

2009 University of Missouri Extension Annual Report of Accomplishments and Results

Status: Accepted

Date Accepted: 06/25/2010

I. Report Overview

1. Executive Summary

University of Missouri Extension (MU Extension) had a very productive year in achieving its goals set out in the 2009 plan of work. MU Extension's 2009 programs addressed such issues as: the growing obesity problem in Missouri; building a sustained holistic economic development model in Missouri that addresses the need for vibrant communities, retention of jobs, and viable businesses; food productivity and safety in Missouri's agricultural arena; and building tomorrow's leaders through our 4-H Youth program.

Our stakeholders continue to articulate the need for more programming from us at a time of diminishing budget. We continue to incorporate the use of technology in our delivery systems in order to leverage the human capacity that we have. MU is contributing to programming efforts in eXtension and has developed a more comprehensive and accessible website for our stakeholders. We are also seeking alternative funding from grants, gifts, and fee generation to further leverage the resources that we receive from our state, federal, and county partners.

Our goal is to be reliable, responsive and relevant. We accomplished that goal in 2009 by providing research-based knowledge to Missourians that was aligned with their priorities of jobs, health, and education.

Total Actual Amount of professional FTEs/SYs for this State

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	239.6	0.0	0.0	0.0
Actual	246.0	0.0	0.0	0.0

II. Merit Review Process

1. The Merit Review Process that was Employed for this year

- Internal University Panel
- External Non-University Panel

2. Brief Explanation

In addition to reviewing the stakeholder input from all 114 counties, regional and state faculty surveyed current literature to identify state-wide demographics, national and state trends, and discipline specific research related to program effectiveness. Based on this review, state-wide priority needs were identified and programs in response to those priorities were developed by faculty. The program priorities along with their program logic models were then reviewed by the appropriate state program leader to assure that the programs are both relevant and of high quality.

State-wide program priorities will be utilized by regional faculty as they develop a local programming response to their county's identified needs. The resulting proposed county program plan will then be taken to the county council for their acceptance. Once approved, the programming will be delivered and the impact evaluated.

By establishing this ongoing merit review process of: stakeholder needs identification; program response by faculty; stakeholder feedback; and outcome assessment, the quality and relevance of programs will be maintained.

III. Stakeholder Input

1. Actions taken to seek stakeholder input that encouraged their participation

- Targeted invitation to traditional stakeholder groups
- Targeted invitation to non-traditional stakeholder groups
- Survey of traditional stakeholder groups
- Survey of traditional stakeholder individuals
- Survey of the general public
- Survey specifically with non-traditional groups
- Survey specifically with non-traditional individuals

Brief explanation.

University of Missouri Extension has gathered opinions of Missouri residents in a variety of ways to assist us in determining the critical issues of strategic importance. Our goals in developing the methodologies for the stakeholder input process were to: diversify the audiences in order to gain a better perspective on the reach and effectiveness of our programs; to diversify the gathering process so that we could utilize the feedback for both program prioritization and also to gain knowledge as to preferred delivery methods as well as general awareness of our programs; and finally to gather some program specific information and diversity needs information in a more substantive way in order to gain a better understanding of the issues underlying the needs in order for us to be more effective in our programming response.

The methods used in our stakeholder input gathering were as follows:

- Statewide telephone Survey
- Community Conversations
- Diversity Discussions
- Web-based Survey
- County and Regional Needs Assessments
- Meetings with State Agencies

2(A). A brief statement of the process that was used by the recipient institution to identify individuals and groups stakeholders and to collect input from them

1. Method to identify individuals and groups

- Use Advisory Committees
- Use Internal Focus Groups
- Use External Focus Groups

Brief explanation.

See 1.

2(B). A brief statement of the process that was used by the recipient institution to identify individuals and groups who are stakeholders and to collect input from them

1. Methods for collecting Stakeholder Input

- Meeting with traditional Stakeholder groups
- Meeting with traditional Stakeholder individuals
- Survey of the general public
- Meeting specifically with non-traditional groups
- Survey specifically with non-traditional groups
- Meeting specifically with non-traditional individuals
- Survey specifically with non-traditional individuals

Brief explanation.

See 1.

3. A statement of how the input will be considered

- In the Budget Process
- To Identify Emerging Issues
- Redirect Extension Programs
- In the Staff Hiring Process
- In the Action Plans
- To Set Priorities

Brief explanation.

{NO DATA ENTERED}

Brief Explanation of what you learned from your Stakeholders

Our stakeholders continue to articulate the need for more programming from us at a time of diminishing budget. We continue to incorporate the use of technology in our delivery systems in order to leverage the human capacity that we have. MU is contributing to programming efforts in eXtension and has developed a more comprehensive and accessible website for our stakeholders. We are also seeking alternative funding from grants, gifts, and fee generation to further leverage the resources that we receive from our state, federal, and county partners.

IV. Expenditure Summary

1. Total Actual Formula dollars Allocated (prepopulated from C-REEMS)			
Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
8342169	0	0	0

2. Totaled Actual dollars from Planned Programs Inputs				
	Extension		Research	
	Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
Actual Formula	8342169	0	0	0
Actual Matching	8342169	0	0	0
Actual All Other	0	0	0	0
Total Actual Expended	16684338	0	0	0

3. Amount of Above Actual Formula Dollars Expended which comes from Carryover funds from				
Carryover	0	0	0	0

V. Planned Program Table of Content

S. No.	PROGRAM NAME
1	Watershed Management and Planning
2	Forage Production and Management
3	Home Horticulture and Environment
4	Individual Wastewater Systems-Implications for a New Rural Generation
5	Missouri Crop Management Systems
6	Missouri Master Wildlifer
7	Missouri Woodland Steward
8	Pasture Based Dairy Systems
9	MO-PORK: Increasing Pork Production in Missouri
10	Plant Protection for the 21st Century
11	Profit Focused Agriculture
12	Show-Me-Select Replacement Heifer Program
13	Applying Science and Technology
14	Building Character
15	Choosing Healthy Lifestyles
16	Creating Economic Preparedness
17	Enhancing Community Viability Through Youth Leadership
18	Volunteer Development
19	Improving Communications
20	Building Environments
21	Parenting
22	Strengthening Families
23	Building Better Childcare for Missouri
24	Food Safety
25	Personal Financial Management
26	Nutrition, Health and Physical Activity
27	Facilitating Community Decision Making for Youth and Adults
28	Ensuring Safe Communities
29	Community Leadership Development for Youth and Adults

30	Building Inclusive Communities
31	Creating Community Economic Viability
32	Aging
33	Business Development

V(A). Planned Program (Summary)

Program # 1

1. Name of the Planned Program

Watershed Management and Planning

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships	5%			
111	Conservation and Efficient Use of Water	5%			
112	Watershed Protection and Management	40%			
131	Alternative Uses of Land	10%			
133	Pollution Prevention and Mitigation	5%			
608	Community Resource Planning and Development	30%			
723	Hazards to Human Health and Safety	5%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	6.3	0.0	0.0	0.0
Actual	7.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c 360918	1890 Extension 0	Hatch 0	Evans-Allen 0
1862 Matching 152546	1890 Matching 0	1862 Matching 0	1890 Matching 0
1862 All Other 0	1890 All Other 0	1862 All Other 0	1890 All Other 0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Invite people from Missouri watershed communities to participate in workshops to develop partnerships for watershed management as part of the Heartland 406 (b) USDA grant. Facilitate deliberative sessions with agency partners and others to discuss strategies for expanding collaborative efforts and roles each agency might fill in assisting communities in watershed management activities. Continue efforts to assist communities in the development of watershed management plans.

2. Brief description of the target audience

Target audience will consist of local watershed community citizens, elected officials, agency leaders and staff members with a concern or a part to play in watershed management activities. Extension state and regional specialists will have opportunities to attend regional workshops designed to keep abreast of the most current and reliable sources of information relating to a process of working with local communities to develop and implement watershed management plans.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	1200	2000	900	1000
Actual	1171	629	545	535

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009

Plan: 0

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Educational classes will be held to educate agency and Extension personnel to understand the process for involving local communities in the development and planning of watershed management plans.

Year	Target	Actual
2009	2	1

Output #2

Output Measure

- Group discussion will be held with the watersheds advisory groups in the developmental stages of watershed planning.

Year	Target	Actual
2009	15	12

Output #3

Output Measure

- Demonstrations will be held in watershed areas to demonstrate the effectiveness of best management practices for improving water quality.

Year	Target	Actual
2009	2	8

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Watershed Management and Planning will empower local citizens to organize watershed advisory groups to begin a process of evaluating, planning and implementing strategies for protecting water resources.
2	50 percent of the participants that attend a watershed planning and management educational program will indicate increased knowledge of the process to develop and implement a watershed plan.
3	Increase in the number of communities each year that form advisory committees to be actively involved in the development of watershed management plans.

Outcome #1**1. Outcome Measures**

Watershed Management and Planning will empower local citizens to organize watershed advisory groups to begin a process of evaluating, planning and implementing strategies for protecting water resources.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

In many areas the Missouri Department of Natural Resources includes local bodies of water on its "303 (d)" list of impaired waters. Local agencies and landowners who cannot determine how to mitigate the effect of pollutants entering those waters may experience economic costs and human health effects that could have been prevented. Thus, understanding how to develop a watershed management plan that incorporates the nine elements required by the U.S. Environmental Protection Agency (EPA) becomes an important part of learning how to protect local bodies of water.

What has been done

A curriculum was developed to help communities understand and develop a watershed management plan that would contain the nine elements required by EPA. A six-hour educational class was offered in five different Extension regions that include water bodies that appear on the Missouri Department of Natural Resources 303 (d) list of impaired waters. One hundred people attended the training sessions. As part of the training, regional specialists planned a field tour of best management practices used in the different regions to mitigate potential effects of water pollutants.

Results

The goal of the project was to increase understanding and knowledge of how to write a nine-element watershed management plan that could be used by local groups. Participants evaluated the effectiveness of each class. Of the 100 participants, 97 indicated they had a better understanding of watershed issues, 96 understood the role and purpose of watershed planning, and 94 reported a better understanding of how to complete a nine-element plan required by EPA. A follow-up survey of those attending showed that six groups are working on watershed management plans that should lead to funding for implementation of best management practices.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
131	Alternative Uses of Land
133	Pollution Prevention and Mitigation

608 Community Resource Planning and Development
 723 Hazards to Human Health and Safety

Outcome #2

1. Outcome Measures

50 percent of the participants that attend a watershed planning and management educational program will indicate increased knowledge of the process to develop and implement a watershed plan.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	600	176

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Goodwater Creek watershed is selected as a representative site for the re-registration of atrazine. Levels of atrazine recorded there had surpassed trigger values set by EPA. Unless reversed, such levels could result in the loss of use of atrazine in this watershed and in other Missouri watersheds with similar soil types and conditions. The economic impact of losing atrazine in such watersheds could easily double the cost of pesticides used in corn and milo production.

What has been done

Workshops were offered on how to establish a watershed management group. Programs were held monthly to introduce local producers to a variety of science-based material on proper application methods, integrated pest management, and watershed planning processes. Of the 52 producers in the watershed, 44 have attended meetings about Goodwater Creek watershed issues. From this group of local producers, a watershed committee was developed to start developing a watershed management plan to mitigate problems with atrazine runoff.

Results

Local producers wrote a draft watershed management plan incorporating their suggestions for best management practices they could use to reduce atrazine runoff. Under this plan, Goodwater Creek has not exceeded the EPA trigger values three of the past four years of testing. Based on the watershed management practices now in effect, atrazine use in the watershed will continue, although it will remain under review as EPA continues monitoring. Without an effective plan of action, the change from atrazine to another herbicide could increase the cost of using pesticides on 6,000 acres of corn and milo in Goodwater Creek watershed by \$16-\$20 per acre. This increase could cost area producers an additional \$90,000 to \$120,000 in pesticide expenses. The Goodwater Creek watershed includes soils that fall in the Major Land Resource Area listed as 109, 112, 113, and 114 and therefore is representative of about 2 million acres in Missouri. Water testing shows that after implementation of watershed management practices, atrazine runoff was below the trigger values of 38 parts per billion (ppb) at 14 days, 27 ppb at 30 days, 18 ppb at 60 days, and 12 ppb at 90 days.

4. Associated Knowledge Areas

KA Code Knowledge Area

102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
131	Alternative Uses of Land
133	Pollution Prevention and Mitigation
608	Community Resource Planning and Development
723	Hazards to Human Health and Safety

Outcome #3

1. Outcome Measures

Increase in the number of communities each year that form advisory committees to be actively involved in the development of watershed management plans.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	2	6

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The Missouri Department of Natural Resources is establishing total maximum daily loads (TMDLs) for waters that are on the 303 (d) list of impaired waters. People living in the watersheds that feed these waters are responsible for much of the land that may be adding to the pollutant load that causes the impairment. The impaired waters listing can cause economic hardship to local communities that must change their water management practices or lose business that is directly associated with water quality.

What has been done

Twelve watershed groups are holding meetings to determine is the level of interest among local citizens in developing a watershed management plan. Meetings have been held to outline concerns and assess the likely effect on the community if water quality does not improve.

Results

Six watershed groups have been formed to address water quality issues in their watershed. These six groups have received \$15,000 each for the development of a watershed management plan that contains the nine elements required by EPA.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management

131	Alternative Uses of Land
133	Pollution Prevention and Mitigation
608	Community Resource Planning and Development
723	Hazards to Human Health and Safety

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges

Brief Explanation

Water testing and the collection of data are important concerns for many watersheds. The resources and expertise are not always available. Changes in government policy and lack of clear decision by government officials about the consequences of a local water supply being out of compliance make it hard for local citizens to understand what they need to do. Because most testing is done at a watershed level, many local landowners don't see how they are part of the accumulative pollutant problem.

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- During (during program)
- Case Study
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.

Evaluation Results

Of the 100 people taking the watershed management plan class, 97 reported a better understanding of water quality issues and the role that they could play in protecting water quality. Of the twelve watershed groups that are meeting, six have received a total of \$90,000 in grants to develop a watershed management plan. Goodwater Creek producers implemented best management practices worth \$80,000 that reduced the runoff of atrazine below the trigger values established by EPA. Water tests show that atrazine levels are below the trigger values throughout the growing season.

Key Items of Evaluation

Ninety-seven percent of participants in the watershed management plan class indicated a better understanding of water quality issues and their role in protecting water quality. Goodwater Creek watershed producers implemented \$80,000 worth of management practices that were successful in reducing atrazine runoff. Water tests during the fourth year show atrazine levels below the EPA trigger values of 38 ppb at 14 days, 27 ppb at 30 days, 18 ppb at 60 days, and 12 ppb at 90 days. By successfully reducing atrazine runoff, producers in Goodwater Creek watershed can continue to use atrazine. This saves the producers approximately \$90,000 in pesticide costs for corn and milo. Six watersheds have received a total of \$90,000 in grants to develop watershed management plans.

V(A). Planned Program (Summary)

Program # 2

1. Name of the Planned Program

Forage Production and Management

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
205	Plant Management Systems	40%			
307	Animal Management Systems	40%			
402	Engineering Systems and Equipment	20%			
Total		100%			

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	5.0	0.0	0.0	0.0
Actual	3.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
180458	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
76272	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Forage Production and Management will use multiple delivery methods to reach the target audience: regional three-day schools on management-intensive grazing; pasture-based dairying core group meeting and "pasture walks"; winter feeding systems and summer pasture program using demos, clinics, and tours. Fescue toxicosis and management workshops; Missouri Forage and Grassland Council Forage Conference; field days at outlying research centers; MU forage websites and multistate websites (cooperating with Oregon State University), electronic guides; CDs with prepared presentations; in-service training (ISEs) for regional staff; news releases for the general public; and popular press articles.

2. Brief description of the target audience

The primary target audience includes Missouri forage and livestock producers. These are mainly producers of beef and dairy cattle, although the program does address forages for other livestock, such as sheep, goats and horses, and nonlivestock forage producers, such as hay producers and wildlife conservationists. The program also targets industry and government, as it presents current science, technology and training to agricultural business and policymakers.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	6000	10000	500	0
Actual	9600	62000	472	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009
 Plan: 0
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Provide in-service training session (s) for regional Extension specialists on an annual basis.

Year	Target	Actual
2009	1	1

Output #2

Output Measure

- Develop or revise guide sheets on an annual basis for regional Extension specialists to use in producer meetings.

Year	Target	Actual
2009	2	1

Output #3

Output Measure

- Revise Missouri publication M168, Missouri Dairy Grazing Manual.

Year	Target	Actual
2009	0	0

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Nine hundred (900) producers will annually attend a management-intensive grazing (MiG) school.
2	Five thousand (5,000) Missouri producers will increase their awareness of stockpiling and summer pasture management for beef cattle.
3	Two hundred (200) Missouri farmers will increase their knowledge of fescue toxicosis.
4	Five thousand (5,000) producers will stockpile forage and develop specific pastures for summer grazing.

Outcome #1**1. Outcome Measures**

Nine hundred (900) producers will annually attend a management-intensive grazing (MiG) school.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Management-intensive grazing involves moving the herd from paddock to paddock, thereby intensifying the grazing pressure on a small area for a few days before allowing it to rest for several weeks. This practice results in more even distribution of manure, more legume persistence, and less commercial fertilizer application. Management-intensive grazing therefore improves the economic and environmental status of a livestock operation.

What has been done

In 2009, the University of Missouri teamed up with the Natural Resources Conservation Service to hold 27 multiday workshops for 708 producers.

Results

If 2009 follows the pattern observed in the previous 10 years, nearly all of these producers will adopt various practices taught in the workshops, and half of the producers will receive cost-share funds to improve their fencing and watering facilities. The investments in pasture improvements as a result of Management-intensive Grazing Program in 2009 alone, and only on Missouri farms, are likely to exceed \$5 million.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
307	Animal Management Systems

Outcome #2**1. Outcome Measures**

Five thousand (5,000) Missouri producers will increase their awareness of stockpiling and summer pasture management for beef cattle.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Winter and midsummer feed accounts for about 70 percent of the cost to produce beef in the north central United States. Beef producers have little control over output prices, so efforts to substantially improve profitability depend on finding new and innovative ways to reduce input costs, especially costs for winter feed and summer pasture. Although systems-level research is complex, Management-intensive Grazing Program strategically attacks the problem from several angles.

What has been done

The curriculum was expanded to reflect new research results on stockpiled tall fescue for fall-calving cow-calf pairs and to help producers understand why they should retain ownership of calves through the stocker phase and how to cope with high feed prices. In addition, we developed software called the "Beef Forage Systems Planning Software." This software helps producers choose forages and forage management practices that best suit their production objectives. Right now several of our regional specialists are "beta testing" it.

Results

More than 23,000 producers have adopted the techniques developed from this program. From 1998 to 2006, the percentage of producers using stockpiled tall fescue for winter feeding has doubled, from 26 percent to more than 54 percent. The increased use of stockpiled tall fescue saved the state's beef producers \$27.2 million in 2009. Additionally, the practice of retaining ownership of fall-born calves through spring is being implemented on several farms in Missouri.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
307	Animal Management Systems
402	Engineering Systems and Equipment

Outcome #3

1. Outcome Measures

Two hundred (200) Missouri farmers will increase their knowledge of fescue toxicosis.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Fescue toxicosis costs the Missouri beef industry \$160 million each year. It also costs the Missouri dairy and horse industry, though the economic impact has not been quantified for Missouri. The losses come from reduced calving rate and gain as a result of toxins produced by a fungus living inside the plant. Fescue toxicosis is the most detrimental forage-livestock disorder in Missouri and surrounding states.

What has been done

The spring livestock grazing conferences in 2009 included lectures with extended question-and-answer sessions regarding this livestock disorder. From February through December, this topic was presented to well over 300 cattlemen and agriculture advisers. 2010 and 2011 will be years for implementing new programs to educate larger crowds.

Results

The fescue toxicosis program is a new program, and its impact is not yet quantifiable. Comments recorded after each presentation indicate that many of the producers plan on adjusting their management to reduce toxicity. Such adjustments include planting clovers and annual lespedeza, testing for the toxic fungus, and ensuring their cattle do not consume seedheads of tall fescue grass. (The seedheads contain high levels of toxin.) In addition, some producers planned to plant nontoxic varieties of tall fescue.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
307	Animal Management Systems

Outcome #4

1. Outcome Measures

Five thousand (5,000) producers will stockpile forage and develop specific pastures for summer grazing.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	5000	23000

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Winter and midsummer feed accounts for about 70 percent of the cost to produce beef in the north central United States. Beef producers have little control over output prices, so efforts to substantially improve profitability depend on finding new and innovative ways to reduce input costs, especially costs for winter feed and summer pasture. Although systems-level research is complex, the Beef Forage Systems Program strategically attacks the problem from several angles.

What has been done

The curriculum was expanded to reflect new research results on stockpiled tall fescue for fall-calving cow-calf pairs and to help producers understand why they should retain ownership of calves through the stocker phase and how to cope with high feed prices. In addition, we developed software called the "Beef Forage Systems Planning Software." This software helps producers choose forages and forage management practices that best suit their production objectives. Right now several of our regional specialists are "beta testing" it.

Results

More than 23,000 producers have adopted the techniques developed from this program. From 1998 to 2006, the percentage of producers using stockpiled tall fescue for winter feeding has doubled, from 26 percent to more than 54 percent. The increased use of stockpiled tall fescue saved the state's beef producers \$27.2 million in 2009. Additionally, the practice of retaining ownership of fall-born calves through spring is being implemented on several farms in Missouri.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
307	Animal Management Systems

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Public Policy changes
- Government Regulations

Brief Explanation

Most of the goals were met. The recent increases in feed grain prices have actually increased the demand for these programs.

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)

- Before-After (before and after program)
- During (during program)
- Case Study

Evaluation Results

Included above.

Key Items of Evaluation

Twenty-seven grazing schools were held throughout Missouri last year. The schools are three days long and cover such topics as the basics of developing and managing a grazing plan, fencing, watering, selecting forages, winter stockpiling, forage economics, and soil testing. More than 700 producers attended the grazing schools throughout the eight regions of the state. More than 90 percent of the producers who attended these workshops indicated that they plan to adopt fencing, watering, and pasture management changes as presented in the schools. Half of those producers implemented these changes without cost-share assistance.

More than 3,800 producers attended educational programs on "Winter Feeding Systems for Beef Cattle." This effort has brought about important changes in producer practices. Farmer surveys taken in 1998 and again in 2006 show that the number of producers using stockpiled tall fescue has increased by 28 percentage units (see table below). Economic analyses conducted by Driskill et al. show that producers save about \$62 per cow annually if they efficiently use stockpiled tall fescue. At the adoption rate of 54 percent statewide, the increased use of stockpiled tall fescue saves the state's beef producers \$38 million annually.

Survey results on the number of producers using stockpiled tall fescue for winter grazing.

Survey Year	Producers Surveyed	Response Rate (%)	% Using Stockpiled Tall Fescue
1998	3222	33	26
2002	2977	24	42
2006	3120	31	54

Another result of the Winter Feeding Systems for Beef Cattle program is the increased use of winter annual pastures in Missouri. Based on seed sales of annual ryegrass, acreage of winter pastures in Missouri has increased by more than 300,000 acres (a 100-fold increase) since 1998.

V(A). Planned Program (Summary)

Program # 3

1. Name of the Planned Program

Home Horticulture and Environment

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
101	Appraisal of Soil Resources	5%			
205	Plant Management Systems	50%			
211	Insects, Mites, and Other Arthropods Affecting Plants	10%			
212	Pathogens and Nematodes Affecting Plants	10%			
213	Weeds Affecting Plants	15%			
216	Integrated Pest Management Systems	10%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	9.6	0.0	0.0	0.0
Actual	9.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
541376	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
228819	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Some of the major activities under this program are Master Gardener training (core course), advanced Master Gardener training, Garden 'N Grow training and workshops for garden center employees. Other activities include the Plants of Merit and HortLine programs in cooperation with Missouri Botanical Gardens, homeowner workshops, Lifespan Learners Series, Responsible Home Horticulture Series, booths at home shows and fairs, Plant a Row for the Hungry, Horticulture Therapy in Nursing Homes and the

Home*A*Syst Program.

2. Brief description of the target audience

The ultimate target audience of this program is individuals with an interest in gardening. However, to reach this diverse and highly dispersed audience, MU Extension will need to use several community multipliers of information. One highly important audience will be the Master Gardener volunteers. After receiving training, Master Gardeners contribute volunteer hours to assist with dissemination of horticultural information through speaking engagements, workshops, information booths, youth programs, Extension Center hot lines, demonstration plantings and other activities. Youth groups including 4-H are another important target audience. Many young people will enroll in the Garden 'N Grow program.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	6000	10000	500	0
Actual	6500	500000	66	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009
 Plan: 0
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Provide in-service training session (s) for regional Extension specialists on an annual basis.

Year	Target	Actual
2009	1	1

Output #2

Output Measure

- Develop or revise guide sheets a year for regional extension specialists to use in producer meetings.

Year	Target	Actual
2009	5	5

Output #3

Output Measure

- Print and electronic newsletters devoted to pest and horticulture crop management will be developed and distributed to regional specialists and other clientele.

Year	Target	Actual
2009	24	13

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Master Gardeners, garden center employees, retired persons and home gardeners will increase their knowledge of basic plant growth, fertility, plant care, varieties, diseases.
2	Nursing home managers will become more aware of the potential for horticultural therapy to improve the quality of life for residents.
3	4-H members & youth will improve their gardening skills and awareness of where food comes from through the Garden & Grow program.
4	Increase the number of Missourians participating in gardening activities.
5	Increase the number of new Master Gardeners completing the core training.
6	Increase use of soil sampling and plant diagnostic services by home gardeners.
7	Increase the number of Master Gardner volunteer hours and contacts.

Outcome #1**1. Outcome Measures**

Master Gardeners, garden center employees, retired persons and home gardeners will increase their knowledge of basic plant growth, fertility, plant care, varieties, diseases.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	1000	1200

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Selecting poorly adapted plants for home gardens can frustrate and discourage homeowners from future gardening activity. Awareness of sources of information about proper plant selection will contribute to gardening success and the health benefits derived from it. Proper plant selection also reduces plant stress, which then reduces the amount of fertilizer and pesticides necessary to maintain plant health.

What has been done

Through Master Gardener training and volunteer activities of Master Gardeners, newsletters, media releases, Nursery Association Certification training, and Web-accessible gardening guides, thousands of Missourians received information on plant selection and culture. We hosted a Native Plant and Quail Field Day that drew 150 participants and a Tomato Festival that drew 464.

Results

Of 2.94 million valid hits on all MU agricultural guides posted in the MU Extension Web site between July 1, 2008, and June 30, 2009, 41 percent were horticulture guides. This is more than twice as many hits as for any other category of agricultural guides on the Web site. Guides on horticulture and pest control combined accounted for 1.7 million (58%) of the agricultural guide hits for the period. The most popular horticulture guides were on composting, pruning shrubs, raised bed gardening, roses, and vegetable production. Thus, thousands of Missourians received information to help them improve their gardening success.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants
213	Weeds Affecting Plants
216	Integrated Pest Management Systems

Outcome #2**1. Outcome Measures**

Nursing home managers will become more aware of the potential for horticultural therapy to improve the quality of life for residents.

Not Reporting on this Outcome Measure

Outcome #3**1. Outcome Measures**

4-H members & youth will improve their gardening skills and awareness of where food comes from through the Garden & Grow program.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	250	106

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Youth gardening programs, including Garden 'n Grow, are intended to cultivate strong skills in science. The programs are also intended to help participants experience gardening in a positive and enjoyable manner, to enjoy the feeling of success with their gardening efforts, and to have the satisfaction of sharing their harvested produce with people in need. Young gardeners also learn to produce healthy food and to appreciate the importance of fresh produce in human nutrition.

What has been done

Garden 'n Grow was hosted in six locations throughout Missouri, Volunteers work with school children to help them plant, manage and harvest vegetable plots.

Results

Sixty-six children participated, and 42 volunteers contributed 472 hours of assistance. Over 400 pounds of produce was donated to local food pantries. Some locations had devastating weather, which affected donations. One site was located at a teen pregnancy center, and another program was located at the Sierra-Osage Treatment Center in Poplar Bluff. Youth surveys demonstrated the nutritional value of the program: 4 out of 5 participants reported that after receiving training, they understood why it is important to eat fresh vegetables; 4 out of 5 said they can grow vegetables in a garden by themselves now; and all reported that they learned to cook vegetables they didn't know how to prepare and cook before participating in this program.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems

Outcome #4**1. Outcome Measures**

Increase the number of Missourians participating in gardening activities.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	2500	2500

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

We need to offer workshops to enhance environmental stewardship by homeowners as well as professionals in the lawncare and horticulture industry and to help them reduce pesticide and fertilizer use through implementation of integrated pest management (IPM) principles. This would improve plant health, reduce costs associated with unnecessary use of pesticides, and minimize the potential for movement of fertilizers and pesticide residues into groundwater and streams.

What has been done

The Healthy Yards for Clear Streams program focuses on training regional specialists to educate homeowners and lawncare professionals to change management practices in lawns, gardens, and urban landscapes. The primary long-term goal of the training curriculum is to reduce pesticide and fertilizer use by individuals participating in this program. This, in addition to Master Gardener outreach efforts, media releases, and Web-accessible gardening guides encouraged environmentally responsible gardening activity.

Results

We hosted a train-the-trainer session that attracted 26 attendees. These trainees have since presented workshops attended by 250 individuals in four Missouri locations. Training will be offered in four additional locations in the coming year. In follow-up surveys, we have demonstrated that the workshops have an impact on homeowner practices: 92 percent of participants polled stated they would change one or more landscape practices; 92 percent stated they would test their soil regularly; 88 percent stated they would install a rain barrel or rain garden to reduce and control storm water runoff; and 71 percent stated they would reduce their use of chemicals and measure their lawn to apply the correct amount of fertilizer.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants
213	Weeds Affecting Plants
216	Integrated Pest Management Systems

Outcome #5**1. Outcome Measures**

Increase the number of new Master Gardeners completing the core training.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	250	468

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

There continues to be tremendous demand in the general public for gardening information. Many individuals enroll in the Master Gardener class to have access to this type of training. Once Master Gardeners are trained, they disseminate research-based information in their counties and improve the knowledge base among home gardeners in their communities.

What has been done

Master Gardener Core Training was provided for 468 new Master Gardeners in 27 counties in Missouri.

Results

Newly trained Master Gardeners are much better able to use and promote the resources of the University of Missouri and MU Extension. They are better-educated, more environmentally aware gardeners. They also actively promote the purchase of plants from local garden centers and nursery businesses. Last year a newly reorganized group of Texas County Master Gardeners, along with the new training class provided more than 1,300 pounds of fresh produce to the Texas County Food Pantry and provided information to the people sent to them from the Food Pantry. They also helped with 4-H garden projects, developed over 100 vegetable beds in the community gardens, and offered assistance in building community gardens in Salem and Waynesville, Missouri.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems

Outcome #6**1. Outcome Measures**

Increase use of soil sampling and plant diagnostic services by home gardeners.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

A recent summary of urban soil samples from the St. Louis and Kansas City areas showed that the majority of samples tested high or very high in soil phosphorus, which poses a threat to water quality. Increased soil testing will reduce the unintentional overapplication of fertilizer. Similarly, increased use of MU plant diagnostic services will reduce the use of inappropriate or unnecessary pesticide application.

What has been done

Nearly all horticulture programs include information that emphasizes the importance of soil testing and pest identification to aid in fertilization and pest management. This is a primary focus of the Healthy Yards for Clear Streams program.

Results

The number of lawn and garden soil samples submitted to the MU Soil and Plant Testing Lab increased from 4,648 to 5,059 between 2008 and 2009. Commercial horticulture samples increased by 20 percent, from 457 to 549, over the same period. The number of horticulture diagnostic samples increased by 30 percent, from 363 to 475 between 2008 and 2009. These increases indicate that horticulture programming is getting the word out to homeowners and commercial horticulture firms that responsible use of fertilizers and pesticides requires soil testing and diagnostics.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants
213	Weeds Affecting Plants
216	Integrated Pest Management Systems

Outcome #7

1. Outcome Measures

Increase the number of Master Gardner volunteer hours and contacts.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	2500	140191

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Missouri Master Gardener volunteers provide research-based horticulture information to individuals throughout Missouri to improve their gardening skills and to increase their awareness of the resources available to them through the University of Missouri. Master Gardeners are a key information source for the gardening public.

What has been done

Master Gardeners are trained by extension specialists. Master Gardeners then volunteer teach workshops, staff gardening hotlines, and teach short courses for the general public.

Results

More than 1,900 Master Gardeners in Missouri contributed 140,191 volunteer hours in 75 counties. Master Gardeners had 154,686 direct citizen contacts. Master Gardeners contribute 37 percent of their volunteer time implementing horticulture education to Missouri citizens and 14 percent of their volunteer hours doing community improvement projects. Master Gardeners in one county reported over 738,322 contacts. Master Gardeners in St. Louis county had 15,908,000 indirect contacts through writing of weekly and monthly articles, and Master Gardeners responded to 29,163 questions from clients through the Answer Service and Plant Doctor Desk.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants
213	Weeds Affecting Plants
216	Integrated Pest Management Systems

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Competing Public priorities
- Competing Programmatic Challenges

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Retrospective (post program)
- Before-After (before and after program)
- During (during program)

Evaluation Results

Surveys collected at the end of nearly all Master Gardener core training series ask participants to evaluate program effectiveness and their likelihood of adopting improved gardening practices. On a scale of 1-4, 4 being best, the average rating is 3.5.

Key Items of Evaluation

The reception by the gardening public of programs such as Master Gardener, Show Me Yards and Neighborhoods, and Healthy Yards for Clear Streams shows a tremendous demand for information about gardening. In addition, home gardeners are increasingly concerned about the effects of their gardening activities on environmental quality. Furthermore, given high-quality, understandable information, gardeners tend to be willing to change their practices to be more environmentally responsible based on this information. Curricula developed for the healthy Yards for Clear Streams program will be available for use in an program focused on environmentally responsible landscape and garden management.

V(A). Planned Program (Summary)

Program # 4

1. Name of the Planned Program

Individual Wastewater Systems-Implications for a New Rural Generation

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships	15%			
111	Conservation and Efficient Use of Water	5%			
112	Watershed Protection and Management	15%			
133	Pollution Prevention and Mitigation	20%			
723	Hazards to Human Health and Safety	30%			
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	15%			
Total		100%			

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	2.1	0.0	0.0	0.0
Actual	3.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
135344	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
57205	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Field days will be offered to show how to properly install and maintain on-site sewage systems. A core curriculum is developed for training in on-site sewage system basics and site selection. Workshops will be offered to increase awareness and skills for selection of on-site systems and site location. Professional education credit classes will be offered to keep real estate

professions, home inspectors and installers updated and trained on the latest technologies and alternative systems available. Media (printed, radio, television coverage) are used to increase awareness of programs and classes.

2. Brief description of the target audience

The primary audience for this program is on-site sewage system installers, inspectors, home-loan inspectors, lenders, real estate appraisers and real estate professionals. This course is being offered to agency personnel to assist them in understanding site selection limitations and alternative on-site systems that can be used in environmentally sensitive areas.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	500	1500	0	0
Actual	392	1247	0	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009
 Plan: 0
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- A core curriculum will be produced and used for the PEC courses.

Year	Target	Actual
2009	6	0

Output #2

Output Measure

- University of Missouri Extension will offer classes totaling between 4.5 and 6 hours of professional education credit each year for real estate professionals, home building inspectors, and others.

Year	Target	Actual
2009	6	6

Output #3

Output Measure

- Evaluations will be given at each training session to determine the effectiveness of the course.

Year	Target	Actual
2009	6	6

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Five hundred (500) on-site sewage installers, real estate professionals, home inspectors and agency personnel will increase their awareness and knowledge related to on-site sewage technologies.
2	Five hundred (500) class participants will incorporate information about human health risk and environmental quality when evaluating site selection and on-site system design during inspections and land transfers.
3	In areas of class participation, on-site systems will be installed under latest guidelines that protect environmental quality through reduced wastewater nutrients in surface and groundwater supplies.

Outcome #1**1. Outcome Measures**

Five hundred (500) on-site sewage installers, real estate professionals, home inspectors and agency personnel will increase their awareness and knowledge related to on-site sewage technologies.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	500	392

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Onsite sewage systems in areas surrounding the Lake of the Ozarks have become a water-quality problem affecting human health. The lake is a major tourism area in central Missouri and adds much to the local economy. Local citizens and businesses want to improve their property values by protecting the lake as a natural resource and economic benefit to the area.

What has been done

A four-hour educational class was offered on understanding on-site sewage systems and basic maintenance and care of such systems. The class provided information on components of an on-site sewage system, factors affecting pumping schedules for septic tanks, and the operation and maintenance of on-site sewage systems. Demonstrations on septic maintenance were offered in two locations on proper pumping of septic tanks.

Results

Six classes were held for 130 people attending the workshops. Surveys were given before and after each of the class sessions to determine what participants learned about on-site sewage systems. These surveys showed a 24 percent increase (58% correct on pre-test and 82% correct on post-test) in knowledge gained. Ninety percent of participants stated they had learned something about on-site sewage systems and would set up a schedule to have their septic tank cleaned regularly. Of those participating, 90 percent stated they would change certain behaviors that effect on-site septic tank health.

4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
133	Pollution Prevention and Mitigation

Outcome #2

1. Outcome Measures

Five hundred (500) class participants will incorporate information about human health risk and environmental quality when evaluating site selection and on-site system design during inspections and land transfers.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Proper on-site sewage installation and maintenance is a major concern for protecting water quality in every county. To ensure water quality and protect human health, educational efforts are used to help people understand proper placement and maintenance and gain a working knowledge of on-site sewage systems.

What has been done

Professional development training for installers, and educational classes for private citizens have been held. For 250 professionals, a conference was held in cooperation with the Small flows organization to provide information about installation requirements and new products.

Results

Educational credits were offered for those attending the conference and participating in the educational classes. Evaluations were given to see how participants plan to use the information; 85 percent said they would use the knowledge gained in their businesses and 78 percent said they would change to more environmentally friendly management practices.

4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
133	Pollution Prevention and Mitigation

Outcome #3

1. Outcome Measures

In areas of class participation, on-site systems will be installed under latest guidelines that protect environmental quality through reduced wastewater nutrients in surface and groundwater supplies.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	1200	456

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
133	Pollution Prevention and Mitigation

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Government Regulations
- Competing Public priorities
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

Many people lack the basic knowledge or experience concerning on-site sewage systems to make good decisions about the care and maintenance of an on-site system. Getting people interested in the topic is difficult, and so long as they don't see or smell a problem, they don't understand why something needs to be done. Advertisements that promote products that mislead the general public on what they need to do make it hard to get an audience to attend a workshop on the topic of on-site sewage system maintenance. Missouri's regulations for professional installers help keep the attendance at trainings high, but finding areas of interest that will encourage professional installers to promote water quality practices that might cost more up front is an area of concern.

A second outside factor is lack of funds for improving old systems. This prevents many older residents with on-site sewage systems from attending or learning about what maintenance is required for an on-site sewage system.

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)

Evaluation Results

In workshops for private citizens, an increase test scores from 58 percent before the workshop to 82 percent afterward shows a gain in knowledge about on-site sewage systems. After attending the workshop and pumping demonstration, 90 percent of the participants said they would change their behaviors and do on-site sewage system pumping, maintenance and repairs. This should reduce untreated water from moving into waters of the state and improve overall water quality.

Professionals taking the educational classes and attending the Small Flows conference were given an evaluation and survey to determine what elements of the conference were most useful and whether they thought the workshops had provided information they could use in their work. Over 78 percent of those surveyed stated that they would change their behavior in selecting certain practices that were more environmentally friendly and would protect water quality.

Key Items of Evaluation

In every training session or class, participants evaluated how much they increased their knowledge by attending the workshop, whether they would use the information, and how they would change their behavior based on the knowledge they had gained. In each case, at least 75 percent of participants stated that they will change their behaviors in ways that protect or improve water quality.

V(A). Planned Program (Summary)

Program # 5

1. Name of the Planned Program

Missouri Crop Management Systems

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships	20%			
104	Protect Soil from Harmful Effects of Natural Elements	10%			
205	Plant Management Systems	55%			
405	Drainage and Irrigation Systems and Facilities	10%			
512	Quality Maintenance in Storing and Marketing Non-Food Products	5%			
Total		100%			

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	16.6	0.0	0.0	0.0
Actual	22.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
902294	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
381365	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Campus-based and region-based faculty members will conduct several regional workshops and short courses in partnership with commodity groups and private industry. Venues include commodity district meetings, soil and crop conferences, Ag Science Week, regional short courses, field days, and demonstration projects. University of Missouri variety performance evaluations will be conducted in more than 40 locations.

2. Brief description of the target audience

The primary target audiences are crop producers and their advisers. Programs will be developed for crop producers with a diversity of farm sizes, crops produced and land resource bases. Crop advisers and service providers are important targets because of their extensive contact with crop and livestock producers, which makes them ideal intermediates in passing on University of Missouri Extension programming to a wider range of producers than could be reached by Extension personnel alone. Because the future of Missouri agriculture depends on young professionals replacing retiring farmers and personnel, youth organizations such as FFA, 4-H, Young Farmers, and their teachers will receive specially designed programs.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	8000	10000	0	0
Actual	6961	23002	0	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009
 Plan: 0
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Provide in-service training session (s) for regional Extension specialists on an annual basis.

Year	Target	Actual
2009	2	4

Output #2

Output Measure

- Develop or revise guide sheets annually for regional Extension specialists to use in producer meetings.

Year	Target	Actual
2009	10	8

Output #3

Output Measure

- Develop or revise manuals on an annual basis for regional Extension specialists to use in producer meetings.

Year	Target	Actual
2009	2	3

Output #4

Output Measure

- Print and electronic newsletters devoted to pest and crop management will be developed and distributed to regional specialists and other clientele.

Year	Target	Actual
2009	24	24

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Producers and crop advisors improve their knowledge related to crop management practices and systems such as new cultivars, pest control, IPM, and new practices.
2	Crop producers will improve their knowledge and implementation related to the various soil.
3	Crop producers will learn proper irrigation management.
4	Average yields and production efficiencies will increase. (Source: Missouri Agricultural Statistics Service and USDA/ERS)

Outcome #1**1. Outcome Measures**

Producers and crop advisors improve their knowledge related to crop management practices and systems such as new cultivars, pest control, IPM, and new practices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

With a wide range of crops (Missouri ranks in the top twelve states for seven different crops), soils, farm sizes, and production practices available, cropping systems in Missouri are diverse and complex. Crop producers and crop service providers are often highly motivated to change their behaviors and improve their management systems in order to remain economically competitive. They are also increasingly motivated by a desire to minimize their impact on the environment. Current crop production systems are sophisticated and have been honed through global competition, so only up-to-date information based on appropriate (usually local) research is useful for guiding behavior changes.

What has been done

A three-day professional development Crop Management Conference for certified crop advisers was conducted. Presentation topics included life sciences, nitrogen management, energy savings, soybean rust, herbicide injuries, biofuels, sunflowers, soybean management, and weather information sources. Day-long regional conferences were held throughout the state. The team of state and regional extension specialists collaborated in each of the regions to provide interactive presentations on the theme of "Crop Management Strategies in an Era of Uncertainty."

Results

The 175 crop advisers who attended the 2009 Crop Management Conference influence decisions on more than 9.5 million acres and will have an impact on production efficiency, economic development and environmental quality.

The 350 producers who attended regional crop management conferences grow more than 960,000 acres of corn and soybeans. In many locations, the number of attendees grew significantly since the inaugural year, and the addition of two new locations this year seemed to go well. Attendees rated the overall program content an 8.8 on a scale of 1 to 10, and 93 percent of those in attendance indicated they would attend a similar program next year. The participants rated the conference proceedings and other handouts distributed at the conferences a 9.3. Additionally, all participants indicated that they would probably attend a similar conference if held the following year. Many positive comments were returned on the written evaluation forms pertaining to the use of audience response systems and the interactive nature of each presentation.

4. Associated Knowledge Areas

KA Code Knowledge Area

102	Soil, Plant, Water, Nutrient Relationships
104	Protect Soil from Harmful Effects of Natural Elements
205	Plant Management Systems

Outcome #2

1. Outcome Measures

Crop producers will improve their knowledge and implementation related to the various soil.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

There is an increasing need for sound, research-based soil testing recommendations and programs. There is a need for a program that will increase the use of soil testing to improve nutrient use and efficiency and lead to implementation of economically viable and environmentally sound production practices that will reduce production costs and improve water quality.

What has been done

The Soil Testing program promotes economically viable and environmentally sound nutrient management and provides nutrient diagnostics recommendations to producers, homeowners, horticulturists, golf course managers, and agra-industry. The soil and plant testing database guides fertilizer research directives for the field and laboratory and serves as an educational resource for statewide extension programs. The program also provides leadership for the following activities:

1. Developing new analytical methods.
2. Maintaining the quality of the soil test data.
3. Providing resources and technical assistance.

Results

The MU soil testing laboratories are located in Columbia and at Delta Research and Extension Center. In 2009, the Columbia lab analyzed a total of 17,956 soil samples, 2,149 special tests, 1,295 plant samples, 93 water samples, 39 greenhouse media samples, 70 compost samples and 122 manure samples. The Delta Center laboratory analyzed 9,742 samples. The combined number of samples analyzed was 31,466.

In addition, the Soil Testing team continues to revise and enhance the soil testing and plant diagnostic laboratories Web site (<http://soilplantlab.missouri.edu/>) to provide the most current information and recommendations on nutrient management. Educational programs and promotional activities provide citizens of Missouri with nutrient management information and guidelines for using soil test-based recommendations for agricultural production, lawns and gardens, urban landscapes, and commercial horticulture production. These activities will continue to have a positive impact on the environmentally sound use of nutrients.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
104	Protect Soil from Harmful Effects of Natural Elements
205	Plant Management Systems
405	Drainage and Irrigation Systems and Facilities
512	Quality Maintenance in Storing and Marketing Non-Food Products

Outcome #3

1. Outcome Measures

Crop producers will learn proper irrigation management.

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

Average yields and production efficiencies will increase. (Source: Missouri Agricultural Statistics Service and USDA/ERS)

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Crop yields respond dramatically to nitrogen fertilizer. The amount of fertilizer nitrogen needed varies widely, but farmers do not have ready access to technology that reliably predicts where to put more fertilizer and where to put less. They tend to use generous fertilizer rates everywhere to protect their yields.

What has been done

The Nitrogen Management Program focuses on diagnostic technologies that can produce full yield while reducing nitrogen movement to water resources. This will protect rural economies while reducing agriculture's impact on coastal waters and groundwater.

Results

Corn producers and agricultural professionals in 2009 received information about the widespread effect of nitrogen loss. It is estimated that nitrogen losses cost more than \$450 million in Missouri and \$2 billion in the Midwest as a whole. Extension programming focused on methods to manage nitrogen to prevent these losses. The MU Integrated Pest Management Program helped fund the production and distribution of Best Management Practices for Nitrogen Fertilizer in Missouri (<http://plantsci.missouri.edu/nutrientmanagement/nitrogen/Missouri%>

20Nitrogen%20BMPs.pdf). This publication helps readers determine best management practices to reduce the environmental impact of fertilizer use.

Specific activities conducted this year:

- 1) Conducted 42 on-farm demonstrations of variable-rate nitrogen fertilizer management.
- 2) Acquired 1,500 aerial photographs of corn fields with nitrogen deficiency.
- 3) Publicized results on the Nutrient Management Web site (<http://plantsci.missouri.edu/nutrientmanagement/>)
- 4) Held the Nitrogen Management In-Service Professional Development Conference for regional agronomy faculty
- 5) Published three peer-reviewed papers.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
104	Protect Soil from Harmful Effects of Natural Elements
205	Plant Management Systems
405	Drainage and Irrigation Systems and Facilities
512	Quality Maintenance in Storing and Marketing Non-Food Products

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Programmatic Challenges

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- During (during program)
- Time series (multiple points before and after program)
- Case Study

Evaluation Results

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 6

1. Name of the Planned Program

Missouri Master Wildlifer

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
131	Alternative Uses of Land	5%			
135	Aquatic and Terrestrial Wildlife	90%			
605	Natural Resource and Environmental Economics	5%			
Total		100%			

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	1.0	0.0	0.0	0.0
Actual	0.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
0	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Develop curriculum-based Missouri Master Wildlifer Program Reference Manual, presentations and support materials, including assessment and evaluation tools, marketing strategies and promotional materials. Provide in-service training (ISE) for regional natural resource program coordinators. Collaborate with various "conservation partners" in the delivery of the short course. These partners might include natural resource professionals with the MDC, NRCS, Soil and Water Conservation Districts and volunteers selected from various nonprofit conservation organizations (such as Conservation Federation of Missouri, Quail Unlimited, Wild Turkey Federation, Ducks Unlimited, Isaac Walton League).

2. Brief description of the target audience

The short course is designed for citizens and private landowners interested in integrating wildlife considerations into their current land use and management activities.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	375	750	0	0
Actual	185	455	0	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009

Plan: 0

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Provide training session for Extension specialists at the annual statewide Extension meeting. This will include Missouri Woodland Steward and Missouri Master Naturalist.

Year	Target	Actual
2009	1	0

Output #2

Output Measure

- Provide annual in-service training (ISE) session for regional natural resource program coordinators. This will include Missouri Woodland Steward.

Year	Target	Actual
2009	1	0

Output #3

Output Measure

- Coordinate delivery of a growing number of short courses to private landowners at selected locations across Missouri.

Year	Target	Actual
2009	15	6

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	50 percent of participants will increase their knowledge of wildlife ecological principles.
2	50 percent of participants will increase their knowledge of habitat assessment techniques.
3	50 percent of participants will increase their knowledge of benefits of improved wildlife habitat.
4	50 percent of participants will increase their knowledge of wildlife habitat improvement practices.
5	50% of participants will increase their knowledge of various technical assistance, professional services and resources available to achieve their wildlife management objectives through the MDC, NRCS, and private wildlife and land management consultants.
6	30 percent of participants will engage in at least one wildlife habitat improvement practice after six months.
7	30 percent of participants will improve their capability to manage the wildlife resource on their property and, as a result, their potential for achieving ecological, economic and social benefits.
8	50 percent of participants will increase the economic value of their property by integrating management practices that enhance wildlife habitat with ongoing agricultural, forestry, recreational or related natural resource enterprises.
9	50% of MU Extension and 'conservation partner' teams collaborate in the development of additional Missouri Master Wildlifer or wildlife-related programming to meet the educational needs of private landowners and other audiences within the community.
10	50 percent of participants completing wildlife habitat improvement practices will see a corresponding increase in the population of target species.

Outcome #1**1. Outcome Measures**

50 percent of participants will increase their knowledge of wildlife ecological principles.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Citizens own approximately 93 percent of the land in Missouri and are responsible for stewardship of the state's fish and wildlife resources. Natural resources are essential for maintaining biological diversity. They contribute to local economies, are fundamental elements of urban and rural communities, and are integral to the quality of life for all citizens. However, surveys indicate that less than 10 percent of Missouri landowners actively manage their property for wildlife objectives.

What has been done

The Missouri Master Wildlifer Program, conducted as a short course, provides clientele with increased knowledge of the biology and management of Missouri's wildlife resources and the ecological systems upon which they depend. The short course is designed for citizens and private landowners to promote the integration and management of wildlife considerations into their current land use and ownership objectives.

Results

Fifty percent of participants will increase their knowledge of wildlife ecological principles and selected topics that include bobwhite quail, grassland birds and prairie ecosystems; forests, woodlands, songbirds and wild turkey; white-tailed deer ecology; wetlands and waterfowl management; mammals; aquatic ecosystems, streams and ponds; enhancing wildlife diversity; developing a management plan; and wildlife recreation. Programs have been developed for delivery by MU Extension and natural resource professionals across the state. During the reporting period, 136 learners enrolled in Master Wildlifer programs and events. To evaluate this program, 60 of the learners voluntarily participated in a self-assessment of knowledge. Using a Likert scale of 1-5, 100 percent of respondents indicated that their overall knowledge of ecological concepts increased as a result of the Master Wildlifer Program.

4. Associated Knowledge Areas

KA Code	Knowledge Area
131	Alternative Uses of Land
135	Aquatic and Terrestrial Wildlife
605	Natural Resource and Environmental Economics

Outcome #2**1. Outcome Measures**

50 percent of participants will increase their knowledge of habitat assessment techniques.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Wildlife populations and habitats are influenced by land-use changes and decisions made by landowners. Understanding basic ecological concepts and the biology of wildlife species is essential to the successful implementation of techniques that enhance habitats and wildlife populations. Survey information suggests that clientele having a greater understanding of ecological concepts and skills to implement management practices will be more likely to successfully achieve their objectives.

What has been done

The Master Wildlifer Program has been developed and conducted to provide research-based information to landowners on wildlife biology, basic ecological concepts, habitat management and important ecological systems in the state.

Results

Fifty percent of the participants will increase their knowledge of wildlife ecological principles and will increase their knowledge of benefits of improved wildlife habitat. These participants will be able to apply that knowledge on their property to benefit the wildlife resource and their management objective. Using a Likert scale of 1-5 and based on participants' self-assessment of "knowledge gained" as a result of the program, over 90 percent of the learners surveyed (58) improved their understanding of ecological concepts and principles and indicated that they were able to apply that knowledge on their property to benefit the wildlife resource and their management objectives. As a result, an improved understanding of ecological principles had a direct impact on improving wildlife habitat on over 20,000 acres.

4. Associated Knowledge Areas

KA Code	Knowledge Area
131	Alternative Uses of Land
135	Aquatic and Terrestrial Wildlife
605	Natural Resource and Environmental Economics

Outcome #3**1. Outcome Measures**

50 percent of participants will increase their knowledge of benefits of improved wildlife habitat.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Over 90 percent of the Master Wildlifer participants did not possess the knowledge and skills necessary to develop a wildlife management plan. An increased number of landowners are in need of information to assist their efforts to improve habitats for wildlife and ecological communities of interest. The development of a wildlife management plan is essential for success.

What has been done

The Master Wildlifer Program has been conducted to provide research-based information to landowners interested in implementing wildlife habitat management techniques on their property based on the development of a wildlife management plan.

Results

Fifty percent of the participants will increase their knowledge of wildlife habitat assessment techniques and develop a wildlife management plan. Based on participants' self-assessment of "knowledge gained," over 90 percent of the participants (56) improved their understanding of wildlife habitat assessment and management techniques and indicated an improved set of skills for developing a successful wildlife management plan. On a Likert Scale 1:5 -

Current level of knowledge: 1.7

Knowledge gained: 4.2

4. Associated Knowledge Areas

KA Code	Knowledge Area
131	Alternative Uses of Land
135	Aquatic and Terrestrial Wildlife

Outcome #4**1. Outcome Measures**

50 percent of participants will increase their knowledge of wildlife habitat improvement practices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Over 75 percent of the landowners enrolled in the Master Wildlifer Program were interested in improving habitat assessment skills and making changes on their property to benefit white-tail deer and wild turkey. Landowners with improved knowledge and understanding of wildlife management will be more likely to adopt practices that improve habitats on their property, thus resulting in actions that benefit the wildlife population and the ecological community of interest.

What has been done

The Master Wildlifer Program provided landowners with the knowledge and information needed to implement practices on their property that specifically addressed habitat assessment techniques and habitat improvement practices that can benefit white-tail deer and wild turkey populations as well as lead to improved forest and woodland habitat for a variety of wildlife.

Results

Fifty percent of the participants will increase their knowledge of habitat assessment techniques, white-tail deer and wild turkey biology, and forest ecology and management. Before taking the course, more than 75 percent of the course participants assessed their "current level of knowledge" of white-tailed deer and wild turkey biology and management to be less than 2.1 (based on a Likert scale of 1-5). From participants' self-assessment of "knowledge gained," over 95 percent (58) increased their scores to 4.5 or above.

Current level of knowledge: 2.1

Knowledge gained: 4.5

4. Associated Knowledge Areas

KA Code	Knowledge Area
131	Alternative Uses of Land
135	Aquatic and Terrestrial Wildlife

Outcome #5

1. Outcome Measures

50% of participants will increase their knowledge of various technical assistance, professional services and resources available to achieve their wildlife management objectives through the MDC, NRCS, and private wildlife and land management consultants.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Over 90 percent of the participants planned to adopt management practices that enhance bobwhite quail and grassland bird populations on their property but lacked the knowledge and skills necessary to implement management practices to accomplish their goals.

What has been done

The Master Wildlifer Program was conducted to provide information on managing for bobwhite quail and grassland birds and for improving prairie and early successional vegetation on private lands.

Results

Fifty percent of the participants will increase their knowledge of wildlife habitat improvement practices that benefit bobwhite quail and have an improved understanding of grassland bird and prairie ecosystems. Of the participants surveyed, more than 90 percent (57) indicated an interest in adopting habitat management techniques that enhanced early plant succession on their property for wildlife benefits. Over 80 percent (48) of the course participants' "self-assessment of knowledge" on these ecological concepts before the course was found to be less than 2.5. From participants' self-assessment of "knowledge gained," 100 percent of the participants' scores were increased to 3.8 or above (based on a Likert scale of 1-5).

Current level of knowledge: 2.0

Knowledge gained: 4.2

4. Associated Knowledge Areas

KA Code	Knowledge Area
131	Alternative Uses of Land
135	Aquatic and Terrestrial Wildlife

Outcome #6

1. Outcome Measures

30 percent of participants will engage in at least one wildlife habitat improvement practice after six months.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Landowners need to know more about the technical services, incentives and assistance programs available to improve their likelihood of adopting and implementing wildlife management practices on their property.

What has been done

The Master Wildlifer Program provided information about technical assistance programs and technical services that offer management assistance to landowners on implementing wildlife management practices.

Results

Fifty percent of the participants will increase their knowledge of various technical assistance programs and the professional and technical services and resources available to through the Missouri Department of Conservation, the USDA Natural Resources Conservation Service, MU Extension, and private land management consultants. Based on participants' self-assessment of "knowledge gained," over 90 percent of those surveyed indicated that they had an improved understanding of the services provided and indicated that they were likely to seek professional advice when conducting wildlife management habitat improvement on their property. On a Likert scale of 1-5:

Current level of knowledge: 2.2

Knowledge gained: 4.6

4. Associated Knowledge Areas

KA Code	Knowledge Area
131	Alternative Uses of Land
135	Aquatic and Terrestrial Wildlife

Outcome #7

1. Outcome Measures

30 percent of participants will improve their capability to manage the wildlife resource on their property and, as a result, their potential for achieving ecological, economic and social benefits.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Approximately 95 percent of the Master Wildlifer Program participants indicated that they owned land for agriculture, forestry, and recreational or investment objectives and that they needed additional information about how to integrate wildlife habitat objectives into their ongoing land management activity.

What has been done

The Master Wildlifer Program provided the information that landowners could use to improve wildlife habitat on their property and complement existing land management objectives.

Results

As a result of the Master Wildlifer Program, over 75 percent (47) of the participants indicated that they planned to integrate wildlife management practices with ongoing land management activities that would increase the economic value of their property and improve the wildlife population of interest.

4. Associated Knowledge Areas

KA Code	Knowledge Area
131	Alternative Uses of Land
135	Aquatic and Terrestrial Wildlife
605	Natural Resource and Environmental Economics

Outcome #8

1. Outcome Measures

50 percent of participants will increase the economic value of their property by integrating management practices that enhance wildlife habitat with ongoing agricultural, forestry, recreational or related natural resource enterprises.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Survey results indicated that over 75 percent of the Master Wildlifer participants lacked the knowledge and skills necessary to adopt and implement a management practice for wildlife on their property.

What has been done

The Master Wildlifer Program featured sessions that highlighted habitat management techniques that could be successfully implemented during various times of the year to achieve wildlife population goals. A six-month post-course assessment was delivered to a subset of the course participants to determine whether the knowledge they gained resulted in their ability to implement a management practice for wildlife.

Results

Thirty percent of the participants surveyed will engage in at least one wildlife habitat improvement practice after six months. Over half of survey respondents (35) indicated that at least one management practice had been implemented on their property as a result of the Master Wildlifer Program.

4. Associated Knowledge Areas

KA Code	Knowledge Area
131	Alternative Uses of Land
135	Aquatic and Terrestrial Wildlife

Outcome #9

1. Outcome Measures

50% of MU Extension and 'conservation partner' teams collaborate in the development of additional Missouri Master Wildlifer or wildlife-related programming to meet the educational needs of private landowners and other audiences within the community.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
------	---------------------	--------

2009 0 0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Survey information indicates that less than 10 percent of Missouri landowners actively manage their land for natural resource and wildlife objectives.

What has been done

The Master Wildlifer Program provides an educational process that promotes the use of science-based information to help motivate landowners to include wildlife considerations into their ongoing management objectives.

Results

Over 90 percent of the participants in the Master Wildlifer Program indicated a desire to implement wildlife management practices on their property as a result of the knowledge gained from the program. Participants in Master Wildlifer Programs had a greater likelihood of being actively engaged in the management of the wildlife resource on their property.

4. Associated Knowledge Areas

KA Code	Knowledge Area
131	Alternative Uses of Land
135	Aquatic and Terrestrial Wildlife

Outcome #10

1. Outcome Measures

50 percent of participants completing wildlife habitat improvement practices will see a corresponding increase in the population of target species.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	56	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

A greater percentage of landowners that have the knowledge and skills necessary to adopt wildlife management practices on their property will result in habitat improvements that benefit wildlife populations and improved recreational opportunities on an increasing number of acres in the state.

What has been done

Based on clientele demand, a session on "wildlife habitat management and recreation on private lands" was included in the Master Wildlifer Program and conducted during additional organized events.

Results

As a result of this educational effort, about 250 landowners (affecting more than 30,000 acres) participated in Master Wildlifer Programs and educational workshops that featured this educational theme. Over 90 percent of the participants indicated an interest in improving habitats for game species (including white-tailed deer, wild turkey, bobwhite quail, waterfowl) and developing lease-hunting opportunities on their property, resulting in approximately \$250,000 in economic benefit.

4. Associated Knowledge Areas

KA Code	Knowledge Area
131	Alternative Uses of Land
135	Aquatic and Terrestrial Wildlife
605	Natural Resource and Environmental Economics

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes

Brief Explanation

From 2005 to 2007, the Missouri Master Wildlifer Program was conducted using distance-educational technology (ITV and videoconferencing). During 2008 and 2009, local MU Extension Centers conducted programs using a combination of distance education and live presentations. Each session was tailored to fit local program objectives, interests of the private landowners and wildlife resource needs. However, this process demanded more time and effort in organizing educational events, thus reducing the number of locations offering the program. With reduced budgets, the Missouri Department of Conservation has reorganized private lands staffing and responsibilities, which had an impact on the availability of natural resource professionals able to assist in the development and organization of local programs. Future educational efforts will include Web-based delivery to expand the potential audience of participants.

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)

Evaluation Results

Since 2006, over 500 landowners and resource professionals have participated in Master Wildlifer programs. Knowledge and skills gained by learners have resulted in an increased number of wildlife management practices being implemented on more than 75,000 acres. During this reporting period, 136 learners participated in Master Wildlifer educational events and programs. To evaluate this program, 60 participants voluntarily provided responses to a 34-question course assessment. Questions were grouped into eight "Ecological Concept Areas" (corresponding to the subject matter taught during each session) to facilitate the analysis of responses by paired-sample statistics. Using a Likert scale (1-5), mean responses of the learners' perceived "current level of knowledge" before taking the course (1.9) and their perceived "level of knowledge gained" (4.1) indicated a significant increase in knowledge. A six-month follow-up evaluation was conducted with a sample of the course participants to assess whether management practices were adopted. All of the participants improved their knowledge of ecological concepts and principles and indicated that they had the skills needed to apply that knowledge on their property. As a result, over 20,000

acres will be directly affected by management practices conducted for improved wildlife habitat, with benefits for bobwhite quail, wild turkey, white-tailed deer, grassland birds, waterfowl, and many other species in the state. Missouri Master Wildlifer provides an effective model for delivering science-based information featuring ecological and wildlife management concepts to adult learners.

Key Items of Evaluation

Various factors that have been assessed are the biology and management of bobwhite quail, grassland birds and prairie ecosystems; biology and management of white-tailed deer and forest ecology; biology and management of wild turkey; biology and management of Missouri's furbearers and solving wildlife damage management problems; managing Missouri's aquatic ecosystems, including wetlands, streams and ponds; prevention and control of invasive species; wildlife habitat management techniques; improving wildlife diversity on private lands; managing for wildlife and recreation opportunities.

V(A). Planned Program (Summary)

Program # 7

1. Name of the Planned Program

Missouri Woodland Steward

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
123	Management and Sustainability of Forest Resources	45%			
131	Alternative Uses of Land	5%			
135	Aquatic and Terrestrial Wildlife	45%			
605	Natural Resource and Environmental Economics	5%			
Total		100%			

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	2.0	0.0	0.0	0.0
Actual	3.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
135344	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
57205	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Develop a curriculum-based DVD product containing indoor session presentations and support materials, including assessment and evaluation tools, marketing strategies and promotional materials. Provide in-service training (ISE) for regional natural resource program coordinators. Partner with Missouri Department of Conservation resource foresters and private land conservationists in the delivery of the short course.

2. Brief description of the target audience

The target audience is resident and absentee landowners who own 10 acres or more and are interested in improving the natural resource base of their property.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	500	1000	0	0
Actual	306	777	0	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009
 Plan: 0
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Provide training session for Extension specialists at the annual statewide Extension meeting. This will include Missouri Master Wildlifer and Missouri Master Naturalist.

Year	Target	Actual
2009	1	0

Output #2

Output Measure

- Provide in-service training (ISE) session for regional natural resource program coordinators. This will include Missouri Master Wildlifer and Missouri Master Naturalist.

Year	Target	Actual
2009	0	1

Output #3

Output Measure

- Coordinate delivery of short courses to private landowners at selected locations across Missouri.

Year	Target	Actual
2009	15	11

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	50 percent of participants will increase their knowledge of forest ecology.
2	50 percent of participants will increase their knowledge of forest management.
3	50 percent of participants will increase their knowledge of wildlife ecological principles.
4	50 percent of participants will increase their knowledge of wildlife habitat improvement practices.
5	30 percent of participants will have a management plan in place after six months.
6	30 percent of participants will have engaged in at least one forest and/or wildlife improvement practice after six months.

Outcome #1

1. Outcome Measures

50 percent of participants will increase their knowledge of forest ecology.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Natural resource managers want their clients (i.e., landowners) to take ownership in the management of their woodlands. For that to happen, landowners need to have a basic understanding of plant growth as it relates to both the individual tree and the larger forest stand.

What has been done

The Missouri Woodland Steward Short Course was developed in 2006. In FY09, six live short courses were conducted with 83 landowners participating; 160 landowners borrowed DVD sets from NRCS field offices; and 10 landowners enrolled online.

Results

Impact was assessed by observing a 2.2-point increase in pre- and post-Likert self-evaluations (1-5 scale).

4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources

Outcome #2

1. Outcome Measures

50 percent of participants will increase their knowledge of forest management.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Natural resource managers want their clients (i.e., landowners) to take ownership in the management of their woodlands. Not only do landowners need to understand basic forest ecology principles, but they must also have a basic knowledge of simple forest management principles and practices to communicate effectively with resource professionals.

What has been done

The Missouri Woodland Steward Short Course was developed in 2006. In FY09, six live short courses were conducted with 83 landowners participating; 160 landowners borrowed DVD sets from NRCS field offices; and 10 landowners enrolled online.

Results

Impact was assessed by observing a 2.1-point increase in pre- and post-Likert self-evaluations (1-5 scale).

4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources

Outcome #3

1. Outcome Measures

50 percent of participants will increase their knowledge of wildlife ecological principles.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Natural resource managers want their clients (i.e., landowners) to take ownership in the management of their woodlands and for that to happen the client needs to have a basic understanding of wildlife ecological principles.

What has been done

The Missouri Woodland Steward Short Course was developed in 2006. In FY09, six live short courses were conducted with 83 landowners participating; 160 landowners borrowed DVD sets from NRCS field offices; and 10 landowners enrolled online.

Results

Impact was assessed by observing a 2.0-point increase in pre- and post-Likert self-evaluations (1-5 scale).

4. Associated Knowledge Areas

KA Code	Knowledge Area
135	Aquatic and Terrestrial Wildlife

Outcome #4

1. Outcome Measures

50 percent of participants will increase their knowledge of wildlife habitat improvement practices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Natural resource managers want their clients (i.e., landowners) to take ownership in the management of their woodlands. Not only do landowners need to understand basic wildlife ecological principles, but they must also have a basic knowledge of simple wildlife management principles and practices to communicate effectively with resource professionals.

What has been done

The Missouri Woodland Steward Short Course was developed in 2006. In FY09, six live short courses were conducted with 83 landowners participating; 160 landowners borrowed DVD sets from NRCS field offices; and 10 landowners enrolled online.

Results

Impact was assessed by observing a 1.9-point increase in pre- and post-Likert self-evaluations (1-5 scale).

4. Associated Knowledge Areas

KA Code	Knowledge Area
---------	----------------

135 Aquatic and Terrestrial Wildlife

Outcome #5**1. Outcome Measures**

30 percent of participants will have a management plan in place after six months.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Natural resource managers want their clients (i.e., landowners) to be motivated and comfortable with contacting them.

What has been done

The Missouri Woodland Steward Short Course was developed in 2006. In FY09, six live short courses were conducted with 83 landowners participating; 160 landowners borrowed DVD sets from NRCS field offices; and 10 landowners enrolled online.

Results

Impact was assessed by observing the results of the six-month, follow-up survey. Of the 253 participants, 200 indicated that they had contacted a local forester.

4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources
131	Alternative Uses of Land
135	Aquatic and Terrestrial Wildlife
605	Natural Resource and Environmental Economics

Outcome #6**1. Outcome Measures**

30 percent of participants will have engaged in at least one forest and/or wildlife improvement practice after six months.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Natural resource managers want their clients (i.e., landowners) to implement the management plan that is developed and not let it rest on a shelf or in a filing cabinet.

What has been done

The Missouri Woodland Steward Short Course was developed in 2006. In FY09, six live short courses were conducted with 83 landowners participating; 160 landowners borrowed DVD sets from NRCS field offices; and 10 landowners enrolled online.

Results

Of the 200 participants who contacted their local forester or private land conservationist in FY09, only 105 were actually able to receive assistance. The most frequent reason given for not servicing a landowner request was that the professional did not have the time. However, 80 of the previous participants who did not receive assistance last year did receive professional help in FY09. The current landowner backlog stands at 130 unanswered requests.

4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources
605	Natural Resource and Environmental Economics

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes

Brief Explanation

The economic downturn significantly reduced forest landowner participation in the Missouri Woodland Steward program. Ad hoc surveys suggested that most landowners were not willing to pay the registration fee of \$35 to \$50. Even when landowners were offered scholarships to defray part of the fee or the full amount, attendance was down because of their reluctance to commute. When these nonparticipants were told of the online option, which would allow them to stay at home and participate at their own pace, many were still not interested because of slow (dial-up) Internet service in their area. Another aspect of the economic downturn has been that reduced stumpage prices for standing timber has all but eliminated landowner interest in forest management if they were not going to see a return on their investment.

The standing backlog of more than 130 requests for professional assistance is due to the lack of

enough resource professionals to meet the demand. As documented in previous years' reports, too many times the core problem has not been the unwillingness of the forester or land conservationist to meet with a landowner; it has simply come down to not enough hours in the day and days in the week.

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- Time series (multiple points before and after program)

Evaluation Results

Since January 1, 2006, the Missouri Woodland Steward Program has reached 800 landowners; 275 in FY07, 273 in FY08, and 252 in FY09. Of those landowners, 658 have developed forest management plans; an 82 percent success rate. Further, every one of those landowners who developed a management plan has implemented at least one new forest management practice on their property, a 100 percent success rate. The total land area affected since the program's inception is 87,130 acres.

A simple cash flow analysis of net present value (NPV) based on average Ozark forest inventory data can be summarized as follows:

Liquidate forest now: NPV = \$720/ac

Do not manage the forest and harvest in 40 years: NPV = \$94/ac

Manage the forest: NPV = \$912/ac

Estimated economic value (gain) of forest management on those 87,130 acres is \$71.3 million (\$818/ac) NPV compared with no management and even \$22.5 million (\$259/ac) over liquidating the forest asset today.

Key Items of Evaluation

It is important to realize that due to the long-term nature of developing and implementing a forest management plan, we are just now beginning to effectively track impacts of the Missouri Woodland Steward program. Our key benchmarks in tracking program success will continue to be (1) the number of landowners who receive training through one of the available formats of the Missouri Woodland Steward program, (2) the number of landowners who develop a management plan, and (3) the number of acres on which a forest management practice has been implemented.

We anticipate that as wood begins to play a larger role in meeting the nation's alternative energy needs, and family forest landowners are able to participate in green certification and carbon offset programs, interest and participation in Missouri Woodland Steward will increase. Additional topics are being developed to meet these emerging needs of today's family forest landowners (e.g., wood energy, green certification, and carbon offset markets) and provide an avenue for related research results to be directly transferred to these key stakeholders. These efforts provide a direct link to two of NIFA's federal initiatives: Sustainable Energy and Climate Change.

Another key factor in increasing both the number of family forest landowners actively managing their woodlands and the number of acres affected is increased financial support of federal and state incentive programs. The federal EQIP (Environmental Quality Incentives Program) program in Missouri has dramatically increased funding to forestry-related activities. This will be hugely important in providing forest landowners with an incentive to begin actively managing their woodlands.

However, increased landowner interest and increased support of incentive programs like EQIP will place a tremendous strain on existing delivery platforms. Currently there are more than 130 family forest landowners across Missouri awaiting assistance from a professional forester. While the number of state service foresters is not anticipated to increase in the near future and private consulting foresters have been slow to start businesses in Missouri, the modular nature of the Missouri Woodland Steward program will make it possible to cross-train related natural resource professionals, such as USDA NRCS District Conservationists who serve private farmers and ranchers who own forestland.

Equally important is the collaboration with other natural resource extension programs across the country to avoid unnecessary duplication of effort and to build upon new information platforms, such as the

Wood Energy and Climate Change Communities of Practice through eXtension. This effort will not only allow for increased visibility of the Missouri Woodland Steward program in other regions of the United States, but also allow us to integrate successful tools developed in other regions into our state program.

V(A). Planned Program (Summary)

Program # 8

1. Name of the Planned Program

Pasture Based Dairy Systems

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
205	Plant Management Systems	20%			
301	Reproductive Performance of Animals	10%			
302	Nutrient Utilization in Animals	10%			
303	Genetic Improvement of Animals	10%			
307	Animal Management Systems	20%			
315	Animal Welfare/Well-Being and Protection	10%			
601	Economics of Agricultural Production and Farm Management	10%			
801	Individual and Family Resource Management	10%			
Total		100%			

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	4.6	0.0	0.0	0.0
Actual	5.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
270688	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
114409	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Extension specialists will teach "expert producers" who in turn will teach other producers. Methods will include monthly meetings, newsletters, pasture walks, helping producers learn how to use the web(A webpage has already been established from the ODF

project.), provide an annual Ag. Lenders workshop, establish forage demonstration plots, and hold annual dairy grazing symposium at the University of Missouri Agricultural Experiment Station in Mt. Vernon, Missouri, which has an established grass-based dairy research and demonstration program.

2. Brief description of the target audience

Young families seeking a livelihood in agriculture and to live in the rural areas of Missouri. Existing dairy producers who seek a less stressful farm management lifestyle. Foreign investors who seek to establish profitable investments as grass-based dairies in Missouri.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	300	400	600	750
Actual	1672	297	308	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009

Plan: 0

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Provide in-service training session(s) for regional Extension specialists on an annual basis.

Year	Target	Actual
2009	1	3

Output #2

Output Measure

- Develop or revise guide sheets a year for regional Extension specialists to use in producer meetings.

Year	Target	Actual
2009	3	2

Output #3

Output Measure

- Revise the pasture-based dairy manual on a semiannual basis for regional Extension specialists to use in producer meetings.

Year	Target	Actual
2009	0	0

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of clientele gaining knowledge of forages and grazing systems management.
2	Increase the number of MO dairy farms that adopt the Missouri Pasture-based model resulting in increased profitability.
3	Quality of life as expressed by family farm operators.

Outcome #1

1. Outcome Measures

Number of clientele gaining knowledge of forages and grazing systems management.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Consumption of high-quality forage is critical for profitability of pasture-based systems. Forages must be grazed at both optimum nutrient quality and the correct stage of physiological growth. Monitoring and measurement of this resource is a critical factor in maximizing the usefulness of this resource.

What has been done

University of Missouri Extension has developed a Web-based grazing wedge calculator. Users input their weekly paddock dry matter measurement, and the calculator returns average dry matter growth as well as average cover for the farm.

Results

The grazing wedge allows producers to make management decisions regarding length of rotation, level of concentrate feeding to match forage availability and whether fertilizer needs to be applied to particular paddocks. One hundred forty-five accounts have been established on this Web site, with 42 unique farms inputting pasture data. All of these farms are specifically dairy operations.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems

Outcome #2

1. Outcome Measures

Increase the number of MO dairy farms that adopt the Missouri Pasture-based model resulting in increased profitability.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Nationwide, 2009 was a difficult economic year for all dairy producers. Success in those economic conditions requires dairy producers to either produce milk at low cost or maximize production with minimum overhead costs. Economic data collected from pasture-based dairies demonstrate that this type of system produces milk at significantly less cost than conventional systems and can maintain profitability and sustainability. Success in this system requires an understanding of not only the science but also the art of effectively managing a pasture-based system.

What has been done

University of Missouri Extension provides ongoing educational programs to enhance the knowledge and understanding of pasture-based systems. These programs include both classroom and on-farm workshops involving university, agribusiness and producers in both learner-to-learner and co-learner models. Experienced producers trained through the program also serve as mentors to assist newly established pasture-based dairy systems and those in transition to this system.

Results

The development of expert producers in the University of Missouri Pasture-Based Dairy Program has significantly enhanced the educational effectiveness of the program and assisted producers who are transitioning to this system of dairying. By the end of 2009, expansion and growth by new grazing dairies created \$100 million in new investment, generated \$40 million in annual milk sales, added \$124 million in total output, and added 1,100 additional jobs in the state of Missouri.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
307	Animal Management Systems
601	Economics of Agricultural Production and Farm Management

Outcome #3

1. Outcome Measures

Quality of life as expressed by family farm operators.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Data collected following the economic collapse in the 1980s indicated that mental health problems associated with farm failures can lead to increased physical illness, family and animal abuse, divorce and suicide. The social and physiological problems extend to others associated with agribusinesses in the community. Conventional dairying that requires producers to expend 10-14 hours per day for the entire year creates stressful situations for their families.

What has been done

Aspects of an alternative, pasture-based, system of dairying have been demonstrated to producers and other university specialists. Particular attention was given to the significant reduction of time and daily activity required when this system of dairying is adopted.

Results

About 60 percent of participants in the program indicated an increase in leisure time and quality of life. Most producers have altered their calving season to an eight- to ten-week interval in both spring and fall to concentrate on caring for offspring at specific areas instead of year-round calving. This reduces daily labor requirements for a majority of the year and increases family time.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Competing Public priorities
- Populations changes (immigration, new cultural groupings, etc.)
- Other (Attitude)

Brief Explanation

Environmental conditions affect all systems of dairying, but pasture-based systems are particularly affected because pasture growth rate is critical to lowering costs associated with concentrate feeding. During the past reporting year, however, economic conditions had a much greater effect than environmental conditions. In the reporting year, Missouri dairy producers experienced the worst dairy profit collapse since the 1930s. The average price received by the state's producers was reduced by more than \$6 per hundredweight. Many of the large conventional herds were particularly vulnerable to the low milk price and

high feed costs, and several collapsed under their debt. Pasture-based systems were able to survive but incurred losses as well, though significantly smaller losses than conventional dairies. Two keys for producers in 2010 will be to control risks and to avoid incurring excessive debt.

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- During (during program)
- Comparisons between program participants (individuals, group, organizations) and non-participants
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.

Evaluation Results

Economic conditions, particularly during the past year, have significantly increased interest in adopting pasture-based technology. Many producers established summer annuals for the first time to combat both lower milk prices and higher concentrate costs. Consequently, more requests were received by the University of Missouri Pasture-Based Dairy Program for advice on cultivars and management. Even though most of these producers did not follow the intensive grazing practices adopted by program participants, they were still able to achieve a savings of \$0.60-0.80 per cow per day when grazing. It is anticipated those individuals will become more active in the Missouri program.

The Missouri Pasture-Based Dairy team planned and conducted the Missouri Dairy Grazing Conference using presenters from the team as well as national and international speakers. There were 292 in attendance, representing 26 states and four foreign countries. Evaluations showed that more 96 percent of attendees rated the conference as excellent or very good; participants reported that the conference presented concepts and management practices that challenged them to implement changes that would add to the profitability of their operations.

Key Items of Evaluation

Since 1995, the number of licensed dairy farms in Missouri has dropped by 47 percent from 3,316 to 1,762. Still, Missouri's dairy industry remains a vital part of the state's agricultural economy, producing \$300 million in cash farm receipts and \$930 million in total economic impact in 2008.

In recent years, the decline in dairy cow numbers in Missouri has stabilized, thanks to the growth of pasture-based dairies. This new dairy system emerging in Missouri is modeled on the rotational grazing production systems researched and developed at the University of Missouri's Southwest Center Dairy and refined by cooperating dairy producers with the help of MU Extension.

Expansion and growth by these new grazing dairies created \$100 million in new investment, generated \$40 million in annual milk sales, added \$124 million in total output, and added 1,110 additional jobs in the state of Missouri.

V(A). Planned Program (Summary)**Program # 9****1. Name of the Planned Program**

MO-PORK: Increasing Pork Production in Missouri

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
301	Reproductive Performance of Animals	30%			
302	Nutrient Utilization in Animals	40%			
303	Genetic Improvement of Animals	5%			
305	Animal Physiological Processes	2%			
306	Environmental Stress in Animals	3%			
307	Animal Management Systems	15%			
308	Improved Animal Products (Before Harvest)	3%			
315	Animal Welfare/Well-Being and Protection	2%			
	Total	100%			

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	4.0	0.0	0.0	0.0
Actual	4.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
225574	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
95341	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

The MO-Pork program will include the following activities: Promotion of efficient production and management practices (Pork Industry Handbook, MU guide sheets and Midwest Plan Service Handbooks); Use of Manual 144/202 "The Missouri System of

Swine Production"; On-farm data collection used to evaluate production and economic endpoints; Focused Management Schools for MO-Pork participants, artificial insemination course, Back to the Basics: Farrowing School, Sow Manager's Conference, Pigs to Plate: Adventures in Meat Quality Seminar, Health Summit, finishing short course, nursery management course, ventilation short course; Delivery of Pork Quality Assurance Program for MO-Pork participants; Delivery of new technologies in the swine industry to MO-Pork participants; Computer models/PDA record keeping programs; World Pork Expo and other conferences; Education about niche production markets and specialization opportunities; Media coverage of the MO-Pork program; Farm visits; On-farm research trials; Workshops; Meetings; and Consultation.

2. Brief description of the target audience

The target audience will include people who own swine operations, work on swine farms, or provide technical support to people who own or work on swine farms (e.g., veterinarians, feed dealers). In addition, MO-Pork will target beginning Missouri pork producers, expanding Missouri pork producers, and industry personnel such as Missouri grain producers (interested in adding value to their crops).

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	750	750	400	0
Actual	655	605	1260	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009
 Plan: 0
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Provide in-service training session(s) for regional Extension specialists on an annual basis.

Year	Target	Actual
2009	1	1

Output #2

Output Measure

- Develop or revise guide sheets on an annual basis for regional Extension specialists to use in producer meetings.

Year	Target	Actual
2009	1	2

Output #3

Output Measure

- Develop or revise manual(s) on an annual basis for regional Extension specialists to use in producer meetings.

Year	Target	Actual
2009	1	0

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Participants will maintain or increase pork production efficiencies, enhance marketing opportunities resulting in improved economic viability and profitability for their operation.
2	Participants will acquire knowledge and skills to aid in the successful adoption and implementation of existing management practices or emerging technology to improve pork production efficiency and productivity.

Outcome #1**1. Outcome Measures**

Participants will maintain or increase pork production efficiencies, enhance marketing opportunities resulting in improved economic viability and profitability for their operation.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

This reporting period was one of economic loss for pork producers worldwide with dramatic increases in commodity corn and soybean prices as well as low market prices due to weak foreign demand. In addition, the failure of a compensating increase in prices paid for pork compounded the issue and tightened profit margins. Therefore, pork producers focus on efficiency such as reducing inputs (of which feed is the single greatest input cost) or increasing outputs (either reproductive output or growth performance).

What has been done

Focused program efforts to reduce inputs through efficient energy use, alternative feed ingredients, precision formulations, careful ingredient selection, good feed management and feed analysis are just a short list of educational topics presented to more than 165 pork producers in Missouri. Those producers are responsible for more than 80 percent of the pigs produced in Missouri.

Results

Pork producers who formulate diets on a digestibility basis, maximize their use of synthetic amino acids, and make use of alternative ingredients can reduce total feed costs by more than \$20 per ton in some cases at an average savings per ration of \$12 per ton. This information was provided to more than 165 Missouri pork producers who raise more than 80 percent of the pork in Missouri. In addition, by increased knowledge and application of swine diets that will minimize feed costs and maximize feed efficiency with commodity grain (corn and soybean meal) prices at a 10-year high, a small change in the feed formulation can generate huge savings for producers. The feed savings generated by reformulating diets resulted in an average of \$5.50 per pig marketed. Therefore, a Missouri pork producer who finishes 6,000 head of pigs had a \$30,000 savings in feed costs. For Missouri, the economic impact for pork producers is over \$14.8 million savings in feed costs. To supplement these ongoing efforts related to reducing production costs, a National Swine Nutrition Guide with a least-cost ration formulator was developed and will be used throughout the swine industry and for teaching purposes.

4. Associated Knowledge Areas

KA Code	Knowledge Area
301	Reproductive Performance of Animals
302	Nutrient Utilization in Animals

303	Genetic Improvement of Animals
305	Animal Physiological Processes
306	Environmental Stress in Animals
307	Animal Management Systems
308	Improved Animal Products (Before Harvest)
315	Animal Welfare/Well-Being and Protection

Outcome #2

1. Outcome Measures

Participants will acquire knowledge and skills to aid in the successful adoption and implementation of existing management practices or emerging technology to improve pork production efficiency and productivity.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The main issue is the ability for pork producers to maintain a competitive infrastructure in Missouri. Missouri's number one industry is agriculture, and it is important that pork producers be allowed to take advantage of the competitive advantages the state provided for raising commodity pork. The swine industry has been dynamic and competitive through the beginning of this century. It is one that has embraced change, and those producers who have not embraced change have seen the industry pass them by; most who are resistant to change have exited the industry.

What has been done

Workshops, seminars and short courses offered in the past year include the National Swine Nutrition Guide, Pork Quality Assurance Plus, Growth and Quality Barrow Classic, Pork Profit Seminars, and Swine Institute. Farm visits have been used, especially on-farm demonstrations and research efforts. Countless telephone and e-mail consultations have been part of this effort. In addition, the technical information on the Missouri Swine Resource Guide and By-Product Feed Price Report located on the Web at www.agebb.missouri.edu/swine is a very useful resource.

Results

Providing technological advantages through educational materials, development of the National Swine Nutrition Guide least-cost diet formulator, and updating of swine feeding programs have resulted in huge economic benefits for producers. Computerizing feeding programs have enabled swine producers to personally adapt diets and also become knowledgeable about feed efficiency and performance values. By making better use of synthetic amino acids and minimizing use of commodity grain in formulations, producers have reduced feed costs and improved feed efficiency by 30 to 40 percent. This saving results in a statewide economic impact of almost \$15 million.

4. Associated Knowledge Areas

KA Code	Knowledge Area
301	Reproductive Performance of Animals
302	Nutrient Utilization in Animals
303	Genetic Improvement of Animals
305	Animal Physiological Processes
306	Environmental Stress in Animals
307	Animal Management Systems
308	Improved Animal Products (Before Harvest)
315	Animal Welfare/Well-Being and Protection

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Programmatic Challenges

Brief Explanation

External factors play a significant role in Missouri swine production. The lack of community and state support for pork operations continues to be a huge concern. Consumers want cheap food but resist the introduction of large animal operations into their neighborhoods. The definition of large operations varies among people, but the answer is that the nation's food supply must be produced by efficient operations independent of size. Even though livestock and pork operations are a tax revenue generator, lack of adequate support for implementing larger pork production programs has limited the potential for growth in the industry. Continued local restrictions, growing anti-agriculture sentiments and the promotion of veganism have further increased the expense of expanding pork production in Missouri. Moreover, legislative efforts in other states to regulate how pork producers raise pigs will continue to increase the total cost of production and make it difficult for people to raise pork anywhere in the United States.

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Retrospective (post program)
- Before-After (before and after program)
- During (during program)
- Case Study
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.

Evaluation Results

In general, most evaluations of swine programs make use of before-and-after evaluations, follow-up visits and comparison between producers adopting technology at various levels. A useful economic measure is the actual cost of ingredients. These feed costs are then calculated into feed efficiency to determine ultimate impact on a pork producer's operation, as feed efficiency can vary with differences in management,

housing, herd health, and genetics. Therefore, one producer may be able to obtain the cheapest feed, but poor management and excessive feed wastage can lead to a bottom line that does not reduce total feed costs. Feed cost represents about 70 percent of the total cost of pork production. Thus any feed management practice that will improve growth performance and feed efficiency improves pork producers' profit margins. Other issues of importance to producers are ensuring a quality food product; product safety from terrorism; prevention of disease outbreaks; antibiotic feeding concentrations; neighborhood acceptance of operations; health of employees, owners, pigs and the public; labor shortage; and lack of quality and skills of labor. Therefore, producers need to be continually educated and challenged to adopt new technologies, or they may be forced to leave the pork production industry by increasing costs of environmental regulations, governmental regulation of how animals are raised, limited market access, and the smaller profit margins.

Key Items of Evaluation

Worldwide the consumption of pork is number one. Therefore, pork production is a huge economic driver for the United States and for Missouri, which ranks seventh nationwide. It is essential that government at the local, state and nation levels support animal agriculture and the ability for pork producers to improve efficiency to maintain their competitiveness and economical viability.

V(A). Planned Program (Summary)

Program # 10

1. Name of the Planned Program

Plant Protection for the 21st Century

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
211	Insects, Mites, and Other Arthropods Affecting Plants	15%			
212	Pathogens and Nematodes Affecting Plants	15%			
213	Weeds Affecting Plants	15%			
214	Vertebrates, Mollusks, and Other Pests Affecting Plants	5%			
215	Biological Control of Pests Affecting Plants	10%			
216	Integrated Pest Management Systems	40%			
Total		100%			

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	6.0	0.0	0.0	0.0
Actual	4.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
225574	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
95341	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Campus and regional faculty members will conduct several regional workshops and short courses in partnership with commodity groups and private industry. Venues include commodity district meetings, soil and crop conferences, Ag Science Week, regional short courses, field days and demonstration projects. A suite of full color print publications related to pest and crop management will be developed, published and revised. Several websites are available for public use. The integrated pest management site

also contains interactive information for clientele interested in black cutworm status. Weekly teleconferences among state and regional faculty members will be held during spring, summer and autumn for timely commodity and pest updates. Funding will be provided to regional extension specialists for local demonstrations of integrated pest management practices.

2. Brief description of the target audience

The primary target audiences are crop producers and their advisers, and private and commercial pesticide applicators. Programs will be developed for crop producers with a diversity of farm sizes, crops produced, and land resource bases. Crop advisers and service providers are important targets because of their extensive contact with crop producers, which makes them ideal intermediates for passing on Extension programming to a wider range of producers than could be reached by Extension personnel alone. Because the future of Missouri agriculture depends on young professionals replacing retiring farmers and personnel, youth organizations including FFA, 4-H, Young Farmers, and their teachers will receive specially designed programs.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	3000	5000	500	0
Actual	1710	3453	46	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009
 Plan: 0
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Provide in-service training session(s) for regional Extension specialists on an annual basis.

Year	Target	Actual
2009	1	1

Output #2

Output Measure

- Develop or revise guide sheets on an annual basis for regional Extension specialists to use in producer meetings.

Year	Target	Actual
2009	5	6

Output #3

Output Measure

- Develop or revise plant protection program manuals on an annual basis for regional Extension specialists to use in producer meetings.

Year	Target	Actual
2009	3	3

Output #4

Output Measure

- Two print and electronic newsletters devoted to pest and crop management will be developed and distributed to regional specialists and other clientele.

Year	Target	Actual
2009	24	24

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Number of IPM educational materials developed or revised either on paper or electronically (source = internal).
2	50% of MO producers and crop advisors will indicate they have increased knowledge and plan to adopt at least one IPM strategy and/or system(s) into their operation.
3	Two thousand (2,000) private pesticide applicators will meet the legal need of certification by improving their knowledge of pesticides and their use.

Outcome #1**1. Outcome Measures**

Number of IPM educational materials developed or revised either on paper or electronically (source = internal).

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	10	6

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

More than 30 different plant species are important to Missouri agriculture. This large number of species challenges pest management specialists to offer appropriate pest management recommendations.

What has been done

The MU Integrated Pest Management Program has been an active and essential part of extension programming at the University of Missouri for more than 20 years. The program's most significant work involves specialists from various disciplines who interact and develop comprehensive and multidisciplinary pest management activities - including seminars, development of curricula, guide sheets and manual, in-service training, Web sites, newsletters, weekly teleconferences and applied demonstrations.

Results

More than 110 attendees who influence decisions on approximately 21 million acres of cropland attended the Pest Management Field Day. The attendees were chemical industry representatives and crop consultants who make pest control decisions in several states. On a scale of 1 to 5, attendees rated this year's overall program content a 4.34.

The Plant Diagnostic Lab generated a 30 percent increase in sample submissions in 2009 over the previous year. The plant diagnostic clinic analyzed 721 samples: 657 disease samples (abiotic and biotic injuries), 37 insect identifications and 27 weed identifications. The clinic responded to an additional 650 phone calls and 470 e-mails from clientele.

A four-day hands-on Crop Injury Training Program was conducted for private industry crop advisers, extension faculty, and personnel from state and federal agencies. Each class was 2 hours long and provided participants with the most recent information on pest and crop management. More than 130 people attended. The clinic was rated as highly effective and useful. These participants make pest and crop management recommendations for more than 8 million acres of Missouri crops.

4. Associated Knowledge Areas

KA Code	Knowledge Area
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants
213	Weeds Affecting Plants

- 214 Vertebrates, Mollusks, and Other Pests Affecting Plants
- 215 Biological Control of Pests Affecting Plants
- 216 Integrated Pest Management Systems

Outcome #2

1. Outcome Measures

50% of MO producers and crop advisors will indicate they have increased knowledge and plan to adopt at least one IPM strategy and/or system(s) into their operation.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Missouri is a diverse crop-producing state. Control of pests such as weeds, insects and diseases has increased yields, reduced production cost and the risk of environmental damage, and enhanced profitability each year. Various methods of pest control are available, but many farmers select pest control strategies without sufficient knowledge of the pest problems in their fields or as the result of peer influence.

What has been done

Many different methods were used to educate producers, crop advisers, applicators, teachers, regulators, and the public about the safe use of control measures. Methods used include conferences, educational workshops, field demonstrations, field days, crop walks, scouting training, individual instruction, mass media, and the Web.

Results

Major outcomes include;

The Cotton Pest Management Team trained producers to scout cotton for pests and then used the survey reports to make management decisions. Survey results show that producers hired professionals to scout 92 percent of acres for pests in 2009 compared with 5 percent in 1982. The savings to farmers due to this program was \$9 million in 2009.

A phone survey of rice farmers showed that as a result of the MU Extension Scouting Program, the percentage of acres scouted increased from 11 percent in 1996 to more than half in 2009. The survey also found that farmers' income was \$6 million greater in 2009 because of this program.

Plant pathologists provided training to members of the farming community about soybean rust in 2009 and monitored the spread of this disease in the United States. The impact of this effort was greater yield and less use of fungicides in areas not threatened. The savings to Missouri farmers due to this program was \$5 million in 2009.

4. Associated Knowledge Areas

KA Code	Knowledge Area
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants

- 213 Weeds Affecting Plants
- 214 Vertebrates, Mollusks, and Other Pests Affecting Plants
- 215 Biological Control of Pests Affecting Plants
- 216 Integrated Pest Management Systems

Outcome #3

1. Outcome Measures

Two thousand (2,000) private pesticide applicators will meet the legal need of certification by improving their knowledge of pesticides and their use.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Private pesticide applicator certification and recertification training is an essential program which provides private applicators with initial and continued educational activities addressing the safe, effective, and proper use of restricted and non-restricted use pesticides. Private applicators are required to experience pesticide applicator training initially to gain their private license and every five (5) years thereafter to remain certified (licensed).

What has been done

In 2009, 1080 potential pesticide applicators and 2,850 current private applicators received pesticide applicator training through attending either formal training sessions held in numerous Missouri counties or by viewing a 2.25 hour training video in county extension offices. A total of 37 regional extension trainers presented formal sessions statewide with select secretarial staff in each county monitoring the video training of private applicators in MU Extension county offices.

Results

Approximately three thousand nine hundred and thirty (3,930) private pesticide applicators received training through the MU PAT program in 2009. As in past years, private pesticide applicators received specific training in the proper use and importance of personal protective equipment such as chemical resistant gloves, protective eyewear, clothing, and respirators. The importance of reading and following the label of specific pesticides was strongly emphasized. Environmental concerns of various pesticides was addressed with example provide to clientele. Also discussed were the legal aspects of pesticide application and the importance of accurate recordkeeping when applying pesticides and the potential risk of pesticide exposure to the applicator, environment and non-target species. Knowledge concerning the management of important field crop plant diseases, weeds, and insects (pest and beneficial) was provided through several types of media format including handouts, slide presentations, specimens, discussions, examples and/or video presentations, and others as used by the private PAT training cadre.

4. Associated Knowledge Areas

KA Code	Knowledge Area
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants
213	Weeds Affecting Plants
214	Vertebrates, Mollusks, and Other Pests Affecting Plants
215	Biological Control of Pests Affecting Plants
216	Integrated Pest Management Systems

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Programmatic Challenges

Brief Explanation

A substantial number of Missouri's private pesticide applicators are approaching or have reached retirement age and no longer have a need for a private pesticide license. This situation has resulted in a modest reduction in the number of certified private applicators over the past five years, although the total number of applicators was bolstered in 2009 with the training of approximately one thousand and eighty (1080) new clientele. An additional factor affecting the need to attain private pesticide applicator certification (license) is the reduction in the use of restricted use pesticides as they are partially replaced by transgenic (RoundUp Ready or Bt containing) hybrids, seed treatments, and greener types of pest control strategies. Although these management tools work for most primary pests, many other plant diseases, weeds, and insects still require applications of restricted use pesticides for effective management of these pests within IPM programs.

An unmet goal for 2009 was the planned development and use of an effective assessment document to better determine the retaining and use of pesticide applicator related information by clientele. Although various formal educators used their personal assessment documents as designed for their specific needs at the county level, a general assessment vehicle is needed to better survey adoption and use patterns of presented education materials. This goal is on-going with input from the MU Extension Assessment Center currently being followed as an overall assessment document is developed for use with all private pesticide applicator clientele.

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- Before-After (before and after program)
- During (during program)

Evaluation Results

Key Items of Evaluation

V(A). Planned Program (Summary)**Program # 11****1. Name of the Planned Program**

Profit Focused Agriculture

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
601	Economics of Agricultural Production and Farm Management	40%			
602	Business Management, Finance, and Taxation	10%			
603	Market Economics	10%			
604	Marketing and Distribution Practices	10%			
605	Natural Resource and Environmental Economics	15%			
606	International Trade and Development	2%			
607	Consumer Economics	2%			
610	Domestic Policy Analysis	10%			
611	Foreign Policy and Programs	1%			
	Total	100%			

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	15.8	0.0	0.0	0.0
Actual	17.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
902294	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
381365	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Conduct multisession workshops using curricula or other appropriate material. Participate in or give presentations at meetings, workshops, conferences, seminars. Develop or update curricula or educational materials. Provide individual assistance as follow-up to group activities. Consult with individuals upon request. Develop and distribute information on current issues related to farm/agricultural profitability through newsletters, Internet postings, personal contacts, and media releases. Keep updated and assist farmers with computer and Internet applications. Conduct surveys or develop case studies relevant to improving farm/agricultural profitability. Evaluate the effectiveness of workshops, training, and other activities. Cooperate with agencies and organizations on activities related to the program objectives.

2. Brief description of the target audience

Farmers/ranchers (beginning, primary income, secondary income and transitioning) Landowners (absentee, women, seniors) and agribusinesses/agencies, agribusinesses/agencies (commercial, farmer cooperatives), and agencies/farm organizations (governmental, commodity groups).

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	7000	18000	500	750
Actual	21409	34845	2091	703

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009
 Plan: 0
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Annual training for regional specialists on curriculum-based MO programs and new programs related to Ag Business Management series teaching programs conducted by regional specialists will be monitored and participants invited to complete evaluations.

Year Target Actual

2009

20

52

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Fifty percent of the participants in Annie's Project will develop a strategic plan. A follow-up survey will be conducted after training is complete.
2	Fifty percent of the participants in Golden Age Framing will develop an estate plan. A follow-up survey will be conducted after training is complete.
3	New value-added collective agricultural business organizations will be established annually. A follow-up survey will be conducted after training is complete.
4	Program participants will report a 50 percent increase in their awareness of existing resources that will increase the profitability of their enterprise. Evaluation forms will be used.
5	There will be a 30 percent increase in program participants' use of risk management tools. A follow-up survey will be conducted after training is complete.

Outcome #1**1. Outcome Measures**

Fifty percent of the participants in Annie's Project will develop a strategic plan. A follow-up survey will be conducted after training is complete.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

The 2007 Agricultural Census reported 12,754 Missouri women as principal farm operators (a 17.9% increase) and 1.95 million acres owned by women (an 8.4% increase). Historically, educational classes have not targeted women, so Annie's Project was developed to reach that audience. Annie's Project addresses various economic and management principles including: marketing, production and financial, legal and human resource risk. The class empowers farm women to be better business partners. Informed decisions lead to a healthier environment and higher quality food products.

What has been done

Ag Business specialists customized Annie's Project curricula. Thirteen Annie's Project classes (18 hours) and four classes in Annie's Project II - Women Marketing Grain and Livestock (12 hours) were delivered across the state. The total number of participants was 170. Classes were taught by extension specialists and professionals in the communities. Improvements to the curriculum are ongoing to include new information. Extension specialists attended training to prepare for classes.

Results

The news media continue to cover Annie's Project, which helps build public awareness and understanding of the program. Each participant completes a balance sheet so that she understands current and noncurrent assets and liabilities. Participants were sent an electronic survey about six months after class completion. The response rate was 33 percent. Over 90 percent of respondents indicated that they had shared information from the class with at least two other people. More than half said they had checked and reviewed their insurance policies (some had made changes), and another 43 percent said they planned to do so. Almost one-third of respondents reported having calculated at least part of their financial ratios for their farm using the Farm Financial Scorecard. The scorecard includes the 21 ratios identified by the Farm Financial Standards Council.

4. Associated Knowledge Areas

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management
602	Business Management, Finance, and Taxation
603	Market Economics
604	Marketing and Distribution Practices

605	Natural Resource and Environmental Economics
606	International Trade and Development
607	Consumer Economics

Outcome #2

1. Outcome Measures

Fifty percent of the participants in Golden Age Framing will develop an estate plan. A follow-up survey will be conducted after training is complete.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

A large number of Missouri farmers continue to approach retirement age each year and realize they need to plan for their financial well-being and disposal of their farm business. Many contact extension specialists for help in identifying and evaluating the many planning options available to them.

What has been done

Existing curricula for farm and small business estate planning were updated and a three-session workshop was conducted by ITV, reaching audiences at six locations over the state. A six-session intensive workshop was also conducted at one location, and an individual workshop at another location. Local attorneys, a probate judge, and other professionals were involved in sessions, and program content was adjusted to fit the needs and interests of the audiences.

Results

Evaluations from all sites were positive, indicating that speakers used language participants could understand and that the information presented was considered useful.

4. Associated Knowledge Areas

KA Code	Knowledge Area
602	Business Management, Finance, and Taxation

Outcome #3**1. Outcome Measures**

New value-added collective agricultural business organizations will be established annually. A follow-up survey will be conducted after training is complete.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	2	3

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

The future economic viability of farms and the quality of life in rural Missouri are based on the development of a "new agricultural economy" that will add value to the commodities raised and develop new business models for Missouri producers.

What has been done

During calendar year 2009, Missouri Value-Added Center staff worked with four producer groups to facilitate value-added businesses in the state of Missouri. Center staff conducted a feasibility study, market study, or business plan for specific projects and also collaborated with potential funding sources for external support for project goals.

Results

Missouri Value-Added Center staff secured \$130,000 in external funding and have pending an additional \$500,000 in value-added development grants (in support of stakeholders). In addition, they are working with two farmer groups to capitalize investment projects (soybean crushing and elderberry) and are following up with two market expansion projects.

4. Associated Knowledge Areas

KA Code	Knowledge Area
602	Business Management, Finance, and Taxation
603	Market Economics
604	Marketing and Distribution Practices

Outcome #4**1. Outcome Measures**

Program participants will report a 50 percent increase in their awareness of existing resources that will increase the profitability of their enterprise. Evaluation forms will be used.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

New production opportunities and financial challenges faced Missouri's agricultural industry this year. Producers and others in the industry need to refine their management skills and keep abreast of current changes. Important teaching areas this year included enterprise selection or modification, budgeting and record keeping, tax planning and preparation, and increasing skill in use of Web resources.

What has been done

Extension specialists taught or organized three multisession workshops on using farm accounting software to manage finances: one session on enterprise selection and budgeting; six farm/business tax schools to explain tax preparation and management opportunities; 13 seminars for agricultural lenders who provided enterprise budgets and other outlook information to aid in loan decisions. Access and use of Web resources was the focus of 12 field days and other large group events.

Results

All of the participants in Quicken workshops said they had learned how to use the software in their business, and 67 percent indicated increased profits from better record keeping after the workshop. Total attendance at annual Farm/Business Tax Schools and Farm Financial Outlook Seminars for lenders remained strong at more than 600 per year. On a 1-10 scale, lenders rated seminars at 8.4+ in value and quality; tax preparers rated schools at 8.3+ in effectiveness, usefulness, and value. Over 85 percent of repeat attendees had used information from previous seminars and schools. Many suggested that future programs include more information on carbon credits, ethanol and wind energy.

4. Associated Knowledge Areas

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management
602	Business Management, Finance, and Taxation
610	Domestic Policy Analysis

Outcome #5

1. Outcome Measures

There will be a 30 percent increase in program participants' use of risk management tools. A follow-up survey will be conducted after training is complete.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Knowledge of legal issues such as fencing laws and use of leases and other legal documents to help producers reduce risks from lawsuits and misunderstandings was emphasized this year. Methods and timing for selling grain and livestock and participation in government programs were also important this year because of continued market volatility and unusual economic conditions.

What has been done

Three multisession ITV programs on Missouri Fence Law were held, each connecting to four to six locations in the state. Two workshops were held on legal issues and documents. Educational events on market risk included three on developing marketing plans, two on direct marketing, two on government programs and ACRE calculator software, and three "webinars" on price trends and marketing strategies for grain and livestock. Government programs, insurance and economic trends and forecasts were also discussed at numerous multi-topic events.

Results

Over half attending fence law and leasing sessions listed actions they planned to take after the session. In marketing workshops that targeted persons with little knowledge of marketing tools, participants were actively developing plans by the end of the session. In sessions on government programs, producers calculated benefits they could receive through participation in the ACRE program and learned features of other government programs. After a session on economic trends and forecasts, 75 percent said they planned to use information obtained to make changes in their operations.

4. Associated Knowledge Areas

KA Code	Knowledge Area
602	Business Management, Finance, and Taxation
603	Market Economics
604	Marketing and Distribution Practices

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

Missouri's agricultural industry is diverse in types of production and methods, demographics of producers, topography of land, and so on.

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)
- During (during program)
- Time series (multiple points before and after program)
- Case Study
- Comparisons between program participants (individuals, group, organizations) and non-participants
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.
- Other (Comparisons between states)

Evaluation Results

Results from evaluations are shown under results for individual outcomes. All events met or exceeded their goals. Events used various evaluation methods depending on the type of learning experience they involved. None of the events received evaluations indicating they were not useful to attendees. Usefulness is an important criterion in judging agricultural business programs for adult audiences. Usefulness indicates that participants not only gained new knowledge but also would be likely to make use of it in their business decisions. Additional learning experiences are being planned and new ones will be developed as audiences evolve and agricultural conditions change.

Key Items of Evaluation

V(A). Planned Program (Summary)**Program # 12****1. Name of the Planned Program**

Show-Me-Select Replacement Heifer Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
301	Reproductive Performance of Animals	60%			
303	Genetic Improvement of Animals	20%			
307	Animal Management Systems	10%			
308	Improved Animal Products (Before Harvest)	10%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	11.6	0.0	0.0	0.0
Actual	11.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
631606	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
266955	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

The learner-focused outcomes of this program will expand the scope of the Missouri Show-Me-Select Replacement Heifer Program. These outcomes include: 1) Regional Extension Livestock Specialists, veterinarians, farmers, and allied industry representatives will acquire knowledge and skills to aid in the successful adoption and implementation of existing management practices to improve beef heifer development; 2) Regional Extension Livestock Specialists, practicing veterinarians, producers, and future professionals will acquire new knowledge and skills to aid in the adoption of emerging biotechnologies in beef heifer development, including estrus synchronization and artificial insemination; 4) Regional Extension Livestock Specialists, practicing veterinarians and producers will be able to identify and discuss the economic implications of implementing production practices associated with the Show-Me-Select Replacement Heifer Program; and 5) Participating producers will develop a plan that

establishes the Show-Me-Select Replacement Heifer Program as a producer owned and managed system.

2. Brief description of the target audience

The audiences targeted in this program are farmers across Missouri actively involved in cow-calf production and marketing. There are no limitations placed on the program in terms of farm or size of cow-herd. The program to date has involved herds as small as 8 cows and as large as 6,000 cows. Numerous sectors of the Missouri livestock industry come together as a result of this program, including University Extension, the Division of Animal Sciences, the University of Missouri College of Veterinary Medicine, the Commercial Agriculture Program, the Missouri Beef Cattle Improvement Association, the Missouri Cattlemen's Association, the Missouri Department of Agriculture, and the Missouri Livestock Marketing Association.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	750	10000	100	400
Actual	1982	1382	139	183

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009
Plan: 0
Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Provide in-service training session(s) for regional Extension specialists on an annual basis.

Year	Target	Actual
2009	1	2

Output #2

Output Measure

- Develop or revise power point presentations for regional Extension specialist to use in producer meetings.

Year	Target	Actual
2009	15	17

Output #3

Output Measure

- Regional and state specialist will conduct demonstrations on an annual basis.

Year	Target	Actual
2009	5	10

Output #4

Output Measure

- Regional specialist will assist with producer sales.

Year	Target	Actual
2009	12	15

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Economic assessment of the program and impact based on surveys of participating farmers.
2	Increase in the number of animals (heifers) enrolled in the program.
3	Increase in the number of programmatic participating veterinarians on a region-to-region basis.
4	Annual economic impact of the Show-Me-Select heifer program on the state's economy.
5	Number of farmers participating in the SMS program and the % of producers adopting management protocol.

Outcome #1**1. Outcome Measures**

Economic assessment of the program and impact based on surveys of participating farmers.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

The audiences targeted in the Show-Me-Select Replacement Heifer program include regional extension livestock specialists, veterinarians, and farmers across Missouri who are actively involved in cow-calf production and marketing. Technology transfer for the management practices covered in the program is not size dependent but rather farmer dependent. It introduces a fundamental change in approach to management and marketing that affects a farm's individual profitability profile.

What has been done

The Missouri Show-Me-Select Replacement Heifer Program was designed to improve reproductive efficiency of beef herds in Missouri and increase individual farm income. The program objectives include (1) a total quality management approach for health and management of heifers from weaning to late gestation; (2) increased marketing opportunities for, and added value to, Missouri-raised heifers; and (3) the creation of reliable sources of quality commercial and purebred replacement heifers.

Results

The Show-Me-Select Replacement Heifer Program is the first comprehensive, statewide, on-farm beef heifer development and marketing program in the United States. Participation in the program from 1997 to 2009 involved 87,110 heifers on 681 farms across Missouri, 196 veterinarians, 10 regional extension livestock coordinators and 17 regional extension livestock specialists. The marketing component of the program over this period involved 98 sales at 12 locations. During this time, 21,513 heifers sold through Show-Me-Select Replacement Heifer Program sales with gross receipts of \$23,608,070. Total net impact on Missouri's economy from the first 13 years of the Show-Me-Select Replacement Heifer Program and Sales exceeds \$45,000,000. Producers from 104 of Missouri's 114 counties (91%) have enrolled heifers in the program, and 64 counties in Missouri (56% of the total) list the Show-Me-Select Replacement Heifer Program as a priority program for their county in the their current Program of Work.

4. Associated Knowledge Areas

KA Code	Knowledge Area
301	Reproductive Performance of Animals
303	Genetic Improvement of Animals
307	Animal Management Systems

308 Improved Animal Products (Before Harvest)

Outcome #2**1. Outcome Measures**

Increase in the number of animals (heifers) enrolled in the program.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Continuation of low adoption rates for best management practices in the United States will ultimately erode the competitive position of the U.S. cattle industry. Producers in other countries are adopting new technologies for animal production more rapidly than their U.S. counterparts. Unless owners of commercial and purebred cowherds aggressively implement reproductive and genetic improvement, the United States will lose its competitive advantage in production of high-quality beef.

What has been done

A number of management procedures have been cited as having a significant impact on beef herds and their resulting performance as measured by reproduction and productivity. Only a limited percentage of beef cattle operations use these management procedures. Best management practices for replacement beef heifers, when collectively viewed as a "program," can assist producers in more effectively managing reproduction, production and marketing.

Results

The reproductive goals for heifers enrolled in the Show-Me-Select Replacement Heifer Program are aimed at improving breeding performance during the heifers' first breeding period, minimizing the incidence and severity of dystocia, and successful rebreeding of heifers during the subsequent breeding season. The Show-Me-Select Replacement Heifer Program is the first statewide, on-farm beef heifer development and marketing program in the United States. Producers are using available technologies for on-farm beef heifer development that are now spilling over into their cowherds. A significant increase in interest in, and use of, estrus synchronization and artificial insemination stems perhaps from a differential in sale prices, but, more important, from successful application. In general, there has been a growing awareness, understanding and appreciation for the importance of reproductive management to the whole herd.

4. Associated Knowledge Areas

KA Code	Knowledge Area
301	Reproductive Performance of Animals
303	Genetic Improvement of Animals
307	Animal Management Systems

308 Improved Animal Products (Before Harvest)

Outcome #3**1. Outcome Measures**

Increase in the number of programmatic participating veterinarians on a region-to-region basis.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Veterinarians provide expertise in herd health, assessment of reproductive potential and pregnancy diagnosis. Veterinarians serve as key information sources for U.S. beef producers and are essential in facilitating the adoption of various reproductive procedures. Nearly two-thirds (60.8%) of cow-calf producers cited their veterinarian as a "very important" source of information for their cow-calf operation, including health, nutrition and questions pertaining to production or management.

What has been done

Implementation of the Show-Me-Select Replacement Heifer Program in Missouri involved University specialists working closely with producers, regional extension specialists and veterinarians. On-farm development programs that involve local veterinarians, state and regional extension livestock specialists and individual farm operators provide the structure through which change can occur.

Results

Veterinarians provide expertise in the areas of health, assessment of reproductive potential, fetal aging and pregnancy diagnosis. Veterinarians serve as key information sources for U.S. beef producers and are essential in facilitating the adoption of various reproductive procedures. Nearly two-thirds (60.8%) of cow-calf producers cited their veterinarian as a "very important" source of information for their cow-calf operation, including health, nutrition and questions pertaining to production or management. The success of this program has been largely a function of being able to reach the target audience and the associated impact of that connection. Implementation involved University specialists working closely with producers, regional extension specialists and veterinarians. On-farm development programs that involve local veterinarians, state and regional extension specialists and individual farm operators provide the structure through which change can occur.

4. Associated Knowledge Areas

KA Code	Knowledge Area
301	Reproductive Performance of Animals
303	Genetic Improvement of Animals
307	Animal Management Systems
308	Improved Animal Products (Before Harvest)

Outcome #4**1. Outcome Measures**

Annual economic impact of the Show-Me-Select heifer program on the state's economy.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	4	4

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Missouri ranks third in the United States in number of beef cows in production, with more than 2 million cows on 52,000 farms. Sales of cattle and calves contribute nearly 20 percent annually to Missouri's total farm cash receipts and generate in excess of \$1 billion annually. The definitive outcome of this program was intended in part to add value to beef heifers by expanding marketing opportunities as a result of technology adoption, production verification, collective action and best management practices.

What has been done

An example of the economic impact of an organized program that supports use of best management practices is the Missouri Show-Me-Select Replacement Heifer Program. More than 21,500 heifers that sold between the fall of 1996 and 2009 at 98 Show-Me-Select Replacement Heifer Program Sales across Missouri brought an average of \$1,097 per heifer, which is more than \$100 per head greater than the price received per head for bred heifers at conventional livestock sales.

Results

The impact on Missouri's economy from the first 13 years of the Show-Me-Select Replacement Heifer Program now exceeds \$45,000,000. Producers from 104 (91%) of 114 counties have participated in the Show-Me-Select Replacement Heifer Program. Buyers from 112 of 114 counties (98%) registered to purchase heifers from Show-Me-Select Replacement Heifer Sales from 1997 to 2009. In the same period, buyers from 108 of the 114 counties (95%) purchased heifers from Show-Me-Select Replacement Heifer sales. Show-Me-Select Replacement Heifers have now sold into 16 states: Arkansas, Arizona, Florida, Georgia, Iowa, Illinois, Indiana, Kentucky, Kansas, Missouri, Nebraska, Oklahoma, South Carolina, South Dakota, Tennessee and Texas.

4. Associated Knowledge Areas

KA Code	Knowledge Area
301	Reproductive Performance of Animals
303	Genetic Improvement of Animals
307	Animal Management Systems
308	Improved Animal Products (Before Harvest)

Outcome #5**1. Outcome Measures**

Number of farmers participating in the SMS program and the % of producers adopting management protocol.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Continuation of low adoption rates of best management practices in the United States will erode the competitive position of the U.S. cattle industry. Producers in other countries are adopting new technologies more rapidly than their U.S. counterparts. Unless owners of beef herds aggressively implement reproductive and genetic improvement, the United States will lose its competitive advantage in production of high-quality beef. International players will position themselves to dominate the production and sale of high-quality beef worldwide.

What has been done

The Show-Me-Select Replacement Heifer Program embodies the principles upon which extension and the land grant university system were founded: The use and application of what we know to create knowledge. Meaningful assessment of this program began by including evaluation as part of its design. Data collection is part of the delivery process and reinforces the development of sound management practices on individual farms that participate in the program regardless of their size.

Results

The marketing component of the program facilitated the sale of 21,513 heifers in 98 sales across Missouri from 1997 through the fall sales in 2009. These sales generated interest from over 7,000 prospective buyers who formally registered to buy heifers and over 2,600 individuals who purchased heifers from the various sales. Heifers from the program have now sold to farms in Arkansas, Arizona, Florida, Georgia, Iowa, Illinois, Indiana, Kentucky, Kansas, Missouri, Nebraska, Oklahoma, South Carolina, South Dakota, Tennessee and Texas. Collectively, 98 sales have generated \$23,608,070 in gross sales. The Missouri Show-Me-Select Replacement Heifer Program is the first statewide on-farm development and marketing program of its kind in the United States. The economic impact of the Show-Me-Select Replacement Heifer Program on an annual basis is estimated at \$3.5 million, and the impact on Missouri's economy from the past 13 years of the Show-Me-Select program exceeds \$45,000,000.

4. Associated Knowledge Areas

KA Code	Knowledge Area
301	Reproductive Performance of Animals
303	Genetic Improvement of Animals
307	Animal Management Systems

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Economy
- Other (Marketing Fluctuations)

Brief Explanation

The audiences targeted in this program include regional extension livestock specialists, veterinarians, and farmers across Missouri that are actively involved in cow-calf production and marketing. There are no limitations placed on the program by farm or size of cowherd. The pilot programs involved herds as small as 15 cows and as large as 800 cows. Technology transfer for the management practices involved in the program is not size dependent but rather producer dependent in that it introduces a fundamental change in approach to management and marketing that affects the profitability profile of a particular farm or ranch. The success of this program over the past 13 years derives largely from reaching this target audience and from the associated impact of that connection. Numerous sectors of the Missouri livestock industry came together as a result of this program, including University of Missouri Extension, the College of Agriculture, Food and Natural Resources, the College of Veterinary Medicine, the Division of Animal Sciences, the Commercial Agriculture Program, the Missouri Beef Cattle Improvement Association, the Missouri Cattlemen's Association, the Missouri Department of Agriculture, and the Missouri Livestock Marketing Association. Since the program began in 1997, 681 farms in Missouri have enrolled 87,110 heifers in the Show-Me-Select Replacement Heifer Program. The program has been led by 10 regional extension livestock specialists who serve as coordinators of the program in their respective regions, and by 17 additional specialists across the state who support efforts in these regions. In addition, 196 veterinarians in Missouri have participated in the program since its inception. The Show-Me-Select Replacement Heifer Program embodies the principles upon which extension and the land grant university system were founded: The use and application of what we know to create knowledge. Hence, evaluation has an impact in the program itself. Meaningful assessment of this program began with including evaluation as part of the design. Data collection was part of the delivery process and reinforced the development of sound management practices through on-farm, individualized result demonstrations conducted on farms that participated in the program. Farmers used data generated on their own farms, while the focus of the program was action alternatives based on data generated. The result was a negotiated participatory process that evolved among the regional extension livestock specialist, the veterinarian, and the farmer with support from state specialists. The existing database from the Show-Me-Select Replacement Heifer Program serves as a conduit for the development of new educational programs.

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- During (during program)
- Time series (multiple points before and after program)
- Case Study
- Comparisons between program participants (individuals, group, organizations) and non-participants
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.

Evaluation Results

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 13

1. Name of the Planned Program

Applying Science and Technology

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
806	Youth Development	100%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	7.7	0.0	0.0	0.0
Actual	10.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
348697	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
155901	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Food Science: Show Me Quality Assurance, Pork Quality Assurance, Camp Food and Fitness, Meats Contest & Cured Ham, Growth & Quality of Live Animal Evaluation, Livestock Judging and Grading. Animal Science Food Animal: Beef Project, Judging, Demonstration, Exhibition; Sheep Project, Judging, Demonstration, Exhibition; Swine Project, Judging, Demonstration, Exhibition; Goat Project, Judging, Demonstration, Exhibition; Dairy Project, Judging, Demonstration, Exhibition; Poultry Judging, Demonstration, Exhibition. Animal Science Companion Animal: Horse Project, Bowl, Hippology, Judging, Demonstration, Exhibition; Dog Project, Judging, Demonstration, Exhibition; Cat Project, Judging, Demonstration, Exhibition. Vet Science: Project, Judging, Demonstration, Exhibition. Embryology. Plant Science: Horticulture Project, Judging, Demonstration, Exhibition; Soybean Project, Judging, Demonstration, Exhibition; Corn Project, Judging, Demonstration, Exhibition; Gardening Judging, Demonstration, Exhibition; Bee Keeping. Environmental/Natural Sciences: Project, Judging, Demonstrations, Exhibition. Community Mapping: Water Quality/Aquatic Education; Sports Fishing; Project WET; Wildlife Habitat and Management; Project WILD; Leopold Education Project; Geology; Forestry Project, Demonstration and Exhibition; Project Learning Tree; Solid Waste

Management. Information Sciences: Project, Judging, Demonstration, Exhibition, Community Mapping; Computers; Software-based projects; Geo-Spatial; Internet; Digital Media. Physical Sciences Project, Judging, Demonstration, Exhibition, Community Mapping: Robotics; Design; Bicycle; Built Environments; Home Environment; Design/Manufacturing &dash Textiles; Aero Space; Woodworking; Welding; Electricity; Small Engines; Energy Use and Conservation.

2. Brief description of the target audience

Adults (youth staff, local leaders, parents, volunteers, teachers, organizational leaders) Youth aged 5 - 19.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	600	3000	27000	8000
Actual	9397	18448	28405	16958

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009
 Plan: 0
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	5	0	
Actual	5	0	34

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Attendance of project leaders at workshops for food science, animal science, plant science, environmental science, informational sciences and physical sciences.

Year	Target	Actual
2009	600	3486

Output #2

Output Measure

- Number of youth enrolled in food science, animal science, plant science, environmental science, informational sciences and physical sciences.

Year	Target	Actual
2009	6000	65629

Output #3

Output Measure

- Number of youth enrolled in embryology.

Year	Target	Actual
2009	10000	27069

Output #4

Output Measure

- Number of hits on website.

Year	Target	Actual
2009	21000	43663

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Youth will competently demonstrate knowledge and skills gained through demonstrations and project exhibition.

Outcome #1**1. Outcome Measures**

Youth will competently demonstrate knowledge and skills gained through demonstrations and project exhibition.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	13000	17043

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Today's young people must be prepared to live and work in a world that no one can completely envision -- for jobs that do not yet exist, using technologies that have not yet been invented, solving problems that have not yet been identified. Future scientists are critical to our state, national and global economy; three-quarters of Missouri's \$12.1 billion in products and services exported in 2008 were Science, Engineering and Technology (SET) based industries.

What has been done

4-H provided 306,862 youth contacts and 13,463 adult contacts in projects related to science, engineering and technology. The Missouri 4-H program annually links thousands of young people, parents, volunteers, and professionals to MU. Last year, 3,336 persons visited the MU campus for educational events and camps and 4-H contests that provided opportunities for young people to demonstrate knowledge and demonstrate their skills.

Results

Between March and August of 2007, 338 adolescents from 26 sites in Missouri participated in Wave 5 of the 4-H Study of Positive Youth Development. In 2008, 296 Missouri adolescents were surveyed. One hundred, sixty-five of those youth were new to the study and 131 were students who had been surveyed in 2007. We tested whether the average (mean) scores were statistically different for some of the factors measured in the 4-H Study. For Missouri 10th and 11th grade students in Wave 6, we found significant differences between the 4-H and non-4-H groups. 4-H members reported more leadership opportunities; fewer risk behaviors, had higher expectations to go onto college and had higher interests in science, engineering and technology programs than their non-4-H peers.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- During (during program)
- Other (Demonstration, Judging and Exhib)

Evaluation Results

10,441 youth demonstrated knowledge that met or exceeded established criteria through public presentations or exhibition; 5,220 youth demonstrated knowledge that minimally met established criteria through public presentations or exhibition; 1,740 youth demonstrated knowledge that could improve based on established criteria through public presentations or exhibition.

Between March and August of 2007, 338 adolescents from 26 sites in Missouri participated in Wave 5 of the 4-H Study of Positive Youth Development. In 2008, 296 Missouri adolescents were surveyed. One hundred, sixty-five of those youth were new to the study and 131 were students who had been surveyed in 2007. We tested whether the average (mean) scores were statistically different for some of the factors measured in the 4-H Study. For Missouri 10th and 11th grade students in Wave 6, we found significant differences between the 4-H and non-4-H groups. 4-H members reported more leadership opportunities; fewer risk behaviors, had higher expectations to go onto college and had higher interests in science, engineering and technology programs than their non-4-H peers.

Key Items of Evaluation

Between March and August of 2007, 338 adolescents from 26 sites in Missouri participated in Wave 5 of the 4-H Study of Positive Youth Development. In 2008, 296 Missouri adolescents were surveyed. One hundred, sixty-five of those youth were new to the study and 131 were students who had been surveyed in 2007. We tested whether the average (mean) scores were statistically different for some of the factors measured in the 4-H Study. For Missouri 10th and 11th grade students in Wave 6, we found significant differences between the 4-H and non-4-H groups. 4-H members reported more leadership opportunities; fewer risk behaviors, had higher expectations to go onto college and had higher interests in science, engineering and technology programs than their non-4-H peers.

V(A). Planned Program (Summary)

Program # 14

1. Name of the Planned Program

Building Character

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
806	Youth Development	100%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	7.8	0.0	0.0	0.0
Actual	7.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
273978	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
122492	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Integrate Show Me Character resources into 4-H Clubs, 4-H Camps, 4-H Council and other meetings and 4-H educational events. Integrate Show Me Character modules into adult and teen volunteer training, workshops; Module 1-Why Character Development; Module 2-Character Development Theory; Module 3-The Six Pillars of Character; Module 4-Making Good Decisions; and Module 5-Competing with Honor.

2. Brief description of the target audience

Youth aged 5 to 19. Adults (youth staff, local leaders, parents, volunteers, teachers, organizational leaders).

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	7700	10100	15400	50500
Actual	1946	667	13659	862

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009

Plan: 0

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	3	0	
Actual	3	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of youth and adults reached by 4-H field and state faculty with the Show Me Character Program.

Year	Target	Actual
2009	11000	15605

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	10,000 youth will report an awareness of the six pillars of character.
2	10,000 youth will report an awareness of how character affects their daily decisions.
3	20 4-H field faculty will integrate Show Me Character into their 4-H program.
4	50 to 60 youth will report annually through the Y2200, State 4-H Recognition Form on how 4-H has influenced their lives through their 4-H Story.

Outcome #1

1. Outcome Measures

10,000 youth will report an awareness of the six pillars of character.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	10000	13659

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Missouri citizens expressed their concerns through the University of Missouri Extension Plan of Work process over the net social and economic loss due to the outward migration of youth from their communities. Communities want their youth to go on to higher education to gain knowledge, skills and experience but lament fewer youth are returning to their home communities to provide civic and economic leadership.

What has been done

Young people are bombarded daily with decisions that challenge their character. Often they are encouraged to do what is expedient or to satisfy the crowd rather than being encouraged to do what is right. Young people spend so many hours of the day away from home that other caring adults and organizations need to encourage and teach the basic principles of character. The six pillars of character provide a framework to guide decisions that impact life long social and economic conditions.

Results

24 faculty statewide integrated character into 4-H Youth Development Programming. Students learned Show Me Character (1) the difference between fair and equal; (2) skills in listening ; (3) speaking their thoughts, (4) consequences of poor choices; (5) characteristics of responsibility; (6) the importance of kindness, compassion and gratitude; (7) teamwork; (8) respecting others.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #2

1. Outcome Measures

10,000 youth will report an awareness of how character affects their daily decisions.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	10000	13659

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Missouri citizens expressed their concerns through the University of Missouri Extension Plan of Work process over the net social and economic loss due to the outward migration of youth from their communities. Communities want their youth to go on to higher education to gain knowledge, skills and experience but lament fewer youth are returning to their home communities to provide civic and economic leadership.

What has been done

Young people are bombarded daily with decisions that challenge their character. Often they are encouraged to do what is expedient or to satisfy the crowd rather than being encouraged to do what is right. Young people spend so many hours of the day away from home that other caring adults and organizations need to encourage and teach the basic principles of character. The six pillars of character provide a framework to guide decisions that impact life long social and economic conditions.

Results

24 faculty statewide integrated character into 4-H Youth Development Programming. Students learned Show Me Character (1) the difference between fair and equal; (2) skills in listening ; (3) speaking their thoughts, (4) consequences of poor choices; (5) characteristics of responsibility; (6) the importance of kindness, compassion and gratitude; (7) teamwork; (8) respecting others.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #3

1. Outcome Measures

20 4-H field faculty will integrate Show Me Character into their 4-H program.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	20	24

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Missouri citizens expressed their concerns through the University of Missouri Extension Plan of Work process over the net social and economic loss due to the outward migration of youth from their communities. Communities want their youth to go on to higher education to gain knowledge, skills and experience but lament fewer youth are returning to their home communities to provide civic and economic leadership.

What has been done

Young people are bombarded daily with decisions that challenge their character. Often they are encouraged to do what is expedient or to satisfy the crowd rather than being encouraged to do what is right. Young people spend so many hours of the day away from home that other caring adults and organizations need to encourage and teach the basic principles of character. The six pillars of character provide a framework to guide decisions that impact life long social and economic conditions.

Results

24 faculty statewide integrated character into 4-H Youth Development Programming. Students learned Show Me Character (1) the difference between fair and equal; (2) skills in listening ; (3) speaking their thoughts, (4) consequences of poor choices; (5) characteristics of responsibility; (6) the importance of kindness, compassion and gratitude; (7) teamwork; (8) respecting others.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #4**1. Outcome Measures**

50 to 60 youth will report annually through the Y2200, State 4-H Recognition Form on how 4-H has influenced their lives through their 4-H Story.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	50	121

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Missouri citizens expressed their concerns through the University of Missouri Extension Plan of Work process over the net social and economic loss due to the outward migration of youth from their communities. Communities want their youth to go on to higher education to gain knowledge, skills and experience but lament fewer youth are returning to their home communities to provide civic and economic leadership.

What has been done

The Missouri 4-H Recognition program asks young people first to reflect on what they gained through leadership, citizenship, and knowledge from their project work and then if and how they applied what they gained at school, faith-based community and/or other organizations.

Results

121 youth, ages 14 to 18 and 108 middle school youth completed either the Missouri 4-H Recognition Form, the Missouri 4-H Scholarship Form or applied to be a Regional Representative of the State 4-H Council. Youths indicate what they learned about leadership through 4-H and how they apply these skills at school and in other organizations they may belong.

*4-H has taught me very important life skills such as being organized, getting involved, helping others, achieving my personal best, and how to deeply appreciate how fortunate I am to have those opportunities.

*The 4-H concept I have learned is "do, reflect, apply" method. It is not enough to simply go through the program and reflect on what you have done, you have to directly apply those skills to reap the full benefit.

*I have learned many valuable skills from 4-H including communication skills, the ability to make decisions on my own, managing resources, and being able to work with others in a large group.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- During (during program)
- Case Study
- Other (Demos, Exhibs, Behav @ Ed Events)

Evaluation Results

In 2007, Missouri 4H joined the national 4H Study of Positive Youth Development. Funded by National 4H Council and lead by researchers at Tufts University, this longitudinal study began with fifth graders. By the end of 2008, data have been collected from 6,120 adolescents and 3,084 of their parents in 41 states. Plans are to continue surveying these youth through high school and into college. Although funded by 4H, the participants are diverse adolescents who may or may not be 4H members.

Between March and August of 2007, 338 adolescents from Missouri participated in Wave 5 of the 4H Study of Positive Youth Development. In 2008, 296 Missouri adolescents were surveyed. One hundred, sixtyfive of those youth were new to the study and 131 were students who had been surveyed in 2007. The students were from 26 sites in Missouri. (See Appendix A for sites.) 4H Youth Development Specialists from the University of Missouri and Lincoln University recruited students in grades 6 to 12 to complete a written survey. Parents could also complete an optional survey. Since one of the Missouri sites was a residential facility for adolescents (n=74), those young people are not included in the results reported here.

The large national sample of teens permits researchers to compare 4H and non4H participants. The groups are matched on key factors such as gender, race/ethnicity, community type, number of parents in the home, family per capita income, and mother's education. The matched groups are also similar in their level of participation in outofschool time programs. All students in the matched samples participated at least two times per month in 4H or a similar youth development program.

When compared at the time they were 9th graders, researchers found that 4H participants had significantly higher scores on:

- Positive Youth Development
- Contribution
- SOC - a measure of goal setting and goal management skills

. Using data from multiple years, researchers created models that show trajectories or patterns of change over time. They identified desirable, undesirable, and intermediate patterns. Then, they compared matched samples of youth. For youth who had participated in 4H at some point during 5 - 9th grades, they found:

- 4H Youth were 2.5 times more likely to be in the highest Contribution group
- 4H Youth were 1.1 times more likely to be in the highest PYD group
- 4H Youth were 1.76 times more likely to report better grades
- 4H Youth were 1.7 times more likely to report that they expected to go to college

Missouri 4H findings are similar to the national results. For Missouri 10th and 11th grade students in Wave 6, we found significant differences between the 4-H and non-4-H groups. 4-H members reported more leadership opportunities; fewer risk behaviors, had higher expectations to go onto college and had higher interests in science, engineering and technology programs than their non-4-H peers.

Key Items of Evaluation

In 2007, Missouri 4H joined the national 4H Study of Positive Youth Development. Funded by National 4H Council and lead by researchers at Tufts University, this longitudinal study began with fifth graders. By the end of 2008, data have been collected from 6,120 adolescents and 3,084 of their parents in 41 states. Plans are to continue surveying these youth through high school and into college. Although funded by 4H, the participants are diverse adolescents who may or may not be 4H members.

Between March and August of 2007, 338 adolescents from Missouri participated in Wave 5 of the 4H Study of Positive Youth Development. In 2008, 296 Missouri adolescents were surveyed. One hundred, sixtyfive of those youth were new to the study and 131 were students who had been surveyed in 2007. The students were from 26 sites in Missouri. (See Appendix A for sites.) 4H Youth Development Specialists from the University of Missouri and Lincoln University recruited students in grades 6 to 12 to complete a written survey. Parents could also complete an optional survey. Since one of the Missouri sites was a residential facility for adolescents (n=74), those young people are not included in the results

When compared at the time they were 9th graders, researchers found that 4H participants had significantly higher scores on:

- Positive Youth Development
- Contribution

SOC - a measure of goal setting and goal management skills

. Using data from multiple years, researchers created models that show trajectories or patterns of change over time. They identified desirable, undesirable, and intermediate patterns. Then, they compared matched samples of youth. For youth who had participated in 4H at some point during 5 - 9th grades, they found:

4H Youth were 2.5 times more likely to be in the highest Contribution group

4H Youth were 1.1 times more likely to be in the highest PYD group

4H Youth were 1.76 times more likely to report better grades

4H Youth were 1.7 times more likely to report that they expected to go to college

Missouri 4H findings are similar to the national results. For Missouri 10th and 11th grade students in Wave 6, we found significant differences between the 4-H and non-4-H groups. 4-H members reported more leadership opportunities; fewer risk behaviors, had higher expectations to go onto college and had higher interests in science, engineering and technology programs than their non-4-H peers.

V(A). Planned Program (Summary)**Program # 15****1. Name of the Planned Program**

Choosing Healthy Lifestyles

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
806	Youth Development	100%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	6.0	0.0	0.0	0.0
Actual	10.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
373606	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
167035	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

4-H Food and Nutrition Projects; Physical Activity 4-H Projects; Camp Food and Fitness; Steppin' Out Fitness Guide; FNEP and 4-H; Couch Potato Challenge Guide; Fight BAC Food Safety; 4-H Shooting Sports; 4-H Child Development Project; 4-H Sportsfishing; Stress Connection Project; 4-H Outdoor Adventures; Develop curricula for teen depression and suicide; Gardening; 4-H Safety Projects; Farm/Rural Safety Days.

2. Brief description of the target audience

Adults (youth staff, local leaders, parents, volunteers, teachers, organizational leaders), youth aged 5 - 19.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	1600	3500	7200	14500
Actual	1908	579	228682	6128

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009
 Plan: 0
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	1	0	
Actual	1	0	11

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Attendance of project leaders at workshops for foods/nutrition, physical activity, shooting sports, healthy relationships and/or safety.

Year	Target	Actual
2009	220	1148

Output #2

Output Measure

- Number of youth enrolled in foods projects, physical activity projects, leisure projects, safety projects, camps, educational events and afterschool.

Year	Target	Actual
2009	5100	228682

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	4500 youth will competently demonstrate knowledge and skills gained through demonstrations and project exhibition.
2	75% of the participants of Camp Food and Fitness will indicate they are continuing to make healthy food choices 6 months after the camp experience.

Outcome #1

1. Outcome Measures

4500 youth will competently demonstrate knowledge and skills gained through demonstrations and project exhibition.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	5000	5011

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Missouri citizens expressed through the University of Missouri Extension Plan of Work process concerns over the high incidence of obesity in children and youth and the need for wholesome choices for physical and leisure activity. Communities want youth to learn more and have opportunities for healthy food and other lifestyle choices.

What has been done

Healthy lifestyles include eating a healthy diet, maintaining a healthy weight, exercising regularly, quitting (or not starting) smoking, and minimizing stress. By providing education, programs and experiences that promote healthy behaviors, 4-H can help youth, adults and families integrate healthy behaviors, which include physical, mental and emotional well being, into their everyday lives.

Results

5,011 youth demonstrated knowledge that met or exceeded established criteria through public presentations or exhibition; 2,505 youth demonstrated knowledge that minimally met established criteria through public presentations or exhibition; 835 youth demonstrated knowledge that could improve based on established criteria through public presentations or exhibition.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #2

1. Outcome Measures

75% of the participants of Camp Food and Fitness will indicate they are continuing to make healthy food choices 6 months after the camp experience.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	20	45

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Missouri citizens expressed through the University of Missouri Extension Plan of Work process concerns over the high incidence of obesity in children and youth and the need for wholesome choices for physical and leisure activity. Communities want youth to learn more and have opportunities for healthy food and other lifestyle choices.

What has been done

By providing education, programs and experiences that promote healthy behaviors, 4-H can help youth, adults and families integrate healthy behaviors, which include physical, mental and emotional well being, into their everyday lives.

Results

45 youth are well positioned to make healthy food and fitness choices by attending Camp Food and Fitness. A survey completed immediately following the event. 89% of the youth indicated they learned healthy food choices, 84% indicated increased knowledge of food safety procedures, 100% of the youth completed a Healthy Lifestyle Plan. We are in the process of following-up with the individual youth to determine the success rate of the 4-H member to follow their plan.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- During (during program)
- Other (Demos, Judging, Exhibs of Knowle)

Evaluation Results

In 2007, Missouri 4H joined the national 4H Study of Positive Youth Development. Funded by National 4H Council and lead by researchers at Tufts University, this longitudinal study began with fifth graders. By the end of 2008, data have been collected from 6,120 adolescents and 3,084 of their parents in 41 states. Plans are to continue surveying these youth through high school and into college. Although funded by 4H, the participants are diverse adolescents who may or may not be 4H members.

Between March and August of 2007, 338 adolescents from Missouri participated in Wave 5 of the 4H Study of Positive Youth Development. In 2008, 296 Missouri adolescents were surveyed. One hundred, sixty-five of those youth were new to the study and 131 were students who had been surveyed in 2007. The students were from 26 sites in Missouri. (See Appendix A for sites.) 4-H Youth Development Specialists from the University of Missouri and Lincoln University recruited students in grades 6 to 12 to complete a written survey. Parents could also complete an optional survey. Since one of the Missouri sites was a residential facility for adolescents (n=74), those young people are not included in the results

When compared at the time they were 9th graders, researchers found that 4H participants had significantly higher scores on:

Positive Youth Development
Contribution
SOC - a measure of goal setting and goal management skills

. Using data from multiple years, researchers created models that show trajectories or patterns of change over time. They identified desirable, undesirable, and intermediate patterns. Then, they compared matched samples of youth. For youth who had participated in 4H at some point during 5 - 9th grades, they found:

4H Youth were 2.5 times more likely to be in the highest Contribution group
4H Youth were 1.1 times more likely to be in the highest PYD group
4H Youth were 1.76 times more likely to report better grades
4H Youth were 1.7 times more likely to report that they expected to go to college

Missouri 4H findings are similar to the national results. For Missouri 10th and 11th grade students in Wave 6, we found significant differences between the 4-H and non-4-H groups. 4-H members reported more leadership opportunities; fewer risk behaviors, had higher expectations to go onto college and had higher interests in science, engineering and technology programs than their non-4-H peers.

Key Items of Evaluation

In 2007, Missouri 4H joined the national 4H Study of Positive Youth Development. Funded by National 4H Council and lead by researchers at Tufts University, this longitudinal study began with fifth graders. By the end of 2008, data have been collected from 6,120 adolescents and 3,084 of their parents in 41 states. Plans are to continue surveying these youth through high school and into college. Although funded by 4H, the participants are diverse adolescents who may or may not be 4H members.

Between March and August of 2007, 338 adolescents from Missouri participated in Wave 5 of the 4H Study of Positive Youth Development. In 2008, 296 Missouri adolescents were surveyed. One hundred, sixty-five of those youth were new to the study and 131 were students who had been surveyed in 2007. The students were from 26 sites in Missouri. (See Appendix A for sites.) 4-H Youth Development Specialists from the University of Missouri and Lincoln University recruited students in grades 6 to 12 to complete a written survey. Parents could also complete an optional survey. Since one of the Missouri sites was a residential facility for adolescents (n=74), those young people are not included in the results

When compared at the time they were 9th graders, researchers found that 4H participants had significantly higher scores on:

Positive Youth Development

Contribution

SOC - a measure of goal setting and goal management skills

. Using data from multiple years, researchers created models that show trajectories or patterns of change over time. They identified desirable, undesirable, and intermediate patterns. Then, they compared matched samples of youth. For youth who had participated in 4H at some point during 5 - 9th grades, they found:

4H Youth were 2.5 times more likely to be in the highest Contribution group

4H Youth were 1.1 times more likely to be in the highest PYD group

4H Youth were 1.76 times more likely to report better grades

4H Youth were 1.7 times more likely to report that they expected to go to college

Missouri 4H findings are similar to the national results. For Missouri 10th and 11th grade students in Wave 6, we found significant differences between the 4-H and non-4-H groups. 4-H members reported more leadership opportunities; fewer risk behaviors, had higher expectations to go onto college and had higher interests in science, engineering and technology programs than their non-4-H peers.

V(A). Planned Program (Summary)**Program # 16****1. Name of the Planned Program**

Creating Economic Preparedness

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
806	Youth Development	100%			
	Total	100%			

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	2.8	0.0	0.0	0.0
Actual	10.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
373606	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
167035	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

Learning about personal finances through Financial Champions 4-H Project Literature, demonstrations, exhibits, camps and educational events. Learning about consumerism through Consumer Savvy 4-H Project Literature, demonstrations, exhibits, camps and educational events. Learning about youth entrepreneurship through curricula, demonstrations, exhibits, camps and educational events.

2. Brief description of the target audience

Adults (youth staff, local leaders, parents, volunteers, teachers, organizational leaders), youth aged 8 - 19.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	200	1500	600	5500
Actual	694	995	1274	1689

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009

Plan: 0

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	1	0	
Actual	1	0	2

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- 4-H Club, Council Treasurer Roles; 4-H Club fundraisers; 4-H Financial Champions Project Literature; 4-H Consumer Savvy Project Literature; Entrepreneurship; Workforce/Career Readiness.

Year	Target	Actual
2009	1100	4229

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Number of youth and adults in treasurer roles for 4-H Clubs, Councils and Committees.
2	Attendance of project leaders at workshops for personal finance, consumer and/or entrepreneurship.
3	Number of youth enrolled in personal finance, consumer and/or entrepreneurship.
4	Number of youth participating in camps, educational events and afterschool.
5	Number of hits on website.
6	350 youth will competently demonstrate knowledge and skills gained through treasurer roles, demonstrations and project exhibition.
7	70 volunteers will competently lead youth through project experiences, promoting demonstrations, judging and other educational events.
8	100 youth will go onto post-secondary education.
9	75 youth will demonstrate career planning by listing their goal(s) and the institution of higher education they choose to achieve their goal(s) on their 4-H state scholarship and/or award applications.

Outcome #1

1. Outcome Measures

Number of youth and adults in treasurer roles for 4-H Clubs, Councils and Committees.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	1050	1392

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Missouri citizens expressed their concerns through the University of Missouri Extension Plan of Work process over the net social and economic loss due to the outward migration of youth from their communities. Communities want their youth to go on to higher education to gain knowledge, skills and experience but lament fewer youth are returning to their home communities to provide civic and economic leadership.

What has been done

Providing opportunities to equip youth with skills, knowledge, and experiences that will assist them in acquiring economic success; including managing personal finances, entrepreneurship and preparing for the workforce.

Results

Participants learn the importance of conducting 4-H meetings according to accepted procedure, keeping accurate financial and activity records and by incorporating fun activities into the 4-H program. Team building activities help the youth learn the importance of working together to achieve club goals.

I learned...

Things about running the meetings.

How to use a gavel.

How to bring the club to order, how to keep your club interested.

How to make a motion by saying "I move..." instead of "I make a motion..."

That the vice-president has something to do during the meeting.

About writing receipts.

That there is a treasurer record book and a receipt book is needed.

How to lead songs and games.

How to write a cutline and what it was.

How to use the secretary book.

That when keeping minutes, I should not abbreviate anything.

How to write better minutes.

How to properly record minutes and what to do properly during the meeting.

More about how to do a 4-H history scrapbook.

4. Associated Knowledge Areas

KA Code Knowledge Area

806 Youth Development

Outcome #2**1. Outcome Measures**

Attendance of project leaders at workshops for personal finance, consumer and/or entrepreneurship.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	25	318

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Missouri citizens expressed their concerns through the University of Missouri Extension Plan of Work process over the net social and economic loss due to the outward migration of youth from their communities. Communities want their youth to go on to higher education to gain knowledge, skills and experience but lament fewer youth are returning to their home communities to provide civic and economic leadership.

What has been done

Family and Consumer Science Specialists incorporate 4-H volunteers into their on-going financial management workshops.

Results

Creating Economic Preparedness reached 560 adults in FY08.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #3**1. Outcome Measures**

Number of youth enrolled in personal finance, consumer and/or entrepreneurship.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	125	2837

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Missouri citizens expressed their concerns through the University of Missouri Extension Plan of Work process over the net social and economic loss due to the outward migration of youth from their communities. Communities want their youth to go on to higher education to gain knowledge, skills and experience but lament fewer youth are returning to their home communities to provide civic and economic leadership.

What has been done

Providing opportunities to equip youth with skills, knowledge, and experiences that will assist them in acquiring economic success; including managing personal finances, entrepreneurship and preparing for the workforce.

Results

Nine 4-H Members have started their own business. See the following link for an example.

<http://4h.missouri.edu/news/2008/entrepreneur08-7.htm>

Six 4-H Alumni businesses have been featured as part of the 4-H Entrepreneurship Program

See this link for an example.

See the following link for the 4-H Entrepreneurship Program

<http://4h.missouri.edu/go/get/projects/projects2.htm#Entrepreneurship>

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #4

1. Outcome Measures

Number of youth participating in camps, educational events and afterschool.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
------	---------------------	--------

2009

35

2371

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Missouri citizens expressed their concerns through the University of Missouri Extension Plan of Work process over the net social and economic loss due to the outward migration of youth from their communities. Communities want their youth to go on to higher education to gain knowledge, skills and experience but lament fewer youth are returning to their home communities to provide civic and economic leadership.

What has been done

Through camping, young people learn independence, responsibility, how to get along with others, and how to make the right decisions. Camp promotes cooperation, teamwork, and respect for other people and our natural environment. 4-H programs offer a variety of camping experiences. Residential camps for one or more nights; Day camps ;Special interest camps such as Aerospace Camp; Camps designed for specific age groups.

Results

An Evaluation of Life Skill Development in Missouri's 4-H Youth Resident Summer Camps In the quantitative section of the surveys, parents reported that their child's Social Skills had improved more than any other because of attending 4-H Camp (Parent mean = 1.92 where 1 ="Strongly Agree"; 4 = "Strongly Disagree"). Youth agreed even more frequently (Youth mean = 1.89). Youth reported their Teamwork skills improved most because of attending 4-H Camp (Youth mean =1.78). Parents agreed slightly less frequently (Parent mean = 1.98). In even the lowest-rated life skill (Learning to Learn), both parents and campers overwhelmingly agreed that this skill improved because of 4-H camp.. The vast majority of parents and youth alike feel that the 4-H Camp experience provides a wealth of learning experiences for campers. It clearly does have perceived value to both parents and children in developing life skills.

<http://4h.missouri.edu/resources/evaluation/#camp>

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #5**1. Outcome Measures**

Number of hits on website.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	1200	23634

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Missouri citizens expressed their concerns through the University of Missouri Extension Plan of Work process over the net social and economic loss due to the outward migration of youth from their communities. Communities want their youth to go on to higher education to gain knowledge, skills and experience but lament fewer youth are returning to their home communities to provide civic and economic leadership.

What has been done

Providing opportunities to equip youth with skills, knowledge, and experiences that will assist them in acquiring economic success; including managing personal finances, entrepreneurship and preparing for the workforce. The includes opportunities such as events, camps, scholarships.

Results

Website	Hits	Views
Scholarships	3,995	7,701
Recognition	4,696	5,693
K.C. Global Conference	3,599	6,715
Summers@Mizzou	7,667	11,847
Architecture Workshop	3,677	7,278

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #6

1. Outcome Measures

350 youth will competently demonstrate knowledge and skills gained through treasurer roles, demonstrations and project exhibition.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	400	1452

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Missouri citizens expressed their concerns through the University of Missouri Extension Plan of Work process over the net social and economic loss due to the outward migration of youth from their communities. Communities want their youth to go on to higher education to gain knowledge, skills and experience but lament fewer youth are returning to their home communities to provide civic and economic leadership.

What has been done

Providing opportunities to equip youth with skills, knowledge, and experiences that will assist them in acquiring economic success; including managing personal finances, entrepreneurship and preparing for the workforce.

Youth serve as treasurers for their local 4-H Clubs and county 4-H Councils. To learn to accurately handle and account for club's income and expenses.

Results

Excerpts of 4-H Club Office Trainings:

- "Ms. Carr taught me to balance a check book, fill out a deposit slip, and make a yearly financial report." (Jackson County)
- "Participants learn the importance of conducting 4-H meetings according to accepted procedure, keeping accurate financial and activity records and incorporating fun activities into the 4-H program. Team building activities help the youth learn the importance of working together to achieve club goals." (Audrain County)
- "There is a treasurer record book and a receipt book needed." (Franklin County)

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #7

1. Outcome Measures

70 volunteers will competently lead youth through project experiences, promoting demonstrations, judging and other educational events.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	80	223

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Missouri citizens expressed their concerns through the University of Missouri Extension Plan of Work process over the net social and economic loss due to the outward migration of youth from their communities. Communities want their youth to go on to higher education to gain knowledge, skills and experience but lament fewer youth are returning to their home communities to provide civic and economic leadership.

What has been done

Curricula has been developed and made assessable to volunteers via the MU Extension 4-H Youth Development Website - curricula includes teaching techniques in general and more specifically by project areas.

Results

Typical post 4-H volunteer results:

- "The online information was interesting."
- "One new thing I learned...more about project structure."
- "How to do a project meeting."

Evaluation showed that participants learned more about project structure, meeting and organization.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #8

1. Outcome Measures

100 youth will go onto post-secondary education.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	100	251

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Missouri citizens expressed their concerns through the University of Missouri Extension Plan of Work process over the net social and economic loss due to the outward migration of youth from their communities. Communities want their youth to go on to higher education to gain knowledge, skills and experience but lament fewer youth are returning to their home communities to provide civic and economic leadership.

What has been done

The Missouri 4-H program annually links thousands of young people, parents, volunteers, and professionals to MU. Last year, 3,336 persons visited the MU campus for educational events and camps including State 4-H Congress, State 4-H Teen Conference, Fashion Revue, Camp Food and Fitness, Architecture and Interior Design Workshop, Youth Futures and 4-H contests that provided opportunities for young people to demonstrate knowledge and demonstrate their skills.

Results

Missouri 4-H Members are twice more likely to have been on a college campus than their non-4-H peers. MU is by far the campus most frequently visited and 4-H is the second most reported reason to be on the MU Campus (Lerner, 2008). Being on a campus is a predictor of youth going on to higher education (Hoover, 2006)

*Missouri young people ages 5-18 participating in 4-H = 1 of every 10

*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)

*If 10% earn bachelor's degrees, their increased annual earnings will total \$210 million (2.1 million per individual) (Porter, 2003).

*Porter, K. (2003). The Value of a College Degree. Washington, D.C.: ERIC Clearinghouse on Higher Education.

4. Associated Knowledge Areas

KA Code **Knowledge Area**
806 Youth Development

Outcome #9

1. Outcome Measures

75 youth will demonstrate career planning by listing their goal(s) and the institution of higher education they choose to achieve their goal(s) on their 4-H state scholarship and/or award applications.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	75	282

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Missouri citizens expressed their concerns through the University of Missouri Extension Plan of Work process over the net social and economic loss due to the outward migration of youth from their communities. Communities want their youth to go on to higher education to gain knowledge, skills and experience but lament fewer youth are returning to their home communities to provide civic and economic leadership.

What has been done

Providing opportunities to equip youth with skills, knowledge, and experiences that will assist them in acquiring economic success; including managing personal finances, entrepreneurship and preparing for the workforce.

Results

In 2008, 296 Missouri adolescents (grades 6 to 12) were surveyed. One hundred, sixty-five of those youth were new to the study and 131 were students who had been surveyed in 2007. We decided to focus the Missouri 4-H analysis on more homogeneous developmental groups. The data were separated into two groups, 8th and 9th graders and 10th and 11th graders. We tested whether the average (mean) scores were statistically different for some of the factors measured in the 4-H Study. For Missouri 10th and 11th grade students in Wave 6, we found significant differences between the 4-H and non-4-H groups on: 1. Number of leadership experiences; 2. Number of risk behaviors; 3. Number who expect to go to college; 4. Number who want to go to college; 5. Number who said science, engineering and computer technology programs increase interest in science. These data suggest that young people who are active in 4-H are likely to report more positive behaviors and fewer negative behaviors.

4. Associated Knowledge Areas

KA Code **Knowledge Area**
806 Youth Development

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation**V(I). Planned Program (Evaluation Studies and Data Collection)**

1. Evaluation Studies Planned

- After Only (post program)
- During (during program)
- Time series (multiple points before and after program)

Evaluation Results

In 2007, Missouri 4-H joined the national 4-H Study of Positive Youth Development. The longitudinal study has surveyed 4,793 adolescents in 34 states in its first five years. This landmark investigation is helping us better understand the factors that lead to positive growth and decreased risk during adolescence. Between March and August of 2007, 338 adolescents from Missouri participated in Wave 5 of the 4-H Study of Positive Youth Development. In 2008, 296 Missouri adolescents were surveyed. One hundred, sixty-five of those youth were new to the study and 131 were students who had been surveyed in 2007. The students were from 26 sites in Missouri. (See Appendix A for sites.) Four-H Youth Development Specialists from the University of Missouri and Lincoln University recruited students in grades 6 to 12 to complete a written survey. Parents could also complete an optional survey.

In addition to contributing to the national study, we particularly wanted to know about the value of Missouri 4-H participation. In order to explore this, we grouped Missouri students based on their self-reported 4-H participation in the past year. Groups were:

- Non-4-H - Never participated in a 4-H club
- 4-H - Participated in a 4-H club at least once a month

We then decided to focus the Missouri 4-H analysis on more homogeneous developmental groups. The data were separated into two groups, 8th and 9th graders and 10th and 11th graders. Table 4 breaks the participants out by 4-H participation and grade groups.

Then we tested whether the average (mean) scores were statistically different for some of the factors measured in the 4-H Study. For Missouri 10th and 11th grade students in Wave 6, we found significant differences between the 4-H and non-4-H groups on:

- Number of leadership experiences
- Number of risk behaviors
- Number who expect to go to college
- Number who want to go to college
- Number who said science, engineering and computer technology programs increase interest in science

- These findings were mostly consistent with the national sample and the longitudinal data. These data suggest that young people who are active in 4-H are likely to report more positive behaviors and fewer negative behaviors. Additional information on the 4-H Study of Positive Youth Development can be found at: <http://mo4h.missouri.edu/resources/evaluation/pydstudy.htm>.

Key Items of Evaluation

In 2007, Missouri 4-H joined the national 4-H Study of Positive Youth Development. The longitudinal study has surveyed 4,793 adolescents in 34 states in its first five years. This landmark investigation is helping us better understand the factors that lead to positive growth and decreased risk during adolescence. Between March and August of 2007, 338 adolescents from Missouri participated in Wave 5 of the 4-H Study of Positive Youth Development. In 2008, 296 Missouri adolescents were surveyed. One hundred, sixty-five of those youth were new to the study and 131 were students who had been surveyed in 2007. The students were from 26 sites in Missouri. (See Appendix A for sites.) Four-H Youth Development Specialists from the University of Missouri and Lincoln University recruited students in grades 6 to 12 to complete a written survey. Parents could also complete an optional survey.

In addition to contributing to the national study, we particularly wanted to know about the value of Missouri 4-H participation. In order to explore this, we grouped Missouri students based on their self-reported 4-H participation in the past year. Groups were:

- Non-4-H - Never participated in a 4-H club
- 4-H - Participated in a 4-H club at least once a month
- We then decided to focus the Missouri 4-H analysis on more homogeneous developmental groups. The data were separated into two groups, 8th and 9th graders and 10th and 11th graders. Table 4 breaks the participants out by 4-H participation and grade groups.

Then we tested whether the average (mean) scores were statistically different for some of the factors measured in the 4-H Study. For Missouri 10th and 11th grade students in Wave 6, we found significant differences between the 4-H and non-4-H groups on:

- Number of leadership experiences
- Number of risk behaviors
- Number who expect to go to college
- Number who want to go to college
- Number who said science, engineering and computer technology programs increase interest in science
- These findings were mostly consistent with the national sample and the longitudinal data. These data suggest that young people who are active in 4-H are likely to report more positive behaviors and fewer negative behaviors. Additional information on the 4-H Study of Positive Youth Development can be found at: <http://mo4h.missouri.edu/resources/evaluation/pydstudy.htm>.

V(A). Planned Program (Summary)**Program # 17****1. Name of the Planned Program**

Enhancing Community Viability Through Youth Leadership

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
806	Youth Development	100%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	7.7	0.0	0.0	0.0
Actual	10.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
373606	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
167035	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

4-H Leadership Roles - club, county council/committees, state council, collegiate; Leadership project; Youth Civic Leaders Summit; Extension Council Youth Leaders; Army Service Learning Toolkit; Public Adventures; CECH-UP; Global Education.

2. Brief description of the target audience

Adults (youth staff, local leaders, parents, volunteers, teachers, organizational leaders), youth aged 8 - 19.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	1400	3500	17000	34000
Actual	6010	3830	12196	5186

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009
 Plan: 0
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	2	0	
Actual	2	0	25

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of youth and adults in leadership roles for 4-H Clubs, Councils and Committees.

Year	Target	Actual
2009	2250	17382

Output #2

Output Measure

- Number of youth and adult partnership teams trained at workshops, conferences, summits.

Year	Target	Actual
2009	300	164

Output #3

Output Measure

- Number of community service grants awarded through the Missouri 4-H Foundation.

Year	Target	Actual
2009	55	20

Output #4

Output Measure

- Number of youth in civic leadership roles.

Year	Target	Actual
2009	25	218

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	12,000 youth will engage and complete 4-H leadership roles.
2	70% of the sample of 400 youth who have participated in state 4-H educational events or fulfilled leadership roles will report incorporating skills in other educational and/or leadership situations.

Outcome #1

1. Outcome Measures

12,000 youth will engage and complete 4-H leadership roles.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	12000	12196

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Missouri citizens expressed their concerns through the University of Missouri Extension Plan of Work process over the net social and economic loss due to the outward migration of youth from their communities. Communities want their youth to go on to higher education to gain knowledge, skills and experience but lament fewer youth are returning to their home communities to provide civic and economic leadership.

What has been done

Adult staff and volunteers facilitated youth ages 5 to 19 to learn through projects, camps, educational events and meaningful leadership roles about the importance and benefits of serving the community and being an engaged citizen. Program staff facilitated learning to help parents, caregivers, volunteer leaders and staff of other youth serving organizations to gain skills to promote youth and adult partnerships and to facilitate youth contribution through community service.

Results

181 youth, ages 14 to 18, completed either the Missouri 4-H Recognition Form, the Missouri 4-H Scholarship Form or applied to be a Regional Representative of the State 4-H Council. These youths indicate in writing what they have learned about leadership through their 4-H experience. They go onto to indicate how they apply these skills at school and in other organizations they may belong.

Another 108 middle school youth complete a similar application in their quest to obtain a scholarship to the Missouri State 4-H Teen conference. Following is an example of a statement taken from the Missouri 4-H Recognition Form:

The 4-H concept I have learned is "do, reflect, apply" method. It is not enough to simply go through the program and reflect on what you have done, you have to directly apply those skills to reap the full benefit.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #2**1. Outcome Measures**

70% of the sample of 400 youth who have participated in state 4-H educational events or fulfilled leadership roles will report incorporating skills in other educational and/or leadership situations.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	300	210

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Missouri citizens expressed their concerns through the University of Missouri Extension Plan of Work process over the net social and economic loss due to the outward migration of youth from their communities. Communities want their youth to go on to higher education to gain knowledge, skills and experience but lament fewer youth are returning to their home communities to provide civic and economic leadership.

What has been done

Adult staff and volunteers facilitated youth ages 5 to 19 to learn through projects, camps, educational events and meaningful leadership roles about the importance and benefits of serving the community and being an engaged citizen. Program staff facilitated learning to help parents, caregivers, volunteer leaders and staff of other youth serving organizations to gain skills to promote youth and adult partnerships and to facilitate youth contribution through community service.

Results

Example of Evaluation from Youth Civic Summit

Youth/adult team members completed an evaluation of their participation in the Summit (n=54):

Item/Average scores (1 = very low; 5 = very high)

Level of self-awareness as a developing leader: Before the Summit 3.54, After the Summit 4.20, Change +0.66.

Motivation to find and use my voice in leadership and decision-making roles in my community: Before the Summit 3.69, After the Summit 4.19, Change +0.50.

Belief that youth and adults can work together effectively: Before the Summit 3.82, After the Summit 4.30, Change +0.48.

Understanding of strategies I can use to develop my leadership potential: Before the Summit 3.37, After the Summit 4.04, Change +0.67.

Involvement with a team that has a plan for promoting youth-adult partnerships in the community: Before the Summit 3.58, After the Summit 4.26, Change +0.68.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- During (during program)
- Case Study

Evaluation Results

In 2007, Missouri 4-H joined the national 4-H Study of Positive Youth Development. The longitudinal study has surveyed 4,793 adolescents in 34 states in its first five years. This landmark investigation is helping us better understand the factors that lead to positive growth and decreased risk during adolescence. Between March and August of 2007, 338 adolescents from Missouri participated in Wave 5 of the 4-H Study of Positive Youth Development. In 2008, 296 Missouri adolescents were surveyed. One hundred, sixty-five of those youth were new to the study and 131 were students who had been surveyed in 2007. The students were from 26 sites in Missouri. (See Appendix A for sites.) Four-H Youth Development Specialists from the University of Missouri and Lincoln University recruited students in grades 6 to 12 to complete a written survey. Parents could also complete an optional survey.

In addition to contributing to the national study, we particularly wanted to know about the value of Missouri 4-H participation. In order to explore this, we grouped Missouri students based on their self-reported 4-H participation in the past year. Groups were:

- Non-4-H - Never participated in a 4-H club
- 4-H - Participated in a 4-H club at least once a month
- We then decided to focus the Missouri 4-H analysis on more homogeneous developmental groups. The data were separated into two groups, 8th and 9th graders and 10th and 11th graders. Table 4 breaks the participants out by 4-H participation and grade groups.

Then we tested whether the average (mean) scores were statistically different for some of the factors measured in the 4-H Study. For Missouri 10th and 11th grade students in Wave 6, we found significant differences between the 4-H and non-4-H groups on:

- Number of leadership experiences

- Number of risk behaviors
- Number who expect to go to college
- Number who want to go to college
- Number who said science, engineering and computer technology programs increase interest in science
- These findings were mostly consistent with the national sample and the longitudinal data. These data

suggest that young people who are active in 4-H are likely to report more positive behaviors and fewer negative behaviors. Additional information on the 4-H Study of Positive Youth Development can be found at: <http://mo4h.missouri.edu/resources/evaluation/pydstudy.htm>.

Key Items of Evaluation

In 2007, Missouri 4-H joined the national 4-H Study of Positive Youth Development. The longitudinal study has surveyed 4,793 adolescents in 34 states in its first five years. This landmark investigation is helping us better understand the factors that lead to positive growth and decreased risk during adolescence. Between March and August of 2007, 338 adolescents from Missouri participated in Wave 5 of the 4-H Study of Positive Youth Development. In 2008, 296 Missouri adolescents were surveyed. One hundred, sixty-five of those youth were new to the study and 131 were students who had been surveyed in 2007. The students were from 26 sites in Missouri. (See Appendix A for sites.) Four-H Youth Development Specialists from the University of Missouri and Lincoln University recruited students in grades 6 to 12 to complete a written survey. Parents could also complete an optional survey.

In addition to contributing to the national study, we particularly wanted to know about the value of Missouri 4-H participation. In order to explore this, we grouped Missouri students based on their self-reported 4-H participation in the past year. Groups were:

- Non-4-H - Never participated in a 4-H club
- 4-H - Participated in a 4-H club at least once a month

We then decided to focus the Missouri 4-H analysis on more homogeneous developmental groups. The data were separated into two groups, 8th and 9th graders and 10th and 11th graders. Table 4 breaks the participants out by 4-H participation and grade groups.

Then we tested whether the average (mean) scores were statistically different for some of the factors measured in the 4-H Study. For Missouri 10th and 11th grade students in Wave 6, we found significant differences between the 4-H and non-4-H groups on:

- Number of leadership experiences
- Number of risk behaviors
- Number who expect to go to college
- Number who want to go to college
- Number who said science, engineering and computer technology programs increase interest in science

These findings were mostly consistent with the national sample and the longitudinal data. These data suggest that young people who are active in 4-H are likely to report more positive behaviors and fewer negative behaviors. Additional information on the 4-H Study of Positive Youth Development can be found at: <http://mo4h.missouri.edu/resources/evaluation/pydstudy.htm>.

V(A). Planned Program (Summary)

Program # 18

1. Name of the Planned Program

Volunteer Development

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
806	Youth Development	100%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	7.7	0.0	0.0	0.0
Actual	10.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
373606	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
167035	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

County, regional and state volunteer workshops and forums, Communications, Program management, Educational Design and Delivery, Interpersonal Skills, and Youth Development; Leadership roles of 4-H clubs, projects, county and state educational events, Letters to New Leaders, and Make the Best Better Modules; Web-based instruction; Youth Protection Policies and Procedures (Volunteer Screening).

2. Brief description of the target audience

Adults (youth staff, local leaders, parents, volunteers, teachers, organizational leaders), youth aged 5 - 19.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	150	11200	1100	11200
Actual	30433	56407	27822	57760

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009

Plan: 0

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	5	0	
Actual	5	0	10

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- County, regional and state volunteer workshops and forums, Leadership roles of 4-H clubs, projects, county and state educational events; Web-based instruction; Youth Protection Policies and Procedures (Volunteer Screening).

Year	Target	Actual
2009	550	2329

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	5,000 adults and youth volunteers will increase knowledge and awareness of practices fostering positive youth development.
2	5,000 adult and youth volunteers apply practices of positive youth development through leadership roles.
3	Number of volunteers in local, county, regional and state 4-H leadership roles.
4	Number of volunteers attending workshops and/or forums for personal growth.
5	Number of volunteers completing Volunteers: The Foundation of Youth Development.
6	Number of volunteers screened prior to service.

Outcome #1**1. Outcome Measures**

5,000 adults and youth volunteers will increase knowledge and awareness of practices fostering positive youth development.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	5000	5715

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Missouri citizens expressed their concerns through the University of Missouri Extension Plan of Work process over the net social and economic loss due to the outward migration of youth from their communities. Communities want their youth to go on to higher education to gain knowledge, skills and experience but lament fewer youth are returning to their home communities to provide civic and economic leadership.

What has been done

A required 4-H volunteer orientation began in FY08, in FY09 5,715 completed the orientation which introduces them to the concepts of land-grant universities, how youth grow and develop, 4-H's philosophy on competition, character education and how to reduce risk when working with youth. In addition to face-to-face workshops, an on-line course is available so busy volunteers can complete this obligation at their convenience.

Results

"What will you most likely use from this orientation?" 1. To assure a safe, friendly, secure environment of the children; 2. To use the mastery focused approach and ask them open-ended questions so they understand that they are responsible for what they learn. 3. Implementing all aspects of doing, reflecting and applying for my Clover Kids. It's very important they realize that what we're doing is fun, but they're also learning skills they can apply outside of a 4-H setting.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #2**1. Outcome Measures**

5,000 adult and youth volunteers apply practices of positive youth development through leadership roles.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	5000	11028

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Volunteers: both adult and youth are the backbone of the Missouri 4 H Youth Development Programs by teaching skills, managing the work of others, mentoring youth, working with teachers and schools, coordinating county and state events, and promoting 4-H.

What has been done

Through workshops, volunteer forums, leadership roles and web based instruction, state and county extension faculty will help adult and youth volunteer leaders gain knowledge and skills to communicate, manage programs, design and deliver education events, develop interpersonal skills and create environments that promote positive youth development.

Results

How you plan to use this information:

"Better planning results in better training" "The competition and mastery information will help me to better work with each individual child on his/her level." "The development of kids will help me in my project by being able to understand more how the age difference is a big part of learning." "Information about cognitive ability levels helped to prepare." "Winning is not everything, but trying is having fun while trying." "Making sure kids focus on the project-completing it, doing their best, learning from mistakes, etc. & not focusing on whether or not they won/lost." "Let kids learn by doing & not insisting they do things the way I would." "Make sure the kids have hands on experience not just me telling them how." "Setting good examples & being a good leader." "Utilize the older kids in my project to interact & assist the younger to make them feel as a group."

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #3

1. Outcome Measures

Number of volunteers in local, county, regional and state 4-H leadership roles.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	10000	10781

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Volunteers: both adult and youth are the backbone of the Missouri 4 H Youth Development Programs by teaching skills, managing the work of others, mentoring youth, working with teachers and schools, coordinating county and state events, and promoting 4-H.

What has been done

Through workshops, volunteer forums, leadership roles and web based instruction, state and county extension faculty will help adult and youth volunteer leaders gain knowledge and skills to communicate, manage programs, design and deliver education events, develop interpersonal skills and create environments that promote positive youth development.

Results

Adults increased their understanding of 4-H. Project leaders improved skills to use 4-H curricula. Volunteers provided higher quality experiences for youth. Youth increased knowledge and skills.

12 of 12 volunteers felt their knowledge/performance increased by adventure education.

"I enjoyed seeing the excitement from other club leaders today which will help me remain positive."

Improved ability to guide groups to set and achieve goals

Improved ability to work out differences with others

Improved ability to do one's share when working with others

Improved ability to lead groups outside of 4-H

Engaged youth leadership in solving community issues.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #4

1. Outcome Measures

Number of volunteers attending workshops and/or forums for personal growth.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	250	30433

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Volunteers: both adult and youth are the backbone of the Missouri 4 H Youth Development Programs by teaching skills, managing the work of others, mentoring youth, working with teachers and schools, coordinating county and state events, and promoting 4-H.

What has been done

Through workshops, volunteer forums, leadership roles and web based instruction, state and county extension faculty will help adult and youth volunteer leaders gain knowledge and skills to communicate, manage programs, design and deliver education events, develop interpersonal skills and create environments that promote positive youth development.

Results

30,433 volunteers attended 2,329 sessions (duplicates not removed).

Source Webapps

Adults increased their understanding of 4-H. Project leaders improved skills to use 4-H curricula. Volunteers provided higher quality experiences for youth. Youth increased knowledge and skills.

12 of 12 volunteers felt their knowledge/performance increased by adventure education.

"I enjoyed seeing the excitement from other club leaders today which will help me remain positive."

Improved ability to guide groups to set and achieve goals

Improved ability to work out differences with others

Improved ability to do one's share when working with others

Improved ability to lead groups outside of 4-H

Engaged youth leadership in solving community issues.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #5

1. Outcome Measures

Number of volunteers completing Volunteers: The Foundation of Youth Development.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
------	---------------------	--------

2009

100

5715

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Volunteers: both adult and youth are the backbone of the Missouri 4 H Youth Development Programs by teaching skills, managing the work of others, mentoring youth, working with teachers and schools, coordinating county and state events, and promoting 4-H.

What has been done

A required 4-H volunteer orientation began in FY08, in FY09 5,715 completed the orientation which introduces them to the concepts of land-grant universities, how youth grow and develop, 4-H's philosophy on competition, character education and how to reduce risk when working with youth. In addition to face-to-face workshops, an on-line course is available so busy volunteers can complete this obligation at their convenience.

Results

"What will you most likely use from this orientation?" 1. To assure a safe, friendly, secure environment of the children; 2. To use the mastery focused approach and ask them open-ended questions so they understand that they are responsible for what they learn. 3. Implementing all aspects of doing, reflecting and applying for my Clover Kids. It's very important they realize that what we're doing is fun, but they're also learning skills they can apply outside of a 4-H setting.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #6**1. Outcome Measures**

Number of volunteers screened prior to service.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	8000	10781

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Adults sustain safe and supportive environments where youth can thrive. Positive youth development has improved the quality of life in communities through improved social, environmental and economic conditions in communities. It is important background screening is conducted on adults working with youth to ensure one important aspect of providing a safe learning environment for youth. 4-H is associated with a wholesome environment for positive youth development.

What has been done

Missouri 4-H volunteers submit an application on an annual basis. The applicant is screened for both criminal records and for child abuse and neglect. Volunteers do not work directly with youth until they receive a post card in the mail from the 4-H Center for Youth Development indicating they have successfully completed the screening process.

Results

10,781 volunteers screened prior to service.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Retrospective (post program)
- Before-After (before and after program)
- During (during program)
- Other (see below)

Evaluation Results

All of our 4-H volunteers, 10,781, completed an orientation to date through face-to-face, on-line or by CD. Volunteers report increased understanding of the land-grant university mission, how kids grow and develop and the philosophy of mastery competition

In the past year, 2,098 volunteers have completed the on-line training. Each person is must complete survey and quiz to complete the course. Following are highlights from this data:

Leadership Role(s)

- 65% are project leaders

Length of Service in years

- 42% 1 - 5 years
- 25% less than 1 year
- 16% 6 to 10 years

- 14% 11 or more years
- 4% other

How many other 4-H trainings of any kind previous attended

- 73% this is my first training
- 23% 1 - 5
- 4% 6 or more

86% understood the 4-H Name and Emblem is a federal mark

99.8% understood that 4-H at state-level events are fun, hands-on learning taught by university faculty

85% identified correctly current technology and teaching events at the land-grant university

76% identifies the four essential elements of positive youth development

60 to 98% of the volunteers correctly distinguished between project/content skills and life skills youth gain from 4-H

projects

98% validated that taking time to discuss and reflect upon the 4-H experience is important and enhances

learning

84% understood the ages and stages of childhood

96% understood 4-H's philosophy of competition

98% understood 4-H promotes mastery

90% understood strategies to promote mastery

100% understood how to use open-ended questions to promote mastery

98% understood 4-H's approach to teaching character

99% understood elements to include in an emergency plan

In general, the volunteers agreed that the orientation increased their knowledge of what it takes to be an effective volunteer. The topics indicated where they learned the most

were as follows:

4-H is part of the land-grant university

4-H's philosophy on competition

Essential Elements of positive youth development.

Key Items of Evaluation

All of our 4-H volunteers, 10,781, completed an orientation to date through face-to-face, on-line or by CD. Volunteers report increased understanding of the land-grant university mission, how kids grow and develop and the philosophy of mastery competition

In the past year, 2,098 volunteers have completed the on-line training. Each person must complete the survey and quiz to complete the course. Following are highlights from this data:

Leadership Role(s)

- 65% are project leaders

Length of Service in years

- 42% 1 - 5 years
- 25% less than 1 year
- 16% 6 to 10 years
- 14% 11 or more years
- 4% other

How many other 4-H trainings of any kind previous attended

- 73% this is my first training
- 23% 1 - 5
- 4% 6 or more

86% understood the 4-H Name and Emblem is a federal mark

99.8% understood that 4-H at state-level events are fun, hands-on learning taught by university faculty

85% identified correctly current technology and teaching events at the land-grant university

76% identifies the four essential elements of positive youth development

60 to 98% of the volunteers correctly distinguished between project/content skills and life skills youth gain from 4-H

projects

98% validated that taking time to discuss and reflect upon the 4-H experience is important and enhances

learning

84% understood the ages and stages of childhood

96% understood 4-H's philosophy of competition

98% understood 4-H promotes mastery

90% understood strategies to promote mastery

100% understood how to use open-ended questions to promote mastery

98% understood 4-H's approach to teaching character

99% understood elements to include in an emergency plan

In general, the volunteers agreed that the orientation increased their knowledge of what it takes to be an effective volunteer. The topics indicated where they learned the most were as follows:

4-H is part of the land-grant university

4-H's philosophy on competition

Essential Elements of positive youth development.

V(A). Planned Program (Summary)**Program # 19****1. Name of the Planned Program**

Improving Communications

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
806	Youth Development	100%			
	Total	100%			

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	3.7	0.0	0.0	0.0
Actual	8.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
373606	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
167035	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

Communication Toolkit: Fun Skill-Building Activities to do with Kids; Clowning project, judging, demonstration, exhibition; Public Speaking; Theatre Arts project, judging, demonstration, exhibition; Demonstration learning methodology; Oral reasons for project judging.

2. Brief description of the target audience

Adults (youth staff, local leaders, parents, volunteers, teachers, organizational leaders), youth aged 5 - 19.

V(E). Planned Program (Outputs)**1. Standard output measures**

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	1200	2500	8000	15000
Actual	467	358	1563	581

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009
 Plan: 0
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	1	0	
Actual	1	0	50

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of youth enrolled in communication projects and educational events.

Year	Target	Actual
2009	7000	11200

Output #2

Output Measure

- Attendance of project leaders at workshops for educational methods and communication projects.

Year	Target	Actual
2009	125	467

Output #3

Output Measure

- Number of youth participating in camps, educational events and afterschool.

Year	Target	Actual
2009	7500	3614

Output #4

Output Measure

- Number of hits on website.

Year	Target	Actual
2009	20000	1047112

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	4,000 youth will competently demonstrate knowledge and skills gained through demonstrations, oral reasons and/or public speaking.
2	A sample of 400 youth who have participated in state 4-H educational events incorporating communications (oral reasons, demonstrations, public speaking, etc.) will report incorporating skills in other educational and/or leadership situations.

Outcome #1

1. Outcome Measures

4,000 youth will competently demonstrate knowledge and skills gained through demonstrations, oral reasons and/or public speaking.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	4000	12653

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

All 4 H youth development programs provide opportunities for youth to learn and/or improve communication skills. Learning communication skills enhances learning, fosters interpersonal skills and facilitates leading groups. Command of communication skills by youth is essential for their contribution to the civic and economic leadership of communities.

What has been done

Adult staff and volunteers will facilitate youth ages 5 to 19 to learn through project curricula, camps and educational events knowledge, skills and application of communications. Program staff will facilitate learning through curricula, workshops and conferences to help parents, caregivers, volunteer leaders and staff of other youth serving organizations to gain skills to promote children's communication skills.

Results

Demonstrating is one of the best 4-H teaching techniques for teaching one's self and others. It involves, visual, oral and practical step-by-step presentation of information or procedures. If just 60% of the 4-H club members performed a demonstration at the club level, 15,213 youth would have given a demonstration on a topic of their choice.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #2

1. Outcome Measures

A sample of 400 youth who have participated in state 4-H educational events incorporating communications (oral reasons, demonstrations, public speaking, etc.) will report incorporating skills in other educational and/or leadership situations.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	400	374

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

All 4 H youth development programs provide opportunities for youth to learn and/or improve communication skills. Learning communication skills enhances learning, fosters interpersonal skills and facilitates leading groups. Command of communication skills by youth is essential for their contribution to the civic and economic leadership of communities.

What has been done

Adult staff and volunteers will facilitate youth ages 5 to 19 to learn through project curricula, camps and educational events knowledge, skills and application of communications. Program staff will facilitate learning through curricula, workshops and conferences to help parents, caregivers, volunteer leaders and staff of other youth serving organizations to gain skills to promote children's communication skills. A review of Missouri 4-H Recognition forms informed the results.

Results

374 youth, ages 14 to 18 and 80 middle school youth completed either the Missouri 4-H Recognition Form, the Missouri 4-H Scholarship Form or applied to be a Regional Representative of the State 4-H Council. Youths indicate what they learned about leadership through 4-H and how they apply these skills at school and in other organizations they may belong.

*4-H has taught me very important life skills such as being organized, getting involved, helping others, achieving my personal best, and how to deeply appreciate how fortunate I am to have those opportunities.

*The 4-H concept I have learned is "do, reflect, apply" method. It is not enough to simply go through the program and reflect on what you have done, you have to directly apply those skills to reap the full benefit.

*I have learned many valuable skills from 4-H including communication skills, the ability to make decisions on my own, managing resources, and being able to work with others in a large group.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation**V(I). Planned Program (Evaluation Studies and Data Collection)**

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- During (during program)
- Other (Educational Events)

Evaluation Results

In 2007, Missouri 4-H joined the national 4-H Study of Positive Youth Development. The longitudinal study has surveyed 4,793 adolescents in 34 states in its first five years. This landmark investigation is helping us better understand the factors that lead to positive growth and decreased risk during adolescence. Between March and August of 2007, 338 adolescents from Missouri participated in Wave 5 of the 4-H Study of Positive Youth Development. In 2008, 296 Missouri adolescents were surveyed. One hundred, sixty-five of those youth were new to the study and 131 were students who had been surveyed in 2007. The students were from 26 sites in Missouri. (See Appendix A for sites.) 4-H Youth Development Specialists from the University of Missouri and Lincoln University recruited students in grades 6 to 12 to complete a written survey. Parents could also complete an optional survey.

In addition to contributing to the national study, we particularly wanted to know about the value of Missouri 4-H participation. In order to explore this, we grouped Missouri students based on their self-reported 4-H participation in the past year. Groups were:

- Non-4-H - Never participated in a 4-H club
- 4-H - Participated in a 4-H club at least once a month
- We then decided to focus the Missouri 4-H analysis on more homogeneous developmental groups. The data were separated into two groups, 8th and 9th graders and 10th and 11th graders. Table 4 breaks the participants out by 4-H participation and grade groups.

Then we tested whether the average (mean) scores were statistically different for some of the factors measured in the 4-H Study. For Missouri 10th and 11th grade students in Wave 6, we found significant differences between the 4-H and non-4-H groups on:

- Number of leadership experiences
- Number of risk behaviors
- Number who expect to go to college
- Number who want to go to college

- Number who said science, engineering and computer technology programs increase interest in science
-
- These findings were mostly consistent with the national sample and the longitudinal data. These data suggest that young people who are active in 4-H are likely to report more positive behaviors and fewer negative behaviors. Additional information on the 4-H Study of Positive Youth Development can be found at: <http://mo4h.missouri.edu/resources/evaluation/pydstudy.htm>.

Key Items of Evaluation

In 2007, Missouri 4-H joined the national 4-H Study of Positive Youth Development. The longitudinal study has surveyed 4,793 adolescents in 34 states in its first five years. This landmark investigation is helping us better understand the factors that lead to positive growth and decreased risk during adolescence. Between March and August of 2007, 338 adolescents from Missouri participated in Wave 5 of the 4-H Study of Positive Youth Development. In 2008, 296 Missouri adolescents were surveyed. One hundred, sixty-five of those youth were new to the study and 131 were students who had been surveyed in 2007. The students were from 26 sites in Missouri. (See Appendix A for sites.) 4-H Youth Development Specialists from the University of Missouri and Lincoln University recruited students in grades 6 to 12 to complete a written survey. Parents could also complete an optional survey.

In addition to contributing to the national study, we particularly wanted to know about the value of Missouri 4-H participation. In order to explore this, we grouped Missouri students based on their self-reported 4-H participation in the past year. Groups were:

- Non-4-H - Never participated in a 4-H club
- 4-H - Participated in a 4-H club at least once a month
- We then decided to focus the Missouri 4-H analysis on more homogeneous developmental groups. The data were separated into two groups, 8th and 9th graders and 10th and 11th graders. Table 4 breaks the participants out by 4-H participation and grade groups.

Then we tested whether the average (mean) scores were statistically different for some of the factors measured in the 4-H Study. For Missouri 10th and 11th grade students in Wave 6, we found significant differences between the 4-H and non-4-H groups on:

- Number of leadership experiences
- Number of risk behaviors
- Number who expect to go to college
- Number who want to go to college
- Number who said science, engineering and computer technology programs increase interest in science
- These findings were mostly consistent with the national sample and the longitudinal data. These data suggest that young people who are active in 4-H are likely to report more positive behaviors and fewer negative behaviors. Additional information on the 4-H Study of Positive Youth Development can be found at: <http://mo4h.missouri.edu/resources/evaluation/pydstudy.htm>.

V(A). Planned Program (Summary)

Program # 20

1. Name of the Planned Program

Building Environments

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
605	Natural Resource and Environmental Economics	3%			
608	Community Resource Planning and Development	2%			
723	Hazards to Human Health and Safety	5%			
804	Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures	90%			
Total		100%			

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	5.6	0.0	0.0	0.0
Actual	4.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
60169	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
237780	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Conduct hands-on workshops for builders and consumers. Assemble and maintain relevant website and guidesheet information. Create a comprehensive Missouri Guide to Green Buildings. Encourage and support involvement in state, county, and local governments and agencies supporting energy-efficient, green buildings and homes. Assemble and maintain relevant website and guidesheet information on indoor air quality, home pollutants, home safety, and disaster preparedness. Maintain curriculum for K-12 schools and at-risk families. Encourage and support involvement in state, county, and local governments and agencies

supporting healthy homes and disaster preparedness. Assemble and maintain relevant website and guidesheet information on housing types, maintenance, renting, home financial management and development. Develop curriculum for advocacy groups, housing agencies and nonprofit organizations. Encourage and support involvement in housing coalitions and agencies.

2. Brief description of the target audience

Government Emergency management departments; Health Agencies; Medical groups and agencies; Day care providers; 4-H programs and Family and consumer science educators; Landlords and tenants; Builders and contractors; Real estate agents and brokers; K-12 educators, students, school districts; Consumers of home appliances; Do-it-yourself consumers; Business owners; Non-profit Energy and Ecological Organizations; Energy Cooperatives and Utilities; First Time Homebuyers; Existing and Long-term Homeowners; Non-profit Housing Agencies; Government and State Housing Directors.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	2300	200	350	0
Actual	1821	2715	67	77

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009

Plan: 0

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of workshops.

Year	Target	Actual
2009	50	167

Output #2**Output Measure**

- Number of newsletter articles.

Year	Target	Actual
2009	0	0

Output #3**Output Measure**

- Number of radio spots.

Year	Target	Actual
2009	0	0

Output #4**Output Measure**

- Number of one-on-one counseling sessions.

Year	Target	Actual
2009	0	0

Output #5**Output Measure**

- Number of unique website visits.

Year	Target	Actual
2009	50000	65501

Output #6**Output Measure**

- Number of participant contacts.

Year	Target	Actual
2009	2500	4680

Output #7**Output Measure**

- Number of guide sheets distributed.

Year	Target	Actual
2009	0	13

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Percent of participants who have a home disaster preparedness plan.
2	Percent of participants who secure funding to purchase a home.
3	Percent of participants who indicate they feel able to maintain their home.
4	Percent of participants who have implemented energy conservation technologies.

Outcome #1

1. Outcome Measures

Percent of participants who have a home disaster preparedness plan.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	35	63

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
605	Natural Resource and Environmental Economics
608	Community Resource Planning and Development
723	Hazards to Human Health and Safety
804	Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures

Outcome #2

1. Outcome Measures

Percent of participants who secure funding to purchase a home.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

Approximately 50% of all participants secured funding to purchase a home following attendance at a Home Buyer Education program.

4. Associated Knowledge Areas

KA Code	Knowledge Area
605	Natural Resource and Environmental Economics
608	Community Resource Planning and Development
723	Hazards to Human Health and Safety
804	Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures

Outcome #3

1. Outcome Measures

Percent of participants who indicate they feel able to maintain their home.

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

Percent of participants who have implemented energy conservation technologies.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	35	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

Over 55% of program participants have implemented some type of home energy conservation strategy. This number may be as high as 80% plus for low cost strategies such as energy efficient lighting, weather stripping and draft dodgers for doors.

4. Associated Knowledge Areas

KA Code	Knowledge Area
605	Natural Resource and Environmental Economics
608	Community Resource Planning and Development
723	Hazards to Human Health and Safety
804	Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- During (during program)
- Case Study

Evaluation Results

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 21

1. Name of the Planned Program

Parenting

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
802	Human Development and Family Well-Being	100%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	9.2	0.0	0.0	0.0
Actual	8.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
103147	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
407623	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Conduct workshops and multi-sessions programs; develop curriculum and educational resources, including print and web materials; provide training; work with media; partnering with other agencies and states.

2. Brief description of the target audience

Parents or others acting in a parenting role (e.g., grandparents, other relatives, foster parents).

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	2000	1000	200	0
Actual	3868	265	142	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009

Plan: 0

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of classes/workshops provided (face-to-face or web).

Year	Target	Actual
2009	100	497

Output #2

Output Measure

- Number of individual questions answered.

Year	Target	Actual
2009	50	0

Output #3

Output Measure

- Number of guide sheets distributed.

Year	Target	Actual
2009	0	2501

Output #4

Output Measure

- Number of website visitors.

Year	Target	Actual
2009	200000	127160

Output #5

Output Measure

- Number of in-service trainings provided.

Year	Target	Actual
2009	0	0

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Percent of participants who show increased knowledge of appropriate parenting practices (as defined by National Extension Parent Education Model [NEPEM]).
2	Number of participants who have adopted appropriate parenting practices (as defined by NEPEM).

Outcome #1

1. Outcome Measures

Percent of participants who show increased knowledge of appropriate parenting practices (as defined by National Extension Parent Education Model [NEPEM]).

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	35	33

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

During the Missouri Plan of Work process, 78 counties identified a need for parenting programs. The counties identified a wide range of parents and others acting in a parenting role (e.g. divorced parents, grandparents who are parenting, young parents, low-income parents, etc) who need support and resources to develop better parenting skills.

What has been done

Parenting programs provide participants with strategies to better manage personal stress, understand, guide, nurture, and motivate their children.

Results

Over 33 percent of parents who participated in parent education indicated they increased their knowledge and skills in order to maintain their stress level and become better parents.

4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being

Outcome #2

1. Outcome Measures

Number of participants who have adopted appropriate parenting practices (as defined by NEPEM).

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	6

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

During the Missouri Plan of Work process, 78 counties identified a need for parenting programs. The counties identified a wide range of parents and others acting in a parenting role (e.g. divorced parents, grandparents who are parenting, young parents, low-income parents, etc) who need support and resources to develop better parenting skills.

What has been done

Parenting programs provide participants with strategies to better manage personal stress, understand, guide, nurture, and motivate their children.

Results

Just over six percent of participants indicated that they adopted one or more of the parenting practices learned in their parenting education program.

4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)
- During (during program)
- Comparisons between program participants (individuals, group, organizations) and non-participants

Evaluation Results

Key Items of Evaluation

V(A). Planned Program (Summary)**Program # 22****1. Name of the Planned Program**

Strengthening Families

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
802	Human Development and Family Well-Being	60%			
806	Youth Development	40%			
	Total	100%			

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	12.3	0.0	0.0	0.0
Actual	10.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
146125	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
577466	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

Conduct workshops, multi-session programs and meetings; develop products, curriculum and resources; provide training; work with media; partnering with other agencies and with other state extensions.

2. Brief description of the target audience

Adults, parents, teens, childcare providers, grandparents, foster parents, professionals, teachers, agency educators, youth ages 5-12.

V(E). Planned Program (Outputs)**1. Standard output measures**

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	3000	20000	2000	2500
Actual	4637	18825	7478	2099

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009
 Plan: 0
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	0	0	
Actual	0	0	1

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of workshops, multi-session programs, fairs, and conferences.

Year	Target	Actual
2009	250	1026

Output #2

Output Measure

- Number of guide sheets distributed.

Year	Target	Actual
2009	0	0

Output #3

Output Measure

- Number of professional childcare providers and agency educators trained.

Year	Target	Actual
2009	0	0

Output #4

Output Measure

- Number of website visits.

Year	Target	Actual
2009	200000	199525

Output #5

Output Measure

- Number of individual questions answered (through email, phone, etc).

Year	Target	Actual
2009	100	0

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Number of participants reporting improved family relationships.
2	Number of professionals trained.
3	Number of participants who increased their knowledge of appropriate strengthening families practices.
4	Percent of participants reporting improved family communication.

Outcome #1

1. Outcome Measures

Number of participants reporting improved family relationships.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

In 2005, University of Missouri Extension conducted a Plan of Work process to assess what Extension should focus on for the next five years. Councils, public members, and Extension faculty gave their thoughts on what Extension needs to do. Families, Parenting, and Socialization were one theme that surfaced as an important focus (e.g., family health and well being of children and teens from the phone surveys).

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being
806	Youth Development

Outcome #2

1. Outcome Measures

Number of professionals trained.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	35	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

In 2005, University of Missouri Extension conducted a Plan of Work process to assess what Extension should focus on for the next five years. Councils, public members, and Extension faculty gave their thoughts on what Extension needs to do. Families, Parenting, and Socialization were one theme that surfaced as an important focus (e.g., family health and well being of children and teens from the phone surveys).

What has been done**Results****4. Associated Knowledge Areas**

KA Code	Knowledge Area
802	Human Development and Family Well-Being
806	Youth Development

Outcome #3**1. Outcome Measures**

Number of participants who increased their knowledge of appropriate strengthening families practices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	22

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

In 2005, University of Missouri Extension conducted a Plan of Work process to assess what Extension should focus on for the next five years. Councils, public members, and Extension faculty gave their thoughts on what Extension needs to do. Families, Parenting, and Socialization were one theme that surfaced as an important focus (e.g., family health and well being of children and teens from the phone surveys).

What has been done

497 program sessions were held throughout the state of Missouri.

Results

Twenty-two (22) percent of program participants indicate that they increased their knowledge of how to communicate with their family and improve their family relationships.

4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being
806	Youth Development

Outcome #4

1. Outcome Measures

Percent of participants reporting improved family communication.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	35	25

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

In 2005, University of Missouri Extension conducted a Plan of Work process to assess what Extension should focus on for the next five years. Councils, public members, and Extension faculty gave their thoughts on what Extension needs to do. Families, Parenting, and Socialization were one theme that surfaced as an important focus (e.g., family health and well being of children and teens from the phone surveys).

What has been done

Family strengthening programs provide participants strategies to improve their communication skills with their family.

Results

Approximately 25% of program participants reported they have learned the skills to improve communication with their family.

4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being
806	Youth Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- During (during program)

Evaluation Results

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 23

1. Name of the Planned Program

Building Better Childcare for Missouri

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
802	Human Development and Family Well-Being	100%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	7.2	0.0	0.0	0.0
Actual	5.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
77360	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
305717	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Conduct workshops and multi-session programs; Develop products, curriculum, and resources; Provide training for other professionals; Partner with other state agencies and organizations.

2. Brief description of the target audience

Individuals who provide non-parental care to children ages birth through school entry such as center- and home-based childcare providers, Head Start and Early Head Start teachers, public-school preschool educators, and parent educators.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	200	1000	0	0
Actual	3003	2511	741	884

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009
 Plan: 0
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	0	0	
Actual	0	0	1

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of classes and workshops offered.

Year	Target	Actual
2009	100	201

Output #2

Output Measure

- Number of participants attending classes and workshops.

Year	Target	Actual
2009	200	3774

Output #3

Output Measure

- Number of guide sheets distributed.

Year	Target	Actual
2009	0	1087

Output #4

Output Measure

- Number of visits to childcare website.

Year	Target	Actual
2009	25000	42388

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Percent increase in awareness of developmentally appropriate learning environments and activities.
2	Age appropriate learning environments and activities will be implemented.

Outcome #1

1. Outcome Measures

Percent increase in awareness of developmentally appropriate learning environments and activities.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	35	10

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The quality of child care nationwide is suffering. Because so many families with young children rely on child care so that they can work, every effort to improve the situation benefits young children and their families. Moreover, a high quality system of child care supports the economic development of Missouri.

What has been done

Over 200 childcare provider trainer sessions were offered throughout the state of Missouri.

Results

There was a 10% increase in the awareness of developmentally appropriate learning environments and activities.

4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being

Outcome #2

1. Outcome Measures

Age appropriate learning environments and activities will be implemented.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The quality of child care nationwide is suffering. Because so many families with young children rely on child care so that they can work, every effort to improve the situation benefits young children and their families. Moreover, a high quality system of child care supports the economic development of Missouri.

What has been done

Over 200 childcare provider trainer sessions were offered throughout the state of Missouri.

Results

Childcare providers increased their awareness of developmentally appropriate activities that could be used within the classroom.

4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)

Evaluation Results

Key Items of Evaluation

V(A). Planned Program (Summary)**Program # 24****1. Name of the Planned Program**

Food Safety

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	100%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	8.9	0.0	0.0	0.0
Actual	6.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
94551	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
373655	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Number of Curriculum developed; Number of individual inquiries responded to; Number of trainings for large groups; Number of smaller workshops; Number of guide sheets written; Number of newsletter articles written; Number of media interviews held.

2. Brief description of the target audience

Pre K-12th grade students, food stamp individuals and households, general adults, older adults, nursing home assistants, daycare providers.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	1000	5000	5000	0
Actual	1907	5958	49	701

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009
 Plan: 0
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Curriculum.

Year	Target	Actual
2009	0	0

Output #2

Output Measure

- Individual inquiries.

Year	Target	Actual
2009	0	0

Output #3

Output Measure

- Trainings for large groups.

Year	Target	Actual
------	--------	--------

2009	0	0
------	---	---

Output #4

Output Measure

- Smaller workshops.

Year	Target	Actual
2009	50	0

Output #5

Output Measure

- Guide sheets.

Year	Target	Actual
2009	1270	6893

Output #6

Output Measure

- Newsletter articles.

Year	Target	Actual
2009	0	0

Output #7

Output Measure

- Media interviews.

Year	Target	Actual
2009	0	0

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Increased knowledge of proper hand washing.
2	Increased knowledge of cooking foods adequately.
3	Increased knowledge of avoiding cross-contamination.
4	Increased knowledge of keeping food at a safe temperature.
5	Increased knowledge of storing foods properly.
6	% or # of individuals who indicate an intent to adopt one or more safe food handling practices.

Outcome #1

1. Outcome Measures

Increased knowledge of proper hand washing.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	86

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The need is to protect food from contamination by pathogenic microorganisms parasites, and naturally occurring toxins. Current data indicates a large portion of the population is improperly and unsafely handling food in the home leading to potentially lethal illnesses. Seventy-six million cases of food borne illnesses per year with 325,000 cases resulting in hospitalizations and 5,000 deaths. Clients include limited resource families, school children, minority families, youth, adults, day care providers, etc.

What has been done

Pre-school and elementary age children in the Family Nutrition Program receive hand washing instruction as the first lesson to any series of teaching.

Results

Over eighty-six percent (86%) of children participating in the Family Nutrition Program increased their knowledge of proper handwashing.

4. Associated Knowledge Areas

KA Code	Knowledge Area
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

Outcome #2

1. Outcome Measures

Increased knowledge of cooking foods adequately.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The need is to protect food from contamination by pathogenic microorganisms parasites, and naturally occurring toxins. Current data indicates a large portion of the population is improperly and unsafely handling food in the home leading to potentially lethal illnesses. Seventy-six million cases of food borne illnesses per year with 325,000 cases resulting in hospitalizations and 5,000 deaths. Clients include limited resource families, school children, minority families, youth, adults, day care providers, etc.

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

Outcome #3

1. Outcome Measures

Increased knowledge of avoiding cross-contamination.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The need is to protect food from contamination by pathogenic microorganisms parasites, and naturally occurring toxins. Current data indicates a large portion of the population is improperly and unsafely handling food in the home leading to potentially lethal illnesses. Seventy-six million cases of food borne illnesses per year with 325,000 cases resulting in hospitalizations and 5,000 deaths. Clients include limited resource families, school children, minority families, youth, adults, day care providers, etc.

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

Outcome #4

1. Outcome Measures

Increased knowledge of keeping food at a safe temperature.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	73

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The need is to protect food from contamination by pathogenic microorganisms parasites, and naturally occurring toxins. Current data indicates a large portion of the population is improperly and unsafely handling food in the home leading to potentially lethal illnesses. Seventy-six million cases of food borne illnesses per year with 325,000 cases resulting in hospitalizations and 5,000 deaths. Clients include limited resource families, school children, minority families, youth, adults, day care providers, etc.

What has been done

EFNEP and FNP program adult participants learned that they should keep food at a safe temperature to prevent food-borne illness.

Results

Seventy-three percent of all program participants indicate that they now keep foods at a safe temperature and do not allow food to sit out unattended.

4. Associated Knowledge Areas

KA Code	Knowledge Area
----------------	-----------------------

712 Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

Outcome #5

1. Outcome Measures

Increased knowledge of storing foods properly.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The need is to protect food from contamination by pathogenic microorganisms parasites, and naturally occurring toxins. Current data indicates a large portion of the population is improperly and unsafely handling food in the home leading to potentially lethal illnesses. Seventy-six million cases of food borne illnesses per year with 325,000 cases resulting in hospitalizations and 5,000 deaths. Clients include limited resource families, school children, minority families, youth, adults, day care providers, etc.

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

Outcome #6

1. Outcome Measures

% or # of individuals who indicate an intent to adopt one or more safe food handling practices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	77

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

The need is to protect food from contamination by pathogenic microorganisms parasites, and naturally occurring toxins. Current data indicates a large portion of the population is improperly and unsafely handling food in the home leading to potentially lethal illnesses. Seventy-six million cases of food borne illnesses per year with 325,000 cases resulting in hospitalizations and 5,000 deaths. Clients include limited resource families, school children, minority families, youth, adults, day care providers, etc.

What has been done

Adult participants in the EFNEP and FNP programs were taught the importance of proper food safety techniques and proper food handling.

Results

Seventy-seven percent of program participants adopted one or more food safety techniques.

4. Associated Knowledge Areas

KA Code	Knowledge Area
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation**V(I). Planned Program (Evaluation Studies and Data Collection)**

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)

Evaluation Results

Key Items of Evaluation

V(A). Planned Program (Summary)**Program # 25****1. Name of the Planned Program**

Personal Financial Management

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
607	Consumer Economics	50%			
801	Individual and Family Resource Management	50%			
	Total	100%			

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	7.7	0.0	0.0	0.0
Actual	6.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
85956	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
339686	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

University of Missouri campus and regional specialist will: Work in partnership to identify audience needs; Develop appropriate curriculum and program strategies; and Evaluate the impact of the educational experiences. Delivery strategies will include: Workshops; One-on-one coaching sessions; Training for professionals and eldercare providers; Written materials; Educational packets; Newsletters; Newspaper articles; Radio and television spots; and Web-based informational tools.

2. Brief description of the target audience

General population, general adult population, low income families, unbanked consumers, consumers going through bankruptcy, youth from pre-school through high school, college students, young couples, divorcing couples, women, older individuals and the elderly (55 and beyond), and family agencies.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	3000	5000	400	500
Actual	10330	16101	1328	742

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009
 Plan: 0
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of workshops.

Year	Target	Actual
2009	150	578

Output #2

Output Measure

- Number of radio spots.

Year	Target	Actual
2009	0	0

Output #3

Output Measure

- Number of one-on-one counseling sessions.

Year	Target	Actual
2009	100	0

Output #4

Output Measure

- Number of newsletter articles.

Year	Target	Actual
2009	0	0

Output #5

Output Measure

- Number of unique website visits.

Year	Target	Actual
2009	250000	239105

Output #6

Output Measure

- Number of participant contacts.

Year	Target	Actual
2009	1500	28512

Output #7

Output Measure

- Number of guide sheets distributed.

Year	Target	Actual
2009	0	9377

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Increased knowledge of debt management.
2	Increased knowledge of the benefits of saving on a regular basis.
3	Increased knowledge of basic personal financial management.
4	# of participants who have reduced their debt.
5	# of participants who began saving on a regular basis.
6	Percent of participants who increased the amount of money they save regularly.
7	# of participants who have established financial goals to guide financial decisions.
8	Number of participants who check their credit report.
9	Percent of participants who understand their rights under the Fair Credit Reporting Act.

Outcome #1

1. Outcome Measures

Increased knowledge of debt management.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	76

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

As an increasing number of workers have to rely on personal savings and private pensions to fund their retirement and as individuals increase their use of financial markets, it becomes increasingly critical that individuals and families understand at least the basics of money management, saving, and investment.

What has been done

MU Extension faculty taught 578 educational sessions focused on personal financial management during FY09.

Results

Seventy-six percent (76%) of program participants report that they have increased their knowledge about how to better maintain their personal debt.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management

Outcome #2

1. Outcome Measures

Increased knowledge of the benefits of saving on a regular basis.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	89

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

As an increasing number of workers have to rely on personal savings and private pensions to fund their retirement and as individuals increase their use of financial markets, it becomes increasingly critical that individuals and families understand at least the basics of money management, saving, and investment.

What has been done

MU Extension faculty taught 578 educational sessions focused on personal financial management during FY09.

Results

Eighty-nine percent (89%) of program participants report that they are more aware of the benefits of regularly contributing to a savings plan, including the ability to reduce financial stress.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management

Outcome #3

1. Outcome Measures

Increased knowledge of basic personal financial management.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	76

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

As an increasing number of workers have to rely on personal savings and private pensions to fund their retirement and as individuals increase their use of financial markets, it becomes increasingly critical that individuals and

families understand at least the basics of money management, saving, and investment.

What has been done

MU Extension faculty taught 578 educational sessions focused on personal financial management during FY09.

Results

Seventy-six percent (76%) of program participants report that they have increased their knowledge about how to better manage their personal finances.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management

Outcome #4

1. Outcome Measures

of participants who have reduced their debt.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	27

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

As an increasing number of workers have to rely on personal savings and private pensions to fund their retirement and as individuals increase their use of financial markets, it becomes increasingly critical that individuals and families understand at least the basics of money management, saving, and investment.

What has been done

MU Extension faculty taught 578 educational sessions focused on personal financial management during FY09.

Results

Twenty-seven percent (27%) of program participants indicate that they have begun to pay down their personal debt as a result of attending these programs.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management

Outcome #5

1. Outcome Measures

of participants who began saving on a regular basis.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	36

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

As an increasing number of workers have to rely on personal savings and private pensions to fund their retirement and as individuals increase their use of financial markets, it becomes increasingly critical that individuals and families understand at least the basics of money management, saving, and investment.

What has been done

MU Extension faculty taught 578 educational sessions focused on personal financial management during FY09.

Results

Thirty-six percent (36%) of program participants have begun to save on a regular basis as a result of attending this program.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management

Outcome #6

1. Outcome Measures

Percent of participants who increased the amount of money they save regularly.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	24

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

As an increasing number of workers have to rely on personal savings and private pensions to fund their retirement and as individuals increase their use of financial markets, it becomes increasingly critical that individuals and families understand at least the basics of money management, saving, and investment.

What has been done

MU Extension faculty taught 578 educational sessions focused on personal financial management during FY09.

Results

Twenty-four percent (24%) of program participants indicate that they have begun to save on a regular basis.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management

Outcome #7

1. Outcome Measures

of participants who have established financial goals to guide financial decisions.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	64

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

As an increasing number of workers have to rely on personal savings and private pensions to fund their retirement and as individuals increase their use of financial markets, it becomes increasingly critical that individuals and

families understand at least the basics of money management, saving, and investment.

What has been done

MU Extension faculty taught 578 educational sessions focused on personal financial management during FY09.

Results

As a result of this program, sixty-four percent (64%) of program participants have written financial goals to help assist them in making financial decisions.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management

Outcome #8

1. Outcome Measures

Number of participants who check their credit report.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	29

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

As an increasing number of workers have to rely on personal savings and private pensions to fund their retirement and as individuals increase their use of financial markets, it becomes increasingly critical that individuals and families understand at least the basics of money management, saving, and investment.

What has been done

MU Extension faculty taught 578 educational sessions focused on personal financial management during FY09.

Results

Twenty-nine percent (29%) of program participants have checked their credit report to ensure accuracy.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management

Outcome #9

1. Outcome Measures

Percent of participants who understand their rights under the Fair Credit Reporting Act.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	35	78

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

As an increasing number of workers have to rely on personal savings and private pensions to fund their retirement and as individuals increase their use of financial markets, it becomes increasingly critical that individuals and families understand at least the basics of money management, saving, and investment.

What has been done

MU Extension faculty taught 578 educational sessions focused on personal financial management during FY09.

Results

Seventy-eight percent (78%) of program participants understand their rights under the Fair Credit Reporting Act.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- Before-After (before and after program)
- During (during program)
- Time series (multiple points before and after program)

Evaluation Results

Key Items of Evaluation

V(A). Planned Program (Summary)**Program # 26****1. Name of the Planned Program**

Nutrition, Health and Physical Activity

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
703	Nutrition Education and Behavior	25%			
724	Healthy Lifestyle	50%			
806	Youth Development	25%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	19.4	0.0	0.0	0.0
Actual	15.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
214889	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
849215	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Use direct and indirect methods to provide education and targeted messages on nutrition, physical activity, and selfcare management. Some specific methods used will include group education, workshops, train-the-trainer strategies, newsletters, web-based education, and media efforts. In addition there will be community level interventions through partnerships that will be developed. This will include working with local coalitions to develop awareness campaigns.

2. Brief description of the target audience

Adults, youth ages 3 through 18, low-income Missourians, pregnant women, adults 55 and older, volunteers, teachers and community members, school teachers and nurses, other adults interested in improving their quality of life.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	15000	25000	200000	10000
Actual	433643	636015	647213	1000473

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009
 Plan: 0
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	0	0	
Actual	10	0	10

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of program participants (gender and ethnicity).

Year	Target	Actual
2009	0	353461

Output #2

Output Measure

- Number of programs held.

Year	Target	Actual
2009	5000	10093

Output #3

Output Measure

- Number of newsletters distributed.

Year	Target	Actual
2009	500000	0

Output #4

Output Measure

- Number of partnerships formed.

Year	Target	Actual
2009	100	236

Output #5

Output Measure

- Number of community campaigns conducted.

Year	Target	Actual
2009	1	2

Output #6

Output Measure

- Number of PSAs developed.

Year	Target	Actual
2009	0	2

Output #7

Output Measure

- Number of PSAs used.

Year	Target	Actual
2009	0	2

Output #8

Output Measure

- Web usage.

Year	Target	Actual
2009	500000	1023347

Output #9

Output Measure

- Number of volunteers trained.

Year	Target	Actual
2009	200	495

Output #10

Output Measure

- Number of guide sheets distributed.

Year	Target	Actual
2009	150000	1023899

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Improved attitudes about health eating and physical activity (percent).
2	Percent of participants who exhibit increased awareness/knowledge of physical activity recommendations for health.
3	Percent of participants who exhibit increased awareness/knowledge of healthy food choices.
4	Percent of participants who exhibit improved skill in selecting healthy foods.
5	Increased self efficacy about managing chronic conditions.
6	Percent of participants who report improved skills in preparation of healthy foods.
7	Awareness among private and public sector leaders about nutrition related challenges of individuals and families.
8	Involvement of community groups to address nutrition challenges/issues of individuals and families.
9	Adopt one or more healthy food/nutrition practices.
10	Begin or increase physical activity.
11	Learner tries and accepts new foods.
12	Coalitions formed to address dietary quality and physical activity issues for individuals and families.
13	Increase participation in regular physical activity.
14	Family/individual participation in community events that increase physical activity.
15	Improved behavior changes based on MyPyramid and the Dietary Guidelines.

Outcome #1**1. Outcome Measures**

Improved attitudes about health eating and physical activity (percent).

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	35	91

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Obesity can place a person at an increased risk for chronic health problems including heart disease, stroke, diabetes, and some forms of cancer. In Missouri, 62% of adults and 32% of youth are overweight or obese. Poor eating habits and physical inactivity also contribute to chronic health problems. Programs must provide adults and youth with the knowledge and skills needed to promote healthful eating and develop a lifelong interest in physical activity.

What has been done

Over 10,000 nutrition, health and physical activity programs were conducted through EFNEP, SNAP Ed and general Extension programming throughout the state of Missouri.

Results

Ninety-one percent (91%) of program participants reported that they were more aware of the benefits of healthy eating behaviors and increased physical activity.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
806	Youth Development

Outcome #2**1. Outcome Measures**

Percent of participants who exhibit increased awareness/knowledge of physical activity recommendations for health.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	35	91

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Obesity can place a person at an increased risk for chronic health problems including heart disease, stroke, diabetes, and some forms of cancer. In Missouri, 62% of adults and 32% of youth are overweight or obese. Poor eating habits and physical inactivity also contribute to chronic health problems. Programs must provide adults and youth with the knowledge and skills needed to promote healthful eating and develop a lifelong interest in physical activity.

What has been done

Over 10,000 nutrition, health and physical activity programs were conducted through EFNEP, SNAP Ed and general Extension programming throughout the state of Missouri.

Results

Ninety-one percent (91%) of program participants reported that they were more aware of the importance of obtaining regular physical activity.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
806	Youth Development

Outcome #3

1. Outcome Measures

Percent of participants who exhibit increased awareness/knowledge of healthy food choices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	35	77

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Obesity can place a person at an increased risk for chronic health problems including heart disease, stroke, diabetes, and some forms of cancer. In Missouri, 62% of adults and 32% of youth are overweight or obese. Poor eating habits and physical inactivity also contribute to chronic health problems. Programs must provide adults and youth with the knowledge and skills needed to promote healthful eating and develop a lifelong interest in physical activity.

What has been done

Over 10,000 nutrition, health and physical activity programs were conducted through EFNEP, SNAP Ed and general Extension programming throughout the state of Missouri.

Results

Seventy-seven percent (77%) of program participants indicate that they are more aware and/or knowledgeable about how to make healthy food choices.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
806	Youth Development

Outcome #4**1. Outcome Measures**

Percent of participants who exhibit improved skill in selecting healthy foods.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	35	95

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Obesity can place a person at an increased risk for chronic health problems including heart disease, stroke, diabetes, and some forms of cancer. In Missouri, 62% of adults and 32% of youth are overweight or obese. Poor eating habits and physical inactivity also contribute to chronic health problems. Programs must provide adults and youth with the knowledge and skills needed to promote healthful eating and develop a lifelong interest in physical activity.

What has been done

Over 10,000 nutrition, health and physical activity programs were conducted through EFNEP, SNAP Ed and general Extension programming throughout the state of Missouri.

Results

Ninety-five percent of adult program participants indicate that they use the Nutrition Facts label when selecting foods for their family.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
806	Youth Development

Outcome #5

1. Outcome Measures

Increased self efficacy about managing chronic conditions.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	89

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Obesity can place a person at an increased risk for chronic health problems including heart disease, stroke, diabetes, and some forms of cancer. In Missouri, 62% of adults and 32% of youth are overweight or obese. Poor eating habits and physical inactivity also contribute to chronic health problems. Programs must provide adults and youth with the knowledge and skills needed to promote healthful eating and develop a lifelong interest in physical activity.

What has been done

Over 10,000 nutrition, health and physical activity programs were conducted through EFNEP, SNAP Ed and general Extension programming throughout the state of Missouri.

Results

Eighty-nine percent (89%) of program participants feel they are more able to care for themselves and their health following the program.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #6**1. Outcome Measures**

Percent of participants who report improved skills in preparation of healthy foods.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	35	34

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Obesity can place a person at an increased risk for chronic health problems including heart disease, stroke, diabetes, and some forms of cancer. In Missouri, 62% of adults and 32% of youth are overweight or obese. Poor eating habits and physical inactivity also contribute to chronic health problems. Programs must provide adults and youth with the knowledge and skills needed to promote healthful eating and develop a lifelong interest in physical activity.

What has been done

Over 10,000 nutrition, health and physical activity programs were conducted through EFNEP, SNAP Ed and general Extension programming throughout the state of Missouri.

Results

Thirty-four percent (34%) of program participants indicate they have learned new skills in preparing healthy meals for themselves and their families.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
806	Youth Development

Outcome #7**1. Outcome Measures**

Awareness among private and public sector leaders about nutrition related challenges of individuals and families.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Obesity can place a person at an increased risk for chronic health problems including heart disease, stroke, diabetes, and some forms of cancer. In Missouri, 62% of adults and 32% of youth are overweight or obese. Poor eating habits and physical inactivity also contribute to chronic health problems. Programs must provide adults and youth with the knowledge and skills needed to promote healthful eating and develop a lifelong interest in physical activity.

What has been done

Over 10,000 nutrition, health and physical activity programs were conducted through EFNEP, SNAP Ed and general Extension programming throughout the state of Missouri.

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle
806	Youth Development

Outcome #8

1. Outcome Measures

Involvement of community groups to address nutrition challenges/issues of individuals and families.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	236

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Obesity can place a person at an increased risk for chronic health problems including heart disease, stroke, diabetes, and some forms of cancer. In Missouri, 62% of adults and 32% of youth are overweight or obese. Poor eating habits and physical inactivity also contribute to chronic health problems. Programs must provide adults and youth with the knowledge and skills needed to promote healthful eating and develop a lifelong interest in physical activity.

What has been done

Over 10,000 nutrition, health and physical activity programs were conducted through EFNEP, SNAP Ed and general Extension programming throughout the state of Missouri.

Results

Two hundred and thirty-six community agencies and partnerships worked collaboratively to address the nutrition challenges and issues of individuals and families in Missouri.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
806	Youth Development

Outcome #9

1. Outcome Measures

Adopt one or more healthy food/nutrition practices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	94

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Obesity can place a person at an increased risk for chronic health problems including heart disease, stroke, diabetes, and some forms of cancer. In Missouri, 62% of adults and 32% of youth are overweight or obese. Poor eating habits and physical inactivity also contribute to chronic health problems. Programs must provide adults and youth with the knowledge and skills needed to promote healthful eating and develop a lifelong interest in physical activity.

What has been done

Results

Ninety-four percent (94%) of program participants made at least one or more improvements to their diets to more closely align with the USDA Dietary Guidelines.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
806	Youth Development

Outcome #10

1. Outcome Measures

Begin or increase physical activity.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	90

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Obesity can place a person at an increased risk for chronic health problems including heart disease, stroke, diabetes, and some forms of cancer. In Missouri, 62% of adults and 32% of youth are overweight or obese. Poor eating habits and physical inactivity also contribute to chronic health problems. Programs must provide adults and youth with the knowledge and skills needed to promote healthful eating and develop a lifelong interest in physical activity.

What has been done

Over 10,000 nutrition, health and physical activity programs were conducted through EFNEP, SNAP Ed and general Extension programming throughout the state of Missouri.

Results

Ninety percent (90%) of program participants increased their daily amount of physical activity.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
806	Youth Development

Outcome #11**1. Outcome Measures**

Learner tries and accepts new foods.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	73

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Obesity can place a person at an increased risk for chronic health problems including heart disease, stroke, diabetes, and some forms of cancer. In Missouri, 62% of adults and 32% of youth are overweight or obese. Poor eating habits and physical inactivity also contribute to chronic health problems. Programs must provide adults and youth with the knowledge and skills needed to promote healthful eating and develop a lifelong interest in physical activity.

What has been done

Over 10,000 nutrition, health and physical activity programs were conducted through EFNEP, SNAP Ed and general Extension programming throughout the state of Missouri.

Results

Seventy-three percent (73%) of program participants were more willing to try or accepted new food items in their diet following a nutrition education program.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
806	Youth Development

Outcome #12**1. Outcome Measures**

Coalitions formed to address dietary quality and physical activity issues for individuals and families.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	17

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Obesity can place a person at an increased risk for chronic health problems including heart disease, stroke, diabetes, and some forms of cancer. In Missouri, 62% of adults and 32% of youth are overweight or obese. Poor eating habits and physical inactivity also contribute to chronic health problems. Programs must provide adults and youth with the knowledge and skills needed to promote healthful eating and develop a lifelong interest in physical activity.

What has been done

Over 10,000 nutrition, health and physical activity programs were conducted through EFNEP, SNAP Ed and general Extension programming throughout the state of Missouri.

Results

Seventeen coalitions worked to address dietary quality and physical activity issues of individuals and families in Missouri.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
806	Youth Development

Outcome #13

1. Outcome Measures

Increase participation in regular physical activity.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	90

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Obesity can place a person at an increased risk for chronic health problems including heart disease, stroke, diabetes, and some forms of cancer. In Missouri, 62% of adults and 32% of youth are overweight or obese. Poor eating habits and physical inactivity also contribute to chronic health problems. Programs must provide adults and youth with the knowledge and skills needed to promote healthful eating and develop a lifelong interest in physical activity.

What has been done

Over 10,000 nutrition, health and physical activity programs were conducted through EFNEP, SNAP Ed and general Extension programming throughout the state of Missouri.

Results

Ninety percent (90%) of program participants participate in regular physical activity following the program.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
806	Youth Development

Outcome #14**1. Outcome Measures**

Family/individual participation in community events that increase physical activity.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Obesity can place a person at an increased risk for chronic health problems including heart disease, stroke, diabetes, and some forms of cancer. In Missouri, 62% of adults and 32% of youth are overweight or obese. Poor eating habits and physical inactivity also contribute to chronic health problems. Programs must provide adults and youth with the knowledge and skills needed to promote healthful eating and develop a lifelong interest in physical activity.

What has been done

Over 10,000 nutrition, health and physical activity programs were conducted through EFNEP, SNAP Ed and general Extension programming throughout the state of Missouri.

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle
806	Youth Development

Outcome #15

1. Outcome Measures

Improved behavior changes based on MyPyramid and the Dietary Guidelines.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	94

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Obesity can place a person at an increased risk for chronic health problems including heart disease, stroke, diabetes, and some forms of cancer. In Missouri, 62% of adults and 32% of youth are overweight or obese. Poor eating habits and physical inactivity also contribute to chronic health problems. Programs must provide adults and youth with the knowledge and skills needed to promote healthful eating and develop a lifelong interest in physical activity.

What has been done

Over 10,000 nutrition, health and physical activity programs were conducted through EFNEP, SNAP Ed and general Extension programming throughout the state of Missouri.

Results

Ninety-four percent (94%) of program participants indicate they made one or more behavior changes to more closely align their dietary choices with the USDA Dietary Guidelines.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
806	Youth Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Other (Participant self responsibility)

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)
- During (during program)
- Time series (multiple points before and after program)
- Case Study
- Comparisons between program participants (individuals, group, organizations) and non-participants
- Other (Anecdotal success stories)

Evaluation Results

Key Items of Evaluation

V(A). Planned Program (Summary)**Program # 27****1. Name of the Planned Program**

Facilitating Community Decision Making for Youth and Adults

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
608	Community Resource Planning and Development	25%			
609	Economic Theory and Methods	10%			
610	Domestic Policy Analysis	25%			
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	25%			
805	Community Institutions, Health, and Social Services	10%			
806	Youth Development	5%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	6.3	0.0	0.0	0.0
Actual	5.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
78820	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
311845	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Form planning committees/advisory panels, facilitate participatory visioning and planning workshops, moderate local issues forums, train moderators and conveners for forums and issue framing, hold community meetings and conduct presentations,

gather data and use decision-support tools to analyze alternatives for the community with citizens and decision makers, work with communities to address a specific need or issue. Also work with media; provide analysis, training and consultation for local and state government; work with local officials to provide classroom training for middle school students; facilitate project planning and local government field trips with middle schoolers; and conduct project fairs and other events to highlight middle school learning and civic engagement projects.

2. Brief description of the target audience

Targeted audience would be all social groups in the community, including low-income and minority, youth (age 12-14), adults, community leaders, local government and policy making groups, and state and local agencies. No limitation on gender, ethnic or religious diversity, lifestyle choice, etc.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	5000	15000	300	400
Actual	7837	23262	2318	569

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009

Plan: 0

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	2	1	
Actual	1	0	1

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of partners.

Year	Target	Actual
2009	150	539

Output #2

Output Measure

- Number of volunteers who assisted.

Year	Target	Actual
2009	250	535

Output #3

Output Measure

- Number of communities/organizations using deliberative processes to dialogue or frame public issues.

Year	Target	Actual
2009	15	28

Output #4

Output Measure

- Percent of non-White Caucasian participants in programs.

Year	Target	Actual
2009	9	7

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	% of participants reporting they feel they have an increased voice and opportunity to participate in the community.
2	Number of communities/organizations developing or updating a plan.
3	Number of communities reporting engagement in plan/project implementation.
4	Number of people reporting taking on increased, different, or new leadership roles in community.
5	Number of jobs created by new businesses or business expansion/growth.
6	Number of jobs retained.
7	Number of businesses created.
8	Dollar value of savings from more efficient government and organizational performance.
9	Dollar value of new resources leveraged by communities.
10	Number of volunteer hours generated by communities/organizations.

Outcome #1

1. Outcome Measures

% of participants reporting they feel they have an increased voice and opportunity to participate in the community.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Local officials want to serve citizens and local citizens want to contribute to and improve their community. Participation is the foundation of democracy. Citizens who are encouraged to participate are more likely to contribute to the community both in actions and contributions.

What has been done

Program planning with steering committees encourages diversity of participation to reflect make up of community-- not just racial and ethnic or gender diversity. Decision making and planning programs also involve facilitation methods that allow people to have a voice, e.g. Vision to Action: Take Charge Too, Appreciative Inquiry, World Café. In northeast Kansas City, we used the Rubiks model to build capacity of residents to improve their neighborhood.

Results

No targeted data have been collected this year. However, the neighborhood group in northeast Kansas City is working with Veronicas Voice an anti-prostitution program in an effort to get those entrapped into safe harbor. In the city of Neosho's planning process, attendance was twice as high as expected due to the suggestions for citizen participation. The Montgomery County planning process had more citizen participation than in the past.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #2

1. Outcome Measures

Number of communities/organizations developing or updating a plan.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	5	11

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Local officials wish to implement what citizens want. Organizations want to improve services to clientele. Citizens want input into the community or an organization of which they are a member or clientele. Funding organizations require a proposal to show relation to a plan. For implementation a plan shows the needed sequence in order for there to be a successful outcome. Plans are important as guides for future activity.

What has been done

We provided facilitation, technical assistance, and training. We partnered with three other organizations for a planning and zoning course; partnered with Drury College for visioning and planning in a community with plans for 3 others next year; and provided community participatory processes for Henry Economic Development Council, Montgomery County, St. Charles County and the cities of Neosho and Sunrise Beach.

Results

Programs such as Vision to Action and Missouri Community Betterment helped communities view themselves objectively and often begin a planning process. After approving the plan in 2008 Sunrise Beach is focused on writing zoning ordinances and continues to draw upon us to assist in a community survey, and train board members for planning and zoning. Henry County Economic Development Council had accomplished the goals of its previous plan and has started a new plan. In the city of St. Louis, a Women's Empowerment Center has been planned. Jefferson County adopted an updated plan for its parks, while the City of Berkeley's Council (in St. Louis County) has a viable strategy to inform the council and city staff. Engagement with the Affton First Suburbs Housing Initiative and the Affton Community Betterment Association involved architectural studies students in planning for changing needs in housing. As a result, a community housing forum with more than 60 participants identified key issues and led to a series of four housing clinics, with MU students developing plans for an Affton house.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #3

1. Outcome Measures

Number of communities reporting engagement in plan/project implementation.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	5	5

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Local officials wish to implement what citizens want. Organizations want to improve services to clientele. Citizens want input into the community or an organization of which they are a member or clientele. Plans are important as guides for future activity. They serve very little purpose if they are merely written and do not serve as a guide for future community action.

What has been done

Extension has worked with some communities on a wide range of activities, including planning, for many years. We provided facilitation, technical assistance, and training.

Results

Extension has worked with the City of Herculaneum in Jefferson County for some years on a wide range of activities, including planning, as it struggles to recover from lead contamination. The city continues the implementation of its master plan—including one new bridge and building another. The city is growing, new businesses and homes are opening on the I-55 corridor, which is outside the contaminated area. Arnold Hometown Association is focusing on Highway 67, working with MoDOT concerning changes that will be needed. They have volunteer architects, developers, builders, contractors, business people and individuals working on plans for the area. Work with Sunrise Beach led to application of a grant for tornado warning sirens. The St. Louis Old North Healthy Community Initiative improved access to healthy foods by expanding the farmers market and developing a community garden, grocery coop and community-supported agriculture operation.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #4

1. Outcome Measures

Number of people reporting taking on increased, different, or new leadership roles in community.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Community leaders are the central force in effectively mobilizing people to address local issues. Frequently, community leaders wonder how to achieve the kind of success they dream about and recognize that they cannot be successful alone or without greater personal capabilities. Effective citizen leaders translate knowledge and commitment into hands-on action to engage in building community networks, make well-informed decisions and find real solutions.

What has been done

We trained and supported emergent leaders and steering committees in planning and implementation processes and engagement as we worked on specific planning and deliberation programs. We provided facilitation, technical assistance, and training.

Results

We did not specifically measure or track this indicator among our planning and decision making programs.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
805	Community Institutions, Health, and Social Services
806	Youth Development

Outcome #5

1. Outcome Measures

Number of jobs created by new businesses or business expansion/growth.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Economic performance includes jobs and income for citizens. Fiscal performance includes the relationships between tax bases, tax revenues, demand for public services and costs of public services. The fiscal capacity is that ideally the community can meet the demands of the majority of its citizens with a "reasonable" level of taxes as well as economic stability/growth. Quality planning and decision making that engage residents are important to creating jobs in local economies.

What has been done

We trained and supported emergent leaders and steering committees in planning and implementation processes and engagement as we worked on specific planning and deliberation programs. We provided facilitation, technical assistance, and training.

Results

We did not specifically collect this data for our planning and decision making programs. Lewis County vocational training program was created to serve at-risk youth, 16 to 19 years of age and place them in jobs.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #6

1. Outcome Measures

Number of jobs retained.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Economic performance includes jobs and income for citizens. Quality planning and decision making that engages residents is important to retaining jobs in local economies.

What has been done

We trained and supported emergent leaders and steering committees in planning and implementation processes and engagement as we worked on specific planning and deliberation programs. We provided facilitation, technical assistance, and training.

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
803	Sociological and Technological Change Affecting Individuals, Families, and Communities

Outcome #7

1. Outcome Measures

Number of businesses created.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Economic performance includes business creation and income for citizens. Quality planning and decision making that engage residents are important to business creation in local economies.

What has been done

We trained and supported emergent leaders and steering committees in planning and implementation processes and engagement as we worked on specific planning and deliberation programs. We provided facilitation, technical assistance, and training.

Results

We did not specifically collect this data for our planning and decision making programs. Lewis County vocational training program was created to serve at-risk youth, 16 to 19 years of age and place them in jobs.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #8**1. Outcome Measures**

Dollar value of savings from more efficient government and organizational performance.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	650000

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Fiscal performance includes the relationships between tax bases, tax revenues, demand for public services and costs of public services while allowing the community to meet the demands of the majority of its citizens with a "reasonable" level of taxes. Governments can use resources more effectively, leverage resources and also raise resources locally. Improving organizational performance can lead to better management, more citizen engagement and lower conflict and citizen distrust.

What has been done

We provided training on for local officials on the Sunshine Law in partnership with the Office of the Attorney General in 4 counties. We distributed Rules for Fourth Class Cities to every qualifying city. We provided information on services and tools to state legislators and local officials in workshops throughout the state. We worked with a health clinic on how to provide services to isolated clients and the city of Republic on water rates.

Results

Pike County municipalities learned how to use state tax credit programs for flood recovery, public infrastructure improvements, and private sector investment in the area outside the flood buy-out neighborhoods. A city is using in-fill development to cut growth costs , another is rebuilding after a series of natural disasters and has been able to re-establish businesses which are providing tax revenues. Canton established a Community Recycling Center and lowered operational costs. Johnson County collected nearly 300 carloads of hazardous waste from homes, preventing unsafe disposal in rural areas and municipal landfills. The state Municipal League and Association of Counties continue to use a study of the local impact of the August sales tax holiday to make decisions to participate or to opt-out of the holiday. Over the past three years, Nine communities cumulatively saved \$550,000 in developing a vision and plan, working in partnership with Drury University students and MU Extension.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
610	Domestic Policy Analysis
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services

Outcome #9**1. Outcome Measures**

Dollar value of new resources leveraged by communities.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	15253288

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Communities wish to be able to improve what they offer their citizens. Organizations want to increase their outreach to clientele. Partnerships offer additional knowledge and personnel to achieve ends and expand networks. Resources are needed to implement plans and these can come from within the community or from outside.

What has been done

We assisted by providing training and assistance on grant writing and by working with communities on plans that the communities use to back-up grant requests. We have provided estimates of revenues from new sources to local governments.

Results

We did not consistently collect this data. Yet, communities reported leveraging a total of \$15,253,288 in resources. This included \$4.6 million by two communities who had participated in the planning conducted by students in the partnership with Drury University. Other examples included: LaGrange obtained \$5,788 for parks; Ewing received \$18,250 for parks and playground improvements; Marion County raised local funds of \$4,000 via "community stakeholder memberships" venture and \$1,500 through the "buy-a-brick" beautification project; and Canton received \$35,000 to obtain three new emergency sirens, \$70,000 transportation grant for streetscapes improvements and street lighting, \$5000 raised locally for the Lincoln School and African American Church restoration project.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #10

1. Outcome Measures

Number of volunteer hours generated by communities/organizations.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Volunteers are an important part of any community and of many organizations. Without volunteers public services would be more expensive or would not be available at the same level. Working with volunteers assists community organizations in extending their financial resources, can contribute to reaching more diversity in event participants, and provides outlets for people in the community to contribute their expertise and time.

What has been done

We provided planning assistance and facilitation to communities and organizations for projects and encouraged the creative use of volunteers. Volunteers have helped to plan deliberative forums and identify people to attend forums.

Results

We did not specifically ask communities how many volunteer hours they were able to leverage. We do know that programs conducted by our faculty leveraged at least 2,200 hours of volunteer time for planning and decision making processes. Two examples of outcomes reported for communities include Palmyra and Arnold. Palmyra updated it's townscape plan by securing the donated services from a St. Louis architectural firm that employs two former residents of Palmyra. Also Arnold's Hometown Association is focusing initially on Highway 67 working with MoDOT concerning changes that will be needed and using volunteer architects, developers, builders, contractors, business people and individuals working on plans for the area.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

The decline in tax revenues for all communities has affected their ability to implement new projects and continue to support others at the same level. The concern about future revenues means that local governments are also trying to maintain some funds to carry over to the next year. For example, the lack of funds by local government has affected the ability of the Community Policy Analysis Center to provide research-based, decision-support to local governments. The lack of funds may also have discouraged citizens and affected their participation. State government has reduced funding of specific programs that local governments have used. The economic downturn has also affected the resources of non-profit organizations and their ability to implement their programs and to partner with communities. Communities in several parts of the state suffered from ice storms, tornados or floods.

Competing public priorities force citizens to prioritize which public issues they will engage. Citizens are often discouraged by usual methods of public engagement on difficult issues, which result in polarizing on issues and some public discussion breaking down into shouting matches, are reluctant to engage in another process. In one case, eight forums for both youth and adults around issues related to health care and immigration were scheduled around the Kansas City area but did not attract sufficient participants (at least 15) to be a community discussion. The economy could contribute to this because people may have other worries - unemployment, two jobs, etc. In the economic downturn, few people seem willing to pay for training to learn how to hold deliberative public meetings. Public forums around immigration issues can be very contentious and people appear reluctant to "get involved" until it directly affects them. Further, competing public priorities that impact health care and bipartisan disagreement and conflict can contribute to citizens feeling marginalized even when they offer their input. These dialogues can also get very contentious and end up shouting matches as has been evidenced around the U.S.

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)
- During (during program)
- Case Study

Evaluation Results

Post program results show that the programs offered are well-received by the populace, usually accompanied with a request for more assistance. Our protocols for evaluation were not yet in place for 2009. However, what we have reported are summative in nature and attributed results. While post program

leverage of economic resources for these decision making programs is reported at just over \$15 million, the likely impact is much higher and not easily quantified.

Key Items of Evaluation

Community decision-making outcomes generally are very long run. For example, a planning process is by definition about the future. Over time other factors can intervene which can stop a community or cause it to change its plans. Often it takes a community some time to re-group.

Measure of impact is not a precise science as the longer term impact occurs over time. Evaluation protocols and measures continue to be developed for other decision support programming and for community planning programs in tandem with the work in the North Central Region on indicators. Once we are past what has been learned, the nature of impact reporting will most likely rest on a protocol that assesses attributed results as context varies from community to community, especially as decision making processes are locally driven.

V(A). Planned Program (Summary)**Program # 28****1. Name of the Planned Program**

Ensuring Safe Communities

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
805	Community Institutions, Health, and Social Services	95%			
806	Youth Development	5%			
	Total	100%			

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	1.9	0.0	0.0	0.0
Actual	4.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
51405	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
203377	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

Establish COAD (Community Organizations Active in Disasters). Provide disaster educational materials & presentations to communities and organizations. Build partnerships with local, state, federal agencies and organizations. Consult with local emergency planning committees and/or citizen councils. Represent Extension at meetings of federal, state and local emergency management organizations after disasters. Assist local entities in identification of funding sources for community emergency management and homeland security, eg., USDA-RD, fire grants, etc. Provide disaster preparedness and mitigation leadership for Extension itself. Coordinate and participate in Extension disaster activities.

2. Brief description of the target audience

Targeted audience is all social groups in the community, including low-income and minority, Spanish-speaking, community organizations, local government, home builders, agencies that assist in disaster, businesses and farmers. No limitation on gender, ethnic or religious diversity, lifestyle choice, etc.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	3000	2400	60	450
Actual	2549	4645	263	5053

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009
 Plan: 0
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	1	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of communities assisted with training and facilitation for disaster preparedness.

Year	Target	Actual
2009	45	167

Output #2

Output Measure

- Number of partners.

Year	Target	Actual
2009	100	850

Output #3

Output Measure

- Number of workshops and trainings conducted by Extension faculty.

Year	Target	Actual
2009	15	170

Output #4

Output Measure

- Number of days the FEMA Safe Room Display is used.

Year	Target	Actual
2009	15	7

Output #5

Output Measure

- Number of unique visits(hits) to Community Emergency Management Web page.

Year	Target	Actual
2009	2500	26162

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	% of participants in workshops/training reporting learning about preparedness, hazards, mitigation.
2	Community Organizations Active in Disaster (COADs) created and function to meet citizen needs.
3	Practices adopted such as disaster plans and kits developed.
4	% of communities that make changes after conduct of emergency management exercise in the community.
5	Communities, businesses, schools and residents recover quickly and with less cost after a disaster because they were prepared.
6	Number of county Extension offices that adopted or reviewed disaster plans and preparedness measures during the past year.
7	Dollar value of resources leveraged (volunteer hours, grants for warning systems, etc.) for emergency management.

Outcome #1

1. Outcome Measures

% of participants in workshops/training reporting learning about preparedness, hazards, mitigation.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	78

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Missourians must be prepared for the possibility of a multitude of severe weather events in addition to terrorist or seismic disasters.

What has been done

170 community preparedness learning events were conducted including animal and plant biosecurity. County offices distributed information in the office, at county fairs and other events. TV, web, and radio Media materials were developed and distributed. Weather awareness campaigns were developed and delivered. 509 participants from 364 separate faith-based organizations participated in events that included individual and family preparedness, continuity of operations planning for the church/congregation, and seven external disaster ministries that churches can be trained on and activate if needed.

Results

In a follow up survey to the faith-based symposia participants, 194 respondents responded to the question, "Because of attendance at the symposium, how is your family better prepared to respond to an emergency?" with the following frequency: 78.4% greater home and work hazard awareness; 48.5% developed a family emergency plan; 48.5% identified utility entrance and shut-offs; 47.9% prepared a home emergency kit; 46.4% helped other families become prepared; and others prepared a car emergency kit, worked on securing hazards at home, learned about work or children's school emergency plans, or purchased generators or weather radios. 174 participants reported passing on the individual and family preparedness information to more than 16,580 people.

4. Associated Knowledge Areas

KA Code	Knowledge Area
805	Community Institutions, Health, and Social Services

Outcome #2**1. Outcome Measures**

Community Organizations Active in Disaster (COADs) created and function to meet citizen needs.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	5	24

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Disasters are unpredictable and external assistance does not meet all needs that arise. COADs include any agency that has a role to play in any phase of emergency management. COADs provide the platform for launching Long Term Recovery Committees (LTRC) groups in their communities in the event of a disaster event. In addition, established COADs function to assist in mitigation, preparedness, response and recovery--contributing to community resiliency to disaster.

What has been done

MU Extension facilitated the meetings and provided organizational development assistance and disaster recovery and planning training and information to these new COADs and a number of existing COADs.

Results

Three new COADS/LTRCs were formed utilizing the state and local networks provided by MU Extension. Twenty-one existing COADs continued to function as they responded to ice, hail, floods, and tornadoes. Residents, businesses, and communities have accessed resources, made decisions, and started the process of recovery as a result of information packets and assistance. After a major series of storms raked Missouri, one extension office, working as part of the local COAD, took a major lead in soliciting, organizing and managing volunteers during the short term recovery efforts. Over 13,000 volunteer hours were coordinated for chain saw teams, debris removal, wellness checks, shelter and mass feeding operations. The office was the volunteer coordination center and received numerous kudos for their tireless efforts. The Missouri COAD model is spreading across the United States and to other Land Grant Universities. Purdue University Extension (Indiana) has adopted the COAD model and has begun developing COADs to assist Indiana citizens.

4. Associated Knowledge Areas

KA Code	Knowledge Area
805	Community Institutions, Health, and Social Services

Outcome #3**1. Outcome Measures**

Practices adopted such as disaster plans and kits developed.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Missouri communities, organizations, and businesses must be prepared for the possibility of a multitude of severe weather events in addition to terrorist or seismic disasters. The key to addressing current and potential disasters is to integrate multidisciplinary research and education into a coordinated mitigation, preparedness response and recovery that includes collaboration with local, state and federal partners.

What has been done

170 community preparedness learning events were conducted including animal and plant biosecurity. County offices distributed information in the office, at county fairs and other events. TV, web, and radio Media materials were developed and distributed. Weather awareness campaigns were developed and delivered. 509 participants from 364 separate faith-based organizations participated in events that included individual and family preparedness, continuity of operations planning for the church/congregation, and seven external disaster ministries that churches can be trained on and activate if needed.

Results

194 of the 210 respondents to a survey of faith based symposia participants indicated their family was better prepared to respond to an emergency: 48.5% developed a family emergency plan; 48.5% identified utility entrance and shut-offs (48.5%); 47.9% prepared a home emergency kit; 46.4% helped other families become prepared. 174 participants reported passing on the individual and family preparedness information to more than 16,580 people. Regarding congregation planning 68.2% reported providing information to more than 3,372 people. Participants identified actions taken by the leadership of their congregation including developed a planning team, identified shelter spaces, conducted a hazard assessment and/or shelter assessment, conducted a vulnerability analysis, shared the template from the program, began drafting a church emergency plan, approved a church emergency plan, or purchased equipment.

4. Associated Knowledge Areas

KA Code	Knowledge Area
805	Community Institutions, Health, and Social Services
806	Youth Development

Outcome #4**1. Outcome Measures**

% of communities that make changes after conduct of emergency management exercise in the community.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Emergency planning exercises are a critical part of a better prepared America. The MU Exercise and Evaluation Program (MU EEP) strives to help communities, businesses, and volunteer organizations assess their capabilities in disaster prevention, preparedness, response, and recovery activities in a risk-free environment. The MU EEP is one of only three programs to be accepted by the Mid-America Regional Council as an approved provider of exercise and evaluation programs.

What has been done

We developed a large tabletop exercise to analyze the results of a Bi-State Strategic National Stockpile/Cities Readiness Initiative for the Public Health and Emergency Management Agencies within the St. Louis Metropolitan Statistical Area. The scenario included a deliberate biological agent release requiring mass dispensing of oral antibiotics as prophylaxis to a defined population, collaboration, information sharing and tactical operations, establishing a regional point of distribution and the support structure required by national standards.

Results

The exercise generated successful discussion among the participants regarding roles and responsibilities, developed consistent plans and identified additional resources needed for such a scenario. Participants also successfully addressed the local and regional capability of providing mass prophylaxis with a focus on Emergency Operations Command functions and policy level decision making and information sharing. However, additional work is needed to ensure consensus, understanding and action among all of the agencies and organizations potentially involved in supporting mass prophylaxis dispensing operations. The primary recommendation is to develop a regional plan/coordination guide that does not legally lock multiple jurisdictions into an operational plan or procedures that are more appropriately addressed by each autonomous jurisdiction and includes notification procedures, contact information, regional public information strategies, virtual communications, and resources.

4. Associated Knowledge Areas

KA Code	Knowledge Area
805	Community Institutions, Health, and Social Services

Outcome #5

1. Outcome Measures

Communities, businesses, schools and residents recover quickly and with less cost after a disaster because they were prepared.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Missouri has been and will likely continue to experience a number of disasters--being the 8th most disaster prone state in the nation. Each is costly in dollars and can cost lives. Disaster preparedness can help mitigate cost and hasten recovery.

What has been done

MU Extension distributed information to communities and citizens, provided hazard awareness and disaster preparedness information/workshops to a vast and diverse audience, and partnered with SEMA to assist in meeting preparedness needs of citizens through local partnerships and facilitation of meetings. We provided direct support to communities and the state as they planned for, addressed and recovered from ice, hail, floods, and tornadoes.

Results

Residents, businesses, and communities have accessed resources, made decisions, and started the process of recovery as a result of information they received from MU Extension. MU Extension as an organization adopted new preparedness plans and emergency response plans. After a massive ice storm faculty developed and distributed critical information to the thousands of affected home owners, renters, businesses and farmers.

After a major spring storm, one county extension office, working as part of the local COAD, led the soliciting, organizing and managing of volunteers during the short term recovery efforts. Over 13,000 volunteer hours were coordinated for chain saw teams, debris removal, wellness checks, shelter and mass feeding operations.

When a young 8-year old went missing in another rural county, we coordinated and supported the search effort with GPS units and just-in-time training. The youth was found unharmed.

4. Associated Knowledge Areas

KA Code	Knowledge Area
805	Community Institutions, Health, and Social Services

Outcome #6**1. Outcome Measures**

Number of county Extension offices that adopted or reviewed disaster plans and preparedness measures during the past year.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	25	31

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Missouri has been and will likely continue to experience a number of disasters. Each is costly in dollars and can cost lives. Disaster preparedness can help mitigate cost and hasten recovery. MU Extension is a key partner with local state and federal agencies therefore it is critical that all MU Extension offices prepare for emergencies and disasters so they are able to support response and recovery efforts within counties and across the state.

What has been done

MU Extension republished its internal emergency management guidance for all extension employees and offices. An emergency plan template and office hazard checklist (to be completed annually) was sent to all employees and offices so that each office could tailor emergency plans to their unique staffing, organizational structure and occupancy. Many regions reviewed these documents with regional employees and began the process of writing individual office plans and procedures.

Results

Many storms directly affected our offices and employees. We assured safety of our employees and offices first, then participated in recovery activities such as Multi Agency Resource Centers and served thousands of impacted individuals and families--despite being affected. We developed and distributed critical information to state agencies, volunteer agencies and federal agencies who shared it with the thousands of affected home owners, renters, businesses and farmers. After spring storms, Extension's coordination of volunteers involved over 13,000 volunteer hours in one county for chain saw teams, debris removal, wellness checks, shelter and mass feeding operations.

In a follow-up survey to faculty training about flooding and flood recovery, 67% of 48 participants responded they had learned how to access resources, work with people affected on the recovery process; be prepared for future floods; work with local recovery committees and coordinators; monitor cleanup efforts and safety.

4. Associated Knowledge Areas

KA Code	Knowledge Area
805	Community Institutions, Health, and Social Services

Outcome #7

1. Outcome Measures

Dollar value of resources leveraged (volunteer hours, grants for warning systems, etc.) for emergency management.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Missouri has been and will likely continue to experience a number of disasters—being the 8th most disaster prone state in the nation. Each is costly in dollars and can cost lives. Disaster preparedness can help mitigate cost and hasten recovery. Communities often need assistance in organizing and funding disaster preparedness efforts that can save money and lives.

What has been done

The Community Emergency Management program provided direct support as communities and the state planned for, addressed and recovered from severe winter, spring and summer storms and the first outbreak of H1N1 Influenza virus. Activities included COAD development and support, consultations with citizens and leaders about appropriate recovery strategies, educational programs on emergency/disaster management and MU Extension had the lead role in the state’s faith-based disaster initiative.

Results

After a major ice storm, one county extension office, working as part of the local COAD, led the soliciting, organizing and managing of volunteers during the short term recovery efforts. Over 13,000 volunteer hours valued at \$231,100 were coordinated for chain saw teams, debris removal, wellness checks, shelter and mass feeding operations.

The MU Extension Community Emergency Management Program has been hailed as a model for other land-grant universities seeking to develop and provide disaster education and assistance plans.

In the last half of 2008, we widely distributed 3,899 hard copies of flood recovery guides from offices, courthouses, city halls, FEMA Disaster Recovery Centers, churches and other agencies. The same resource was downloaded 3,398 times from our website. We also extensively reorganized and compiled web-based flood recovery and preparation resources.

4. Associated Knowledge Areas

KA Code	Knowledge Area
805	Community Institutions, Health, and Social Services

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

In FY 09 Missouri had 4 major Presidential disaster declarations affecting 245 counties (Missouri has 114 counties and the City of St. Louis), with many counties being impacted multiple times. Many of these storms directly affected MU Extension offices and employees. In the last five years Missouri has been devastated by natural events which received 20 Presidential disaster declarations, more than any other state during the period. Missouri now ranks 8th as the most disaster prone state in the last 50 years.

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)
- During (during program)
- Time series (multiple points before and after program)
- Case Study
- Comparisons between program participants (individuals, group, organizations) and non-participants
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.

Evaluation Results

There was no program-wide evaluation of the CEMP in 2009. Evaluations of the faith-based symposia were dramatic in results. 210 people (41.5%) participated in a follow-up on-line survey distributed three to six months later. 141 self-identified as representing faith-based organizations, 41 self-identified as representing governmental organizations, 39 self-identified as representing non-profit organizations; and some participants represented multiple agencies/organizations.

Individual and family preparedness was a key component of the symposia and elicited the greatest number of responses as well as the greatest number of accomplishments. Participants were obviously committed to enhanced preparedness for their homes, families, neighborhoods and churches. 194 respondents responded to the question, "Because of attendance at the symposium, how is your family better prepared to respond to an emergency?" with the following frequency: 78.4% greater home and work hazard awareness; 48.5% developed a family emergency plan; 48.5% identified utility entrance and shut-offs (48.5%); 47.9% prepared a home emergency kit; 46.4% helped other families become prepared; and others prepared a car emergency kit, worked on securing hazards at home, learned about work or children's school emergency plans, or purchased generators or weather radios. 174 participants reported passing on the

individual and family preparedness information to more than 16,580 people.

For the presentation on congregation planning an average of 148 persons (70.4%) responded to the questions. Of 176 participants answering a question relative to passing on the information they had received, 120 (68.2%) reported providing information to more than 3,372 people. 41.5% of those receiving the information were on boards, groups, or committees within the participant's congregation. 11.6% provided the information to other leadership within their denomination or faith group. 164 participants identified actions taken by the leadership of their congregation including developed a planning team, identified shelter spaces, conducted a hazard assessment and/or shelter assessment, conducted a vulnerability analysis, shared the template from the program, began drafting a church emergency plan, approved a church emergency plan, or purchased equipment. 103 participants responded their congregation is better equipped to respond to and recover from an emergency, while keeping essential programs and operations functional because there is greater awareness of hazards in the neighborhood and capacities of our congregation and resources, increased preparedness for response and confidence in the appropriateness of the response, more people are trained, or equipment has been purchased and installed.

Key Items of Evaluation

The Community Emergency Management program had a large impact across the state of Missouri as MU Extension employees provided direct support as communities and the state planned for, addressed and recovered from severe winter, spring and summer storms and the first outbreak of H1N1 Influenza virus. The CEMP utilized research-based educational resources and human capital to support the citizens of Missouri, businesses and communities when they needed to make quick decisions and start the longer-term process of recovery. Activities included COAD development and support, consultations with citizens and leaders about appropriate recovery strategies, educational programs on emergency/disaster management and MU Extension had the lead role in the state's faith-based disaster initiative. The program has been hailed as a model for other land-grant universities seeking to develop and provide disaster education and assistance plans.

However documenting impact of the work with COADs and disaster recovery is difficult. Much easier is the self-reported change in learning and learning and actions taken by participants in workshops to prepare for disaster. In addition, our evaluation showed that leaders in churches do in fact take action that improves the safety for their families and their congregations. Similarly our inhouse Extension training and focus on preparedness for our organization has increased employee awareness and preparedness at home as well as in the workplace.

While we have not officially tracked or studied the issue, when major storms are forecast, regular work occurs to alert faculty and staff and help them prepare personally and programmatically. Our teams and infrastructure to deal with disaster preparedness and response made the task of preparedness for handling an H1N1 outbreak and adoption of organizational policy much smoother.

V(A). Planned Program (Summary)**Program # 29****1. Name of the Planned Program**

Community Leadership Development for Youth and Adults

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	50%			
806	Youth Development	50%			
	Total	100%			

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	3.5	0.0	0.0	0.0
Actual	4.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
47978	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
189819	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

Form planning committee; assist with organizational development, fund development, and tailoring content to local community need. Provide facilitation, training, workshops, retreat, field trips and exchanges with other communities, conduct planning with education class for use of learning.

2. Brief description of the target audience

Targeted audience is all social groups in the community, including low-income and minority, youth (age 14-18), adults. No limitation on gender, ethnic or religious diversity, lifestyle choice, etc. Also targeted among adults will be those who are currently serving in a leadership role in an agency, organization, neighborhood, club, community, business or aspire to serve.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	5000	500	300	25
Actual	4573	807	940	20

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009
 Plan: 0
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	1	0	
Actual	1	0	1

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of program participants (gender and ethnicity).

Year	Target	Actual
2009	350	425

Output #2

Output Measure

- Number of programs held.

Year	Target	Actual
2009	30	23

Output #3

Output Measure

- Number of volunteers who assisted.

Year	Target	Actual
2009	100	475

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	% of participants reporting changes in changes in personal growth and self efficacy; community commitment; shared future and purpose, community knowledge and civic engagement.
2	Percent increase in number of participants reporting new roles and opportunities undertaken.
3	Number of community projects/plans developed.
4	Number of community projects/plans implemented.
5	Sustained capacity for community leadership development: the number of programs which continue after at least 5 years.
6	Dollar value of grants and resources leveraged/generated from community projects/programs.

Outcome #1**1. Outcome Measures**

% of participants reporting changes in changes in personal growth and self efficacy; community commitment; shared future and purpose, community knowledge and civic engagement.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	60	100

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Community leaders are the central force in effectively mobilizing people to address local issues. Frequently, community leaders wonder how to achieve the kind of success they dream about and recognize that they cannot be successful alone or without greater personal capabilities. Effective citizen leaders translate knowledge and commitment into hands-on action to engage in building community networks, make well-informed decisions and find real solutions.

What has been done

Programs engaged local leaders and citizens in developing a program adapted to the community in urban and rural areas. Past participants helped plan and deliver cohort programs. Several have formed nonprofit organizations to support their programs. The EXCEL (EXperience in Community Enterprise and Leadership) program celebrated its 25th year in 2009. Other programs being implemented include Step Up to Leadership that is co-delivered with community action agencies to low-income persons.

Results

As part of a National Research Initiatives Project, three long-standing community leadership programs were measured on: personal growth and self-efficacy community commitment, a shared future and purpose for the community, community knowledge, and civic engagement among participants.. There was an average of 80% increase from the pre to post scores for each of these outcomes. Respondents reported scoring higher post scores after program intervention. This positive trend of the impact scores means there is significance at the .001 level and that a significant relationship exists between respondents' leadership perceptions before and after their participation in leadership programs.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #2**1. Outcome Measures**

Percent increase in number of participants reporting new roles and opportunities undertaken.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	10	42

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Community leaders are the central force in effectively mobilizing people to address local issues. Frequently, community leaders wonder how to achieve the kind of success they dream about and recognize that they cannot be successful alone or without greater personal capabilities. Effective citizen leaders translate knowledge and commitment into hands-on action to engage in building community networks, make well-informed decisions and find real solutions.

What has been done

Programs engaged local leaders and citizens in developing a program adapted to the community in urban and rural areas. Past participants helped plan and deliver cohort programs. Several have formed nonprofit organizations to support their programs. The EXCEL (EXperience in Community Enterprise and Leadership) program celebrated its 25th year in 2009. Other programs being implemented include Step Up to Leadership that is co-delivered with community action agencies to low-income persons.

Results

We did not collect information from all programs; however, 270 participants in 2009 reported they took on new roles and opportunities within the year. Lafayette County LEAD has built community leadership capacity for 18 consecutive years. More than 350 LEAD graduates are serving their community, and community collaboration has increased significantly since the program began--yielding increased opportunities and benefits for all county residents. In existence for just two years, Northland EXCEL (co-sponsored by Northland Neighborhoods Inc.) graduates are providing visible leadership in Clay and Platte counties. They are serving on boards and committees, helping their neighbors avoid mortgage foreclosure, working with the North Kansas City School District to review elementary school boundaries, selling their products in more local venues, and rehabbing properties for low-income families.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #3**1. Outcome Measures**

Number of community projects/plans developed.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	5	26

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Community leaders are the central force in effectively mobilizing people to address local issues. Frequently, community leaders wonder how to achieve the kind of success they dream about and recognize that they cannot be successful alone or without greater personal capabilities. Effective citizen leaders translate knowledge and commitment into hands-on action to engage in building community networks, make well-informed decisions and find real solutions.

What has been done

Programs engaged local leaders and citizens in developing a program adapted to the community in urban and rural areas. Past participants helped plan and deliver cohort programs. Several have formed nonprofit organizations to support their programs. The EXCEL (EXperience in Community Enterprise and Leadership) program celebrated its 25th year in 2009. Other programs being implemented include Step Up to Leadership that is co-delivered with community action agencies to low-income persons.

Results

The regional Northwest Missouri EXCEL took 4 action items to the state legislature during its annual government day for consideration that addresses wastewater infrastructure, an existing regional water partnership, compounding Missouri taxes and classification 9-1-1 funding. The Northland EXCEL program in Clay County Missouri (North Kansas City) planned and implemented a community garden partnership. The Step Up to Leadership program participants developed a plan for a community project as part of the curriculum. Warren County's Step Up program engaged Drug Court participants to develop a project to assist local domestic abuse efforts.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #4**1. Outcome Measures**

Number of community projects/plans implemented.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	1	18

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Community leaders are the central force in effectively mobilizing people to address local issues. Frequently, community leaders wonder how to achieve the kind of success they dream about and recognize that they cannot be successful alone or without greater personal capabilities. Effective citizen leaders translate knowledge and commitment into hands-on action to engage in building community networks, make well-informed decisions and find real solutions.

What has been done

Programs engaged local leaders and citizens in developing a program adapted to the community in urban and rural areas. Past participants helped plan and deliver cohort programs. Several have formed nonprofit organizations to support their programs. The EXCEL (EXperience in Community Enterprise and Leadership) program celebrated its 25th year in 2009. Other programs being implemented include Step Up to Leadership that is co-delivered with community action agencies to low-income persons.

Results

The Warren County Youth Quest (EXCEL) planned and implemented a Thanksgiving dinner for homeless veterans; provided Christmas for 10 foster children in the area, painted the Senior Center and put together welcome packets for the community for future distribution.

The Northland EXCEL program in Clay County planned and implemented a community garden partnership. Northland EXCEL grads are also helping their neighbors avoid mortgage foreclosure, working with the North Kansas City School District to review elementary school boundaries, selling their products in more local venues, and rehabbing properties for low-income families. The Step Up to Leadership program participants often apply for mini-grants available through the Community Action Agencies to work on a community project they are passionate about. Step Up to Leadership participants planned and implemented the moving of parent teacher conferences to the Chillicothe YMCA due to parents being uncomfortable in a formal school setting.

4. Associated Knowledge Areas

KA Code	Knowledge Area
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

Outcome #5**1. Outcome Measures**

Sustained capacity for community leadership development: the number of programs which continue after at least 5 years.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	17	18

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Community leaders are the central force in effectively mobilizing people to address local issues. Frequently, community leaders wonder how to achieve the kind of success they dream about and recognize that they cannot be successful alone or without greater personal capabilities. Effective citizen leaders translate knowledge and commitment into hands-on action to engage in building community networks, make well-informed decisions and find real solutions.

What has been done

Programs engaged local leaders and citizens in developing a program adapted to the community in urban and rural areas. Past participants helped plan and deliver cohort programs. Several have formed nonprofit organizations to support their programs. The EXCEL (EXperience in Community Enterprise and Leadership) program celebrated its 25th year in 2009. Other programs being implemented include Step Up to Leadership that is co-delivered with community action agencies to low-income persons.

Results

More than 7,894 youth and adults have graduated from the EXCEL (Experience in Community Enterprise and Leadership) Program since 1984 in over one third of Missouri's Counties. 18 programs have been active for 5 years or more.

Lafayette LEAD has built community leadership capacity for 18 consecutive years. In 2008, 20 citizens graduated. All participants reported being more knowledgeable about public issues and county government; 89 percent reported increased knowledge and skills for taking leadership to get things done in the community and county; and 74 percent felt the program increased their confidence in leadership abilities. More than 350 LEAD graduates are serving their community, and community collaboration has increased significantly since the program began--yielding increased opportunities and benefits for all county residents.

4. Associated Knowledge Areas

KA Code	Knowledge Area
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

Outcome #6

1. Outcome Measures

Dollar value of grants and resources leveraged/generated from community projects/programs.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	5000	2000

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Community leaders are the central force in effectively mobilizing people to address local issues. Frequently, community leaders wonder how to achieve the kind of success they dream about and recognize that they cannot be successful alone or without greater personal capabilities. Effective citizen leaders translate knowledge and commitment into hands-on action to engage in building community networks, make well-informed decisions and find real solutions.

What has been done

Programs engaged local leaders and citizens in developing a program adapted to the community in urban and rural areas. Past participants helped plan and deliver cohort programs. Several have formed nonprofit organizations to support their programs. The EXCEL (EXperience in Community Enterprise and Leadership) program celebrated its 25th year in 2009. Other programs being implemented include Step Up to Leadership that is co-delivered with community action agencies to low-income persons.

Results

The dollar value of volunteer hours generated for leadership programs was \$39,236 and \$13,701 of partners' hours were contributed. To this point we have not been tracking additional resources leveraged with our leadership programs. However in 2009, at least \$1,800 was noted as being leveraged for youth EXCEL programs.

4. Associated Knowledge Areas

KA Code	Knowledge Area
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

A number of concerns facing communities demand leadership related to community development. The contemporary arena in which community actions are pursued can seem overwhelmingly complex. For example, community organizations and political subdivisions such as cities, school districts, library boards and counties continually struggle to find qualified residents to serve as council, board and commission members.

The forces external to the community locality and structure that affect its status and its future are important to take into account in the process of formulating leadership programs. These forces include: the devolution of authority for action and service delivery to the community; the double bind created by trying to maintain quality with fewer resources; expectations for sharing power and responsibility; interdependence, diversity, collaboration, and communication; and displacement of the developmental paradigm with the globalization paradigm.

CLD programs have participated in evaluation efforts on a voluntary basis producing a small number of cases in the benchmark data. In 2010, programs will be required to participate in an evaluation survey that is being used in a multi-state NRI funded project. An evaluation process is being centralized for use across the state. Administration will take place approximately six to twelve months following the end of the educational program.

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- During (during program)

Evaluation Results

Outcomes from EXCEL program: personal growth and self-efficacy community commitment, a shared future and purpose for the community, community knowledge, and civic engagement among participants. Increased knowledge of local, county and state resources, local history and decision-making process, local issues that affect the community, processes for getting things done in the community, and other factors related to the roles and responsibilities of community leaders, and changes in attitudes about the factors important in relationships between leaders and followers as well as individuals' assessments of their leadership capacity.

As part of a National Research Initiatives Project, three long-standing community leadership programs

were measured on: personal growth and self-efficacy community commitment, a shared future and purpose for the community, community knowledge, and civic engagement among participants.. There was an average of 80% increase from the pre to post scores for each of these outcomes. Respondents reported scoring higher post scores after program intervention. This positive trend of the impact scores means there is significance at the .001 level and that a significant relationship exists between respondents' leadership perceptions before and after their participation in leadership programs.

Plans are to use scores from benchmark data as the starting point for comparison of scores over time.

Key Items of Evaluation

In 2010, programs will be required to participate in an evaluation survey that is being used in the multi-state NRI funded project. An evaluation plan has been designed by a team of state and regional faculty that includes: a demographic questionnaire at the beginning of the program, a post/pre test (survey); individual session assessments, anticipated actions and actions taken assessment (NCR Recommendations), and creation of a process for focus groups for long-range evaluation efforts.

To be noted is that the impact upon individuals is often felt for years. Measuring impact in the community has been and remains a significant and more challenging task.

V(A). Planned Program (Summary)**Program # 30****1. Name of the Planned Program**

Building Inclusive Communities

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
608	Community Resource Planning and Development	15%			
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	40%			
805	Community Institutions, Health, and Social Services	35%			
806	Youth Development	10%			
	Total	100%			

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	4.3	0.0	0.0	0.0
Actual	6.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
92528	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
366079	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

Provide facilitation, training, workshops. Conduct intensive courses and conferences to share state of the art knowledge and research and to integrate research with community needs. Assist with organizational development, fund development, and tailoring content to local community need, and gaining non-profit status. Work with media and facilitate partnerships to assist in working to meet needs of Spanish-Speaking and other minority populations.

2. Brief description of the target audience

Targeted audience is all social groups in the community, including low-income and minority, youth and adults. No limitation on gender, ethnic or religious diversity, lifestyle choice, etc. Also targeted are those who are currently serving in a leadership role in an agency, organization, neighborhood, club, community, business or aspire to serve; local and state government officials and professionals working in community development.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	5000	20000	400	2500
Actual	15993	24206	993	532

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009

Plan: 0

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	3	2	
Actual	1	0	1

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of partners engaged.

Year	Target	Actual
2009	110	137

Output #2

Output Measure

- Number of conferences, courses or workshops held.

Year	Target	Actual
2009	18	23

Output #3

Output Measure

- Number of organizations with which we worked.

Year	Target	Actual
2009	22	34

Output #4

Output Measure

- Percent of non-White Caucasian participants in programs.

Year	Target	Actual
2009	25	8

Output #5

Output Measure

- Percent of Hispanic participants in programs.

Year	Target	Actual
2009	25	6

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Percent of participants in the Community Development Academy reporting an understanding of the diverse relationships that exist within communities.
2	Number of new community networks formed that bridge between diverse cultural/ethnic groups.
3	Number of multicultural, ethnic, and racially diverse events organized that bridged and celebrated community differences.
4	% of participants in the Community Development Academy that report successfully initiating, mobilizing, or coordinating new community projects.
5	% of participants in the Community Development Academy that indicate use of acquired skills and knowledge after one year.
6	Number of jobs created by new businesses and business expansion/growth or organizational development/growth.
7	Number of jobs retained.
8	Number of volunteer hours generated by community organizations.
9	Number of people reporting taking on increased, different, or new leadership roles in community.
10	% of participants in cultural competency programs reporting increased knowledge and skills for dealing with cultural differences.
11	Dollar value of resources leveraged.
12	Number of community organizations engaged in collaborative relationships to address complex community issues.
13	Number of communities/organizations using inclusive planning and decision-making processes that address societal changes.

Outcome #1**1. Outcome Measures**

Percent of participants in the Community Development Academy reporting an understanding of the diverse relationships that exist within communities.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	60	63

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Communities are undergoing tremendous change. Even small villages that have relied for generations on maintaining their traditions are facing demographic and economic restructuring. Change places a premium on developing all the capacities that exist within a community. People need to develop the capacity to work in diverse environments and engage a cross-section of the community in decision-making by valuing and respecting differences and understanding differences are a source of strength.

What has been done

The three-courses of the Community Development Academy develop understanding and skills to engage diverse groups in community action. Course 1 was conducted twice, and courses 2 and 3 each once. An important element of the curriculum in all three courses is an increased capacity to understand the diverse relationships that exist within communities so they can more effectively engage the range of voices and experiences in the community development process.

Results

In a follow-up survey respondents participating in the CDA in the prior one to three years, 63% reported increased understanding of the diverse relationships that exist within communities, and 39% increased interactions among diverse groups.

One graduate of the Community Development Academy stated, "CDA has helped me better understand community relationships and address some of the issues while respecting all people in my community. One of the greatest lessons for me was to include everybody, especially those usually left behind in the CD process and in decision making. This has worked to empower members of my community and it has also helped me build relationships and new contacts."

4. Associated Knowledge Areas

KA Code	Knowledge Area
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services

Outcome #2**1. Outcome Measures**

Number of new community networks formed that bridge between diverse cultural/ethnic groups.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	4	5

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Community service providers, nonprofits, civic groups, foundations, local governments, and others are being asked to do more with fewer resources. Few groups have access to all the resources they need to accomplish their goals on their own. Bridging networks can increase access to resources, expand a group's view of the world, increase understanding of different cultures and increase capacity to address complex communities issues by cultivating networks that bridge across cultural differences.

What has been done

Networks in four regions of Missouri bring together service providers in these regions to share resources and increase their understanding of the issues facing new immigrants in those communities and a statewide network has increased access to healthcare services. Programs have been conducted that enhance skills in cultural competency, resource development, ESOL, and working in collaborations to develop individual and organizational capacities that begin to bridge differences between cultures.

Results

Networks have fostered new projects, provided support to existing efforts, and leveraged resources from a variety of institutions to increase the scope of services available in communities. Bi-national Health Week providing health screenings and education to 857 underserved Hispanic people. In St. Charles, MO where events were held for the first time free flu shots were provided to 300 adults and 125 children.

In Southwest Missouri the regional network was able to secure a \$150 grant to develop health literacy resources in Spanish. In West Central Missouri a health summit was implemented and in Southeast Missouri Spanish classes were given to law enforcement to improve their ability to communicate with Latinos.

4. Associated Knowledge Areas

KA Code	Knowledge Area
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services

Outcome #3**1. Outcome Measures**

Number of multicultural, ethnic, and racially diverse events organized that bridged and celebrated community differences.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	5	6

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Few groups (including community service providers, local government, nonprofits and civic groups) have access to all the resources they need to accomplish understand and address complex community issues on their own. Bridging networks can increase access to resources, expand a group's view of the world, increase understanding of different cultures and increase capacity to address complex communities issues by cultivating networks that bridge across cultural differences.

What has been done

Developing an understanding of the cultural attributes and characteristics of new population groups to Missouri communities can go a long way in helping communities begin to understand what newcomers bring to the communities where they are moving. Training programs, cultural festivals, research projects, workshops and conferences have been conducted that enhance skills in cultural competency, ESOL, and working in collaborations to develop individual capacities.

Results

Programs and events to provide opportunities for people to better understand other cultures. Carthage MO had its 8th annual Festival of Friends, and the Northland Ethnic Festival was held in North Kansas City. A school in St. Louis had a cultural exchange online with a school in Korea. Planning commenced for the Global Leadership Exchange between community leaders in Thailand and Missouri.

125 researchers, practitioners, and community members attended Cambio de Colores, which featured nearly 50 presenters and speakers. The 2009 conference was the first regional conference, featuring speakers, workshops and dialogue reflecting the diversity of research and practice regarding the demographic changes occurring in the Midwest.

The Alianzas Program coordinated Bi-National Health Week in four key areas of the state, each developing a multicultural network to foster local education and health services for Hispanic/Latino immigrants.

4. Associated Knowledge Areas

KA Code	Knowledge Area
803	Sociological and Technological Change Affecting Individuals, Families, and Communities

Outcome #4**1. Outcome Measures**

% of participants in the Community Development Academy that report successfully initiating, mobilizing, or coordinating new community projects.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	50	60

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Community organizations must be able to effectively collaborate with other organizations, governmental institutions and agencies, and businesses both internally and externally in order to effectively leverage their resources. Particularly, small urban and rural community-based organizations must carefully choose the situations and organizations to work with because they literally cannot afford to make a mistake. Developing the capacity to participate in collaborations as well as when not to participate is essential.

What has been done

Delivery of the three-course Community Development Academy provided a strong emphasis on developing the capacity to work with others and participate in collaborative relationship. The Empowering Communities for the Future course focused on issues related to community sustainability, through formal sessions on working collaboratively and application of methods to develop skills. Course 1 was conducted twice, and courses 2 and 3 each once. Other programs, workshops and resources on collaboration were also utilized.

Results

An online survey of Community Development Academy participants was sent to 110 people who completed at least one of the three CDA courses in the last three years (48% return rate). Nearly 60% reported being better at leveraging resources and working with others. Participants reported increased resources on average of \$35,376 per participant. The survey results indicate CDA participants mobilized nearly 27,438 volunteer hours estimated to be an additional value of \$487,299. Nearly half, 49%, of participants successfully initiated, mobilized, or coordinated a new community project. Of the projects reported, one-third were related to community economic viability, one-third to building inclusive communities, one in five to community leadership, and one in seven to community decision-making.

4. Associated Knowledge Areas

KA Code	Knowledge Area
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services

Outcome #5**1. Outcome Measures**

% of participants in the Community Development Academy that indicate use of acquired skills and knowledge after one year.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	65	66

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Leaders of nonprofit organizations, government officials, extension faculty and others working in communities need to develop their capacities to work more effectively with the groups and organizations they encounter in their communities. Issues are increasingly complex, communities more diverse and resources harder to find. Acquiring skills that can be applied in a community context is increasingly important to successful community development.

What has been done

The Community Development Academy courses combined leading edge thinking with practical application to enhance the capacity of people to work effectively with a broad range of community issues. Each issue requires some form of decision-making process and implementation in the community arena beyond the individual, the family, or business firm. The program is designed to help people create their own change in their communities. Course 1 was offered twice and courses 2 and 3 once.

Results

An online survey of Community Development Academy participants was sent to 110 people who completed at least one of the three CDA courses in the past three years (48% return rate). 66% reported they were incorporating the content of the CDA courses into their work.

Those who attended two or more CDA courses felt more knowledgeable about community development principles and process and reported a greater degree of incorporated learning into their work than those who attended Course 1. Those who participated in all three CDA courses reported effectively engaging in a successful community development effort more frequently. "Community Sustainability" was ranked as the specialized skill most important to their work by the CDA participants who attended all three courses.

It should be noted that the CDA includes graduate students who may not yet be employed in a profession one to three years following participation in the course(s).

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
803	Sociological and Technological Change Affecting Individuals, Families, and Communities

805 Community Institutions, Health, and Social Services

Outcome #6**1. Outcome Measures**

Number of jobs created by new businesses and business expansion/growth or organizational development/growth.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Failure of traditional economic development strategies has forced rural regions to seek new ways to spur economic activity. Communities create wealth through the nonprofit sector as well as businesses that serve the diverse population. Lack of new businesses and services creates loss of residents, in particular youth, and erosion of the sustainability of the community over time. Social entrepreneurship can create new economic activity essential to the vitality of the community.

What has been done

We provided board training, facilitated planning, and provided education for resource development as well as increased cultural competency with nonprofit organizations. We also worked extensively with communities in several regions with a significant Hispanic immigrant population to develop collaboration for services and support for those working in the area.

Results

We did not collect data on the jobs created. However as reported elsewhere, nonprofits assisted are successfully serving their communities with limited resources and providing for greater community sustainability.

4. Associated Knowledge Areas

KA Code	Knowledge Area
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

Outcome #7**1. Outcome Measures**

Number of jobs retained.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Failure of traditional economic development strategies has forced rural regions to seek new ways to spur economic activity. Communities create wealth through the nonprofit sector as well as businesses that serve the diverse population. Lack of new businesses and services creates loss of residents, in particular youth, and erosion of the sustainability of the community over time. Social entrepreneurship can create new economic activity essential to the vitality of the community.

What has been done

We provided board training, facilitated planning, and provided education for resource development as well as increased cultural competency with nonprofit organizations. We also worked extensively with communities in several regions with a significant Hispanic immigrant population to develop collaboration for services and support for those working in the area.

Results

We did not collect data on the jobs created. However as reported elsewhere, nonprofits assisted are successfully serving their communities with limited resources and providing for greater community sustainability.

4. Associated Knowledge Areas

KA Code	Knowledge Area
803	Sociological and Technological Change Affecting Individuals, Families, and Communities

Outcome #8**1. Outcome Measures**

Number of volunteer hours generated by community organizations.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	1200	34501

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Volunteers are important elements in the implementation of community development programs, the backbone of many development efforts. They are recruited for the skills and resources they can bring to a community effort often resulting in a better project at considerable savings to the community. When resources are scarce and difficult to access an ability to attract and effectively utilize volunteers can be critical.

What has been done

Programs have focused on helping groups and organizations recruit and develop volunteers focusing on the development of skills volunteers can bring to an organization and the value of those skills. Volunteers are being utilized in nonprofit organizations, extension programs, and community groups as key elements of program development and delivery.

Results

Volunteer recruiting and management programs made it possible for a community radio station and two food pantry programs to increase the capacity of board members to recruit and manage volunteers. In one community volunteers are involved in running a community information network, providing support to a library, encouraging recycling, establishing an animal shelter, and supporting public services such as emergency management, neighborhood watch, Fire Corp, Medical Corp and Police Corp.

An online survey of Community Development Academy participants was sent to 110 people who completed at least one of the three CDA courses in the last three years (48% return rate). Nearly 60% reported being better at leveraging resources and working with others. The survey results indicate CDA participants mobilized an estimated 27,438 volunteer hours estimated as an additional value of \$487,299.

4. Associated Knowledge Areas

KA Code	Knowledge Area
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services

Outcome #9

1. Outcome Measures

Number of people reporting taking on increased, different, or new leadership roles in community.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Community leaders are the central force in effectively mobilizing people to address local issues. Frequently, community leaders find themselves learning as they lead an issue or organization as opposed to learning about leadership in a leadership course. They wonder how to achieve the kind of success they dream about and recognize that they cannot be successful alone or without greater personal capabilities.

What has been done

The Community Development Academy, Cultural Academy, and work with nonprofits in board training, planning, and resource development have been conducted to increase leadership skills and develop capacity for dealing with tangible and current issues in communities and organizations.

Results

We did not specifically track this outcome. An online survey was sent to 110 Community Development Academy participants who completed at least one of the three CDA courses in the past three years (48% return rate). 63% reported that their knowledge of community development tools increased quite a bit or extensively, credited the CDA with increasing their skills in using the community development process quite a bit or extensively and reported increased understanding of the diverse relationships that exist within communities. 39% increased their interactions among diverse groups. 60% said they were better at leveraging resources, increasing resources on average of \$35,376 per participant and mobilizing nearly 600 volunteers who provided over 13,170 hours with an estimated value of \$212,300.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #10

1. Outcome Measures

% of participants in cultural competency programs reporting increased knowledge and skills for dealing with cultural differences.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	60	74

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Communities are undergoing tremendous change. Even the smallest traditionally stable urban and rural areas are faced with changes as demographic and economic restructuring takes place across Missouri. These changes place a premium on developing all the capacities that exist within the community. To do this people need to develop the capacity to work in diverse environments and engage a cross-section of the community in decision-making.

What has been done

The Cultural Academy, Community Development Academy, Cambio de Colores conference, and cultural competency training programs provided opportunities for people to enhance their ability to live and work in diverse environments.

Results

The percentage used in this indicator of 74.3% is an index created by weighting and averaging the evaluation results of three important programs: the Community Development Academy, the Cultural Academy and a cultural competency training program. 63% of Community Development Academy participants having participated in at least one CDA course in the last three years responded in an online survey of CDA (48% return) reported an increase in their understanding of the diverse relationships that exist within communities. 81.2% of participants in the Cultural Academy, conducted for MU Extension faculty and community partners, indicated in the post-test score of a post-pre-post survey feeling 81.2% competent or very competent in working with Hispanic residents. 90.1% of local cultural competency program participants reported an increase in cultural understanding.

4. Associated Knowledge Areas

KA Code	Knowledge Area
803	Sociological and Technological Change Affecting Individuals, Families, and Communities

Outcome #11**1. Outcome Measures**

Dollar value of resources leveraged.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	6495478

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

It has become increasingly difficult for groups and organizations at the community level to generate the resources they need to effectively address the complex issues they confront. Economic development, housing, education and health care all have community components that require an ability to leverage and attract the resources of multiple groups and organizations in order to provide an effective community response.

What has been done

The Community Development Academy and Strengthening Nonprofit Organizations are working with participants to increase their capacity to leverage the resources they have to work with in their community. Learning how to build collaborations, engage volunteers, identify new types of resources, grant writing, and fundraising activities are all tools that have been used with program participants to increase their capacity to leverage scarce local resources.

Results

Based on survey results from participants in at least one Community Development Academy course in the past three years, participants leveraged \$3,891,360 because of what they had learned in the program. People and organizations participating in the Strengthening Nonprofit Organizations programs were able to leverage an additional \$2,604,118. This represents a total of \$6,495,478.

4. Associated Knowledge Areas

KA Code	Knowledge Area
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services

Outcome #12**1. Outcome Measures**

Number of community organizations engaged in collaborative relationships to address complex community issues.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	6	9

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Missouri is a diverse state racially, ethnically, and politically. Most of the overall population increase in the past census was due to an increase in non-white populations. Improving economic conditions, addressing health care issues and effectively providing community services requires collaboration from many different areas of the community. Communities are undergoing tremendous change and must rely on all the capacities that exist within the community.

What has been done

Collaborative efforts have been formed to provide health care access to Hispanics, address issues challenging Missouri communities around immigration, community development, food policy and capacity building for nonprofits and other organizations.

Results

Addressing issues resulting from rapid demographic change is the focus of three collaborations including: Cambio de Colores, a forum for exploring issues and the sharing of best practices that affect the integration of newcomers, Bi-national Health Week, a program that bridges access to health services and Promotoras de Salud, a community collaboration formed to connect Latinos and local health care services.

Other collaborations focus on providing services such as a food pantry and thrift store, networking communities along the Missouri River to explore regional development options, the establishment of a Food Policy Council in Kansas City, facilitating the re-entry of ex-convicts into the community and improving the capacity of nonprofits, Finally, a collaboration led to the development of a statewide nonprofit association.

4. Associated Knowledge Areas

KA Code	Knowledge Area
805	Community Institutions, Health, and Social Services

Outcome #13

1. Outcome Measures

Number of communities/organizations using inclusive planning and decision-making processes that address societal changes.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	6	6

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Engaging a representative cross-section of the community or organization in planning can help ensure that the vision, goals, and outcomes that are developed are reflective of the diversity of the community and organization. Often important segments of the community are not engaged in planning processes and the results do not reflect their needs and in some cases exacerbate their issues.

What has been done

Programs were delivered to foster collaborative relationships around important issues and planning processes are undertaken that engage a wide variety of people in the development of plans. Programs focused on implementing planning processes within communities, institutions, organizations, and other groups.

Results

Community organizational planning processes were facilitated to address specific issues. In St. Joseph, a planning process identified ways to implement the clean air act. The facilitation of a planning process in Kansas City led to development of the Greater Kansas City Food Policy Council. Nearly 300 carloads of hazardous waste from homes in Johnson County were collected at the annual Hazardous Waste Collection. Hundreds of gallons of paint, a truckload of tires, and quantities of batteries and chemicals were diverted from unsafe disposal in rural areas and municipal landfills. Facilitation of the formation, planning and implementation of the plan for the non-profit Friends of the Garden led to support development of the Springfield Botanical Center in Nathanael Greene and Close Memorial Park; leveraging \$207,000 last year to complement the Springfield-Greene County Parks sales tax, and other city and county funding; and a site dedication.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

Several external factors affected the Building Inclusive Communities Program. The public discourse on issues of immigration has created a climate of anger and fear in a number of communities experiencing a large influx of Latino immigrants that is being exacerbated by poor economic conditions. This discourse has added to local tensions and decreased levels of trust among immigrant groups and local communities toward service and education programs.

Programs designed to strengthen nonprofits tend to focus on small community-based organizations that have few other options for educational resources and support. Changes to the rules governing charitable organizations may affect how community-based organizations operate. These organizations lack a voice in the political process affecting their development. A new association of nonprofits established in 2009 may potentially increase the voice of nonprofits in public policy and provide a source of mutual support.

Population changes continue to affect these programs. Few organizational resources deal directly with immigrants moving into small communities and the impact of demographic changes are just beginning to be understood. Organizations that serve as bridging institutions are often under-funded, have limited prospects for growing their resource base, and have to compete with other groups and organizations that have longer histories, more capacity, and an existing resource base to strengthen their position. The lack of bridging institutions in many communities is negatively affecting their ability to effectively integrate the new populations into the community.

The slowdown of the economic downturn, a projected slow economic growth and possible budget reductions in 2010 has placed additional demands on existing service providers while simultaneously reducing the money in the system for their work. This has increased the workload of organizations, the demand for the programs that support the work of nonprofit organizations, and the premium placed on effective planning and board development. Economic changes have exacerbated community tensions between newcomers and receiving communities.

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- During (during program)
- Case Study

Evaluation Results

The Community Development Academy, Binational Health Week, and Cultural Academy engaged in programmatic evaluations. Strengthening Community Nonprofit Organizations has a framework for evaluating programs and effective measures are currently under development. End of session surveys have been developed that will standardize some of the data collected after training sessions. The Global Leadership Exchange Program when completed in 2010 will include an in-depth program evaluation.

An online survey was sent to 110 Community Development Academy participants who completed at least one of the three CDA courses in the past three years. 75% reported that their knowledge of community development group process increased quite a bit or extensively. 63% reported that their knowledge of community development tools increased quite a bit or extensively, credited the CDA with increasing their skills in using the community development process quite a bit or extensively and reported increased understanding of the diverse relationships that exist within communities. 39% increased their interactions among diverse groups. 60% said they were better at leveraging resources, increasing resources on average \$35,376 per participant. Based on responses, CDA participants mobilized an estimated 27,438 volunteer hours with an estimated value of \$487,299. It should be noted that the CDA includes graduate students who may not yet be employed in a profession one to three years following participation in the course(s). In Bi-National Health Week 180 were surveyed. The average age was 37 years, 54% were women, 80.6% were born in Mexico, 81.9% preferred to speak Spanish, 76% self-identified their race as "Other", 62% currently resided in Missouri, 61.7% attended the event to obtain health care information, and 54.4% for medical screenings. 89.3% considered the services received as very helpful, 16.1% learned they had a medical condition and 32.8% planned to share information with family, friends and neighbors. 54% said they get their healthcare needs met at a community health center and 69% did not have medical insurance.

A total of 857 participants registered.

Thirteen regional participants attended the Cultural Academy. Pre and post evaluations were administered. A pre-test revealed that 6.7% felt very competent about their level of awareness regarding the Hispanic/Latino culture. After attending the academy 36.5% felt very competent. The pre-test showed 13.3% felt competent and 13.3% felt very competent about their level of awareness regarding the methods to address Hispanic residents. The post-test revealed that 63.6% felt competent and 18.2 felt very competent.

Key Items of Evaluation

There are two aspects of this evaluation that should prove important to the agenda set by NIFA. They include the work being done with vulnerable populations and the programs offered that increase the

capacity of communities, institutions and organizations to address complex issues.

Cambio de Colores, Alianzas, Binational Health Week, and Promotoras de Salud are all programs designed to facilitate the healthy integration of vulnerable populations into rural and urban areas. These programs effectively engage research and extension resources with community partners to develop and implement innovative responses to the difficult issues directly affecting these populations. These programs are models for building partnerships between university resources and vulnerable populations that can endure over time and could inform how NIFA approaches the process of ensuring that vulnerable groups have a voice in addressing the issues that affect them.

The Community Development Academy is a proven model that helps people develop their capacity to address complex community issues. CDA has had nearly 1000 participants in at least one of the three courses since it began in 1996 and has proven to increase the capacity of its participants to work collaboratively, increase their ability to work in diverse environments and improve their capacities to leverage resources. Participants come from around the US and the world and are applying what they have learned to all five program areas in NIFA. The Cultural Academy is using a similar methodology to increase people's abilities to understand differences and the early results are promising. Given the increasing diversity of both rural and urban communities across the country the cultural academy addresses important competencies for all program areas going forward. Both of these programs enhance extension's capacity to address a wide range of issues in very complex environments.

V(A). Planned Program (Summary)**Program # 31****1. Name of the Planned Program**

Creating Community Economic Viability

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
608	Community Resource Planning and Development	50%			
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	20%			
806	Youth Development	30%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	5.7	0.0	0.0	0.0
Actual	5.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
71966	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
284728	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

To facilitate entrepreneurship as an economic development strategy, we will: work in selected settings (communities and regions in the state) to develop models of excellent entrepreneurial community practice and community economic development; enhance capacity and effectiveness of community members to support entrepreneurship through workshops, training, counseling, developing partnerships, providing referrals, organizational development, participatory visioning and planning; help communities respond to the needs and plans of their entrepreneurs through planning, leadership development, working with the media and building partnerships; develop advanced entrepreneurship skills among Extension specialists through development and delivery of new curricula; and share knowledge and learning that encourages the enhancement of local economies and quality of life

through entrepreneurial efforts through web, media, partners, conferences, workshops, seminars, and public policy briefings.

2. Brief description of the target audience

Targeted audience is all social groups in the community, including low-income and minority, youth and adults. No limitation on gender, ethnic or religious diversity, lifestyle choice, etc. Primary Audiences: predominantly rural towns, communities, counties and/or multi-county regions and their residents in Missouri that have experienced economic downturn, and have few other opportunities; of these communities, work with ones that have demonstrated a reasonable amount of motivation to work on their situations. Secondary Audiences: communities that would like to learn more about entrepreneurial communities; Extension staff, state and non-profit staff that could benefit from advanced entrepreneurship training.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	2000	1000	300	140
Actual	4731	1642	132	407

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009
Plan: 0
Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	1	0	
Actual	0	2	2

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of communities/regions.

Year	Target	Actual
2009	10	17

Output #2

Output Measure

- Number of workshops on community entrepreneurship and economic development.

Year	Target	Actual
2009	20	44

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	% workshop participants reporting increased knowledge and understanding of local/regional economy and community economic development strategies and their applicability to the situation.
2	Dollar value of new resources leveraged to address community economic change.
3	Number of community foundations, revolving loan funds, community development corporations formed.
4	Number of schools using entrepreneurship curricula (still using and newly using).
5	Number of people reporting taking on increased, different, or new leadership roles in community.
6	Number of jobs created by new businesses or business expansion/growth.
7	Increased cooperation across community services/Increase in networks and partnerships.
8	Total number of businesses created.
9	Number of jobs retained.
10	% of new businesses created by youth.

Outcome #1**1. Outcome Measures**

% workshop participants reporting increased knowledge and understanding of local/regional economy and community economic development strategies and their applicability to the situation.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Many community leaders, local elected officials and volunteers lack an understanding of the factors that influence the local economy, what makes up the local economy, the roll of entrepreneurship and small business, how to use economic data to craft development strategies and a basic understanding of the art of economic development. There is some resistance to taking a broader, regional approach to community economic development.

What has been done

We provided planning, economic analysis, entrepreneurship training, organizational and leadership development assistance, and seed money for 11 pilot areas selected via an RFP process. Assistance spanned the academic disciplines. We partnered with the state professional economic development organization, NCRCD, and EDA to provide training. The Community Policy Analysis Center (CPAC) conducted baseline economic study.

Results

In a partnership with Missouri's professional economic development organization, we provided 12 training sessions of Fundamentals of Economic Development with 135 attendees. 86% of the learners reported little to some knowledge of economic development prior to the workshop, and 12% reported having a lot or great deal of knowledge prior. After completion, 22% reporting having some knowledge and 53% reported having a lot or great deal. Attendees gave the workshop an overall rating of 3.5 on a 4-point scale; 98% stated they would recommend the workshop to others. Work is underway in several communities to support development of tourism and local foods projects, sustainability, and economic development plans.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #2**1. Outcome Measures**

Dollar value of new resources leveraged to address community economic change.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	200000	635580

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Communities tend to take a narrow view of resources, generally thinking only in terms of financial resources, and consequently struggle to support community economic initiatives. Entrepreneurial communities pursue opportunities without being limited by the resources on hand and are resourceful in finding and leveraging a wide array of resources through partnerships, collaborations and new approaches to community economic development.

What has been done

At state and local level, we are actively engaged in identifying grant opportunities and local organizations to support local initiatives. Regional projects are actively engaging community volunteers to support local initiatives. We are working with them to establish procedures to track volunteer hours and contributions.

Results

ExCEED community/regional programs generated \$635,580 in grants/contributions this year, despite the challenging economy. Brookfield's LEGACY Foundation is beginning to see bequeaths and endowments and the City of Palmyra raised \$1,500 through a "buy-a-brick" campaign to assist with downtown revitalization. ExCEED communities generated 6,788 hours of volunteer hours and Extension faculty leveraging an additional 1,191 volunteer hours for a total of 7,979 hours valued at \$137,167. Work with a local animal shelter has generated \$21,000 in grants and endowments and the opening of a thrift shop that not only raises funds for the shelter but also provides critical access to clothing, household goods and food to low income families in the community.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #3

1. Outcome Measures

Number of community foundations, revolving loan funds, community development corporations formed.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	1	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The creation of foundations and endowments allow communities to capture a portion of the wealth that now leaves rural communities when elderly residents transfer their assets to non-resident heirs. Access to business capital is problematic as many rural banks don't make commercial loans.

What has been done

Using concepts introduced through training such as Hometown Competitiveness and Energizing Entrepreneurs, two ExCEED communities continued to maintain their community foundations formed in previous years to support long-term community and economic development and a third project maintained its revolving loan fund.

Results

Brookfield's "Hometown LEGACY Foundation" continues its efforts at fundraising and is seeing contributions via bequeaths and endowments. Mississippi River Hills and Old Trails are progressing on their 501(c)(3) applications and, while there have been some delays, both anticipate getting their federal approval in 2010. Foundations in some of our other communities are struggling with the current economy--finding fundraising and grant acquisition challenging.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #4

1. Outcome Measures

Number of schools using entrepreneurship curricula (still using and newly using).

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	15	71

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Retaining and attracting young people is essential for the future of rural places. One proven strategy is to create local employment and business opportunities for young people. The introduction of entrepreneurship and business ownership into the curriculum helps send a strong message that there is a future for them in the community.

What has been done

ExCEED continues to make curricula available to schools which are interested in integrating entrepreneurship into the overall curriculum. We provided the Nebraska "Entrepreneurship Investigation" curriculum to 50 new schools. The other 21 used other curricula.

Results

ExCEED programs in the Ozark Heritage Region and Chariton County continue to have 21 schools with active programs. In addition, curriculum was provided to 45 schools in Northeast Missouri and 5 in Saline County. The primary challenge in working with the schools to include entrepreneurship in their curriculum. In dealing with their pressures to meet mandates on student progress. It can be difficult to "add" another topic. We have had the most success when we assist teachers in expanding content in current courses and provide summer training for teachers. Student camps are also an excellent way for the local organization, in partnership with the school, to engage students in entrepreneurship.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #5

1. Outcome Measures

Number of people reporting taking on increased, different, or new leadership roles in community.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	19

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

For many reasons, having a sufficient, diverse group of potential leaders is a real challenge for most rural communities. We often see the same small number of people taking, or being asked to take, leadership roles in the community. The reasons vary from a reluctance to take on these roles, lack of self-confidence, lack of community support, reluctance to welcome new leaders, and no thought to including youth.

What has been done

Leadership development is a corner stone of ExCEED's engagement process. Three of our community programs have sponsored adult and youth leadership development programs. Many have used University of Missouri Extension's EXCEL program while others have developed their own programs. A five county area in Northwest Missouri will launch a leadership program for local leaders in late 2009 and efforts are underway to promote youth leadership development in this region.

Results

Regardless of the approach, all projects have seen new faces in the community leadership pool. This year, projects sponsored 14 programs with 136 participants (adult and youth) 19 of which assumed leadership roles in community. Individuals are serving in leadership positions in the community (Chamber of Commerce, City Council, local newspaper, high school student council president, ambulance board, YMCA board and running for elected office). Leadership in Brookfield also successfully passed an \$8 million water/sewer bond with 83% approval.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
806	Youth Development

Outcome #6**1. Outcome Measures**

Number of jobs created by new businesses or business expansion/growth.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	612

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Failure of traditional economic development strategies has forced rural regions to seek new ways to spur economic activity. Communities create wealth through businesses, jobs and services to sustain the population. Lack of new businesses creates loss of residents, in particular youth, and erosion of the sustainability of the community over time. Entrepreneurship can create new businesses, strengthen/expand existing businesses and generate jobs and careers essential to the vitality of the community.

What has been done

We are facilitating training and awareness building that encourage youth and adults to consider self-employment/entrepreneurship; linking with Extension's Business Development Program (BDP) and SBDCs for business training and counseling services; and helping communities identify existing and potential entrepreneurs. Workshops on developing a regional approach to economic development and community economic development planning as well as tourism and local foods are also in development.

Results

Our Business Development Program reported 612 new jobs in the ExCEED communities along with \$13,159,991 in new investment. In addition, ExCEED community programs reported 60 new jobs, 9 business expansions, 60 new businesses and \$12,190,000 in new investment.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
806	Youth Development

Outcome #7

1. Outcome Measures

Increased cooperation across community services/Increase in networks and partnerships.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Community-based collaboration is the process by which citizens, agencies, organizations and businesses make formal, sustained commitments to work together to accomplish a shared vision. Collaboration is the highest and most difficult level of working with others - more formal than networking, cooperation and coordination. But in many rural regions, even networking across sectors (e.g., elected officials and community leaders) is challenging.

What has been done

ExCEED requires communities to have a diverse leadership team to guide the program and links faculty with leadership and collaboration expertise with key community organizations. A quarterly newsletter provides updates on projects, new initiatives, highlights Extension programs and faculty expertise, links to current literature on entrepreneurship and conferences and training events, and examples of community entrepreneurship and innovation.

Results

The development of networks and partnerships is a key outcome for the project. Several of the ExCEED communities, e.g., Mississippi River Hills, Old Trails and Show Me E! continue to hold workshops and events to build broader community participation and awareness. Several new projects, led by field faculty, focus on the identification of community/regional strengths and the development of economic development plans that are focusing on local foods and regional tourism. Buy Local campaigns are also underway in several communities including Louisiana, Bowling Green, and Clarksville with assistance on development of Farmers Markets occurring in several other regions.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
806	Youth Development

Outcome #8

1. Outcome Measures

Total number of businesses created.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	30	132

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Failure of traditional economic development strategies has forced rural regions to seek new ways to spur economic activity. Communities create wealth through businesses, jobs and services to sustain the population. Lack of new businesses creates loss of residents, in particular youth, and erosion of the sustainability of the community over time. Entrepreneurship can create new businesses, strengthen/expand existing businesses and generate jobs and careers essential to the vitality of the community.

What has been done

We are facilitating training and awareness building opportunities that encourage youth and adults to consider self-employment/entrepreneurship; linking with Extension's Business Development Program (BDP) and SBDCs for business training and counseling services; and helping communities identify existing and potential entrepreneurs.

Results

This measure continues to be a challenge to track and document. It will be part of the broader, long-term evaluation of the project. ExCEED communities reported 83 new businesses, 23 of which were youth-owned. The Business Development program reported an additional 49 new businesses in the ExCEED project counties. Brookfield announced the opening of a new movie theater for July 2009. This is the culmination of a project that had been a priority since the inception of the program in Brookfield three years ago.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
806	Youth Development

Outcome #9

1. Outcome Measures

Number of jobs retained.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	73

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Failure of traditional economic development strategies has forced rural regions to seek new ways to spur economic activity. Communities create wealth through businesses, jobs and services to sustain the population. Lack of new businesses creates loss of residents, in particular youth, and erosion of the sustainability of the community over time. Entrepreneurship can create new businesses, strengthen/expand existing businesses and generate jobs and careers essential to the vitality of the community.

What has been done

We are facilitating training and awareness building opportunities that encourage youth and adults to consider self-employment/entrepreneurship; linking with Extension's Business Development Program (BDP) and SBDCs for business training and counseling services; and helping communities identify existing and potential entrepreneurs.

Results

Our Business Development Program reported 73 retained jobs in ExCEED communities.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

806 Youth Development

Outcome #10**1. Outcome Measures**

% of new businesses created by youth.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	50	38

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Declining populations are a particular challenge for rural Missouri, especially the loss of young people who leave the rural communities for employment opportunities in metropolitan areas. The loss of youth not only impacts the population, but also means that there are fewer people to take over businesses when the owners retire or to start new businesses in the community.

What has been done

Extension state and regional faculty work with communities and regions to present business training, connect businesses to counselors, and implement youth entrepreneurship training and loan programs. Six of the eleven ExCEED projects included youth entrepreneurship as part of their program, with three as their primary focus. Entrepreneurship curricula were provided to 50 schools in the ExCEED communities/regions during the year.

Results

The benefit from youth entrepreneurship training is long-term; and it may be years before we see a definitive connection between training and youth business ownership that sustains community economic development. Communities and regions have reported the start of 23 youth-owned businesses during FY09. An unexpected outcome for the Ozark Heritage project is the establishment of a regional business incubator that will include space for youth entrepreneurship education and possibly space for young entrepreneurs. The incubator is still in the development stages, but will be an important asset for all entrepreneurs in the region.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

The economic downturn has dramatically impacted our program with communities and regions, all of which are rural. The communities and residents are struggling financially, and support for some of the projects has declined at the local level. Conversely, we are seeing communities and regions that recognize the need for new approaches to community economic development, and these are requesting assistance in the exploration of options and help with planning.

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)
- During (during program)
- Time series (multiple points before and after program)
- Case Study
- Comparisons between program participants (individuals, group, organizations) and non-participants

Evaluation Results

The community and regional programs, despite the current economic downturn, continue to make progress with visible impact in the community or region.

Outcomes reported by the EXCEED program for FY09 and the cumulative totals:

Measure	FY09	Cumulative Total
FY07-09		
Contributions to local foundation/endowments	\$6,105	\$279,105
Other grants received	\$602,975	\$835,975
Leadership programs	14	18
Participants	136	220
Participants who have assumed leadership role in the community	19	63
Youth education/training events	19	65
Youth participants	556	1,634
Youth-owned businesses started	23	51

Training Programs	20	417
Attendees at training programs	541	2,996
Adult-owned businesses Started	60	230
Business expansions	9	32
New Jobs	60	971
Retained Jobs	16	150
New Investment	\$12,190,000	\$260,360,991
Volunteer Hours	6,788	12,826
Value of Volunteer Hours	\$116,694	\$220,488

Key Items of Evaluation

It is important to recognize that it takes time for these types of programs to have a quantifiable and recognizable impact in a community/region. As we end our fourth full year of engagement with our five pilot projects, we are undertaking an in-depth evaluation of the project, its impact on the community/region, and the role that University of Missouri Extension played in the success or failure of the program.

Some of the initial findings suggest that the communities and regions feel that the programs were successful, most are sustainable programs, and the key goals of the project have been met. Community members are also reporting that the engagement with ExCEED has enhanced their opinion and understanding of University of Missouri Extension and they now see that it is more than just agriculture and 4-H.

A full report on the evaluation of the five pilot programs will be available in mid-2010.

Also just measuring jobs created is not a good measure as it does not indicate the quality of the jobs, full-time or part-time, level of pay, etc.

V(A). Planned Program (Summary)**Program # 32****1. Name of the Planned Program**

Aging

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
802	Human Development and Family Well-Being	25%			
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	25%			
804	Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures	50%			
	Total	100%			

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	7.1	0.0	0.0	0.0
Actual	7.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
77359	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
305719	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

Conduct workshops and multi-session programs, meetings; Develop products, curriculum and resources; Develop curriculum for advocacy groups; Provide training; Work with media; Partner with AARP, Missouri Department of Health and Senior Services, Area Agencies on Aging and national organizations; Assemble and maintain relevant website on how-to strategies.

2. Brief description of the target audience

Older adults and their families, persons who work with older adults, persons in mid-life who are preparing for aging, persons over 60, grandparents, baby boomers, homecare providers, disability and aging advocacy groups, home builders/contractors of elderly housing, real estate agents, aging service providers (health and mental health).

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	3000	6000	0	0
Actual	7664	14110	0	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009
 Plan: 0
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of workshops.

Year	Target	Actual
2009	50	334

Output #2

Output Measure

- Number of newsletter articles.

Year	Target	Actual
2009	0	0

Output #3**Output Measure**

- Number of radio spots.

Year	Target	Actual
2009	0	0

Output #4**Output Measure**

- Number of one-on-one counseling sessions.

Year	Target	Actual
2009	50	0

Output #5**Output Measure**

- Number of unique website visits.

Year	Target	Actual
2009	50000	28860

Output #6**Output Measure**

- Number of participant contacts.

Year	Target	Actual
2009	10000	23516

Output #7**Output Measure**

- Number of guide sheets distributed.

Year	Target	Actual
2009	0	1003

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	# of participants who help manage caregiving roles and responsibilities.
2	Percent of participants who report making changes in family elder care as a result of participation.
3	# of families who use decision making skills to improve quality of life for both caregivers and receivers.
4	# of participants who feel they are more self-sufficient adults.
5	Self sufficient older adults.
6	# of participants who volunteer more or who seek volunteer opportunities.
7	Increased knowledge of how to manage caregiving roles and responsibilities.
8	Increased knowledge of the availability of family elder care.
9	Increased knowledge of decision-making skills necessary to make quality of life decisions for caregivers and receivers.

Outcome #1

1. Outcome Measures

of participants who help manage caregiving roles and responsibilities.

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

Percent of participants who report making changes in family elder care as a result of participation.

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

of families who use decision making skills to improve quality of life for both caregivers and receivers.

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

of participants who feel they are more self-sufficient adults.

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

Self sufficient older adults.

Not Reporting on this Outcome Measure

Outcome #6

1. Outcome Measures

of participants who volunteer more or who seek volunteer opportunities.

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

Increased knowledge of how to manage caregiving roles and responsibilities.

Not Reporting on this Outcome Measure

Outcome #8

1. Outcome Measures

Increased knowledge of the availability of family elder care.

Not Reporting on this Outcome Measure

Outcome #9

1. Outcome Measures

Increased knowledge of decision-making skills necessary to make quality of life decisions for caregivers and receivers.

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)
- During (during program)
- Case Study

Evaluation Results

Key Items of Evaluation

V(A). Planned Program (Summary)**Program # 33****1. Name of the Planned Program**

Business Development

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
602	Business Management, Finance, and Taxation	70%			
603	Market Economics	5%			
604	Marketing and Distribution Practices	5%			
607	Consumer Economics	5%			
608	Community Resource Planning and Development	15%			
	Total	100%			

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2009	Extension		Research	
	1862	1890	1862	1890
Plan	12.5	0.0	0.0	0.0
Actual	11.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
137741	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
569069	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

Business counseling and training.

2. Brief description of the target audience

Small business owners, managers and their employees. Individuals who want to start a business. Partners, stakeholders and funding agencies, including elected officials.

V(E). Planned Program (Outputs)

1. Standard output measures

2009	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	1562	57656	0	0
Actual	2021	56540	0	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2009

Plan: 0

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2009	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of counseling clients.

Year	Target	Actual
2009	150	949

Output #2

Output Measure

- Training customer satisfaction (scale 1-7 high).

Year	Target	Actual
2009	6	6

Output #3**Output Measure**

- Number of applied research projects.

Year	Target	Actual
2009	1	2

Output #4**Output Measure**

- Website statistics (in millions).

Year	Target	Actual
2009	0	2

Output #5**Output Measure**

- Counseling hours.

Year	Target	Actual
2009	750	4768

Output #6**Output Measure**

- Counseling customer satisfaction (scale 1-7 high).

Year	Target	Actual
2009	6	6

Output #7**Output Measure**

- Training attendees.

Year	Target	Actual
2009	975	5218

Output #8**Output Measure**

- Training events.

Year	Target	Actual
2009	95	202

Output #9**Output Measure**

- Training hours x attendees.

Year	Target	Actual
2009	92000	12772780

Output #10

Output Measure

- Number of counseling sessions.

Year	Target	Actual
2009	300	3588

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Increase in knowledge.
2	Business owners will start or expand a business as appropriate to their business goals.
3	Business owners will make or revise decisions about the type of business or business structure as appropriate to their business goals.
4	Business owners will prepare a business plan as appropriate to their business goals.
5	Business owners will develop financial projections as appropriate to their business goals.
6	Business owners will seek start-up funding as appropriate to their business goals.
7	Business owners will develop management systems as appropriate to their business goals.
8	Business owners will investigate legal and compliance issues for their business as appropriate to their business goals.
9	Business owners will develop a marketing plan as appropriate to their business goals.
10	Business owners will commercialize products as appropriate to their business goals.
11	Business owners will inform stakeholders of the outcome of their work with the University of Missouri Extension Business Development as appropriate to their business goals.
12	Number of jobs created.
13	Dollar amount of sales and contracts (in millions).
14	Dollar amount of business investments, including loans and equity approved loans (in millions).
15	Number of new businesses started.

Outcome #1**1. Outcome Measures**

Increase in knowledge.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	1	1

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Knowledge is a key to success in the business environment. Successful start up and existing businesses must create a foundation of knowledge and expertise in their field to compete and succeed. University of Missouri Extension prides itself in offering non-biased, research based education to strengthen the economic conditions of our businesses, communities, and state.

What has been done

The University of Missouri Extension Business Development Program has created specific curriculum and programming that is based on the needs and expectations of the businesses in Missouri. Program delivery and evaluation is tailored to the adult learner and increase in knowledge is evaluated through post-class surveys.

Results

The Business Development program recorded an average increase in knowledge from class attendees of 1.15/5. On a five point knowledge scale, participants rated themselves before and after the program and increased their knowledge over one full point. This increase in knowledge is directly translated to Missouri businesses making sound, educated business decisions which created stronger businesses and decreased business failures.

4. Associated Knowledge Areas

KA Code	Knowledge Area
602	Business Management, Finance, and Taxation

Outcome #2**1. Outcome Measures**

Business owners will start or expand a business as appropriate to their business goals.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Entrepreneurs and business owners are the core of our American economy and society. Education in business startup and expansion assist business owners and entrepreneurs in making valid decisions based on facts in relation to their business goals. Curriculum and counseling is offered in business start-up and growth, creating more businesses, and expanding the tax base in counties and throughout the state.

What has been done

A focal point of the Business Development program is assisting individuals in starting and growing businesses. Counseling and training specific to business start-up, growth and expansion is offered throughout the state, as well as courses in government procurement and community entrepreneurship. Business Development Specialists are skilled in core business areas: management, financial, marketing, and innovation, and offer businesses a full line of education to meet their business goals.

Results

Over 57 businesses were started, and business growth from businesses the program counseled accumulated over 88 million in increased sales and government contracts. Educational offerings and in-depth counseling assisted businesses in reaching their business goals, while many businesses started and grew at rates which far outpaced the average startup and growth rates of the state.

4. Associated Knowledge Areas

KA Code	Knowledge Area
602	Business Management, Finance, and Taxation

Outcome #3

1. Outcome Measures

Business owners will make or revise decisions about the type of business or business structure as appropriate to their business goals.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Business structure plays a key role in the success of a business. Improper business structure or ownership can adversely affect the businesses access to capital, growth, and ability to procure government contracts. Educated decisions in establishing business formation can save businesses from making costly mistakes which could impede funding and sales.

What has been done

All start up classes, as well as many targeted programs address legal formation and business structure. Businesses are given the facts regarding the various business structures, and are given assistance in making decisions which positively affect their start-up and growth. Specific programs which offer this include Business Startup and Business Planning classes, two programs which are offered on a routine basis throughout the state.

Results

Businesses which have accessed the programming of the Business Development program have made educated decisions on legal formation and structure. Businesses were also referred to various legal, banking, and accounting professionals which supplemented the assistance in educating them on their specific ownership issues and the best legal formation.

4. Associated Knowledge Areas

KA Code	Knowledge Area
602	Business Management, Finance, and Taxation

Outcome #4**1. Outcome Measures**

Business owners will prepare a business plan as appropriate to their business goals.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Research shows that business planning is key to the success of business startup as well as business continuity. Accurate business planning is more than just filling in the numbers on a business plan template. Businesses must continually plan and use feasibility studies, financial projections, and other items which are specific to their industry, their business, and their personal goals. The Business Development program offers business planning classes on a continual basis across the state to aid in business plan development and deployment.

What has been done

The Business Development program has served businesses through training and counseling in the researching, creating, deploying, and reviewing of business plans. Business Specialist offer assistance in the core areas of business planning, including finance, marketing, management, and innovation. Businesses are educated to use business plans in their daily business decision making. Specialists educate the business owner of the importance of planning and execution within their business.

Results

Over 1650 businesses were offered training and counseling, and business planning was a key focus of all training and counseling. Businesses were able to access over 29 million in investments through business planning and presentation to funders.

4. Associated Knowledge Areas

KA Code	Knowledge Area
602	Business Management, Finance, and Taxation
603	Market Economics
604	Marketing and Distribution Practices

Outcome #5

1. Outcome Measures

Business owners will develop financial projections as appropriate to their business goals.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Educating businesses on financial projections is a key aspect of creating a more educated, successful business community. Research shows businesses which create and use accurate financial sheets and projections make more educated decisions and can more accurately control debt, cash flow, and profits. Over 70% of small businesses state they struggle with using and understanding financial reports, while lending institutions state that a key element in business success is understanding financial statements and projections.

What has been done

A three part course was established and deployed across the state in assisting entrepreneurs in understand financial statements, controlling cash flow, and projecting financial needs. This program has been offered statewide for over two years. Additionally, in-depth counseling, through use of financial projection tools, accounting software such as QuickBooks continues to be offered to both start up and existing businesses.

Results

Financial assistance through counseling and training continue to be one of the most requested and offered programs of the Business Development Program. The Business Development program continues to offer strong counseling and training in the area of financial projections, and businesses accessed over 29 million in investments through the development and use of financial statements and projections.

4. Associated Knowledge Areas

KA Code	Knowledge Area
602	Business Management, Finance, and Taxation
603	Market Economics

Outcome #6

1. Outcome Measures

Business owners will seek start-up funding as appropriate to their business goals.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Access to capital can be a taunting obstacle for many businesses. Seeking and securing funding through lending institutions, private funders, research grants, and various other funding possibilities is generally a maze for businesses. Understanding how to access capital, in conjunction with business planning, financial projections and market studies, is very important to the success of businesses in Missouri. Offering assistance in the identification and application process of funding can dramatically improves the success rates of capitalization.

What has been done

The Business Development program has a full line of training and counseling tools to assist small businesses in their start-up funding. Experience in this market has allowed the Business Development program to assist start-up companies in the core elements of business planning, financial projections, and market analysis, all increasing the rates of start-up funding and success.

Results

The Business Development program assisted over 57 businesses in their successful start-up endeavors, with a key component of securing start-up financing and capital. Additionally, training and counseling was offered to other businesses in their start-up endeavors, and with a knowledge increase of over 1 on a 5 point scale, potential

business owners were educated on start-up financing and were able to make informed educated decisions when accessing start up funding.

4. Associated Knowledge Areas

KA Code	Knowledge Area
602	Business Management, Finance, and Taxation
603	Market Economics

Outcome #7

1. Outcome Measures

Business owners will develop management systems as appropriate to their business goals.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Over 80% of business owners are technically qualified in their area of business, while only 20% have the managerial experience and background to successfully manage their business. Many business owners prefer the daily production aspect of their business as opposed to the managerial and leadership functions which are key to the success of their business. Understanding how to effectively manage and create managerial processes in their business can dramatically increase the success and profitability of their business.

What has been done

The Business Development program has created and adapted many research proven managerial tools and techniques which they use in their training and counseling. Six Sigma, Baldrige, SMART, and other management systems and processes are used with clients and participants to assist them in seeing the value of managerial process and leadership.

Results

Missouri businesses served by the University of Missouri Extension Business Development program were educated in the importance of management systems, and in-depth counseling was offered to many businesses in the area of business management. Research based management systems were taught and deployed in Missouri businesses, allowing them to reduce cost associated with errors, increase quality, and trim their bottom line.

4. Associated Knowledge Areas

KA Code	Knowledge Area
602	Business Management, Finance, and Taxation

Outcome #8**1. Outcome Measures**

Business owners will investigate legal and compliance issues for their business as appropriate to their business goals.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Businesses which are not in compliance with local, state and national regulations and policies risk huge financial penalties, loss in profits, and business failure. Additionally, employees and customers of these businesses may be harmed by the businesses inability to comply with policies and standards. Communities in which these businesses reside risk the negative economic and societal outcomes associated with the behaviors of these businesses. Unfortunately, many small businesses are not educated on the numerous and important business regulations and policies. Education is essential for business success in this area.

What has been done

The Business Development program is a key delivery system in the awareness and education of businesses pertaining to business regulations, policies, permits, etc. The Business Development program has built a strong referral and network system throughout the whole state of Missouri to assist and refer businesses to the proper entity and organization for specific business needs. A new partnership with the state of Missouri allows the Business Development program to use and support the Secretary of State's business portal, which greatly assists small businesses in understanding compliance and regulatory issues.

Results

Small businesses in Missouri which accessed the Business Development programs website and Specialist were offered education in many compliance and regulatory areas. This equated to a savings both by the businesses, but also to Missouri and communities, as these businesses were safer, more stable and avoided costly penalties assessed for non-compliance. Economic, societal and environmental policies have been explained to small businesses and therefore they worked to understand and stay in compliance with these policies.

4. Associated Knowledge Areas

KA Code	Knowledge Area
602	Business Management, Finance, and Taxation
607	Consumer Economics
608	Community Resource Planning and Development

Outcome #9**1. Outcome Measures**

Business owners will develop a marketing plan as appropriate to their business goals.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Marketing is often described as both an art and a science. A great product or service is worth nothing if it lacks a marketing plan. Small businesses often struggle with marketing, and do not understand their customer, their competitors, their price or their competitive advantage. Educating businesses on the science of marketing increases their marketing return on investment, securing a stronger profit margin.

What has been done

The University of Missouri Extension Business Development program has spent valuable time and energy in creating curriculum, tools, and educational offerings specific to marketing. Various new marketing research tools were added to the program, offering Business Development Specialists the ability to create invaluable market research, demographics, and marketing resources for their customers.

Results

Businesses served by the University of Missouri Extension Business Development program were offered access to market research and demographics that would have been too costly for them to access in the private market. Communities were also offered market research and were assisted in using this research to create economic development plans, and make educated decisions on the future of their communities. Businesses were able to increase sales and government contracts by over 88 million dollars, which is a key indicator of marketing and market research.

4. Associated Knowledge Areas

KA Code	Knowledge Area
602	Business Management, Finance, and Taxation
603	Market Economics
604	Marketing and Distribution Practices

Outcome #10**1. Outcome Measures**

Business owners will commercialize products as appropriate to their business goals.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	0	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Innovation and commercialization drives economic development and creates jobs, businesses, and wealth. Businesses who are innovative and are working in the area of research, commercialization and intellectual property, often face obstacles when identifying and securing funding, as well as taking a final product to market. America's future success is dependent on small business innovation and the support of research and commercialization.

What has been done

The University of Missouri Extension Business Development program has specific resources available in the commercialization area. The MOFAST effort links University resources (counseling and expertise) to small businesses, entrepreneurs and researchers, significantly increasing the success of their commercialization efforts. A specific area to this program is assisting businesses in accessing federal dollars to fund their research and commercialization. Additionally, researchers are matched with businesses in efforts to generate innovation and successful commercialization and products.

Results

The University of Missouri Extension Business Development program assisted small businesses in applying for over 15 million in federal research funds, and assisting businesses and researchers secure 1.8 million in funds. Businesses were offered in-depth counseling on research funding, feasibility and market studies, access to capital, and business management.

4. Associated Knowledge Areas

KA Code	Knowledge Area
602	Business Management, Finance, and Taxation
608	Community Resource Planning and Development

Outcome #11**1. Outcome Measures**

Business owners will inform stakeholders of the outcome of their work with the University of Missouri Extension Business Development as appropriate to their business goals.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	15	26

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Missouri businesses which were direct contacts of the University of Missouri Extension Business Development Program can greatly assist in helping others understand the importance of Extension and the positive impacts it has on the Missouri economy and communities. Satisfied contacts that have directly been benefited by our program are essential in educating stakeholders about the program.

What has been done

Businesses and individuals who have accessed the Business Development program and have benefited through the services, are given opportunities to inform and educate the stakeholders of the University of Missouri Extension Business Development program.

Results

Over 30 businesses have reported back to our program that they have made personal contact with various stakeholders in informing them of their success which was made possible by our program. A broader understanding by local, regional, and statewide stakeholders have assisted the program in marketing the services and continuing the financial support of the program.

4. Associated Knowledge Areas

KA Code	Knowledge Area
602	Business Management, Finance, and Taxation
608	Community Resource Planning and Development

Outcome #12**1. Outcome Measures**

Number of jobs created.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	165	1643

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Research proves that jobs are the key indicator of economic stability and growth. Job retention and creation is one of the essential elements in economic development. Small businesses employ over 50% of the workforce, while over 80% of new jobs are created by small businesses. Education and assistance to businesses in assisting them with job creation and growth is essential to the economic success of Missouri.

What has been done

Job growth in businesses is assisted through education, specific to marketing, finance, government procurement, management and innovation. Leading measures of increased sales and government procurements positively affect job growth. Additionally, The Business Development program offers educational offerings.

Results

The Business Development program was successful in assisting businesses to create and retain more than 2000 jobs. This was achieved by assisting businesses with sales, government procurement, human resources management, cost controls, and innovation. These jobs created community wealth, stability and the tax base to support the business and educational infrastructure.

4. Associated Knowledge Areas

KA Code	Knowledge Area
602	Business Management, Finance, and Taxation
608	Community Resource Planning and Development

Outcome #13

1. Outcome Measures

Dollar amount of sales and contracts (in millions).

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	21	88

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

The economic and societal prosperity of Missouri is dependent on Missouri businesses increasing their sales and government contracts. Sales and government contracts directly support jobs and the wealth of families, communities and the state.

What has been done

Businesses are educated in ways to increase sales and government contracts both through educational offerings and one-on-one counseling. Various market research tools, government contracting tools, and management systems are used in educating businesses in sales growth and government procurement.

Results

The University of Missouri Extension Business Development program assisted businesses in securing over 88 million in increased sales and government contracts. This impact is documented through client signatures and then validated through a yearly independent research study. This increase in sales and government contracts had a direct positive impact on Missouri's businesses, economy, society, and educational system.

4. Associated Knowledge Areas

KA Code	Knowledge Area
602	Business Management, Finance, and Taxation
608	Community Resource Planning and Development

Outcome #14**1. Outcome Measures**

Dollar amount of business investments, including loans and equity approved loans (in millions).

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	6	29

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Access to capital is a key element for the success of business in Missouri. Often accessing capital is very hard for small businesses as they are not adequately educated and prepared to present business plans to funders. Small

businesses often fail as they are not adequately funded in their start up and growth phases.

What has been done

The University of Missouri Extension Business Development program has curriculum and counseling tools to assist small businesses in preparing business plans, and identifying possible funders. Additionally Business Development Specialist assist businesses in the business plan areas of finance, marketing, management and innovation.

Results

The Business Development program assisted businesses in accessing over 29 million in capital through loans, investments and equity. These businesses leverage this investment to increase business success and increase jobs, sales and government contracts.

4. Associated Knowledge Areas

KA Code	Knowledge Area
602	Business Management, Finance, and Taxation

Outcome #15

1. Outcome Measures

Number of new businesses started.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2009	20	57

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Small businesses are the economic engine for the state of Missouri, creating over 80% of all new jobs, and creating business opportunities in both rural and urban areas of the state. New businesses need in-depth education to be successful.

What has been done

The Business Development program has curriculum and counseling tools to educate entrepreneurs in their quest to start a new business. A three hour start up program is offered throughout the state, which is then followed-up with one-on-one counseling to assist entrepreneurs with business planning, funding, and success.

Results

The University of Missouri Extension Business Development program assisted Missourians in starting over 57 businesses. The Business Development program offered these startups in-depth counseling and educational assistance which helped in their business success.

4. Associated Knowledge Areas

KA Code	Knowledge Area
602	Business Management, Finance, and Taxation

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

As America's economy began to feel the effects of an oncoming recession, the Business Development program was still able to meet and exceed its goals in economic outcomes. As we progress into the FY10 year the constraints of the economy may alter the results for the coming year.

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- Time series (multiple points before and after program)
- Case Study
- Comparisons between program participants (individuals, group, organizations) and non-participants
- Other (Customer satisfaction)

Evaluation Results

The University of Missouri Extension Business Development has a research-based evaluation system which uses post class survey, time elapsed surveys, case studies, client secured impact and personal and electronic interviews. The evaluation system is based on program based evaluations and all aspects of the evaluation program are reviewed by the University of Missouri Institutional Review Board.

The Business Development program evaluates the quality of its programs in the areas of training and counseling. Training is assessed through post class surveys.. Counseling is evaluated through a post survey to counseling clients. Additionally, a rigorous evaluation system of performance results is used to validate impact through client validation.

Evaluation results for the Business Development training include:
 98% of training attendees would recommend the program
 The overall rating based on the practicality of the program was a 6.13/7
 The overall rating based on instructor ability was a 6.46/7
 The overall rating of the program was a 6.34/7
 Participants showed an increase of knowledge of 1.15/5
 Evaluation results for the Business Development counseling include:

99% of counseled clients received prompt attention.
95% of counseled clients stated that the Business Specialist responded to their needs.
98% of counseled clients state that they would recommend our program
The overall counseling rating was a 6.37 / 7

Evaluation results for key outcomes are included within the quantitative results of the AREERA report.

Key Items of Evaluation

The University of Missouri Extension Business Development Program uses the below key evaluation items:

Outcomes:

Investments

Jobs

Business Started

Increase in Sales

Government Contracts

Research awards

Outputs:

Training: hours, events, attendees

Counseling: hours, counseling sessions, client

Stakeholder education

Audience demographics

Quality:

Overall Rating, Would recommend, Knowledge increase, Prompt Attention, Instructor Rating, Practical training, Instructor rating.