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Equal opportunity is and shall be provided to all participants in Extension programs and activities, and for all employees and applicants for employment on the basis of their demonstrated ability and competence without discrimination on the basis of their race, color, religion, sex, sexual orientation, national origin, age, disability, or status as a Vietnam-era veteran. This policy shall not be interpreted in such a manner as to violate the legal rights of religious organizations or military organizations associated with the armed forces of the United States of America.
January, 2013

Greetings:

We are pleased to offer a highlight of programs conducted this year in Marion County. Most topics are initiated and guided through input to the Extension Council from citizens and/or content area groups.

Interaction with other agencies, through a variety of networks and collaborations plus applied research projects contributed as well to the direction of the overall educational program offerings.

Several methods are used to assist a “diverse student body” in lifelong learning pursuits.

We continue to salute our many volunteers, community leaders and extension council members, past and present, who continue giving time and talents supporting the mission.

Salute!

Yours truly,

Albert Pabst
Chairman

Julia Wilson
Secretary
December 2012

Dear County Commissioners and Associated Friends of MU Extension:

At MU Extension, we know that citizens want their taxpayer-supported institutions to be responsive to their needs. Our distinct land-grant mission is to provide relevant, reliable and responsive education that improves Missourians’ lives, communities and the economy. We fulfill that mission by providing access to many research-based resources of the University of Missouri, in partnership with local and statewide organizations and groups.

Funded through the support of federal, state and county government; grants and contracts; fees for services; and private gifts, MU Extension leverages every dollar received to create expanded educational opportunities. Every dollar appropriated from county government is leveraged with $6 to create a significant return on investment.

MU Extension creates value for citizens – including those who do not participate directly in its programs. For example:

- The MU Extension Fire and Rescue Training Institute teaches volunteer and career firefighters how to handle or mitigate fires and disasters, resulting in safer firefighters, citizens and communities. In FY2012, MU FRTI trained 17,096 fire and emergency service personnel through 217,000 instructional hours of training. Enrollees were from all of Missouri’s 114 counties.

- This summer’s severe drought put MU Extension faculty in an active leadership role in helping Missourians deal with the crisis. MU Extension developed educational materials and programs and provided technical assistance for homeowners, businesses and the agricultural community. Social media, including Facebook, YouTube and websites, were used to inform citizens on such topics as animal nutrition, including nitrate poisoning; heat-related disabilities; government programs; wildfires; and more. Extension faculty also worked with Soil and Water Conservation Districts to implement drought cost-share practices, which allowed more than 11,000 landowners to apply for state assistance to access adequate water supplies for livestock and crop production.

These are just two examples of MU Extension’s public value impact. I’m sure you will find many other examples in your local community.

I want to thank you for your support of MU Extension as a critical team player in your locale. Your ideas for improving our partnership are always 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
Marion County Extension Council 2012

Chairman – Albert Pabst
Vice Chairman – Kenny Lovelace
Secretary – Julia Wilson
Treasurer – Glenn Wagner

<table>
<thead>
<tr>
<th>Council Members</th>
<th>Elected</th>
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<tbody>
<tr>
<td>David Damron</td>
<td>Miller/Mason</td>
<td>Billy R. Coons 4-H Council</td>
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<td>Lennie Gottman</td>
<td>Warren/South River</td>
<td>Megan Gottman Farm Bureau</td>
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<tr>
<td>Kris Graupman</td>
<td>Union/Round Grove</td>
<td>Kenny Lovelace MFA</td>
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<tr>
<td>Rose Hudson</td>
<td>City of Palmyra</td>
<td>Al Pabst City of Hannibal</td>
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<tr>
<td>Mary M. Myers</td>
<td>Fabius/Liberty</td>
<td>Randy Spratt County Commission</td>
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<td>Susie Obert</td>
<td>Fabius/Liberty</td>
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<tr>
<td>Justin Parker</td>
<td>City of Hannibal</td>
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<td>Louis Riggs</td>
<td>City of Hannibal</td>
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</tr>
<tr>
<td>Glenn Wagner</td>
<td>Union/Round Grove</td>
<td></td>
</tr>
<tr>
<td>Julia Wilson</td>
<td>Warren South River</td>
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Faculty & Staff Serving Marion County

Palmyra based staff serving Marion and other counties:

- David Hill – Community Development/CPD
- Alix Carpenter – Agronomy
- Sherry Nelson – Human Development
- Don Nicholson – 4-H Youth Development
- Mary Smyser – Family Nutrition Program
- Becky Mannigel – Family Nutrition Program
- Chelsea Lippincott – Family Nutrition Program
- Kelly Rich – Family Nutrition Program
- Jody Meyers – Secretary
- Betty Schappaugh – Secretary

Serving Marion County from other locations:

- Wendy Brumbaugh – Family Financial Education
- Karisha Devlin – Agri-Business
- Max Glover – Plant Sciences
- Charles Holland – Business Development
- Daniel Mallory – Livestock
- James Meyer – Nutrition and Health Education
- Joe Kendrick – MAESTRO coordinator

Northeast Region Administrative Office – Palmyra:

- Dr. Soneeta Grogan – Regional Director
- Ruth Jeffries – Administrative Associate

Marion County Extension is possible through a partnership between Marion County, the University of Missouri, and the national Land-Grant System
Agriculture and Natural Resources

Agriculture Business Management

Ag-Info Newsletter
Ag-Info is a bi-monthly newsletter that provides producers with timely production and marketing information and advertises University of Missouri Extension programs. The newsletter is intended to address a wide variety of clientele including those who are not readily available for face-to-face meetings. Ag-Info is distributed to over 937 addresses in Shelby, Lewis, Marion, Monroe, Pike, and Ralls counties. The newsletter is a cooperative effort between Alix Carpenter, Agronomy Specialist; Karisha Devlin, Ag Business Specialist; Daniel Mallory, Livestock Specialist; Max Glover; Plant Science Specialist, and Zac Erwin, Livestock Specialist.

Farm Business Analysis and Counseling
Karisha Devlin, Agri-Business Specialist, offered free confidential counseling and individual assistance to several producers in Marion County. She worked with producers on finding the right farm record system for their operation, and answered questions regarding land values, custom farming, cash rental rates, leases, value added agriculture, grants, and writing a business plan.

Annie’s Project III: Managing for Today and Tomorrow
Creating a transition plan to make sure a farm continues as a productive, agricultural business can be a challenging task. A new course, Annie’s Project III: Managing for Today and Tomorrow, was offered in Palmyra with four Marion County farm women who want to plan now for a successful transition later. Topics for this four-session course included business, estate, retirement, and succession planning. While learning about farm and ranch transitions, participants explored communication barriers that can block succession planning, created a timeline that includes family and business goals, and investigated retirement options. When you support the Annie’s Project program, participants are empowered to become better business partners, responding to the challenges of farming, and benefits Missourians as a whole by keeping more farmers in rural communities.

Annie’s Project III: Managing for Today and Tomorrow

Beef Producer’s Seminar
A Beef Producer’s Seminar was held on March 19, 2012, at the Greenley Research Center. Guest speakers included Dr. Ron Plain, and Dr. Imogene Latimer. Dr. Plain, MU Extension Agricultural Economist, discussed the current trends in beef production, trade, domestic
supplies, demand factors, and price and profitability prospects for the coming year. Dr. Latimer, Veterinarian and Premier Beef founding member, discussed her perspective and data on owning and marketing fed cattle as well as what producers need to know before choosing retained ownership. Zac Erwin and Karisha Devlin coordinated the seminar. Three Marion County producers were among those taking part. On a scale from 1 to 5, with 5 being the highest, participants rated the following:

- usefulness of material presented (4.4) (5 = “High”)
- information gained (4.5)
- quality of overall seminar (4.6)

Agronomy Program

Private Pesticide Applicator Training
Alix Carpenter, Agronomy Specialist, provided training for 274 private (producer) pesticide applicators in 2012. These producers were from throughout the northeast region, as well as several surrounding areas. Fourteen three-hour long training sessions were held in 2012, in Adair, Clark, Lewis, Marion, Monroe, Ralls, Pike, Randolph, Schuyler, and Scotland counties. The courses covered a variety of safety, calibration, and pest management issues associated with proper and safe pesticide use. Previous survey data indicate that producers who attend Private Pesticide Applicator Training (PPAT) are more likely to correctly identify pests prior to making pesticide applications, and calibrate application equipment more frequently, resulting in correct pesticide application, saving money and reducing the potential for off-site movement of pesticides.

Through this course, agricultural producers were able to obtain certification or recertification of a private pesticide applicator’s license. Those who were not able to attend these meetings were provided the opportunity to review the same information and become (re)certified on a walk-in basis. Those certified at these meetings include 38 Marion County producers.

17th Annual Western Illinois - Northeast Missouri No-Till and Crop Management Seminar
The annual Western Illinois - Northeast Missouri No-Till and Crop Management Seminar is a one-day seminar, covering a variety of issues in no-till and conventional crop production. Targeted to both producers who are already using no-till practices and those who are considering adopting these practices, the seminar addresses emerging issues in no-till crop production. One hundred forty people attended from Missouri, Illinois, and Iowa; ten of these were from Marion County.

Producer Consultations
Alix Carpenter made farm visits and/or consulted via telephone and email with producers in Adair, Clark, Lewis, Marion, Monroe, Ralls, Pike, Randolph, Schuyler, and Scotland counties this year. The 2012 drought left producers without adequate livestock feed, and with row crops with little to no yield potential. The majority of farm visits and consultations revolved around the drought’s effects on forages and feeds:
- Performed qualitative nitrate tests on corn stalk (and other potential feed) samples from over 150 fields (nitrate levels in drought-stressed feeds can reach levels lethal to livestock; testing prior to feeding can prevent catastrophic losses).
- Provided education on how to make hay from a soybean crop.
- Advised producers on methods to determine the feed and economic value of silage.
- Provided data on estimating nutrient removal from a field when harvesting/removing not grain only, but the entire plant.
- Advised in excess of 180 producers on methods of mitigating the risk of nitrate poisoning when feeding drought-damaged corn/sorghum/sorghum-Sudan grass to livestock.
- Provided data on herbicide restrictions to grazing or haying soybeans.
- Provided methods for estimating corn and soybean yield.
- Advised producers on means of assessing prussic acid and aflatoxin risk.
- Provided near-weekly drought status updates to Pat Guinan, Extension State Climatologist (for the purpose of updating the U.S. Drought Monitor).

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**Horticulture Program**

**Salt River Master Gardener Club**

Alix Carpenter, Agronomy Specialist, serves as advisor to this group of certified Master Gardeners who meet monthly, and are residents of Marion, Lewis, Monroe, Ralls, and Pike counties. The group has an educational program at each meeting, and members mentor newly graduated Master Gardeners. Meetings also serve as a clearinghouse for information and assistance with volunteer projects. Members of this group have developed curriculum for, and taught, groups at the Hannibal Public Library, local (Monroe City, Hannibal) elementary and middle schools, local garden clubs, Hannibal museums, Master Gardener training classes, and numerous other groups. The group continues to maintain their demonstration garden in downtown Hannibal, which serves as a learning location for interested persons from both within and without Missouri.

With money raised at various fundraising activities over the past few years, the group donated $500 each to the Hannibal Tree Board and the Palmyra Parks Department, and $400 each to four local NEMO food pantries. Seventeen active members of this group are Marion County residents.

Master Gardener Training equips gardening enthusiasts with the knowledge to help the general public grow a wide variety of plants through volunteering at educational events and community service. Participants receive 30 hours of horticulture training and then annually volunteer a minimum of 30 hours to achieve the status of active Master Gardener. Volunteer efforts seek to provide public benefit, either through direct improvement of public plants and landscapes or indirect improvement through education. Participants may benefit personally by joining a
Master Gardener club to share their enjoyment of gardening with other members. Master Gardener training covers most costs with a participant fee.

Marion County Master Gardeners reported 732 total service hours in 2012. The Independent Sector values an hour of volunteer work at $21.79; Marion County Master Gardeners provided service to the county worth nearly $16,000.

**Homeowner Consultations and Programs**

Alix Carpenter and Max Glover, Plant Science Specialist, provided in-person, telephone, and email consultation on horticulture issues such as disease and insect identification, lawn care and reseeding, vegetable gardening, and soil fertility to 85 Marion County homeowners. Pest identification is important to ensure that appropriate pest control methods are used and applied in a way that is safe for the environment and the public.

Sixteen individuals submitted lawn or garden soil samples to the University of Missouri soil test laboratory through the Marion County Extension office in 2012. Home lawns and gardens are often placed in locations with an unknown history, or in locations with recent construction activity. This leads to uncertainty about the fertility of the soil.

**Soil testing reduces this uncertainty, providing a measure of the current nutrient content of the soil and fertilizer application recommendations for lawn grasses or garden plants. This information not only benefits the individual by saving time and money, it benefits the environment and the public by reducing nutrient runoff into streams.**

An estimated 60 individuals contacted the Marion County Extension office in 2012 for information about identifying or controlling a pest in a home, lawn, garden, or commercial horticulture business. Examples include weed identification, insect identification, and requests for information on pest control.

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**Livestock Production**

**Beef Improvement Program**

Eight beef producers in Marion County are enrolled in the Northeast Missouri Beef Improvement program. The regional livestock specialists, including Daniel Mallory, Zac Erwin, and Bruce Lane, assist these producers with their performance record program by taking weaning and yearling weights and measuring frame scores on all calves born. Six producers sold bulls in the Northeast Missouri (NEMO) Performance Tested Bull Sale held annually in Palmyra.

Twelve producers from Marion County purchased bulls in the NEMO Performance Tested Bull Sale and numerous others purchased bulls directly from breeders enrolled in the performance tested program. This value-added bull sale reached a record high average of $3,916 on 67 head of bulls in 2012 ($262,372.00 total).
**Beef Cattle Bus Tour**
The Lewis/Marion Cattlemen’s Association and University Extension hold an annual beef cattle bus tour. In 2012, 52 producers toured three different operations in southeast Iowa and western Illinois. This educational tour provides an opportunity for producers to learn from other operations.

**Show-Me-Select Replacement Heifer Program**
Five beef producers in Marion County are enrolled in the Missouri Show-Me-Select Replacement Heifer Program. All of these producers sell heifers in the Show-Me-Select Heifer Sale held in Palmyra, which is a value-added sale and program.

Four producers from Marion County purchased heifers in the Show-Me-Select Heifer Sale. In 2012 the sale averaged $2,097 on 312 head, which was again an all-time high.

The regional livestock specialists coordinate the Show-Me-Select heifer program and sale in Northeast Missouri. Over the 16 years the sale has been held the total income from the sale has been $5,538,840. A total of 26,600 head have been marketed through the program.

**Show-Me Quality Assurance (SMQA)**
Show-Me Quality Assurance is a certification program in which youth are trained on proper animal care and handling philosophy and procedure. Youth must take part in three training sessions over their 4-H career.

SMQA increases the knowledge and awareness of Missouri youth about food quality issues related to animal production, as well as increasing quality of care and knowledge of beef, sheep, swine, goats, dairy, rabbit, and poultry produced by youth in Marion County. Daniel Mallory, Livestock Specialist, and Don Nicholson, 4-H Youth Development Specialist work cooperatively to train the 4-H members. Approximately 60 4-H and FFA members in Marion County are trained each year.

**Beef AI Breeding Program**
The use of artificial insemination (A.I.) breeding in beef cattle has increased over the past six years as a result of new technology in this area including Fixed-Time A.I. demonstration done in the region.

As a result the NEMO Beef Cattle Improvement Association (BCIA) owns three A.I. breeding boxes which are available for use in the area. These boxes help improve the conception rate when using AI.

In 2012, 21 area producers used the boxes for a total of 41 days with approximately 1,750 cows and heifers being A.I. bred in the boxes.

Daniel Mallory and other area livestock specialists coordinate this program.
Community and Business Development

Business Development Program

The Business Development Program assists businesses in every stage. From concept to start-up, growth to renewal, mature to succession, the Business Development Program is there to help a business owner succeed at every point.

Charles Holland, Business Development Specialist, provides consultation and support for businesses in Clark, Knox, Lewis, Marion, Monroe, Pike, Ralls and Shelby Counties.

<table>
<thead>
<tr>
<th>The University of Missouri’s Business Development Programs (BDP) served 22,350 people and their businesses state-wide. The total impact for all businesses assisted by the BDP was:</th>
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<tbody>
<tr>
<td>• New jobs: 6,531</td>
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<tr>
<td>• Sales increases: $237,046,646</td>
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<tr>
<td>• Government contracts: $198.2M</td>
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<tr>
<td>• New businesses: 303</td>
</tr>
<tr>
<td>• Jobs retained: 2,784</td>
</tr>
<tr>
<td>• Loans and investments in business: $245,575,470</td>
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<tr>
<td>• Acquired assets: $32,205,965</td>
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<tr>
<td>• Investment in commercialization: $19,417,970 in Small business innovation research (SBIR) and Small Business Technology Transfer Research (STTR) proposals submitted with $7,494,246 awards received</td>
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<tr>
<td>• Clients/companies receiving business counseling: 8,452</td>
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<tr>
<td>• Business training attendees and conference participants: 22,981</td>
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<table>
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<tr>
<th>In Marion County:</th>
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<tbody>
<tr>
<td>• Jobs created: 2</td>
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<tr>
<td>• Jobs retained: 32</td>
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<tr>
<td>• Sales Increase: $86,000</td>
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<tr>
<td>• New Business: 1</td>
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<tr>
<td>• Clients participating in consultation: 21</td>
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<tr>
<td>• Seminar Participants: 2</td>
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</tbody>
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The business development program delivery network serving Marion County includes Business Development Specialists headquartered at University of Missouri Extension centers, located on the University of Missouri campuses at Columbia, Kansas City, St. Louis, and Rolla, and centers at most of the state universities across Missouri.
University of Missouri Extension’s Family Nutrition Program (FNP) reached 2,773 participants directly and 560 indirectly with nutrition education in Marion County during 2011/12, a significant percentage of which were low income. FNP provides information on nutrition, food safety, and physical activity for lifelong health and fitness by working with qualifying schools, community groups, and agencies.

Youth from Pre-school to 8th grade learned through kid-friendly, hands-on lessons and activities. Activities include opportunities for taste-testing healthy foods and practicing skills that lead to good health. Education for adults also includes nutrition, food safety, and physical activity, as well as food resource management.

Nutrition Program Associates (NPA) go into the schools and interact with community members to help them make healthier choices and build healthy habits. They see the difference the program makes in people’s lives. Kelly Rich and Chelsea Lippincott, Program Assistants who serve Marion County, reported some of their successes:

The Family Nutrition Program brought $10,420,125 in Federal funds to the state of Missouri to provide nutrition education to 315,326 food stamp recipients and food stamp eligible citizens of Missouri. 2,773 of these participants reside in Marion County.

Participants in FNP 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. 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.
Community Nutrition and Wellness Education

ServSafe Food Safety Program
ServSafe is a nationally recognized food safety program for foodservice workers. In Marion County, foodservice workers are required by ordinance to attain certification in ServSafe. The Marion County health department asked Jim Meyer, Nutrition and Health Education Specialist, to teach this program again this year. He teamed up with the Hannibal Career and Vo-Tech Center and offered the class in March and May 2012. Thirty-three foodservice workers attend in total. Twenty-eight of the thirty-three passed their exam. Overall, the program was rated as highly successful.

The need is to protect food from contamination by pathogenic microorganisms, parasites, and naturally occurring toxins. The risk for foodborne illness occurring from food-handlers decreases if they receive training through ServSafe.

*The community benefits with safer restaurants and fewer medical costs associated with illness from eating unsafe food.*

Family Financial Management

Missouri Tax Payer Education
Missouri Taxpayer Education (MoTax) is a comprehensive program provided to low-income and senior citizens in Marion and Lewis counties. The MoTax Initiative includes the Volunteer Income Tax Assistance (VITA) program which provides pre-tax education, free tax preparation for low income families, and assistance to help families use their tax refund to the greatest benefit of themselves and their families. During February and March 2012, taxes were prepared at the Palmyra Library, Douglas Community Center, and NECAA Offices in Hannibal. A total of 193 federal returns and 210 state returns were accepted by the IRS. The total amount of federal refunds was $184,326. The average amount of earned income credit was $1,359.83, and the total amount of earned income credit for all returns completed was $57,113. The average child tax credit was $1,503.16, and the total Child Tax Credit was $28,560.00.

The Missouri Taxpayer Education Initiative, led in Marion County by Debby Whiston and Wendy Brumbaugh, Family Financial Education Specialists, is a project that provides a gateway to financial education through taxpayer assistance. Not only does the taxpayer have his/her taxes filed for free, but he/she receives a financial education packet and one-on-one instruction at the time of filing. The packets continue to be well-received by our program participants and provide an excellent tool for coaching the clients and emphasizing the importance of the financial planning process.
When you support the Volunteer Income Tax Assistant program, participants save an average of $200 in tax preparation fees per year and avoid high-cost refund anticipation loans, which lead to families being able to purchase necessities. This benefits other community members by stimulating the economy, beginning in the taxpayer’s community, through federal and state tax refund dollars and dollars from tax credits.

Every federal dollar brought into the community creates at least a two-fold economic impact. These figures do not include the state refunds and the impact they have on our communities. Partners who played a vital role in the VITA program in Marion County include: United Way of Mark Twain Area, North East Missouri Community Action Agency, University of Missouri Personal Financial Planning Department, GAMM, Inc., and University of Missouri Extension. As a result of the MoTax Initiative, families are able to purchase necessities, increase their case flow, get and stay current on their bills, reduce the family debt, and establish an emergency savings fund. The MoTax program stimulates the local economy by adding federal and state refund dollars and dollars from tax credits. It reduces the demand for public assistance and stabilizes the county tax base.

Preparing for the Long Haul
“Preparing for the Long Haul” was a ten-month program held at the Hannibal Vocational Technical School for the Licensed Practical Nursing Program conducted by Wendy Brumbaugh, Family Financial Education Specialist. Thirty-two students attended the monthly sessions which coincided with their regular class schedule that began in September 2011 through July 2012.

The multisession curriculum was based on identified needs of the students gathered from a pretest. Because of the history of default rates and the current economic climate, this program was more critical than ever. Consequently, that justified including every concept of financial management through the program.

Short term impacts: Each student -
- Completed a spending plan and a net worth statement
- Examined their credit report for errors
- Identified individual spending pitfalls
- Learned the risks of predatory lending

Comments from students: “This program has been very helpful to me and will help me with long term goals once I graduate.” “Learning to understand a credit report is valuable to me.” “I understand my spending habits and can avoid some of the pitfalls now.”

When you support MU Extension’s Family 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 and reliance on public assistance programs, reducing theft and lowering banking fees.
Marion County White House Education Series
Sherry Nelson, Human Development Specialist, presented 16 programs at the White House in Hannibal with a range of 18 to 35 people at each session. These are adults with disabilities. Topics included: Disaster First Aid, Heat Safety, Respect and Responsibility, Earthquake Preparedness, Severe Weather Safety, Lightning Safety, Conflict Resolution and Communication, Cold Weather Safety, and Improving Memory.

Programs are very well received with clients indicating: 1) they would recommend the classes to others; and 2) 93% indicate they gained some knowledge, skills, or ability by participating in the class.

Supporting programs for people with disabilities improves their quality of life, their ability to be safe in disasters and emergencies, and making healthy choices.

CHART Teen Task Force Continues to Reduce Teen Pregnancies in NE Missouri
The CHART Teen Task Force (CTTF) has worked to reduce the teen pregnancy rate in Marion, Clark, Lewis, Ralls, Pike, Shelby, and Monroe counties since 1995. Sherry Nelson, Human Development Specialist, is a member of the CHART Teen Task Force and currently serves on the CTTF Board. Since 1995 Marion County has trended toward a reduced number of teen pregnancies. The most recent data (2010) on teen pregnancy rates in the seven-county area indicate that five of the seven counties are below the state average of 39.6 teen pregnancies per 1,000. Marion County continues to trend downward from our high of 69 in 1995.

This past year we had three major events:
1. The CHART Teen Health fair held on February 4th with over 400 youths and adults attending. Thirty-eight organizations and agencies had booths on health and safety, including two Extension booths. Exit surveys of youth and adults indicated that the majority of participants in the Teen Health Fair felt the event was fun, provided good information, and was worthwhile. Sherry Nelson and Jim Meyer, Human Nutrition Specialist, provided MU Extension’s research-based information during this event.

2. May month event consists of media opportunities for the teens to participate in “Take the Quiz”, which is part of the National Prevention of Teen Pregnancy Organization’s campaign to reduce unwanted pregnancies and relationship violence. This year in Marion County the entire Hannibal Middle School student body (500) and 32 students from the Hannibal High School participated in “Take the Quiz” that we know of. TV, radio, and billboard ads are placed throughout the seven counties to raise awareness.

3. October is our “Time to Talk” month which is designed to encourage teens and parents to talk about relationship and sexual issues teens may be confronted with. Billboard, TV and
radio ads are aired as part of the effort to raise awareness and start conversations regarding teen pregnancies and the need to reduce sexually transmitted diseases (STDs).

Finally the CHART Task Force has an educator/coordinator for the Think it Over Baby and Empathy Belly simulators and a nurse educator both of whom present at schools throughout the area. During the 2011-12 school year, 443 students from 13 school/organizations used the Real Care Baby Simulators and 185 students from ten schools used the Empathy Belly Simulator. Feedback from the majority of students indicated they intend to delay sexual activity and becoming pregnant. Teachers of these students indicated that they felt these learning activities were very helpful to the students that participated.

Teen pregnancies often have dramatic impacts on both the teen mother and father regarding their futures for both education and employment. Support for University Extension’s collaborative work within the CTTF organization helps youth delay sexual activity reducing unwanted teen pregnancies and STDs. Those reduced rates of pregnancy and disease reduce social and health costs to society. The cost savings to Marion County tax payers of 19 fewer teen births annually is nearly $442,000.¹

Matter of Balance: Fall Prevention Class

A Matter of Balance: Fall Prevention class was held in Hannibal at the Senior Nutrition Center. Jim Meyer, Nutrition and Health Education Specialist, and Sherry Nelson, Human Development Specialist, taught this eight-week class during August through October. Thirteen participants started and nine completed the class. The class is designed to help participants overcome their fear of falling and learn ways to prevent falls through exercising to improved flexibility and strength; and learn to adapt to medical issues that increase chances of falling.

Participant surveys of improvement indicated:
- They were more confident that they would be able to get up if they fell.
- They had found ways to reduce falls and had implemented some methods.
- They had become steadier on their feet.
- They believed they could increase their physical strength.
- They had increased their physical activity.

The instructors observed changes in the participants with regard to their physical abilities due to the exercises that were introduced in the classes.

What is the value of the program? A broken hip costs an average of $37,000. Additionally, 24% of adults over age 50 sustaining a broken hip die within 12 months due to complications. Prevention of this and other injuries from falls allows seniors to remain more active and independent, avoid hospital or nursing home admissions and costs, or possibly death.²

² Source: OrthoInfo: http://orthoinfo.aaos.org/topic.cfm?topic=a00305
Therapeutic Humor
Various authors have written about the value of humor in everyday scenarios and have observed how patients themselves make use of humor in medical environments. In one observational study of hospitalized patients, humor and laughter were frequently witnessed amid patients. The findings of the study are consistent with Bennett (2003) studies and demonstrate that patients employed humor as a coping method to decrease the apprehension and annoyance linked with being in the hospital such as the anxiety of being sick, having to deal with hospital schedules and compliance with authority figures, and the failure of control over bodily functions.

Thirty-one AARP members were engaged in the “Therapeutic Effects of Humor” program presented by Wendy Brumbaugh, Family Financial Education Specialist. The importance and benefits of integrating humor and laughter into everyday surroundings were demonstrated.

Severe Weather Training for Foster Grandparents
A severe weather preparedness workshop was provided by Sherry Nelson, Human Development Specialist, for the Foster Grandparents programs located in Hannibal and Ewing, MO. Total number of participants for both workshops was 43 people. Safety procedures during tornados, severe thunderstorms, lightning, and flooding were discussed. Participants indicated this information would be helpful when they were working with students. Additionally, participants indicated they would recommend this program to others and 97% indicated they felt they had improved their knowledge or skill base regarding severe weather. Knowledge of safety procedures during severe weather events can decrease the risk of injuries and death.
One of every five Marion County youth between the ages of 5 and 18 participated in a Marion County 4-H program during 2012.

Marion County 4-H in 2012: A community of 795 youth and 171 volunteers building life skills, engaging in science and connecting to community.

4-H Connects Kids to College and a Higher Quality of Life: Missouri 4-H members are twice more likely to have been on a college campus than their non-4-H peers. In 2011, MU Extension 4-H connected 8,500 young people age 8 to 18 to University of Missouri campuses and faculty. Being on a campus is a predictor of youth going on to higher education (Hoover, 2006)

- 25 Marion County young people ages 5-18 participated in 4-H events on the MU campus in 2012. These students are more likely to go to college and enjoy
  - increased financial success for themselves and their offspring
  - be better consumers
  - improve quality of life through more opportunities for leisure and hobbies
  - improve health for themselves and their children (Porter, 2003)
  - more likely to vote as adults
  - more likely to contribute to their community (Lerner, 2009; Zaff et al, 2003)

- Youth who earn their bachelor’s degree, increase annual earnings by $2.01 million over their lifetime (Porter, 2003). If 70% of the Marion members participating in 4-H events on the MU Campus go on to earn their Bachelor’s, 4-H will help Marion County young people earn $35.18 million more of lifetime earnings.

4-H Community Clubs

4-H club participants = 255
Nine Marion 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.

4-H members are supported by 171 adult volunteers. Time valued at $321,000 in 2012. 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 $18.80 per hour, based on average Missouri incomes, the contribution of Marion County 4-H volunteers was worth more than $321,000 in 2012!
importantly, these adults serve as mentors for our youth helping them transition into healthy adulthood, priceless.

How they were engaged:
Marion County 4-H serves youth through nine organized clubs, school enrichment groups, camps, and more. The youth of Marion County have demonstrated learning through the following activities:

- 4-H Achievement Day
- Area 4-H Camps
- Camp Food & Fitness
- Citizenship Washington Focus (Washington, DC)
- Livestock Judging (local and state)
- Local and State 4-H Fashion Revue
- Marion County Junior Fair
- Missouri State Fair
- State 4-H Public Speaking Contest
- State 4-H Shooting Sports Contest

4-H Camping Program
4-H Camp is one of the many highlights of the 4-H year for local youth. Camp is planned, conducted, and evaluated by 4-H Youth Development Specialists Don Nicholson and Patty Fisher, with the involvement and assistance of about twenty teen-aged Camp Counselors. Over 150 youth and teens take part in one of two annual 4-H Camp programs, held at Camp Inlow near Philadelphia, MO.

4-H youth and parents identify 4-H camp as having a strong, positive impact on life skills development in youth. In both 2005 and 2006, 4-H members aged 10-13 across Missouri and their parents were surveyed to assess their perceptions of the Missouri 4-H Camping program's effectiveness in building life skills in youth. The results were overwhelmingly positive.

An article co-authored by 4-H Youth Development Specialist Don Nicholson, highlighting the value of the Camp counselor experience appeared in the March/April 2011 edition of Camping Magazine; found at: http://www.acacamps.org/campmag/1103/value-being-camp-counselor

4-H Special-Interest Programs
4-H special interest program participants = 540
County 4-H special-interest programs include “Going the Distance”, Embryology, Science enrichment and school-based leadership development programs. 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 programs in Marion County are Embryology and Going the Distance.
Additionally, approximately 75 FFA program members depend heavily upon Extension 4-H support for coordination and educational content associated with the Marion County Junior Fair, Show Me Quality Assurance training, district contest support, and other programs.

**Hatching Chicks in the Classroom**

4-H Embryology teaches students about science and respect for life. Students hatch chicks in the classroom and witness the exciting miracle of life. Through this program, pre-incubated eggs are delivered to the school where they hatch about four days later. During this time, students have the opportunity to learn the scientific process of embryology including: incubation, preparing a brooder, hatching, identifying parts of an egg, development of chicks in the egg and once they have hatched, handling chicks, and careers in the poultry industry. While students care for the eggs and chicks, they learn leadership, responsibility, sharing, decision making, critical thinking, and teamwork.

<table>
<thead>
<tr>
<th>Number of Marion County learners:</th>
<th>Total Hours of learning in 2012: 1,378</th>
</tr>
</thead>
<tbody>
<tr>
<td>644 preschool through 4th grade students and 28 classroom teachers</td>
<td>hours of classroom learning in 28 Marion County classrooms</td>
</tr>
</tbody>
</table>

The 4-H Embryology Program gives children of all ages a hands-on experience in hatching chickens while developing personal confidence and leadership ability through embryology project activities. Children learn by listening, observing, experimenting and applying their knowledge to real-world situations. As students continue on their learning journey they have increased knowledge and skills in nutrition, food production, food safety, and food systems. Within this program Marion County students have the opportunity to develop and practice life skills including working on a team, identifying one’s own competencies, creative expression, and short term goal setting.

**Going the Distance: Developing Leadership and Understanding**

Since 1992, the *Going the Distance* (GTD) program has been delivered to various school classes and adult groups throughout the area. In Palmyra, for example, the GTD program has been conducted each year with the entire seventh grade class since 1993, involving over 1,500 students, plus school faculty. The day-long program focuses on developing individual confidence and appreciation of others while building problem-solving and decision making skills.

At the end of each program, participants are asked to assess their own learning during the program. Some typical student statements were:

“I learned that if I put my mind to something and try I can do it.”

“Even though kids are fat or skinny, tiny or tall, we can all become
friends and work as a team.”
“I’m very good at thinking of a way through a challenge.”
“Some people you may not like . . . you need to give them a chance.”
“We had a lot more fun than I thought we would.”
“If we work together we can get it done!”
“When everyone pitches ideas it works better.”
“[Other people are] nicer than they seemed.”
“People in my group were nicer than they seem.”
“Yes, at first I thought my “friend” was annoying and dumb, and then we worked together. I got to know her and we became true friends.”
“They [some people] aren’t what [other] people said they are. They are all willing to be nice.”

GTD programs have been and continue to be conducted throughout Marion, Lewis, Ralls, Pike, Monroe, Shelby and Clark counties for school grades 4th through 12th, and adult groups.

A variety of MU Extension staff serving Marion County have assisted 4-H Youth Development Specialist Don Nicholson with the program throughout the Going the Distance twenty-year history, including Jim Meyer, Becky Mannigel, Mary Smyser, Sherry Nelson, David Hill, and others.

References:


MU Continuing Education - Adult Professional Training and Development

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 FY2012, MUCO registered 14,865 Missourians in MU Extension conferences. Participants attended local conferences on Agricultural Lending, Health Care Reform, teacher training and advancing renewables, to name a few. From Marion County, 140 youth and adults handled their registration for various events through MUCO. For more information, see muconf.missouri.edu.

MU Extension’s Fire and Rescue Training Institute
MU Extension’s Fire and Rescue Training Institute (MU 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 impact on the well-being and protection of Missouri’s 23,600 firefighters and the 5.9 million citizens they serve. Courses prepare firefighters for medical emergencies, hazardous materials response, and disaster preparedness and mitigation, as well as fires. (Example: In FY 2012, MU FRTI trained firefighters representing all 114 Missouri counties for a total enrollment of 17,096 fire and emergency responders equating to more than 217,800 student instructional hours of training.) Fifty-three Marion County residents were trained by FRTI in 2012. For more information, see mufrti.org.

MU Extension Law Enforcement Training Institute
The MU Extension Law Enforcement Training Institute (LETI) 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 working officers. LETI is now taking that expertise to non-traditional areas offering seminars to the general public in personal safety, workplace violence, and citizen response to armed subjects. For more information, see leti.missouri.edu.

Missouri Training Institute
The Missouri Training Institute (MTI) provides continuing education, custom-designed training programs and business consulting services for business and industry, public and nonprofit organizations, and educational institutions. Training programs include subjects such as human resource management, supervision, management,
leadership, team building, effective decision making, generational differences, and business writing. The institute’s consulting services include HR, strategic planning, board development, and facilitating board retreats. In FY2012, more than 11,900 people from all 114 counties enrolled in the institute’s 537 programs. During the past year, 25 Marion County citizens completed MTI courses. For more information, see mti.missouri.edu.

MU Nursing Outreach
MU Nursing Outreach (MUNO) is committed to providing high-quality, affordable, and accessible professional development programs for Missouri’s nurses. With the half-life of nursing knowledge being less than five years, coupled with the complexities of patient care and health care delivery, it is crucial for professional nurses to have the latest evidence-based knowledge and skills. MUNO serves a predominantly rural health care audience through face-to-face, web-based, and telecommunication delivery methods. Nurses from 90 (79 percent) of Missouri’s 114 counties and the City of St. Louis attended continuing education programs in FY2012 sponsored by MU Extension. In FY 2012, 2,697 Missourians participated in a nursing outreach program and another 1,310 nurses were served through co-sponsored multidisciplinary programs. Participants rate the overall quality of their continuing education experience as 1.3 (4-point scale with 1 being the highest) and indicate they plan to change their clinical practices based on what they learned at Nursing Outreach programs. The office received $463,000 in competitive grants and contracts from external agencies during 2011-2012 and $1,794,000 during the last five years. In FY2012, 115 educational programs were held in Columbia, and 15 individuals from Marion County benefitted from MUNO educational programs. See: http://www.nursingoutreach.missouri.edu/.

Continuing Medical Education
The Office of Continuing Medical Education serves rural primary care physicians with access to education that allows them to meet requirements for state licensure. Additional programs include specialty medicine as well as health education. Distance learning via the Missouri Telehealth Network provides access to weekly grand rounds from various School of Medicine departments. In FY2012, one enrollment in Continuing Medical Education came from Marion County. For more information, see http://medicine.missouri.edu/cme/.

MU Labor Education Program
The MU Labor Education Program provides educational services for organized labor leaders and members in the state of Missouri to develop programs in labor studies and the relevant aspects of the social and physical sciences to meet the workers’ educational needs in their institutional and employment relationships, and to increase the knowledge and competence of labor leaders, enabling them to meet their manifold responsibilities as contributing participants in their unions, as citizens in the community and as individuals in society. They also work to assist in the development of capable internal resources to equip labor groups in fulfilling a significant portion of their own educational requirements, and to establish and broaden the academic base of labor studies through research and development of campus resources, through faculty and student interactions and through graduate and undergraduate student
instruction in the labor studies curriculum. During 2012, 19 Marion County citizens took part in the Labor Education program. Learn more at: http://labored.missouri.edu/.

Equal opportunity is and shall be provided to all participants in Extension programs and activities, and for all employees and applicants for employment on the basis of their demonstrated ability and competence without discrimination on the basis of their race, color, religion, sex, sexual orientation, national origin, age, disability, or status as a Vietnam-era veteran. This policy shall not be interpreted in such a manner as to violate the legal rights of religious organizations or military organizations associated with the armed forces of the United States of America.
Impact on Marion County, Missouri

The County at a Glance

- Population: 28,781

UM Students from the County in 2012
- 170 students
  - 135 - MU
  - 11 - UMKC
  - 19 - Missouri S&T
  - 5 - UMSL
  - 145 - Undergraduates
  - 25 - Graduates

UM Alumni Residing in the County in 2012
- 726 alumni
  - 574 - MU
  - 53 - UMKC
  - 67 - Missouri S&T
  - 32 - UMSL
  - 334 Selected School Alumni
    - 18 - Medicine
    - 28 - Nursing
    - 26 - Health Professions
    - 12 - Dentistry
    - 6 - Pharmacy
    - 1 - Optometry
    - 9 - Veterinary Medicine
    - 108 - Agriculture
    - 92 - Engineering
    - 34 - Law

UM Employees and Retirees Residing in the County in 2012
- 25 people employed by UM
  - 20 - MU
  - 5 - UM Health Care
- 4 UM Retirees and Beneficiaries

UM Services Received in the County in 2012
- 1,186 patients seen at UM Health Care, with $285,256 of uncompensated care.
- 13 patients seen at the UMKC School of Dentistry with an average of $36 per patient in uncompensated care.
- 30,575 contacts with MU Extension through MU Extension events held in district counties.

UM Construction Projects involving Vendors located in the County in 2012
- 1 vendor involved with 3 projects, for $62 thousand.

UM Alumni Teaching K-12 in the County in 2012
- 48 teachers
  - 12% of all county teachers
  - 6 principals and administrators
  - 38% of all county principals and administrators
Impact on Marion County, Missouri

UM Research Expenditures Funded by Federal and Private Sources

<table>
<thead>
<tr>
<th>Year</th>
<th>Federal Expenditures</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2006</td>
<td>$158.3</td>
</tr>
<tr>
<td>FY2007</td>
<td>$162.7</td>
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<tr>
<td>FY2008</td>
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<tr>
<td>FY2009</td>
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</tr>
<tr>
<td>FY2010</td>
<td>$193.0</td>
</tr>
<tr>
<td>FY2011</td>
<td>$194.7</td>
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Economic Development Highlights
- With $3.2 billion in total revenues, UM would have been the 17th largest publicly held Missouri-headquartered company in the state in 2012.
- With more than 31,000 employees in the state, UM was Missouri’s 2nd largest employer in 2011.
- In 2010, UM’s $169 million in federal science and engineering research expenditures represented 93% of these expenditures at Missouri public universities.
- In 2012, UM’s $22.3 million in National Science Foundation (NSF) awards represented 80% of all NSF awards made to Missouri public universities.
- UM earned $6.8 million in licensing income in 2012.
- UM received 163 new invention disclosures in 2012.
- 8 startups were created around UM technologies in 2012.
- UM was issued 34 U.S. patents and filed 69 new U.S. patent applications in 2012.

Electronic Services to the State in 2012
- The Missouri Research & Education Network (MOREnet) provided internet connectivity and technical services to members that include:
  - 64 higher education institutions with more than 308,000 students.
  - 500 K-12 schools with 868,000 students and 76,000 faculty.
  - 134 public libraries connecting 345 library buildings that serve 5.4 million Missourians.
- MOREnet returned $13 million in telecommunications expenditures to companies doing business in Missouri.

Financial Aid Provided to UM Students in 2012
- $871.2 million
  - $432.1 million - MU
  - $202.2 million - UMKC
  - $97.5 million - Missouri S&T
  - $139.4 million - UMSL

Impact on Education in 2011
- UM enrolled 50% of first-time undergraduates attending four-year public institutions in 2011.
- UM awarded 49% of the 1,130 doctoral degrees earned in Missouri.
- UM awarded 42% of the 1,937 first professional degrees earned in Missouri.
- UM awarded 54% of the 28,798 bachelor’s or higher degrees awarded by Missouri’s four-year public institutions.

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 2012, 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
University of Missouri Extension
Marion County Financial Summary

The investment in Marion County youth, families and businesses

Marion County
University Extension Council
Annual Financial Report
Year Ending December 31, 2012

Revenues
County Appropriations $ 40,000.00
Investment Income 244.97
Gifts/Grants/Contracts 371.82
Resales/Education services 3,293.60
Total Revenue $ 43,910.39

Expenses
Salaries and Wages $ 47,392.90
Communications 3,225.26
Travel 6,299.80
Supplies/Services 5,803.87
Repairs/Maintenance 32.97
Furniture/Equipment 7,807.00
Total Expenses $ 70,561.80

Revenue less Expenses $ -26,651.41

Expenses 2012

Revenues 2012
The Marion County Extension Center is located at:
100 S. Main, Room 201, Palmyra MO 63461.

Phone number: 573-769-2177       Fax number: 573-769-2178
Office email: Marionco@missouri.edu
County web page: http://extension.missouri.edu/marion

Office hours throughout the year are
8:00 a.m. -12:00 p.m., and 1:00 p.m. - 5:00 p.m., Monday through Friday.