) is charged with providing comprehensive continuing professional education and training to Missouri’s fire-service and emergency response personnel. The institute has a direct effect on the well-being and protection of Missouri’s 24,000 firefighters and the 5.9 million citizens they serve. In addition to preparing them to fight fires, courses prepare firefighters for medical emergencies, hazardous materials response and disaster preparedness and mitigation. In FY 2014, FRTI trained firefighters representing 113 of Missouri’s 114 counties for a total enrollment of 13,958 fire and emergency responders equating to almost 170,000 student instructional hours of training. For more information, see mufrti.org.

LETI
The MU Extension Law Enforcement Training Institute brings state-of-the-art, certified, professional training to law enforcement officers as well as continuing professional education to a wide spectrum of other criminal justice and public safety practitioners. Established in 1948, the institute has been the state’s recognized leader for more than 60 years in providing vital training and education services for Missouri’s 20,000 in-service and 3,000 police recruits annually. In FY2014 LETI conducted 75 programs with almost 64,000 contact hours of instruction. There were almost 800 students from 69 Missouri counties and over 500 from around the United States. For more information, visit leti.missouri.edu.

Nursing Outreach
Keeping Missouri nurses up-to-date with the knowledge and skills they need to effectively provide care is a primary goal for MU Nursing Outreach. Nursing Outreach provides high-quality, affordable continuing education programs using face-to-face and Web-based delivery methods, which helps them reach the 88 percent of their audience living in rural areas. Nurses from 85 (75 percent) of Missouri’s 114 counties and the city of St. Louis attended continuing education programs sponsored by MU Extension in FY2014. Solo Nursing Outreach programs saw 1,889 participants, and another 944 nurses partook in co-sponsored multidisciplinary programs. Participants rated the overall quality of their continuing education experience at 1.3 on a 4-point scale, with 1 being the highest, and indicate they plan to change their clinical practices based on what they learned in Nursing Outreach programs.

Osher
The Osher Lifelong Learning Institute at the University of Missouri (Osher@Mizzou) is a membership organization for adults ages 50 and older to enjoy classes, teach, exchange ideas and travel together. The program provides opportunities for intellectual development, cultural stimulation, personal growth and social interaction in an academic cooperative run by its members who volunteer their time and talents. The program focuses on classes developed and led by fellow members and faculty from the University of Missouri, Stephens College and Columbia College.

Over 100 citizens from Grundy County accessed the Continuing Education offerings from MU Extension.
## Grundy County 2014 Financial Report

### Income

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>County Appropriations</td>
<td>20,000</td>
</tr>
<tr>
<td>Postage</td>
<td>806</td>
</tr>
<tr>
<td>Endowment</td>
<td>7,400</td>
</tr>
<tr>
<td>Grants/Contract</td>
<td>1,350</td>
</tr>
<tr>
<td>Other Income</td>
<td>1,218.</td>
</tr>
<tr>
<td><strong>Total Income</strong></td>
<td><strong>30,774</strong></td>
</tr>
</tbody>
</table>

### Expenses

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel</td>
<td>21,095</td>
</tr>
<tr>
<td>Supplies/Services</td>
<td>1,066</td>
</tr>
<tr>
<td>Telephone – Local and Taxes</td>
<td>1,800</td>
</tr>
<tr>
<td>Copier</td>
<td>2,025</td>
</tr>
<tr>
<td>Travel</td>
<td>469</td>
</tr>
<tr>
<td>Insurance</td>
<td>200</td>
</tr>
<tr>
<td>Publications</td>
<td>593</td>
</tr>
<tr>
<td>Extension Council Election Expense</td>
<td>79</td>
</tr>
<tr>
<td>Campus Connectivity Fee</td>
<td>300</td>
</tr>
<tr>
<td>Other Expenses</td>
<td>3,147</td>
</tr>
<tr>
<td><strong>Total Expenses</strong></td>
<td><strong>30,774</strong></td>
</tr>
</tbody>
</table>

### Acknowledgements:

The mission of MU Extension is to serve the people of Grundy County. This report highlights some of the programs that we and other MU Extension specialists brought to our county. We truly appreciate the support from the Grundy County Commission in 2014. We would also like to thank the many volunteers who support our mission by giving thousands of hours to our 4-H programs. Several businesses in our community supported the Water Festival, including FCS, ConAgra, HyVee, Shopko, and Murphy Brown. Farmers Bank of Northern Missouri supported the financial literacy program in the elementary schools. We appreciate the partnerships we have developed with NCMC, the Grundy County Library, and the United Way. Your support enabled us to fulfill our mission. Thank you all.

Meridith Berry, family financial education specialist and county program director
April Meighen, 4-H youth development program assistant
Vickie Pash, office manager

Grundy County Extension Center
700 Main, Suite 2
Trenton, MO 64683
P: 660-359-4040 extension 8
Website: [http://extension.missouri.edu/grundy](http://extension.missouri.edu/grundy)
Office hours: Monday-Friday, 8:30 am to 4:30 pm.
Impact on Grundy County, Missouri

The County at a Glance

- UM Students: 32
- UM Alumni: 201
- UM Employees: 4
- Population: 10,355
- UM Salary & Retirement Income: $167,585
- UM State Tax Revenue: $4,281
- UM Federal Tax Revenue: $22,356

UM Students from the County in 2014
- 32 students
  - 22 - MU
  - 8 - UMKC
  - 1 - Missouri S&T
  - 1 - UMSL
  - 26 - Undergraduates
  - 6 - Graduates
  - 28 - Full-time students
  - 4 - Part-time students

UM Employees and Retirees Residing in the County in 2014
- 4 people employed by UM
  - 2 - MU
  - 1 - UMKC
  - 1 - UM Health Care
  - 2 UM Retirees and Beneficiaries

UM Alumni Residing in the County in 2014
- 201 alumni
  - 165 - MU
  - 28 - UMKC
  - 7 - Missouri S&T
  - 1 - UMSL
  - 128 Selected School Alumni
  - 4 - Medicine
  - 16 - Nursing
  - 5 - Health Professions
  - 7 - Dentistry
  - 6 - Pharmacy
  - 1 - Optometry
  - 6 - Veterinary Medicine
  - 68 - Agriculture
  - 13 - Engineering
  - 8 - Law

UM Services Received in the County in 2014
- 91 patients seen at UM Health Care, with $38,139 of uncompensated care.
- 10 patients seen at the UMKC School of Dentistry with an average of $123 per patient in uncompensated care.
- 7,283 contacts with MU Extension through MU Extension events held in district counties.

UM Alumni Teaching K-12 in the County in 2014
- 11 teachers
- 8% of all county teachers
- 1 principal or administrator
- 8% of all county principals and administrators

UM Footprint in the County
Thompson Farm, Grundy County MU Extension Center
Impact on Grundy County, Missouri

UM Research Expenditures Funded by Federal and Private Sources

Between FY2008 and FY2013, UM brought in more than $1.1 billion in federal and private research funds.

Economic Development Highlights

- With $3.2 billion in total revenues in 2014, UM would have been the 16th largest publicly held Missouri-headquartered company in the state in 2013.
- With almost 32,000 employees in the state, UM was Missouri's 2nd largest employer in 2013.
- In 2012, UM's $165.2 million in federal research expenditures represented 94.3% of these expenditures at Missouri public universities.
- In 2014, UM's $31.0 million in National Science Foundation (NSF) awards represented 91% of all NSF awards made to Missouri public universities.
- UM earned $10.8 million in licensing income in 2014.
- UM received 176 new invention disclosures in 2014.
- 4 startups were created around UM technologies in 2014.
- UM was issued 53 U.S. patents and filed 83 new U.S. patent applications in 2014.

Electronic Services to the State in 2014

- The Missouri Research & Education Network (MOREnet) provided internet connectivity and technical services to members that include:
  - 61 higher education institutions with more than 238,000 students.
  - 517 K-12 schools serving more than 846,000 students.
  - 132 public libraries connecting 335 library buildings that serve 5.3 million Missourians.
  - Serving the State Office of Administration, several municipalities and various other eligible organizations.
- MOREnet returned over $15 million in telecommunications expenditures to companies doing business in Missouri.

Financial Aid Provided to UM Students in 2014

- $888.2 million provided to 58,553 total students
  - $444.9 million (28,087 students) - MU
  - $202.2 million (11,887 students) - UMKC
  - $102.2 million (6,819 students) - Missouri S&T
  - $138.9 million (11,740 students) - UMSL

Impact on Education

- UM enrolled 44.8% of first-time undergraduates attending four-year public institutions in 2013.
- UM awarded 50.4% of the 1,210 doctoral degrees earned in Missouri in 2012.
- UM awarded 41.8% of the 1,890 first professional degrees earned in Missouri in 2012.
- UM awarded 53.6% of the 30,793 bachelor’s or higher degrees awarded by Missouri’s four-year public institutions in 2012.

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 2014, based on the best available data.

Data Sources include: Missouri Office of Administration • UMIRP • 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

12/19/2014