

AREERA FY 2000-2004
Plan of Work and Annual Report

1862 University Outreach and Extension –
University of Missouri System

Executive Summary.

University Outreach and Extension in Missouri includes the four University of Missouri campuses and Lincoln University. This annual report of accomplishments corresponds to the approved 1862 University Outreach and Extension University of Missouri System AREERA FY2000-2004 plan.

University of Missouri and Lincoln University Outreach and Extension (UO/E) developed a 21st Century Strategic Direction in 2000. This plan is based on the needs, aspirations and issues identified by the people in communities throughout the state. University Outreach and Extension program priorities are based on substantial stakeholder input of 7,012 citizens in 275 sessions in each of Missouri's 114 counties. Campus-based faculty developed futuring concept papers addressing these issues related to disciplines. UO/E is committed to attaining national recognition as a leader in fostering a learner-centered environment. In fostering a learner-centered environment, faculty are recognized nationally for their research and scholarship.

The University in its "Design for the Future," set priorities to focus the entire University community on improving student learning and achievement; increasing research and scholarship capacity and productivity; ensuring program access and quality; and broadening outreach capacities.

Within the context of the University priorities, University Outreach and Extension will focus resources on three priority program areas:

- 1. Economic Viability*
- 2. Strong Individuals, Families and Communities*
- 3. Healthy Environments*

Implementation strategies to support program priorities include: internal and external partnerships; effective outreach and extension councils; a flexible, diverse faculty reaching diverse audiences; finance and resource development; and integration of information technology. See the UOE 21st Century Strategic Direction at <http://outreach.missouri.edu/about/21century>

Following are examples of UO/E programs showing impact in 2000:

Goal 1: An Agriculture System that is Highly Competitive in the Global Economy

Forages for the 21st Century

More than 3,000 producers attended an educational event on "Winter Feeding and/or Stored Forages." The adoption rate of practices outlined at these events is estimated to be 46 percent.

Profitable and Sustainable Livestock Production Utilization Systems

More than 7,650 swine producers participated in educational activities during the reporting period. Based on evaluation results, it is estimated that 13 percent of them implemented at least one new practice as a result.. Educational programs and technical assistance resulted in 70 percent of Missouri's swine operations adopting environmentally friendly and inexpensive methods to dispose of more than four million pounds of swine mortalities. The Show-Me Buying Cooperative saved its members 10-20percent on their feeding costs. Missouri faculty provided leadership for the first Midwest Boar Stud Managers Conference in Indiana. Forty-nine paid participants, representing 9,000 boars, attended the training conference from 19 states, Canada and Mexico.

Goal 3: Healthy and Well-Nourished Population

Nutrition Education

During the past year, 140,958 individuals were learners in UO/E health and nutrition programs, and more than 130,000 people were learners in the Family Nutrition program. Of adults receiving nutrition lessons, 87 percent improved nutrition practices, such as reading food labels and feeding children breakfast. This statewide educational program is in 98 of 114 counties.

Goal 4: Harmony Between Agriculture and Environment

Water Quality Programs

Water quality and waste management programming is in 90 of 114 counties. Cooperative efforts among University Outreach and Extension, the Natural Resource Conservation Service (NRCS), the Missouri Department of Natural Resources (MoDNR) and local Soil and Water Conservation Districts (SWCD) resulted in more than 800 farmers completing the Farmstead Assessment System (Farm-A-Syst) program to identify potential sources of private drinking water contamination at the farmstead. Seventy percent of the farmers completing the Farm-A-Syst made changes in management practices to reduce the potential for drinking water contamination of private wells.

Water Quality and Pesticide Management Programs

Twenty communities were involved in intense educational programs on best management practices to reduce the potential for pesticide runoff and leaching. Two cities were able to reduce pesticide levels in the raw water from 60 ppb to 6 ppb. This resulted in each city saving more than \$30,000 a year in treatment costs to remove pesticide from the public drinking water.

Goal 5: Enhanced Opportunity and Quality of Life for Americans

Effective Black Parenting

Effective Black Parenting (EBP) has been an ongoing demonstration project in Kansas City, Mo., since 1995 as part of the community educational component of a broader five-year project entitled "Strengthening Community Programs for Children, Youth and Families at Risk." Most participants indicated that their involvement with the program was associated with significant, beneficial changes in themselves and in their families. Many described the program as a truly life-changing experience.

MoRULES

MoRULES (Governor's Academy for Rural and Urban Leadership Experiences and Service) is a leadership conference offered to young adults, under the guidance of the 4-H youth development program. During a six-day event, groups of teens from across the state participated in activities to teach them about different cultures, citizenship and how to impact social, political and economic change. One group from St. Louis returned home with a passion to improve their communities and formed the S.T.L. (Stay to Learn) Educators. The S.T.L. Educators focus on reaching at-risk children, ages 7 to 12 years.

Kids Voting

During November 2000, students in kindergarten through twelfth grades participated in mock elections through Platte County Kids Voting, a school and community citizenship program. On Election Day, the young people voted on actual ballots along with their parents at 40 official polling sites throughout the county. More than 5,000 students took part this year, a 25 percent increase from 1998.

Volunteer Service

More than 18,000 youths and adults volunteer with Missouri 4-H. National statistics suggest that the average volunteer contributes 220 hours per year. Valuing their time at \$12 per hour, the contribution of Missouri 4-H volunteers was worth more than \$47 million in 2000! Of the total, 3,885 were teen volunteers.

The FY2000 report of program accomplishments and impact is located within the approved plan of work format. Significant accomplishments have been achieved in year one of this plan. Changes, accomplishments and results reported for FY2000 are in dark blue bold italics. Key themes have been added to the plan of work areas. Funding source(s), status of programs, such as multi-state, integrated Extension and research, multi-campus and multidisciplinary is indicated with each title and key theme.

Overview of Plan of Work

Missouri's economic base and its population are diverse. Nearly 60 percent of the population resides in the two metropolitan areas of St. Louis and Kansas City. On the other hand, 48 counties have fewer than 15,000 people. Missouri's total population in 1998 was estimated at

5.4 million. Twenty-nine counties lost population between 1990 and 1998, 23 of them in north Missouri. At the same time, many counties in the southern part of the state have had significant population growth, primarily due to in-migration of retirees. The recreation areas in the state, especially the Lake of the Ozarks and the Branson area, have experienced significant population growth during the past decade. Great diversity among individuals and families also exists in the state.

The economic base of Missouri is also diverse. Tourism, industry and agriculture are the major economic sectors. By Census count, there are 98,860 farms in Missouri. For the first time in decades, the number of farms actually increased between the most recent Agricultural Census periods. Farms with sales of more than \$100,000 number slightly more than 10,500, whereas the number with less than \$50,000 of sales totals 81,600. Circumstances among small farm operators vary widely, from those trying to make a significant portion of their living from the farming operation to those who are farming on a small scale as a “way of life.” By all measures, Missouri is a state of small farms.

Detail regarding the situation is provided in the “issues statement” included with each major program effort in the plan of work.

The identification of priority issues and concerns -- using the stakeholder process described below -- led to the following priorities for FY00-04:

Summary Table: County Program Plan Priorities

Base Program/Program Clusters	Number of Times Programs Appear in County Plans
I. Agriculture Profitability and Viability	
Business and Farm Management	168
Crop Production Systems	104
Horticulture	55
Profitable Livestock Production Systems	83
Sustainable Agriculture	70
Dairy	13
Small Farms	8
Agriculture/Farm Safety	1
	502
II. Environmental Quality & Stewardship	
Water Quality	67
Natural Resource Management	83
Waste Management	62
Air Quality	4
	216
III. Family Strengths	
Parent Education	101
Child Care	54
Family Financial Management	97

Building Strong Families	47
Elderly	36
Housing	30
Poverty at Issue	3
	372
IV. Nutrition and Health	
Decisions for Health	153
Comprehensive School Health and Nutrition	2
	155
V. 4-H Youth Development	274
VI. Business, Community and Economic Development	
Workforce Preparedness	41
Citizen Education and Leadership	81
Community-based Development	88
Small-Business Development	113
Information Technology	24
Education	15
	362

Stakeholder Input

University Outreach and Extension, (University of Missouri System in cooperation with Lincoln University), defines the following as stakeholders:

- The 1,988 Missouri citizens who are elected and appointed to serve on the 114 County Extension Councils under Chapter 262.550-262.620 of the Revised Statutes of Missouri.
- The Regional Extension Councils that represent the 114 County Extension Councils in our eight administrative regions of the state.
- The 11 citizens who serve on the self-organized and self-governed Missouri Extension County Council Leadership Council, who advise and work for the betterment of University Outreach and Extension on a continuing basis.
- The more than 7,000 citizens who participated in the program development process.
- The regional extension specialists and campus-based faculty and administrators who are involved with University Outreach and Extension (UO/E)

The process for gaining stakeholder input into the plan of work task involved the following steps:

- Involvement of more than 7,000 citizens in 275 separate sessions in all 114 counties to identify the priority issues and concerns of Missouri citizens. A “deliberative group process” was used. Each session lasted from 2 ½ to 3 hours. The process was structured to get input from every participant and ended up with a summary of the

five to eight issues and concerns of highest priority. See county summaries at: <http://outreach.missouri.edu/about/fy00-03/index.html> <http://outreach.missouri.edu/about/fy00-03>. County Extension Councils and staff were provided with a template to assist in recruiting participants. Data were collected on those who participated. Diversity of participants representing diversity in the county was achieved in most cases. Nearly 10 percent of the participants were youth under 18; the gender split was nearly even; about 10 percent were minorities; and 40 percent had little or no previous involvement with Extension prior to the deliberative group sessions.

- The County Extension Councils, under Missouri law, have a responsibility to review and provide counsel to the university regarding programs. The County Extension Councils reviewed the outcome of the deliberative group sessions (noted above); studied the social and economic trend data for the county; and reviewed the current extension educational programming in the county to determine whether existing programs should be continued, revised or eliminated. Based on this information and on their own knowledge and expertise, the Council members in each county worked with the staff to prepare a draft County Program Plan, which included the program priorities to be addressed over the next four years.
- The draft plan was circulated to all who had participated in the deliberative group sessions and to other stakeholders in the county for comment.
- The Council members reviewed the input, revised as they deemed appropriate and submitted their final County Program Plan by June 1, 1999. The County Program Plans may be accessed at: <http://outreach.missouri.edu/about/fy00-03/index.html> <http://outreach.missouri.edu/about/fy00-03>.
- The Program Directors and Program Leaders reviewed and summarized the County Program Plans and established a Program Framework. The Program Framework includes six Base Program Areas and seven Focus Teams as follows:

<u>Base Program Areas</u>	<u>Focus Teams</u>
1. Agriculture Profitability and Viability	1. Commercial Agriculture
2. Business, Community and Economic Development	2. Community Infrastructure
3. Environmental Quality and Stewardship	3. Missouri Enterprise Development
4. Family Strengths	4. Value-Added Agriculture
5. Nutrition and Health	5. Water Quality
6. 4-H Youth Development	6. Missouri Youth and Families at Issue
	7. Sustainable Food and Farming Systems

- County Extension Councils, with input from Extension staff, review the County Program Plans on an annual basis.
- Program evaluations are used on a continuous basis to determine outcomes and need for program adjustments.

Report on Stakeholder Input Process 2000

During 2000, stakeholders were actively involved as equal partners to shape ongoing program direction. They were active members of UO/E boards, councils, coalitions and committees. Overall, 1,560 contributed to program planning and direction, assisted in hiring field faculty, and provided resources to support county Extension office operations.

UO/E 21st Century Strategic Direction

University Outreach and Extension developed a 21st Century Strategic Direction based on stakeholder input described in the plan above. Stakeholders were involved in the 21st Century Leadership team that crafted the first draft. Regional Extension Councils planned five spring leadership development meetings across Missouri. More than 350 County Extension Council and Regional Extension Council members reviewed the draft 21st Century Strategic Direction during these meetings. Comments and suggestions were used to make revisions. See <http://outreach.missouri.edu/about/21stcentury/index.html> to review the UO/E 21st Century Strategic Direction.

Program Development

Program teams provide leadership to the major programs described in this plan and report. Stakeholders are members of these program teams and provide ongoing input to program direction, including planning, revision, implementation and evaluation of success. Stakeholders numbering 1,560 were involved in the areas of agriculture profitability and viability; environmental quality and stewardship; family strength; nutrition and health; 4-H youth development and business, community and economic development.

County Resource and Management Support

UO/E's 114 County Extension Councils involving 2,035 elected and appointed Missouri citizens secure financial support and provide local/stakeholder input for county-based programs. In calendar year 2000, County Councils secured \$9.1 million to support programs. These resources supported 150 FTE clerical and nine FTE program assistants and funded office and staff expenses essential to development and delivery of programs.

County Program Development

UO/E's 114 County Extension Councils involving 2,035 Missouri citizens and stakeholders provided county-based program direction, including planning, implementation and review of impact for county-based Extension offices.

County-based and Regional Extension Councils, 4-H Youth Councils, Nutrition coalitions, and water quality boards involved 1,560 stakeholders in program development. This included active involvement in planning, implementing, revising and evaluating programming affecting the local community.

Personnel

University Outreach and Extension involves stakeholders as members of personnel committees. During October '99 to September '00, 35 stakeholders served on personnel committees. They were involved in 71.4 percent of the committees that reviewed applicants,

interviewed candidates and recommended satisfactory candidates for field faculty positions. In addition, 175 stakeholders were involved in local interviews of candidates.

University Outreach and Extension - Merit Review Process

The Missouri County Extension Councils, under State Statute (Chapter 262, Revised Missouri Statutes) “shall assist in the planning and carrying out of extension programs in their county and area, making recommendations to the University as they may deem necessary.” The County Program Plans (described under Stakeholder Input) are the basis for this statewide plan of work. Each County Program Plan is reviewed and officially approved by the County Extension Councils in the 114 counties.

County Extension Council members are elected and appointed and include in their membership citizens with a wide a wide array of education, experience and expertise. The primary objective of the Merit Review Process is to determine whether the planned programs are relevant and of high quality. Relevance is determined by the extent to which the programs are responsive to the high-priority needs of the People. The County Extension Councils, using stakeholder input, analysis of social and economic trends, and the counsel of the regional specialists, are in the best position to determine relevancy.

In addition, the County Extension Councils are required to review the current programs annually to determine which programs are to be continued, revised or terminated. The results of these county reviews are used by program leaders and faculty to determine and implement needed program changes.

Quality of the programming is determined by the response of participants and evaluation of the adoption of new ideas and practices that are embodied in the output and outcome indicators for each of the programs.

We believe the statutory role of the County Extension Councils in Missouri, combined with their education, experience and knowledge and the knowledge and expertise of regional specialists and campus-based faculty is sufficient to meet the requirements of merit review.

FY99 Base for Plan of Work: The FY99 base for this plan of work includes the following:

Smith-Lever 3b&c funding received	\$ 7,611,027
Required State Match	\$ 7,611,027
TOTAL BASE for FY99	\$15,222,054

The following plan of work for University Outreach and Extension, University of Missouri includes 260 FTEs and \$17,155,420.

Multi-State Extension Programs for University Outreach and Extension, University of Missouri System: This information will be submitted following receipt of guidelines currently under development.

Integrated Research and Extension Programs, University Outreach and Extension, University of Missouri System: This information will be submitted following receipt of guidelines currently under development.

Report on Merit Review Process

There were no changes in the merit review process in FY 2000.

Descriptions of Planned Programs by Key Themes

2000 descriptions of planned programs report are located within the approved plan of work format. Changes, accomplishments and results reported for 2000 are in dark blue bold italics. This will make it easier to read in the context of the approved planned outcomes. Key themes have been added to the plan of work areas. Funding source(s), status of programs such as multi-state, integrated extension and research, multi-campus and multidisciplinary is indicated with each title and key theme.

University Outreach and Extension Program Descriptions

Goal 1: An Agricultural System that is Highly Competitive in the Global Economy

KEY THEMES: Animal Production Efficiency, Plant Production Efficiency and Rangeland/Pasture Management
Integrated Research and Extension and Multi-state Extension

INTEGRATED CROPPING SYSTEMS (Smith-Lever and Hatch Acts)

Key Theme: Plant Production Efficiency (Integrated Research and Extension)

Statement of Issues:

- * Crop production in Missouri is extremely diversified in relationship to the type of commodities produced and the size of operations producing those commodities. According to the 1997 Census of Agriculture, approximately 66 percent (i.e., 12,449,272 acres) of Missouri's 28.8 million acres of farmland is dedicated to crop production. The major commodities grown in Missouri are soybeans, corn and wheat. Other crops grown in the state are sorghum, cotton, barley, rice and tobacco.
- * Nationally, Missouri ranks fourth in sorghum production and sixth in production of soybeans and rice. Missouri ranks tenth nationally in the production of corn, cotton and winter wheat. In 1997, these commodities accounted for \$2.1 billion in sales.
- * The production of soybeans, Missouri's largest cash crop, thrives in the southeast, northwest, northeast and north central parts of the state. Corn, wheat and sorghum are grown throughout the state. Cotton and rice are grown in the southeast corner of the state.
- * Given Missouri's diversity related to factors such as commodities produced, soil types, broad variations of climate, and size of operations, its producers will face many

challenges in the next millennium to maintain their competitiveness on the national and international levels. Some challenges identified by Missouri producers relate to adoption of new technology — genetically modified organisms (GMOs), precision agriculture, production and marketing of identity-preserved commodities, improved marketing skills, environmentally sound production, compliance with new regulations, adoption of best management and integrated pest management practices, and maintenance of profitability, to name just a few.

- * As a result of the University Outreach and Extension Program Development and Deliberative Group Process, 83 Missouri counties have identified, developed and will implement programs to address some or all of these issues affecting Missouri's crop producers.

Performance Goals and Indicators:

As a result of Missouri Integrated Crop Production Program:

By 2004, 20,000 agricultural producers will attend at least one educational program on adoption of new technology, and at least 25 percent of those producers will adopt one new technology resulting in reduced soil loss, more efficient pesticide usage, increased profitability, efficiency and improved environment.

Accomplishments and Results:

During the reporting period, 7,500 agricultural producers attended programs on new production practices/technology. As a result of these programming efforts, 35 percent of Missouri soybean producers now use no-till compared with 6 percent in 1990. Missouri has experienced a similar growth among corn producers with 31 percent currently using no-till compared with 14 percent in 1990. In 1999, an estimated 80 percent of Missouri's soybean acreage and 30 percent of the corn acreage was planted to Round-tolerant soybean varieties or BT corn hybrids, respectively

By 2004, 10,000 agricultural producers will attend at least one marketing workshop, and at least 30 percent of those attendees will adopt at least one new marketing strategy.

Accomplishments and Results:

About 1,500 producers attended marketing workshops during the reporting period. In addition, 49 weekly summaries of crop market data were posted on the Agricultural Electronic Bulletin Board to assist producers in making timely marketing and strategic planning decisions.

By 2004, 5,000 of Missouri's producers will produce and market identity- preserved commodities for niche or value-added markets.

Accomplishments and Results:

- *Five hundred copies of the publication, "Economics of Specialty Corn Production" were distributed to interested producers.*
- *Ten programs on the economics of identity-preserved) production were conducted with a total attendance of 250.*
- *Sixteen regional farm management specialists attended program implementation training on contracting IP agricultural commodities. This training covered contract specifications, storage and segregation of IP grains, and market opportunities and will be implemented locally.*
- *Five groups are exploring alternatives to collectively produce, process and market IP grains with enhanced quality attributes.*

By 2004, 56,000, or 75 percent, of Missouri's row crop producers will practice environmentally sound integrated crop management in their farming operations.

Accomplishments and Results:

- *A recent survey of 2,200 Missouri cotton producers found that 82 percent of their acreage was treated based on scouting results. The use of this pest control decision tool has increased production by 50 pounds of lint per acre.*
- *A major accomplishment of the IPM Weed Control Program is the adoption of alternative herbicide modes (Non-ALS inhibitors) from 11 percent in 1994 to more than 95 percent of Missouri's soybean acres in 1999.*
- *The most recent survey by the USDA-ARMS found that 78 percent of Missouri's corn acres are being scouted.*

Currently, 7.5 percent of Missouri's row crop producers are using site-specific cropping systems on their operations. By 2004, 20 percent of Missouri's row crop producers will have adopted these practices.

Accomplishments and Results:

A survey of Missouri producers has indicated that site-specific crop management activities are clustered in the areas characterized by intensive row-crop management. In Northeast Missouri, 3.5 percent of farmers use site-specific technologies on 4 percent of the cropped acres. In Southeast Missouri, 8.8 percent of farmers use the technologies on 2.9 percent of cropped acres. In Central/West Central Missouri, 9.3 percent of producers have applied the technologies to 5.6 percent of cropped acres.

Key Program Components:

* *Profitable and Environmentally Sound New Technology in Crop Production*

This multi-faceted statewide program will focus on the adoption of new and emerging technologies to optimize production through optimal management of nutrients, herbicides, insecticides and fungicides. Multiple educational approaches, including workshops, soil-crops conferences, demonstrations, internet, professional development experiences, field days and educational resources such as guides, slide sets and Power Point presentations will be used to deliver these programs.

* *Tools/Techniques for Marketing Commodities and Differentiated Products*

This program teaches producers to use contractual arrangements, new methods of marketing, marketing groups, retained ownership, crop insurance risk management, grain storage, government programs, and use of niche and/or specialty markets. Educational methods used will include workshops, conferences, seminars, Agricultural Electronic Bulletin Board, internet, guidesheets, marketing newsletters and mass media.

* *Integrated Crop Management.*

The ICM program will teach producers to use and evaluate economic thresholds, scouting, bio-control, pest and crop phenology, rotational usage, variety selection, alternative tillage, host resistance and other preventive practices for environmentally sound and safe pest management. This will be accomplished through meeting presentations, demonstration plots, applicator training, electronic media newsletters and guidesheets.

Internal and External Linkage:

- * The development and implementation of these programs will involve University of Missouri regional and state specialists in agronomy, entomology, plant pathology, integrated pest management, ag economics and agricultural engineering. Extension

programs are directly linked to the Missouri Agricultural Experiment Station research centers and farms. In addition, professional staff of the USDA agencies of FSA, NRCS and Crop Reporting Service, and the Missouri Departments of Agriculture and Natural Resources will be involved in various aspects of development and implementation of these programs.

Target Audiences:

The primary target audiences for these programs are:

- * Agricultural producers
- * Agribusiness firms
- * Agricultural lenders
- * Specialty product producers
- * Governmental agencies
- * Industry representatives
- * Certified Crop Advisors
- * Consumers

Program Duration

- * These programs will be implemented and evaluated over the entire length of the plan of work (five years).

Allocated Resources:

- * These programs will involve 40percent of the total programming effort related to Goal 1.

Goal 1: Program	Year	FTEs	Dollars
Integrated Cropping Systems	2000	46	\$3,035,540
	2001	46	\$3,035,540
	2002	46	\$3,035,540
	2003	46	\$3,035,540
	2004	46	\$3,035,540

Education and Outreach Programs Under Way:

All University Outreach and Extension field staff are “regional” specialists, who have multi-county assignments. A majority of the programming implemented in Missouri would be conducted on a multi-county basis. During FY96-99, educational programs were available in all of the areas included in the FY00-04 plan of work. The research-based programs included the following:

- ♣ Business and Farm Management
- ♣ Crop Production Systems
- ♣ Horticulture (Home and Commercial)
- ♣ Livestock Production Systems

Results associated with these programs are included in the FY98 Annual Report submitted to CSREES.

Overall Program Impact:

As a result of these programmatic efforts there has been:

- ***6 fold increase by soybean producers in the use of no-till/***
- ***Missouri producers have increased their understanding of the marketing alternative and opportunities, especially as it relates to IP grains.***
- ***The use of Cotton Scouting has demonstrated an increase production of 50 pounds per acre resulting in an additional \$10.7 million in production for Missouri’s cotton producers.***

- *There has been an 8.5 fold increase in the use of alternative herbicide modes on Missouri soybeans.*
- *1500 Missouri producers, agribusiness employees and crop consultants have attended training session on precision agriculture.*

FORAGES FOR THE 21ST CENTURY (Smith-Lever and Hatch Acts)

Key Theme: Rangeline/Pasture Management
(Integrated Research and Extension)

Statement of Issue(s):

- * Forages represent a significant renewable natural resource for Missouri with more than 9.7 million acres in pastures and harvested forages. This represents approximately 33.5 percent of the total land in farms in Missouri. Missouri produces 7.1 million tons of hay (includes alfalfa hay), or 4.7 percent of the total hay produced in the United States. Missouri ranks fourth nationally in total hay production. The agronomic practices associated with forage production help enhance water quality, reduce soil loss and produce wildlife habitat while feeding Missouri's livestock industry.
- * Missouri ranks second in the nation for the total number of beef cows with more than 2 million head and 60,000 operations. Beef producers in Missouri suffer from low farm income and small profit margins. Nearly half of their income is spent for livestock feed during January, February and March. Hay represents about 90 percent of the cost for winterfeed.
- * Missouri's dairy producers are struggling. Since 1991, almost 30 percent of Missouri's family dairies have gone bankrupt because of high feed costs, expensive capital investments and low profit margins. According to economic analysis, small dairies could adopt grazing to lower feed cost, minimize capital investments, increase profit margins and protect the environment.
- * As a result of the University Outreach and Extension program development process, 60 Missouri counties have identified and will implement and evaluate programs to address these issues affecting Missouri's forage production systems.

Performance Goals and Indicators:

As a result of the Missouri "Forages for the 21st Century and Beyond" program, by the year 2004:

6,000 of Missouri's beef producers will attend a program on "Winter Feeding and Stored Forages" and 50 percent of those producers will adopt one or more practices covered in the program.

Accomplishments and Results:

More than 3,000 producers attended an educational event on "Winter Feeding and/or Stored Forages." The adoption rate of practices outlined at these events is estimated to be 46 percent.

A.

6,000 of Missouri's forage/livestock producers will attend a grazing school, and 20percent of those attending will adopt one or more practices covered in the schools.

Accomplishments and Results:

Eight hundred producers attended the grazing schools taught at Linneus and throughout the regions. Eighty-one percent (81 percent) plan to adopt fencing, watering and pasture management changes as presented in the schools.

B.

9,000 of Missouri's dairy producers will attend a workshop on "Pasture-based Dairies," and 25percent of those will adopt some aspect of a new system.

Accomplishments and Results:

More than 1,400 audience contacts were made by the Pasture-based Dairy's team. More importantly, a base curriculum was developed and the ensuing program "customered" though four core groups. These groups each contain 15 to 20 producers. Each group is learning and adopting the principles of financial management and grazing systems

Key Program Components:

a) ***Winter Feeding and Stored Forages for Beef Cattle***

This program will educate producers about stockpiling tall fescue, adapting winter annuals in Missouri, grazing crop residues, winter grazing management, lowering hay feeding losses, ammoniation glow-quality hay, maintaining forage quality and using supplemental feed prudently. The program will include workshops, livestock seminars and demonstrations at the regional research centers, training for regional specialists and state/federal agency staff, mass media, internet and guidesheets.

b) ***Grazing Systems and Pasture Management***

This program will educate producers about management intensive grazing, new forages for grazing, nutrient cycling, forage quality, summer forages, legume persistence, warm-season grass establishment, tall fescue endophyte and legume establishment into pastures. The educational methods will include regional grazing schools, special field days, guides and mass media.

c) ***High-profit Pasture-based Dairies***

The program will educate dairy producers about grazing management, forage quality for dairies, balancing rations on pasture versus dry lot, capital investments, milk barn design, record-keeping, seasonal versus year-round dairies, fence design, watering systems, herd health, pasture fertilization and improving soil resources. The educational methods will include "Pasture Dairying" schools, cow colleges, manuals, guides, demonstrations, dairy clubs, seminars and the mass media.

Internal and External Linkages

- * The development and implementation of these multi-disciplinary programs will involve University of Missouri regional and state specialists in agronomy, dairy, farm management, integrated pest management, veterinary medicine, rural sociology, agricultural engineering and community development. Resources of the outlying research centers in Linneus and Mount Vernon also will be involved in these programs. In addition, professional staff with NRCS; FSA; and the Missouri Departments of Natural Resources, Agriculture and Conservation will be involved in these programming efforts.

Target Audiences

The primary target audiences for these programs are:

- * Beef producers
- * Dairy producers
- * Forage producers
- * Agricultural lenders
- * Governmental agencies
- * Certified crop advisors
- * Input suppliers

Program Duration

- * The Winter Feeding and Grazing Systems programs will be implemented and evaluated over the entire length of this plan of work (five years).
- * The Pasture-based Dairy programs will be pilot-tested in the Southwest region over the first three years of the plan of work and then, based on evaluation results, may be implemented statewide during the final two years of this planning period.

Allocated Resources:

- * This program will involve 20percent of the total effort related to Goal 1 – Globally Competitive Agriculture.

Goal 1 Program	Year	FTEs	Dollars
Forages for 21 st Century	2000	23	\$1,517,770
	2001	23	\$1,517,770
	2002	23	\$1,517,770
	2003	23	\$1,517,770
	2004	23	\$1,517,770

Education and Outreach Programs Under Way:

All University Outreach and Extension field staff are “regional” specialists who have multi-county assignments. A majority of the programming implemented in Missouri would be conducted on a multi-county basis. During FY96-99, educational programs were available in all of the areas included in the FY00-04 plan of work. The research-based programs included the following:

- ♣ Business and Farm Management
- ♣ Crop Production Systems
- ♣ Horticulture (Home and Commercial)
- ♣ Livestock Production Systems

Results associated with these programs are included in the FY98 Annual Report submitted to CSREES.

Overall Program Impact:

Financial data from 12 of the pasture-based dairies showed that the average dairy had 95 cows marketing \$2,097 of milk with an operating expense of \$1,237 per cow. Total farm milk sales for these producers were \$199, 215 with operating expenses of \$117,515 leaving a net operating margin of \$75,716 to cover family living, interest and capital purchases. These programs cover the major areas of Missouri forage/livestock production and are currently reaching more than 70 percent of those producers. All three programs are on track to achieve their intended goals by 2004.

PROFITABLE AND SUSTAINABLE LIVESTOCK PRODUCTION UTILIZATION SYSTEMS (Smith-Lever Act)

Key Theme: Animal Production Efficiency

Multi-state Extension- Arkansas, Colorado, Georgia, Idaho, Iowa, Kansas, Kentucky, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, North Dakota, Oklahoma, Oregon, South Dakota, Tennessee, Texas, Utah, Virginia, Washington and Wyoming.

Statement of Issue(s):

- * Several factors have influenced the type of livestock production currently practiced in Missouri. Climate, soil types and terrain, geographic location, availability of markets, environmental regulations, renewable resources such as grain, forages and water, and governmental policies.
- * Missouri's animal agriculture contributed \$3 billion dollars to the Missouri economy in 1997. Meat animals accounted for 64 percent of the total receipts, poultry/eggs 25 percent, and the dairy products 10 percent.
- * Factors impacting the livestock industry as identified by the program development and deliberative group process are animal waste management, air quality, confined animal feeding operations, marketing, livestock management, new technology, profitability, record keeping, herd health, consumer education and water quality.
- * As a result of the University Outreach and Extension program development process, 109 county programs are planned to be implemented and evaluated during this programming period to address many of the issues affecting Missouri's livestock industry.

Performance goals and Indicators:

As a result of the Profitable and Sustainable Livestock Production Utilization Systems Program, by 2004:

15,000 beef producers will attend at least one educational program, and at least 25percent of those will adopt one new practice to improve/enhance the production efficiency of their beef herd.

Accomplishments and Results:

A total of 3,000 beef producers attended educational programs and demonstrations on new and innovative practices to enhance and improve the profitability and viability of beef operations.

A.

Five hundred new producers will adopt production practices that enroll their operations in the Show-Me-Select Replacement Heifer Program.

Accomplishments and Results:

During the reporting period, 235 herds were enrolled in the program with 10,204 heifers. Programmatically, 22 regional livestock specialists and 78 veterinarians statewide participated actively in the program.

B.

Two hundred beef producers will conduct the On-Farm Assessment of their farming operation.

Accomplishments and Results:

This program is currently under development by the Commercial Agriculture Beef Focus Team and has no reportable accomplishments during the period.

C.

A total of 1,000 producers will improve their production efficiency and profitability by effectively incorporating modern swine production technologies into their operation.

Accomplishments and Results:

There were 7,651 swine producers' contacts through educational activities during the reporting period. Based on evaluation results it is estimated that 13% of them implemented at least one new practice as a result of these educational programs. Educational programs and technical assistance has resulted in 70% of Missouri's swine operations adopting environmentally friendly and inexpensive methods to dispose of over four million pounds of swine mortalities. The Show-Me Buying Cooperative has saved its member 10-20% on their feeding costs. Missouri faculty provided leadership for the first Midwest Boar Stud Managers Conference in Indiana. Forty-nine paid participants, representing 9,000 boars, attended the training conference from 19 states, Canada and Mexico.

D.

Twenty percent of Missouri's dairy producers will adopt new management strategies that maintain their economic viability.

Accomplishments and Results:

More than 180 producers and nutrition consultants attended Dairy Profit Seminars, in cooperation with the Missouri Dairy Association. Dairies housing 1,300 cows and 700 cows were built in Southwest and Central Missouri, respectively. These two new operations will create approximately 30 new jobs with an annual payroll in excess of \$500,000 annually.

Key Program Components:

- a) *Improve/Enhance Production Efficiency of Beef Herds in Missouri*
This multi-faceted statewide programming effort will focus on implementation and evaluation of the Show-Me-Select Heifer, Missouri Steer Feedout, Bull Test, heifer development, cow-calf and Missouri on-farm performance testing programs. Topics to be included in these programs are breeding strategies, genetic predictions, EPD (what's this??), artificial insemination, , economics, nutrition, animal health and replacement heifers, to name a few. Educational strategies to be used to implement these programs are workshops, seminars, demonstrations, field days, farm tours, computer programs, guidesheets, web sites, mass media and individual consultation.
- b) *Improved Marketing and Financial Strategies for Beef Cattle Producers in Missouri*
This program will focus on enhancing programming related to retaining ownership, production and financial analysis by implementation of the Retained Ownership and On-farm Assessment Programs. These multi-faceted programs will educate producers on the following topics – production and nutritional management, economics, animal health, operational assessment, marketing, feedlot management and retained ownership. Educational methods to be used include feedlot tours, marketing programs,

distance learning, ultrasound demonstrations, stocker seminars, workshops, field trips, guidesheets and use of mass media.

c) Swine Production for 21st Century Technology Education and Implementation Programs

This program is aimed at assisting swine producers to adopt new technologies and remain competitive. Topics to be covered are modern production techniques, artificial insemination, modern waste management, marketing, nutrition, animal health, record keeping, developing niche markets and labor management. Educational methods to be used are TEI (what's this???) teams, individual consultation, seminars, workshops, "success stories," mass media, Program Implementation Experiences and individual consultation.

d) Enhancing Profitability and Viability on Missouri Family Dairy Farms

This program is designed to create a critical mass of dairy producers, who are able to integrate new management practices to improve their business and also maintain the viability of rural communities dependent on these producers. This educational program addresses financial management, record keeping, family/farm management, herd management, nutrition, herd health, marketing and niche marketing.

Internal and External Linkages

- * The development and implementation of these programs will involve state and regional specialists in animal science, farm management, agricultural engineering, veterinary medicine, community development and 4-H. In addition, these programs will be implemented in cooperation with the Missouri breed associations, Missouri Department of Agriculture, input suppliers, regional research centers and practicing veterinarians.

Target Audiences

The primary target audiences are:

- * Beef producers
- * Swine producers
- * Dairy producers
- * Veterinarians
- * Agricultural lenders
- * Agribusiness
- * Governmental agencies

Program Duration

- * The Improved Production Efficiency and Marketing Strategies Program will be implemented and evaluated over the entire length of this plan of work.
- * The new swine and dairy programs will be pilot-tested over the first three years of the plan and then will be implemented statewide during the final two years.

Allocated Resources:

- * This program will involve 40percent of total programming effort related to Goal 1.

Goal 1 Program	Year	FTEs	Dollars
Profitable and Sustainable Livestock Production Systems	2000	46	\$3,035,540
	2001	46	\$3,035,540
	2002	46	\$3,035,540
	2003	46	\$3,035,540
	2004	46	\$3,035,540

Education and Outreach Programs Underway:

All University Outreach and Extension field staff are “regional” specialists who have multi-county assignments. A majority of the programming implemented in Missouri would be conducted on a multi-county basis. During FY96-99 educational programs were available in all of the areas included in the FY00-04 plan of work. The research-based programs included the following:

- ♣ Business and Farm Management
- ♣ Crop Production Systems
- ♣ Horticulture (Home and Commercial)
- ♣ Livestock Production Systems

Results associated with these programs are included in the FY98 Annual Report submitted to CSREES.

Overall Program Impact:

Show-Me Select cattle bring higher prices at market sales. Beef producers are netting greater profits at market through Show-Me Select Replacement Heifers. UO/E faculty work with 78 veterinarians and 235 producers to raise genetically superior animals that bring higher prices and create a reliable source of replacement heifers. At the 2000 Show-Me Select sales, heifers sold on average for \$1,047. The total net impact of the Show-Me Select Program on the state’s economy during 1999 was \$6 million.

The Show-Me Buying Cooperative markets more than 300,000 pigs annually. The cooperative’s members purchased more than \$25 million in feed annually. By purchasing cooperatively, the members realized an estimated annual feed savings of \$5 million.

The two large-scale dairy operations, representing 2,000 cows, required a total financial investment of \$6.8 million, of which the statewide impact was \$5.2 million. Annual milk sales from these operations were in excess of \$5.2 million. These operations had total input costs in excess of \$4 million, and, when economic multipliers were considered, created approximately 200 new jobs throughout Missouri.

Goal 3 – Healthy and Well-Nourished Population (Smith-Lever and Hatch Acts)

KEY THEMES: Health Care, Human Health and Human Nutrition
Integrated Research and Extension

Statement of Issue(s):

- * Improved health status is dependent on genetics, environment, quality of health care and the individual’s willingness and ability to engage in behaviors known to promote health and prevent disease and injury. University Outreach and Extension programming in support of Goal 3 - A Healthy and Well-Nourished Population – specifically focuses on the health-related attitudes, knowledge, skills and practices of individuals. Missouri Extension efforts in support of this goal are based on stakeholder input obtained through

a deliberative group process and discussions with County Extension Councils. Nutrition, food safety, healthy lifestyles and health care access were identified as critical issues in 42 percent of Missouri's 115 counties. This programming also relates to goals established for the Center for Disease Control's *Healthy People 2000 and 2010*.

- * Obesity, poor eating habits and physical inactivity are known risk factors for a number of chronic health problems including heart disease, stroke, diabetes, and some forms of cancer. An estimated 32percent of adult Missourians are obese, and only 21percent consume the recommended five portions of fruits and vegetables daily. Fewer than 18percent of Missourians exercise regularly enough to meet CDC recommendations, and more than 30percent engage in no physical activity. It is estimated that about one-third of all Missouri children have at least one known risk factor for heart disease -- smoking, high-fat diets or physical inactivity. There is great opportunity to assist Missouri residents improve their health and quality of life through educational programs related to dietary guidelines, healthier eating and behavior change strategies for incorporating physical activity into daily activities.
- * Preventing food-borne illness involves the safe storage, handling and preparation of food. In 1997, about 3,400 cases of food-borne illness were reported in Missouri resulting in 482 hospitalizations and three deaths. These numbers reflect the tip of the iceberg because of under-reporting. USDA has identified key "control points" at which consumers in the home can help keep food safe: purchasing, storing, pre-preparing, cooking, serving and handling leftovers. Similar control points exist for food handlers, such as restaurant chefs, cooks in day care centers and schools, and food handlers at community/church suppers and county fair booths. Taking appropriate action at these critical points can prevent food-borne illness. Extension programs will help residents maintain a safe food supply by providing educational programs and resources that provide information, improve decision making and increase skills related to food buying, preparation and handling.
- * Staying healthy requires health consumers to assume more responsibility for their health and health care. The United States spends an estimated \$200 billion a year on unnecessary and inappropriate care. Health consumers need to learn skills that will help them reduce their demand for unnecessary care, while encouraging the more appropriate use of preventive health services. Seventy percent of all doctor visits for new problems have been termed unnecessary. On the other hand, many individuals fail to use appropriate preventive health services. Based on 1997 data, an estimated 30percent of Missourians over age 65 did not get their yearly flu shot; 56percent reported never having a pneumonia vaccination. Seventy-five percent of Missourians 50 years of age and over reported that they had not done a home blood-stool test, a screening for colon/rectal cancer, during the past two years. Thirty percent of women in the same age category reported they did not have a mammogram during the last two years. Medical self-care increasingly is being recognized as an important component of health promotion programming. Extension programs will increase consumers' skill in communicating with their health care providers and improve their ability to make sound self-care decisions, such as when to seek professional care and how to apply home treatment safely and effectively.
- * While the life expectancy of the general population has benefited from increased emphasis on lifestyle behaviors, this is not the case for that portion of the population that

is low-income. There is great diversity in the low-income population. Eighteen percent work fulltime, year round. Almost one-third are from minority populations; 38percent are children; and 10percent are elderly. Low-income individuals are more likely to have poor diets, delay seeking health care and less likely to have a regular source of care. They are also less likely to receive early routine and preventive health care that would help with early detection and reduction of risk. Children are at particular risk. Poor children are more likely than middle- and upper- class children to be hungry, have nutritional deficiencies, have more physical and mental health problems, and do less well in school.

- * In addition to family income, health insurance and place of residence are associated with an individual's ability to obtain health care. An estimated 15percent of Missouri's adult population between the ages of 18 and 64 are without health insurance. Rural Missourians are less likely to have health insurance provided as a benefit by their employers. Implementation of the MC+ for Kids program in Missouri will increase access to care for the 90,000 children under the age of 19 who are without insurance. However, a shortage of providers in rural Missouri may make participation in the MC+ for Kids program difficult for eligible children. Sixty-five counties, parts of counties and some inner-city areas have been defined as Primary Health Care Professional Shortage Areas. Most of these shortage areas are in rural Missouri.
- * Decisions and choices about health and health care are some of the most difficult for individuals to make. They affect one's ability to engage in behaviors that maintain quality of life and gain access to quality health care. Enabling individuals to maintain lifestyle changes over time requires a two-pronged effort: helping the individual learn information and skills needed to make changes and working with community structures to create environments that are more conducive to maintaining health and desired behavior change. University Outreach and Extension plans to address both of these issues by increasing individual and community access to health information and education resources. Emphasis will be placed on identifying education resources that reflect the diversity of our population.

Anticipated Impact:

The overriding goal of all educational programming in the areas of nutrition and health is to cause permanent behavior change of Missouri citizens in regard to nutrition, health promotion, food safety and physical activity practices. This is very difficult, but educational programs in these areas are expected to impact 3,060 citizens. Nearly 60,000 will receive educational information; 20-60percent will gain skill and knowledge, depending upon the specific program; 10-25percent will indicate their intention to adopt recommended practices.

Performance Goal 1 – Through non-formal education programs to increase annually consumer awareness, knowledge and skills related to nutrition and dietary practices known to reduce health risk factors (e.g., obesity, hypertension, etc.).

Indicators:

Output Indicators

A total of 55,000 individuals will participate in non-formal educational programs related to nutrition, dietary practices and healthy eating.

Accomplishments and Results:

A total of 63,737 Missourians participated in non-formal education programming related to nutrition, dietary practices and healthy eating. Evaluation data were collected for 654 individuals.

A.

Twenty percent of program participants will report an increase in knowledge about nutrition and dietary practices known to promote health and prevent disease based on pre/post evaluations.

Accomplishments and Results:

A total of 92.7percent of program participants (606 individuals) reported an increased in knowledge about nutrition and dietary practices known to promote health and prevent disease based on pre/post evaluations.

B.

At least 15percent of program participants will report learning specific skills that will improve their ability to eat healthier

Accomplishments and Results:

Of 1010 program participants, 15.4 percent reported learning specific skills that improved their ability to eat healthier.

C.

At least 10percent of program participants will report that they intend to adopt recommended nutrition practices.

Accomplishments and Results:

Of 111 program participants, 17.0percent) reported that they intend to adopt recommended nutrition practices.

Outcome Indicator

A minimum of 5percent of program participants will adopt recommended nutrition practices.

Accomplishments and Results:

Data was not collected in 2000.

Key Program Components:

- * *A Healthy New You* -- **(Key Theme: Human Health)** -- A Healthy New You teaches clients the benefits of healthy eating and a physically-active lifestyle; basic principles of good nutrition and physical fitness; keys to attaining a positive self-image and body image; ways to make and maintain healthy lifestyle changes; and ways to involve family, friends and community in leading a healthier life. The program curriculum consists of four lessons, which cover the main topic areas of healthy eating, active living, and positive self-image.
- * *Show-Me Body Walk* -- **(Key Theme: Health Care)** -- Body Walk is a traveling 25 walk-through exhibit that represents the human body. The exhibit provides resources to teachers and an action-oriented educational experience for elementary-aged students. As they walk through the exhibit, students engage in activities that emphasize the importance of good nutrition and other healthy lifestyle choices. The workshops presented to teachers focus on strategies to increase the effectiveness of nutrition and food safety education efforts in the classroom.
- * *Nutrition Communications Center* (formerly the Resource Network) -- **(Key Theme: Human Nutrition)** -- Extension specialists and other professionals need reliable, credible, science-based information on health and nutrition to improve the quality of

people's lives and improve the economic health of the state and individual. The center's goal is to assist regional specialists and others to stay current on research, demographics and consumer trends in food and lifestyle habits. Educational strategies include responding to individual questions and requests for information; providing subject-matter updates via a listserv; providing and supervising the content of the web site; editing a quarterly newsletter; recording radio and video interviews for statewide dissemination; and scheduling quarterly teleconferences with regional specialists.

- * *Missouri Nutrition Network* -- **(Key Theme: Human Nutrition)** -- The Network is a coalition of public and governmental organizations that uses a social marketing approach to promote healthy eating. The primary target audience is low-income (Food Stamp-eligible) families. The Network provides local partners with media campaign materials, personnel training and grant funding to conduct a healthy eating campaign in their own communities. The current campaign theme,- "It's All About You, and Your Family, Too!" -- promotes three nutrition practices: increasing consumption of fruits and vegetables; increasing consumption of breads, grains and cereals; and using lower-fat methods of cooking meats.
- * *Regional Nutrition Education Workshops* -- **(Key Theme: Human Nutrition)** -- In addition to statewide programs, regional specialists conduct nutrition education workshops to address locally identified needs and interests. Topics range from sports nutrition to the role of nutrition in disease prevention. One-on-One for Kids, a basketball and education camp sponsored by Children's Mercy Hospital in Kansas City, is an example.. As part of this camp, Extension specialists in the West Central Region conduct a sports nutrition class for the campers. During the 30-minute class, campers are taught the basics of two major sports nutrition concepts -- fluid retention pre/during/post events and healthy energy-boosting snack choices for pre-event. Extension has been involved in this effort for three years, and evaluations of the camp indicate that the sports nutrition segment is among the highest rated components by the campers and the coaches. A similar program has been developed to provide information to teen athletes.

Internal and External Linkages:

- * Linkages vary depending on the program. The team involved in developing the Healthy New You curriculum includes human environmental sciences (HES) regional and state specialists, a health education specialist from the School of Medicine, and a nutrition and health specialist from Lincoln University. The Body Walk program was developed in conjunction with the Governor's Council on Physical Fitness. The University of Missouri HES Extension Food and Nutrition Program serves as program manager, and regional HES and 4-H youth development specialists work with local schools and parent volunteers in setting up the exhibit in the schools. Partners in the Nutrition Communications Center include the School of Medicine, Department of Rural Sociology, School of Journalism, Department of Dietetics, and the Department of Biological Sciences, all at the University of Missouri-Columbia. Other partners include the Missouri Department of Health, Lincoln University and state extension offices nationwide (via web and listserv communication). Partners involved in the Missouri Nutrition Network include state and regional nutrition/HES specialists; the Missouri Departments of Health, Elementary and Secondary Education and Family Services; and, at the local level, county health departments, hospitals, community colleges, social service agencies, health coalitions, businesses and churches.

Target Audiences:

- * The target audience for A Healthy New You include adults who have been unsuccessful with dieting and want to reduce health risk factors through a different approach to eating and being physically healthy. The program is also appropriate for those interested in learning basic principles related to healthy eating and incorporating physical activity into their daily lives. K-4 elementary teachers and their students are the target audiences for Body Walk. Target audiences for the Nutrition Communications Center are regional extension specialists and county extension staff, Missouri citizens, colleagues in related fields and media outlets. The target audience for the Missouri Nutrition Network is low-income (Food Stamp-eligible) families. One-on-One for Kids reaches school-age children as well as coaches.

Program Duration:

- * A Healthy New You is a new program and will be a long-term effort (five or more years). Body Walk and the Nutrition Communication Center have been in existence for some time, and both are expected to continue long term. The Missouri Nutrition Network is also a relatively new effort and is a long-term integral component of educational programming in nutrition at the state level. One-on-One for Kids is in its ^{third} year and based on evaluations is likely to continue long term.

Allocated Resource:

- * Effort among these major efforts is allocated as follows:

25percent	Healthy New You
25percent	Body Walk
25percent	Nutrition Communications Center
10percent	Missouri Nutrition Network
15percent	Regional Educational Workshops

- * This performance goal constitutes 70percent of the resources allocated to Goal 3.

Goal 3: Performance Goal 1	Year	FTEs	Dollars
Nutrition and Dietary Practices	2000	15	\$988,500
	2001	15	\$988,500
	2002	15	\$988,500
	2003	15	\$988,500
	2004	15	\$988,500

Extension and Outreach Programs Under Way:

All University Outreach and Extension field staff are “regional” specialists who have multi-county assignments. A majority of the programming implemented in Missouri would be conducted on a multi-county basis. During FY96-99, educational programs were available in all of the areas included in the FY00-04 plan of work. The research-based programs included the following:

- ♣ Comprehensive School Health Nutrition Education and Services
- ♣ Decisions for Health

Performance Goal 2 - To annually reduce food-borne illnesses through non-formal education programs focusing on improved decision-making and increased skills related to food buying, handling and preparation.

Output Indicators

A total of 1,500 Missourians will participate in non-formal education programs focusing on food safety issues.

Accomplishments and Results:

20,936 Missourians participated in non-formal educational programs focusing on food safety issues. Evaluation data were collected for 1,082 individuals.

A.

Of participants completing programs, 60percent will demonstrate increased knowledge of basic food safety principles based on pre/post evaluations.

Accomplishments and Results:

77.2percent of participants, (835 individuals) demonstrated increased knowledge of basic food safety principles.

B.

40percent of participants completing programs will report they have learned specific skills to improve their ability to handle foods safely.

Accomplishments and Results:

26.5percent of participants, 287 individuals reported they have learned specific skills that will improve their ability to handle foods safely.

C.

25percent of participants completing programs will report that they intend to adopt recommended food safety practices.

Accomplishments and Results:

18.3percent of participants, 198 individuals, reported that they intend to adopt recommended food safety practices.

Outcome Indicator

10percent of participants completing programs will report that they adopted one or more recommended food safety practices.

Accomplishments and Results:

15.9percent of participants, 172 individuals, reported that they adopted recommended food safety practices.

Key Program Components:

- * Food safety programming (**Key Theme: Food Safety [from Goal 2]**) at the state level has focused on providing technical training to state and local sanitarians, particularly in the use of HACCP-(what's this?)(like techniques. In addition, HACCP training for meat processors has been offered to meet mandatory requirements of the USDA and will continue to be a major activity of the program for the next year. In addition, HACCP training will be expanded to include managers, seafood processors and food service operations in the next year. Food safety efforts at the regional level emphasize food preservation, food preparation for the occasional quantity cook, and food safety programs for food service workers. Program methods include responding to individual questions, providing educational fact sheets, offering educational workshops such as the "ServSafe" Program and other similar training activities, and providing newsletters such as *Quality for Keeps*, which has been an efficient and effective way to deliver safe home food preservation information. Programs also have been offered to Head Start cooks; Girl Scout leaders; and representatives from non-profit organizations, such as the Lion's club,

church groups and others whose members prepare and serve food to people at fairs, festivals or food stands.

Internal and External Linkages

- * Internal partners include regional nutrition specialists; state nutrition specialists from the University of Missouri-Columbia and Lincoln University; and local extension councils, who pay for the printing of the *Quality for Keeps* newsletter. External partners include the environmental sanitarians in local health departments, the Missouri Department of Health and the Missouri Restaurant Association. In addition, collaborative efforts among the Missouri Department of Agriculture and Department of Economic Development support several programs.

Target Audiences

- * Target audiences include professionals in the food processing and retail food service industry; homemakers; representatives of not-for-profit organizations, including churches, Lions Club, Girl Scouts, etc.; and food service staff in schools and child care programs.

Program Duration

- * The professional development program for sanitarians has been in place for a number of years and is expected to continue for some time. (Is that as specific as we can get???) HACCP programs also are expected to continue for the food industry for the near future as the use of HACCP to assure food safety becomes normative in the industry. However, the audience will expand away from the purely technical towards the managerial, marketing and consumer portions of the population. The two regional programs mentioned, ServSafe and *Quality for Keeps*, are successful programs and will continue to be used long-term by regional specialists involved in food safety education.

Allocated Resources:

- * Resources allocated to this goal are distributed among major programs as follows:
 - 10percent Professional development
 - 10percent HACCP training
 - 30percent ServSafe and similar programs.
 - 25percent Quality for Keeps
 - 25percent Food preparation for the occasional quantity cook
- * Total resources allocated to this performance goal constitute 10percent of the total for Goal 3.

Goal 3: Performance Goal 2	Year	FTEs	Dollars
Reduce food-borne illnesses	2000	2	131,800
	2001	2	131,800
	2002	2	131,800
	2003	2	131,800
	2004	2	131,800

Extension and Outreach Programs Under Way:

All University Outreach and Extension field staff are “regional” specialists who have multi-county assignments. A majority of the programming implemented in Missouri is conducted on a multi-county basis. During FY96-99, educational programs were available in all of the areas included in the FY00-04 plan of work. The research-based programs included the following:

- ♣ Comprehensive School Health Nutrition Education and Services
- ♣ Decisions for Health

Results of these programs are included in the FY98 Annual Report submitted to CSREES.

Impact Statement:

Under-served populations will become more aware of the potential for illness associated with inadequate storing, handling and cooking habits. They also will learn how to identify acceptable food outlets and shop for nourishing and affordable food items. Inter-generational programming will reach all members of target households who participate in these programs. The program will help them associate good health with good food choices. Limited- resource populations will, therefore, require less emergent medical intervention for illness such as food poisoning and malnutrition.

Performance Goal 3 – To annually increase health consumers’ awareness, knowledge and decision-making skills with regard to health practices known to promote health and prevent disease, with an emphasis on increasing physical activity.

Output Indicators

3,200 Missourians will complete non-formal education programs focusing on physical activity and other behavior practices known to promote health and prevent disease.

Accomplishments and Results:

56,285 Missourians have completed non-formal education programs focusing on physical activity and other behavior practices known to promote health and prevent disease. Evaluation data were collected for 822 program participants.

A)

30percent of participants completing programs will demonstrate increased knowledge of strategies for incorporating into their daily lives behavior change practices known to promote health and prevent disease.

Accomplishments and Results:

52.2percent of participants (429 individuals) reported increased knowledge of strategies for incorporating into their daily lives behavior change practices known to promote health and prevent disease.

B)

15 percent of participants completing programs will report they have learned behavior change and/or decision making skills.

Accomplishments and Results:

42.0percent of participants (345 individuals) reported that they have learned behavior change and/or decision-making skills.

C)

10percent of participants completing programs will report they intend to adopt recommended practices.

Accomplishments and Results:

60.5percent of participants (497 individuals) reported that they intend to adopt recommended practices.

Outcome Indicators

5 percent of participants completing programs will report they adopted one or more recommended practices.

Accomplishments and Results:

18.5percent of participants (152 individuals) reported that they adopted recommended practices.

Key Program Components:

- * *A Healthy New You* -- **(Key Theme: Human Health)** -- See Performance Goal 1 for a description of this program. A Healthy New You is interdisciplinary in nature and addresses physical activity and positive body image in addition to focusing on healthy eating.
- * *National Network for Health* -- **(Key Theme: Human Nutrition)** -- NNH is a multi-state project. It is one of five networks originally developed as part of CYFERnet to provide technical assistance to State Strengthening and Youth at Risk projects. A health education specialist from the School of Medicine and an HES nutrition specialist provide leadership for a work group responsible for identifying and placing resources and research related to health promotion and disease prevention on the NNH website. Emphasis is placed on resources and research developed through extension and land-grant universities. In addition, the health education specialist serves on the NNH Management Team.
- * *Take Care: A Medical Self-Care Workshop for Young Families* -- **(Key Theme: Human Care)** -- This workshop series provides participants with basic consumer health information and increases their health care decision-making skills. To make effective self-care decisions, people must have access to reliable health information, and they need access to that information when a health problem arises. , Take Care teaches skills related to using a good reference to make health care decisions and provides information on how to improve patient-doctor communication. In addition to increasing parents' confidence in making health care decisions, the information provided will help parents work more effectively in a managed health care environment. Follow-up newsletters reinforce the information provided in the workshops. Easy-to-read fact sheets have been developed, and these are being translated into Spanish. Low-income parents have been reached by working with community agencies and organizations, such as the Head Start, Community Action Agencies and Health Departments.
- * *Regional Education Workshops* -- **(Key Theme: Human Care)** -- Working in conjunction with local partners, regional specialists carry out a variety of educational programs related to health promotion and disease prevention. Following are examples of efforts that are likely to continue and have potential to be replicated in other parts of the state.
- * *CHARTwalk: Off and Walking* -- **(Key Theme: Human Care)** -- CHARTwalk is the result of a community partnership called the Northeast Community Health Assistance Resource Team. With a goal of achieving cardiovascular health, the task force launched this regional walking program in 1997. The initiative's main objective is to motivate people to become physically active. The walking program is only one effort of the Northeast Missouri CHART. To encourage walking as a physical activity that promotes cardiovascular health, this group also has held a conference and assisted in development of two work-site wellness programs. A quarterly newsletter is published, and a web page is under development.
- * *Glo-Germ Hand Washing Mini-Lesson* -- **(Key Theme: Food Handling [from Goal 2])** -- One of the best and simplest ways to reduce the risk of spreading illnesses, such as the

cold and flu, is by proper and frequent hand washing. The Glo-Germ Hand Washing Mini-Lesson helps children understand that washing hands thoroughly with soap and warm water is necessary to get rid of "germs." Included with the lesson materials are a teaching outline with suggested script and optional activity pages suitable for children of different ages. Schools can borrow the Glo-Germ Kit from extension centers or use substitutions that are suggested in the lesson materials. While the mini-lesson was designed for use by school nurses and teachers, it also has been used in adult training programs.

Internal and External Linkages:

- * Internal partners include Regional HES/nutrition specialists, state HES nutrition and family and consumer economics specialists, a health education specialist from the MU School of Medicine, and a nutrition and health specialist from Lincoln University. Subject-matter support is provided by the UM-Columbia School of Education, Department of Physical Education and Health, and by the UM-Columbia School of Medicine. External partners include the Missouri Department of Health, county health departments, hospitals, public and parochial schools, churches, community action agencies, local businesses, Head Start, Community Health Assistance Resource Teams and other local health coalitions.

Target Audiences:

- * Target audiences include school-age children, older adults, African-Americans and individuals with limited resources. Specific audiences for the “Healthy New You” program are young and middle-age adults. Audiences for the “Take Care” program include parents with young children, older adults and Hispanics.

Program Duration:

- * The majority of the programs related to this goal are long-term. “Healthy New You” is a new program and is being planned as a long-term effort. Medical Self Care has been an ongoing effort and will continue long term. CHARTwalk is the result of a community partnership, and its long-term existence is dependent on the success of the coalition. National Network for Health is anticipated to be a short-term effort as is the Glo-Germ Hand Washing Mini Lesson.

Allocated Resources:

- * Percent of time for each major effort is as follows:

- 30percent A Healthy New You
- 20percent Take Care
- 20percent NNH
- 30percent Regional Efforts

20percent of Goal 3 program effort is allocated to this performance goal.

Goal 3: Performance Goal 3	Year	FTEs	Dollars
Consumer Health Knowledge/Practices	2000	5	\$329,500
	2001	5	\$329,500
	2002	5	\$329,500
	2003	5	\$329,500
	2004	5	\$329,500

Extension and Outreach Programs Underway:

All University Outreach and Extension field staff are “regional” specialists who have multi-county assignments. A majority of the programming implemented in Missouri is conducted on a

multi-county basis. During FY96-99, educational programs were available in all of the areas included in the FY00-04 plan of work. The research-based programs included the following:

- ♣ Comprehensive School Health Nutrition Education and Services
- ♣ Decisions for Health

Results of these programs are included in the FY98 Annual Report submitted to CSREES

Overall Program Impact:

The intended outcome of University Outreach and Extension’s program related to Goal 3 — A Healthy and Well-Nourished Population is: “Missourians will maintain a good quality of life well into old age.” Maintaining one’s quality of life is, in part, determined by one’s health and nutritional status. Based on research, one’s own actions and behaviors are major determinants of health. Therefore, improving health and nutrition status is at least in part dependent on one’s ability to gain new knowledge and adopt new attitudes, skills and practices. To accomplish these intermediary outcomes, University Outreach and Extension programs related to this goal focus on increasing knowledge and changing behaviors that promote health and nutritional well-being.

During the past year, 140,958 individuals received information related to health and nutrition from University Outreach and Extension specialists. Evaluation data were collected for 2,557 individuals. Based on that data, 1,870 individuals (73.1percent) reported increased knowledge about nutrition, food safety and health practices that promote health and disease prevention. About 29percent (742 individuals) reported they learned new skills, and 31.5percent (806) individuals reported that they planned to adopt new behaviors. In addition, 324 program participants (12.7percent) reported that they adopted new practices. With regard to food safety, participants reported that they washed their hands more carefully, used safer food preservation methods when canning, and were more careful about maintaining proper heating and cooling temperatures.

Health promotion and disease prevention practices adopted include increased physical activity; improved communication with health care providers; greater use of a health care reference to make decisions about when to see a doctor and when to apply home treatment; healthful eating; and improved goal-setting skills related to physical activity and healthy eating.

More than 103,000 people are reached through the Family Nutrition Education Program. Of adults receiving family nutrition lessons, 87 percent improved nutrition practices, such as reading food labels and feeding children breakfast; 64 percent improved safety practices, such as thawing and storing foods properly; and 83 percent improved resource management practices, such as planning meals in advance.

Nutri-Teach

Knowing the facts about good food and health habits doesn’t mean that we automatically eat nutritiously, exercise more or adopt other healthy habits. “Nutri-Teach” is a nutrition education program based on social learning theory. Teachers obtain the resources and skills they need to teach in a way that leads to positive behavior changes in their students. The curriculum is based on Missouri’s Show-Me Standards—required by the state Department of Elementary and Secondary Education.

After 57 teachers attended a workshop in St. Louis County, 91 percent said they gained new resources and ideas to use in their classrooms. The biggest change was that the teachers are now able to locate credible resources on the Internet, and they feel confident in applying social learning theory to nutrition education.

Impact Statement:

Limited-resource audiences will learn how to make better food choices at retail grocery outlets and how to supplement food purchases with home-grown fruits and vegetables; the importance of combining proper diet with exercise regimens for improved health; and how improved health benefits the body as it ages. Through increased knowledge about healthy living, people in target populations will be less likely to require medical intervention for chronic diseases attributed to unhealthy food intake, substance abuse and lack of exercise. Target populations in Missouri will be positioned to enjoy graceful aging that was once prevented by social, economic and cultural barriers.

Goal 4: Harmony Between Agriculture and Environment

KEY THEME: Soil Erosion, Agricultural Waste Management, Nutrient Management
(Integrated Research and Extension and Multi-state Extension)

PROTECTING MISSOURI’S WATERSHEDS (Smith-Lever and Hatch Acts)

Key Theme: Soil Erosion (Integrated Research and Extension)

Statement of Issue(s):

- * The safe production of food and fiber is vital to Missouri agriculture and the State of Missouri. More than 13 million acres of Missouri farmland is planted and harvested cropland. Missouri farmers must be able to profitably sustain this vital industry, while protecting and rebuilding the productivity of this very valuable natural resource--soil.
- * Erosion control and soil conservation was identified by 22 counties as a key issue to be addressed by University Outreach and Extension during the Deliberative Group Process. The need for continued education and demonstration on the short and long-term environmental, economic, and agronomic impact of conservation or reduced-till and no-till crop production was identified as a major aspect of that programmatic need.
- * The major educational needs that have been identified related to this programming effort are the complex interactions between weeds, herbicides, pesticides, soil type, water and the relationship of soil structure to plant nutrition, plant development, biological activity, erosion control, economics, and tillage alternatives.

Performance Goals and Indicators:

By 2004, 70 percent of Missouri’s farms will adopt some type of no-till or reduced tillage production system.

Accomplishments and Results:

As a result of these programming efforts, 35 percent of Missouri soybean producers now use no-till practices compared with 6 percent in 1990. Missouri experienced a similar growth among corn producers with 31 percent currently using no-till compared with 14 percent in ‘90.

The two most recent surveys by the Conservation Technology Information Center (CTIC) showed an increase in no-till acres of 3.5 percent, outpacing the national and regional increases of less than 1 percent.

By 2004, 12,000 Missouri producers will attend an educational program on adoption of tillage alternatives and at least 25percent of those producers that attend will adopt at least one new production strategy.

Accomplishments and Results:

More than 600 producers were reached directly through educational programs, such as workshops, soils and crops conferences and field days. Topics covered included soil quality enhancement, , soil conservation, and water quality benefits of no-till and conservation tillage. Tens of thousands of Missouri farmers, agribusinesses and rural viewers were reached on the nationally syndicated television farm program “Ag Day” promoting the moisture conservation benefits of no-till and conservation tillage during the 1999-2000 drought. The news from Missouri on “Ag Day” reached an estimated one half million viewers nationwide.

By 2004, producers that attend these educational programs will adopt site and crop specific management systems on 30percent of their no-till acres.

Accomplishments and Results:

Six hundred twenty-five producers have adopted one or more site-specific practices on their farms

Key Program Components:

* *Nutrient Pesticide Management and Tillage*

This program will teach producers about the appropriate use of nutrients, herbicides, insecticides and fungicides for specific tillage alternatives. Educational methods will include conferences, soils and crops conferences, demonstrations, mass media and guides.

* *Tillage Systems for Profit and the Environment*

This educational and research program will focus on site-specific agriculture, conservation tillage practices, residue management, planter adjustments and attachments, pest control, and economic and management strategies for each alternative. Educational methods to be used will be soil and crop conferences, no-till clubs, lender/farm manager programs, demonstrations, newsletters, mass media and guides.

* *Residue Management*

This program will educate producers about implementing cost-effective terrace systems, constructing terraces with readily available equipment, use of ridge tillage to reduce erosion and improve water quality, using contouring and contour strip cropping, and managing terraces and waterways. Educational methods used will include workshops, demonstrations, one-on-one consultations, newsletters, direct mailing, mass media, and guides.

Internal and External Linkages:

- * The development and implementation of these programs will involve University of Missouri regional and state specialists in agronomy, entomology, plant pathology, soil science, ag economics, and agricultural engineering. In addition, the programming will be a cooperative program with NRCS and the Missouri Soil and Water Conservation Districts.

Target Audiences:

- * The primary target audience for these programs will be:

Agricultural producers
 Agribusiness
 Agricultural lenders/farm managers
 Soil and Water Conservation District staff
 Certified crop advisors
 Farm equipment dealers

Program Duration:

- * This program will be implemented and evaluated over the entire length of this programming period.

Allocated Resources:

- * This program will involve 20percent of the total programming effort related to Goal 4. Staff programming effort will be allocated in the following manner:

Goal 4 Program	Year	FTEs	Dollars
Protecting Missouri’s Watersheds	2000	7	\$461,930
	2001	7	\$461,930
	2002	7	\$461,930
	2003	7	\$461,930
	2004	7	\$461,930

Extension and Outreach Programs Underway:

- * All of University Outreach and Extension’s field staff are “regional” specialists who have multi-county assignments. A majority of the programming implemented in Missouri would be conducted on a multi-county basis. During FY96-99 educational programs were available in all of the areas included in the FY00-04 plan of work. The research based programs included the following:
 - ♣ Water Quality
 - ♣ Hazardous (Toxic) Materials
 - ♣ Nutrients and Bacterial Wastes
 - ♣ Surface/Groundwater and Watershed Protection
 - ♣ Natural Resource and Environmental Management
 - ♣ Solid Waste Disposal
- * Results of these programs are included in the FY98 Annual Report submitted to CSREES

Overall Program Impact:

Pesticide management and precision agriculture are being employed to reduce nutrient management and pesticide run-off on Missouri crop acreage. As a result of UO/E programming efforts, 78 percent of Missouri’s corn, soybean and cotton acreage uses integrated pest management programs. Multi-state programming has trained producers and Extension specialists on the principles, economics and environmental benefits of site-specific agriculture

Precision Agriculture Program and ASEQ – UO/E provides a direct link to research information through the Missouri Precision Agriculture Center and Agricultural Systems for Environmental Quality. Both programs offer an integrated systems approach to watershed management. UO/E links research and public access through publications and field days for the general public. The projects involve monitoring of fertilizer and herbicide use, total nutrients, yields and sediment runoff. Geographic

Information Systems mapping tools assist producers in increasing plant nutrient efficiency and variable fertilizer application without loss of yields.

ANIMAL WASTE MANAGEMENT (Smith-Lever and Hatch Acts)

Key Theme: Agricultural Waste Management

Integrated Research and Extension

Multi-state Extension: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Carolina, North Dakota, South Dakota, Ohio, Oklahoma, and Wisconsin.

Statement of Issue(s):

- * Livestock/poultry is a multimillion-dollar business in the state. Large numbers of hogs, dairy cattle, poultry, and some beef cattle are concentrated in confinement units. The poultry industry is expanding rapidly. The Missouri approach to waste management, designed and implemented by University Extension, MDNR and NRCS, has been successful.
- * MDNR reports that all of the livestock's dairy and poultry facilities operating under this program constitute a waste management equivalent to that generated by six million people – more than the whole population of the state. Successful as the waste management program may be, much can be accomplished in educating producers and developing new ways of utilizing animal and poultry waste to prevent ground and surface water contamination.
- * Missouri soil types and topography are very diverse, ranging from rolling wind-blown loess and river bottoms to fractured karst topography overlain with shallow, rocky clay and drainage features such as caves and sinkholes. There is no single strategy for educating livestock producers regarding the potential for water degradation from land application of agricultural waste.

Performance Goals and Indicators:

By 2004, University Outreach and Extension will train 1,500 poultry and livestock producers in best management practices for land application of animal waste to balance crop nutrients and prevent runoff. Fifty percent of these producers will develop and implement total nutrient management systems that will meet guidelines set forth by MDNR.

Accomplishments and Results:

Reported under "B" below.

1998

By 2004, University Outreach and Extension will train 50 consultants and technicians in the private sector to write nutrient management plans.

Accomplishments and Results:

This program objective will be addressed as soon as the final Confined Animal Feeding Operation/Animal Feeding Operation rules have been written and the final program is developed. Missouri is part of a multidisciplinary manure management team operating under a \$300,000 NPPC/EPA grant to develop a comprehensive manure management training program.

Key Program Components:

- * *Livestock Nutrient Management*
This program will train producers how to develop a nutrient management plan for their production systems. Topic to be covered will include soils, nutrient application scheduling, regulatory compliance, and manure application alternatives. Education methods to be used will be producer meetings, training of regional specialists, demonstrations, one-on-one consultations, mass media, and guides.

* Missouri's Manure Management

Missouri Manure Management is an interagency program that is designed to provide producers, technical agencies, educational institutions, researchers, and the general public with usable, accurate, and environmentally-sound manure management and application information. An electronic clearinghouse will be used to: 1) provide access to comprehensive information on manure management research and application; 2) identify relevant manure management publications and educational program.

* Training Professionals In Manure Management

This program will focus on training professionals to assist producers in the technical design of facilities and structures, and the development of nutrient management plans that will bring those producers into compliance with state and federal regulations governing manure management and application.

Internal and External Linkages:

- * Internal implementation of this program will involve agronomy, agricultural engineering and animal sciences. External involvement will include NRCS, MDNR, and livestock commodity organizations.

Target Audiences:

- * The primary target audience for these programs will be:
 - Livestock producers
 - Agricultural lenders
 - Consultants
 - Governmental regulatory agencies
 - Livestock associations

Program Duration:

- * These programs will be implemented and evaluated over the entire length of this plan of work.

Allocated Resources:

- * These programs will involve 40percent of the programming effort related to Goal 4

Goal 4 Program	Year	FTEs	Dollars
Animal Waste Management	2000	15	\$989,850
	2001	15	\$989,850
	2002	15	\$989,850
	2003	15	\$989,850
	2004	15	\$989,850

Extension and Outreach Programs Underway:

- * All of University Outreach and Extension's field staff are "regional" specialists who have multi-county assignments. A majority of the programming implemented in Missouri would be conducted on a multi-county basis. During FY96-99 educational programs were available in all of the areas included in the FY00-04 plan of work. The research based programs included the following:

- ♣ Water Quality
- ♣ Hazardous (Toxic) Materials
- ♣ Nutrients and Bacterial Wastes
- ♣ Surface/Groundwater and Watershed Protection
- ♣ Natural Resource and Environmental Management
- ♣ Solid Waste Disposal

- * Results of these programs are included in the FY98 Annual Report submitted to CSREES
Overall Program Impact:

Missouri state specialists assisted with developing and conducting training for 60 professionals from five states on odor and environmental assessment..

Producers and agency personnel need a source of information on manure management issues. State Environmental Quality Incentive Program funds were used to develop a website, display and brochure for the Missouri Manure Management Action Group. The website includes policy and research reports, permit information, legislative links, links to consultants and hot topics. See <http://outreach.missouri.edu/mommag/>

Success Story:

Manure Doesn't Go to Waste at Grant's Farm

Proper manure disposal is important in every animal operation, and Grant's Farm in St. Louis County is no exception. The 281-acre wildlife preserve and historical site, owned by Anheuser-Busch Inc., is home to hundreds of exotic animals from around the world. The facility, which attracts 1 million visitors a year, also includes a breeding operation for the famous Budweiser Clydesdales. With assistance from University Outreach and Extension, the farm implemented a manure-management plan that protects water quality, controls odor and uses animal waste as nutrients for pastureland.

The Grant's Farm manager contacted University Outreach and Extension after the farm's environmental audit revealed inadequate manure storage and ineffective use of manure nutrients. Another concern was that excessive nitrogen might be present in the farm's lake and in Gravois Creek, which runs through the preserve.

A University of Missouri-Columbia Extension agricultural engineering specialist, and an UM-Columbia Extension water quality specialist toured Grant's Farm and took water samples, which showed no evidence of nutrients leaching into the lake or creek. To maintain water quality, the specialists recommended ways to reduce potential run-off.

Soil samples taken from several fields showed high levels of phosphorus and nitrogen. A University Outreach and Extension agronomy and natural resource management specialist developed recommendations for pasture revitalization and management to promote growth and use more nutrients from livestock manure.

Based on University Outreach and Extension recommendations, Grant's Farm relocated its manure storage and handling areas to be more environmentally safe, with an enclosed shelter for manure storage and decomposition.

NUTRIENT MANAGEMENT ON MISSOURI CROPLAND (Smith-Lever and Hatch Acts)

Key Theme: Nutrient Management

Integrated Research and Extension

Statement of Issue(s):

- * More than 13 million acres of Missouri land produces row crops and forages. According to the Census of Agriculture, \$576 million of fertilizer and chemicals were applied to those acres in 1997.
- * In Missouri, about 34 percent of the population obtain their water supply from groundwater while 66 percent obtain their water supply from major rivers and reservoirs. Groundwater is the source of 74 percent of all rural, domestic water. Indiscriminate application of nutrients and pesticides on this 13 million acres can result in water degradation of this very important drinking water supply.
- * Of the 877,722 acres under irrigation in Missouri, 80 percent are located in the southeast corner of the state. Fewer than 10 percent of the irrigators use scheduling methods to determine the proper time to irrigate. In addition, Chemigation (application through irrigation) has been added to many of these systems and more irrigators are expected to adopt this technique of chemical application. Many of these systems lack proper safety devices to prevent backflow contamination.
- * During the University Outreach and Extension program development process, Missourians identified safe management and application of chemicals and nutrients as issue to be addressed in Missouri's water quality programming in 57 counties.

Performance goals and Indicators:

As a result of the Nutrient management on Missouri Cropland Program, by 2004: 15,000 farmers and 1,000 commercial applicators will be learn how pesticides can or may interact and move in soils and how to help preserve ground and surface water quality when using pesticides and fertilizers. Thirty percent of these clientele will adopt best management practices.

Accomplishments and Results:

More than 1,000 commercial and 2,000 private applicators attended UO/E Pesticide Applicator Training. Survey responses from the commercial applicators revealed:

- *60 percent of participants considered the impact of pesticides on water sources prior to making a pesticide application.*
- *14 percent made great changes as a result of the program.*
- *16 percent made some changes and were still attempting to improve their practices.*

Seventy-six percent of the private applicator audience surveyed indicated that the training made them very aware of the factors that influence the movement of pesticides into groundwater.

Twenty communities received intense education on best management practices to reduce the potential for pesticide run-off and leaching. Two cities in Northeast Missouri were able to reduce pesticide levels in the raw water from 60 ppb to 6 ppb. This resulted in each city saving more than \$30,000 a year in treatment cost to remove pesticide from the public drinking water supply. The farmers in the

watersheds adopted a two-pass pesticide system of application and saved an average of \$10 per acre or more than \$14,000 each year.

Seventy-five percent of Missouri Farm acreage will be under pest management practices and site-specific applications that will reduce potential pesticide runoff.

Accomplishments and Results:

Agribusiness survey results show that most farms using precision agriculture practices are larger than 500 acres. More than 500 producers with a total of 216,000 acres have adopted some aspect of precision agriculture as a management tool for application of plant nutrients. A professional development experience was conducted for UO/E regional specialist on the economics of precision agriculture, global positioning equipment use; yield monitors; and environmental impacts of nutrient management. A Missouri – Kansas precision agriculture conference was held to update producers and Extension personnel on precision agriculture technologies and the economic and environmental benefits of precision agriculture in crop production.

B.

1500 farmers will be trained about well-head protection, tail-water recovery, and Chemigation safety. Fifty percent of those clientele will make changes in their management practices.

Accomplishments and Results:

Cooperative efforts between UO/E, NRCS, the Missouri Department of Natural Resources (MoDNR) and local Soil and Water Conservation Districts (SWCD), resulted in more than 800 farmers completing the Farmstead Assessment System evaluation. Seventy percent of the farmers completing the Farm-A-Syst made changes in management practices to reduce the potential for drinking water contamination. Educational programs and demonstrations resulted in 1,200 abandoned wells being plugged, including 82 irrigation wells. More than 130 irrigators have learned about wellhead protection, chemigation, backflow prevention and irrigation scheduling.

Key Program Components:

* *Pesticide and Nutrient Management.*

This program will focus on soil testing and interpretation, best management practices, pesticide application, secondary containment, container/waste product disposal, mixing procedures, record keeping, and safety. Educational methods will include watershed assessment, demonstrations, water quality workshops, soils and crops conferences, commercial applicator training, self-study manuals, guides and educational materials, and mass media.

* *Site Specific Application*

Under the direction of the Missouri Precision Ag Center, producers and commercial applicators will receive training on site specific application. The training will include equipment selection and calibration, field mapping, calibration, employee training, economics, and GPS instrumentation. Educational methods will include demonstration projects, workshops, Precision Ag seminars, applied research projects, guides, and mass media.

* *Irrigation, Chemigation, and Well Development*

This program will focus on training irrigators to use scheduling to optimize water usage, installing well-head protection, economics of irrigation, safe chemigation, equipment selection, and tail-water recovery systems. The education methods that will be used are annual irrigation conferences, irrigation scheduling, safe chemigation and wellhead protection demonstrations, educational support of the Irrigation Associates, guides, and mass media.

Internal and External Linkages:

- * The development and implementation of this program will involve the Missouri Precision Ag Center, Water Quality Focus Team, regional and state specialists in agronomy, agricultural engineering, and farm management. In addition, the programming will involve NRCS staff, Missouri Irrigation and Water Management Associates, Missouri Departments of Agriculture and Natural Resources, Missouri Ag Industry Council, and commodity associations.

Target Audiences:

- * The primary target audiences for these programs are:
 - Agricultural producers
 - Irrigation dealers
 - Commercial applicators
 - Certified crop advisors
 - Government personnel
 - Agribusiness firms
 - Landowners

Program Duration:

- * These programs will be implemented and evaluated over the entire length of this plan of work.

Allocated Resources:

- * These programs will involve 40percent of the total programming effort related to Goal 4.

Goal 4 Program	Year	FTEs	Dollars
Nutrient Management on Missouri Cropland	2000	15	\$989,850
	2001	15	\$989,850
	2002	15	\$989,850
	2003	15	\$989,850
	2004	15	\$989,850

Extension and Outreach Programs Underway:

- * All of University Outreach and Extension’s field staff are “regional” specialists who have multi-county assignments. A majority of the programming implemented in Missouri would be conducted on a multi-county basis. During FY96-99 educational programs were available in all of the areas included in the FY00-04 plan of work. The research based programs included the following:

- ♣ Water Quality
- ♣ Hazardous (Toxic) Materials
- ♣ Nutrients and Bacterial Wastes
- ♣ Surface/Groundwater and Watershed Protection
- ♣ Natural Resource and Environmental Management

♣ Solid Waste Disposal

- * Results of these programs are included in the FY98 Annual Report submitted to CSREES
*Overall Program Impact: (Redundant; this report was used earlier.)
Communities seek strategies from UO/E to protect water. Atrazine levels in the Vandalia Reservoir have stabilized at no more than 6 parts per billion, compared with 1997 levels which peaked at 85 parts per billion. University Outreach and Extension worked with residents, local officials and experts to develop a watershed management plan. People are participating in decisions to reduce non-point source pollution and voluntarily implement solutions. In addition to having cleaner water, the city of Vandalia has saved more than \$30,000 in water treatment costs.*

UO/E helps citizens create balance in land uses. The Saline County Commission is forming a temporary planning commission, based on the recommendations of a local study group, which looked at land use in the county. The citizens committee hosted town hall meetings in which residents discussed the balance of economic growth, personal property rights and the environment. University Outreach and Extension assisted the group in creating a process that ensured widespread participation, as well as access to University of Missouri research.

GOAL 5: Enhanced Economic Opportunity and Quality of Life for Americans

KEY THEMES: Parenting; Children, Youth and Families at Risk; Promoting Housing Programs; Family Resource Management; Child Care/Dependent Care; Aging; Youth Development/4-H; Leadership Training and Development; and Community Development
Multi-state Extension

Goal 5: I. Missouri Children, Youth and Family (MOCYF) Project (Smith-Lever Act)

Key Themes: Parenting and Children, Youth and Families at Risk

Two Major Program Efforts:

- A. **Effective Black Parenting Series**
- B. **Building Communities through Public Deliberation (formerly: Public Policy Lending Library)**

Overall Statement of Critical Issues to be Addressed:

- * Beginning in November 1997, an Organizational Change Survey was conducted to document the current state of and changes in Missouri's ability to develop and sustain effective programs within the University Outreach and Extension system. This survey, developed by the University of Arizona, looked at issues surrounding one of the main objectives of the **MOCYF Project**: improving University Outreach and Extension's capacity to support community-based programs for children, youth and families at risk. Of the 300 eligible respondents, 75percent returned completed surveys. Of the 248 respondents, over half (57percent) reported that they are called upon *monthly* in the area

of children, youth and families at risk. Eighty-one percent (81percent) of respondents stated that they are currently active in community task forces working on children, youth and family issues.

- * The national trends also mirror Missouri's response to issues pertaining to the knowledge of policy which effects the lives of children, youth and families at risk. The National Results indicate that Extension professionals were not at all confident about their knowledge of policy and legislation effecting lives of the children, youth and families they serve. While a majority (64percent) of respondents believe it is their role to educate policy makers on youth and family issues, only one-fourth feel they currently have good or excellent knowledge of policy affecting the lives of such audiences
- * Diversity assessments in three of the eight administrative regions revealed that Outreach and Extension personnel are aware of the nature of diversity in their counties, particularly with regard to race, ethnicity, socio-economics status, age, gender and disability. However, present programming in these regions tends to reach the more affluent, middle class, white, non-disabled citizens who are middle-aged or older. Though only three of the eight assessments are completed, the assessments affirm what the Organizational Change Survey summarizes - University Outreach and Extension staff need continued administrative and community support as they continue working with increasingly diverse citizens in Missouri communities.
- * In November 1998, the Executive Summary of KIDS COUNT 1998 Data stated that while the number of Missouri children receiving cash assistance decreased from 1992 and 1997, many of those children still live in poverty, as their parents replace welfare with low-paying employment. The **MOCYF Project** is ready to build upon the existing strengths and resources in existence and provide training and resources regarding effective programming for low income audiences within each region in Missouri.

EFFECTIVE BLACK PARENTING SERIES: (Smith-Lever Act)

Key Theme: Parenting

Multi-campus and multi-disciplinary program: Lincoln University, University of Missouri Columbia, UM- Kansas City and UM- St. Louis

(See above for overall statement of issues.)

Performance Goals and Indicators:

Output Indicators

50 parents or caregivers (per year) will complete 75percent of the Effective Black Parenting classes, a 15 week series.

Accomplishments and Results:

At least 51 parents or caregivers complete/graduate from the Effective Black Parenting classes by attending at least 10 of the 15 EBP sessions. (Note: During the last year, there have been four sets of classes with an average of 15 students per class.)

A)

75percent of the parents attending classes will learn problem solving skills when dealing with their child(ren); and at least one other life skill (e.g., setting goals) that will enable them to become more productive citizens

Accomplishments and Results:

In an evaluation study conducted by the UM-Kansas City, approximately 76percent of Effective Black Parenting alumni strongly agreed that they learned a lot (e.g., positive reinforcement, parental stress management) as a result of their participation in the EBP program. (UMKC-IHD Evaluation Report, Section II, page 16).

Outcome Indicators

A)

75 percent of the parents attending classes will report changed behavior or intent to change their behavior in communicating with their child(ren).

Accomplishments and Results:

In an evaluation y conducted by UM–Kansas City, approximately 100percent of the survey respondents reported actual, desired changes in themselves. At least half of the survey respondents also reported many actual, desired changes in their children as a result of implementing parenting techniques learned in the EBP programs. (UMKC-IHD Evaluation Report, Section II, page 18).

Key Program Components:

- * Eight communities will provide culturally sensitive parent education classes for low-income parents. The classes will utilize the Effective Black Parenting Series. The classes will be conducted by UOE staff with the involvement and representation of a variety of agencies (e.g., Court Appointed Services). MOCYF Project staff will assist colleagues in learning about the Effective Black Parenting series, training and resources. In addition, an evaluation consultant will provide technical assistance to UO/E field staff regarding parent education evaluation and program design for high-risk families.

Internal and External Linkages:

- * Interdisciplinary - At the current time the Effective Black Parenting series has been facilitated by a variety of trained University Outreach Specialists representing Consumer and Family Economics, 4-H Youth Development and Human Development and Family Studies, et al.
- * Multi-institution - The Effective Black Parenting programming conducted by MOCYF Project staff was originally conducted by a specialist from Lincoln University. While MOCYF staff has since undergone EBP Facilitator's training, the LU Specialist continues to serve in partnership with MOCYF staff regarding the EBP programming.

The MOCYF Project site in Southeast Kansas City has partnered with the University of MO-Kansas City for evaluation services of the EBP program. In addition, the Principal Investigator has expressed a desire to continue a partnership with UO/E staff in the KC area to explore resources for future EBP classes.

Target Audiences:

- * African-American parents and caregivers (e.g., grandmothers)

Program Duration: Long-term**Allocated Resources:** See Summary for Goal 5, I-VIII**Extension and Outreach Programs Underway:**

- * All of University Outreach and Extension's field staff are "regional" specialists who have multi-county assignments. A majority of the programming implemented in Missouri would be conducted on a multi-county basis. During FY96-99 educational programs were available in all of the areas included in the FY00-04 plan of work. The research based programs included the following:
 - ♣ Educational Programs for Parents and Their Children
 - ♣ Building Better Child Care for Missouri: A Six Session Program for Directors
 - ♣ Family Financial Management
 - ♣ Affordable Housing
 - ♣ Building Strong Families
 - ♣ Elderly Issues: Center on Aging without Walls
 - ♣ Poverty at Issue
- * Results of these programs are summarized in the FY98 Annual Report submitted to CSREES.

Overall Program Impacts:

Developed and field-tested by the Center for the Improvement of Child Caring (CICC), Effective Black Parenting is a culturally sensitive, parent skill-building program that has been disseminated throughout the country.

Effective Black Parenting (EBP) has been an ongoing demonstration project in Kansas City, MO since 1995 as part of the community educational component of a broader five-year project entitled "Strengthening Community Programs for Children, Youth, and Families at Risk."

Three key parent/family outcomes have been identified for the Kansas City program. These change targets include beneficially impacting EBP participant families in the areas of (a) parenting skills, (b) understanding of typical childhood development, and (c) motivation to reinforce positive behavior.

Summary of Evaluation Findings

- *Perceptions of the students who participated in the EBP program evaluation were extremely positive.*
- *Most indicated that their involvement with the program was associated with significant, beneficial changes in themselves and in their families. Many described the program as a truly life-changing experience.*
- *Consistent with the EBP goals, the program evaluation provided evidence that the program has beneficially impacted some participant families in the areas of parenting skills, understanding of typical childhood development, and motivation to reinforce behavior.*

BUILDING COMMUNITIES THROUGH PUBLIC DELIBERATION (Formerly Public Policy Lending Library) (Smith-Lever Act)

Key Theme: Children, Youth, and Families at Risk, Community Development

(See above overall statement of issues to be addressed. In 1998, approximately 64percent of UO/E staff responded to a survey and stated that they felt it was their role to inform decision makers about policies that effect children, youth and families. However, only one fourth of those respondents felt they had a good knowledge about how policy effects children, youth and families.)

Performance Goals and Indicators:

Output Indicators

Eight targeted communities (one per region) will host National Issue Forums, hosting 15-25 community members and utilizing the deliberative process and/or National Issues Forum booklets.

Accomplishments and Results:

In July 1998, the first Public Policy Institute class was organized involving 19 staff. That staff, drawn from all eight Extension regions, initiated issue forums in their respective regions over the next 18 months. Two more PPIs were offered in September 1999 with 22 staff and several citizen leaders. Two additional institutes were offered in April 2000 with another 23 staff and several citizen leaders. The evaluation underway in collaboration with Oklahoma State University will yield more specific results.

The UO/E system will increasingly become aware of changes in public preferences expressed at forums. Consequently, UO/E will plan to use the dialogue (i.e., citizen opinions) to adapt decisions regarding UO/E resources and programming.

Accomplishments and Results:

In the past two years, nearly 100 staff have completed the training that provides them with the conceptual background for public deliberation and the skills to moderate issue forums. A number of the participants have moderated one or more issue forums in the last two years or have forums planned in their communities. The evaluation under way in collaboration with Oklahoma State University will yield more specific results.

Outcome Indicators.

National Issue Forum facilitators will involve one to two hundred citizens in forums. Of those, at least 50percent will maintain or increase their role as an active community member.

Accomplishments and Results:

Work has commenced with colleagues in Oklahoma (Sue Williams and Renee Daugherty) to develop an evaluation of the Public Policy Institutes (PPIs). The first is a phone survey that can be used with those who have completed a PPI to determine outcomes, such as how many forums they've moderated, what kinds of follow up occurred in groups/communities where they did forums, etc. The second part is a phone survey that can be used with people who have participated in issue forums to determine their reactions, what they've done after such forums, and what is occurring in the group/community. Pre-testing of the instruments has been completed.

Key Program Components:

- * University Outreach and Extension staff will become more knowledgeable and involved in policy issues deliberation through the increased awareness and availability of public

policy resources. Information regarding public policy deliberation is being developed for a UOE web site.

Internal and External Linkages:

- * *Interdisciplinary* - The program draws will involve University Outreach Specialists representing Consumer and Family Economics, Community Development, Agriculture, 4-H Youth Development and Human Development and Family Studies, et al.
- * *Multi-institution* - We anticipate a continued partnership with Lincoln University, especially when working in communities where high poverty rates exist (e.g., Pemiscott County, SE Kansas City, St. Louis, etc.)

Target Audience:

- * Community Leaders (including University Outreach Extension Council members) promoting public dialogue regarding issues that affect a variety of aspects in communities.

Program Duration: Long-term

Allocated Resources. (See Summary Table following Goal 5: VIII)

Extension and Outreach Programs Underway:

- * All of University Outreach and Extension’s field staff are “regional” specialists who have multi-county assignments. A majority of the programming implemented in Missouri would be conducted on a multi-county basis. During FY96-99 educational programs were available in all of the areas included in the FY00-04 plan of work. The research based programs included the following:
 - ♣ Community Development
 - ♣ Experience in Community Enterprise and Leadership (EXCEL)
 - ♣ Educational Programs for Parents and Their Children
 - ♣ Building Better Child Care for Missouri: A Six Session Program for Directors
 - ♣ Family Financial Management
 - ♣ Affordable Housing
 - ♣ Building Strong Families
 - ♣ Elderly Issues: Center on Aging without Walls
 - ♣ Poverty at Issue
- * Results of these programs are summarized in the FY98 Annual Report submitted to CSREES.

Overall Program Impacts:

EXCEL: “Experience in Community Enterprise and Leadership Development”

EXCEL is an intensive community leadership development program intended to increase the capacity of people to be, in a collective sense, self-governors. EXCEL is a customized approach to building vital communities by increasing effective local leadership. It works because a committee of local citizens, working with University Outreach and Extension professionals, creates the basic program design and content, establishes a budget and raises funds, arranges activities, and recruits and selects participants.

Accomplishments and Impacts: A local United Way raised three times as many funds due to program graduates who serve as board members. Graduates helped set a positive tone for the city. The program allows people to cross lines of interest and work

together. A county fair was reborn with the help of program graduates who serve as board members. A campaign for passing a school levy was conducted by past leadership development program graduates. Alumni have initiated such projects as raising \$3 million for the YMCA. A program graduate, who had never been active in the community, began attending Chamber of Commerce meetings and is now Chamber president. Racial and ethnic barriers have begun to decrease. A program graduate was elected the first African-American to a City Council and is now Mayor. A successful community-wide effort put an ambulance district on the ballot. A graduate, who had never spoken publicly before his enrollment in a community leadership program, was elected to the County Health District Board. He credits his experience in EXCEL-type leadership programs with giving him the skills and impetus to serve the community.

Resource Commitment: EXCEL programs typically are funded locally through participant fees and contributions from local businesses, industries and organizations. Some programs have formed not-for-profit organizations to apply for grants, etc

Collaborators: EXCEL has many collaborative relationships throughout the state among local public agencies, service organizations, University Outreach and Extension Councils, and Chambers of Commerce. These relationships vary by location and program.

See: Community Leadership Development:

<http://ext.msstate.edu/srdc/cred/programs/examples/comleadership/0002.htm> and <http://www.ssu.missouri.edu/commdev/cld/cld.htm>

Community Planning:

Begun in 1996, the Community Development Academy is a series of three, five-day, intensive, face-to-face courses. The Academy curriculum provides an understanding of the shifts to:

- Development focused on capacities, rather than deficiencies, of communities and neighborhoods*
- A more holistic focus on the community rather than fragmentation of issues, resources and relationships*
- Interconnection, responsibility and active involvement of youth, women and minorities*
- Acknowledgement that communities have their own expertise to determine their needs, visions and actions.*

Accomplishments and Impacts: Those who have completed the program are engaging in development of new and expanded local leadership training; involvement of citizens in planning and implementation of community-wide programs; adoption of community-based approaches in all aspects of University Outreach and Extension work; and cooperative and partnership efforts to achieve community success. New partnerships—both formal and informal—have formed internally within Extension

and with external groups to work on issues of importance to citizens. Specific examples of outcomes from the Academy:–

- *Hickory County engaged in a county-wide planning process. One result was the success of the local Extension Council in receiving a grant from the state to hire a local community economic developer for two years.*
- *Several agricultural Extension specialists have used the skills gained in their work to facilitate commodity groups.*
- *In Southeast Missouri, the Department of Economic Development, University Outreach and Extension, and USDA-Rural Development are collaborating to facilitate community development planning in several communities.*
- *The From the Grassroots: Building Community Development into Watershed Management Project (a \$383,000 EPA Section 319 grant awarded by the Department of Natural Resources to University Outreach and Extension, July 1, 2000) resulted from participation of faculty in the CDA.*
- *Caring Communities participants from several areas of the state have reported using the skills and understanding gained to improve the effectiveness of their community work.*
- *The Community Development Academy-South Africa was established in 1998 as a partnership among the University of Missouri, the University of Pretoria and Medunsa University. The CDA South Africa is playing a critical educational role in shaping the future of development in South Africa.*
- *As a result of the engagement of a team from Northern Ireland and the Republic of Ireland in the CDA, Irish participants are incorporating their learning in educational programs and community work on both sides of the border.*

Resource Commitment: This is a self-supporting program. However, University Outreach and Extension supports participation by its staff, and grants and scholarships have been provided for some of the other participants from USIA, rural electric cooperatives and the UO/E Littrell-Timmons Scholarship Fund.

Collaborators: Presenters include staff from within University Outreach and Extension and the University of Missouri's campuses as well as a variety of organizations throughout the country and world, including community organizations.

See: Community Planning

<http://ext.msstate.edu/srdc/cred/programs/examples/complanning/0018.htm>

Missouri Issues Forums:

http://ext.msstate.edu/srdc/cred/programs/accomplishments/public_accom.htm

**Goal 5: II. AFFORDABLE HOUSING AND HOUSING AND COMMUNITY ISSUES
(Smith-Lever Act)**

Key Theme: Promoting Housing Programs

Multi-state Extension: Illinois, Indiana, Iowa, Kansas, Michigan,
Minnesota, Missouri, Nebraska, North Dakota, South Dakota, Ohio and
Wisconsin

Multi-campus and Multidisciplinary: University of Missouri -Columbia,
UM-Rolla; UM St. Louis

Statement of Issue(s):

- * Need for quality affordable housing and increase in home ownership rates are important issues for public and private sector housing educators, developers and agencies in the nation, as well as in the state of Missouri. Education plays an essential role in expanding homeownership and home retention opportunities for Missouri citizens, particularly low to moderate-income families.
- * A central focus of Outreach and Extension programming in housing is to implement educational programs that address the issues of affordable homeownership, post home purchase maintenance and financial planning and community participatory process to foster housing development. These programs provide an opportunity to examine potential and existing barriers facing Missouri households and build capacity within the communities which in turn helps to improve quality of life of Missouri citizens through home ownership, home retention, housing development and community revitalization.
- * More than thirty Missouri counties included affordable housing related programming in their plan of work. There are three ongoing programs and one program under development that address affordable housing issues in this state. These are: *HomeWorks: Maintaining Your Housing Investment*, *Healthy Indoor Air for America's Homes*, *Home Ownership Made Easier* and *Affordable Housing Development through Community Partnership*. Teams of extension specialists and agency partners are implementing and evaluating the ongoing programs in different regions of the state.

Performance Goals and Indicators:Output indicator:

Thirty extension specialists have been trained to offer the ongoing programs. Ten additional specialists will be trained to teach new program under development.

Accomplishments and Results:

A new program is under development — Affordable Housing Through Community Partnership. Train-the-trainer sessions are anticipated for 2002.

Certified trainers of all affordable housing related programs will reach 500 participants with these programs.

Accomplishments and Results:

Trained Extension educators reach 1,830 participants with affordable housing programs.

Outcome indicator:

Of these 500 participants, 250 will adopt at least one recommended practice related to affordable home ownership or home maintenance or home development.

Accomplishments and Results:

During this year, 410 participants who attended affordable housing programs adopted at least one recommended practice related to affordable home ownership or home maintenance, including health and safety issues in the home.

Key Program Components:

- * *Home Ownership Made Easier* – A one day workshop on financial and environmental factors related to the home buying process is implemented by a team of trainers working with local partners and participants.
- * *HomeWorks* – One or two day workshops are implemented by a team of trainers with local partners and participants. These workshops are customized from a core curriculum containing thirteen modules on home maintenance and financial management.

- * Healthy Indoor Air for America's Homes –Extension specialists depending on community participant needs implement one or multiple session workshops. The core curriculum contains twelve modules.
- * Affordable Housing Through Community Partnership – Multiple sessions of community meetings and workshops will be conducted with each community participating in the program to develop community capacity and enhance community participatory process towards affordable housing development. Extension specialists will coordinate this process with developers, builders, and local agency and government partners and community citizens.

Internal and external linkages:

- * Home Ownership Made Easier – This program draws upon the expertise from Consumer Family Economics, Environmental Design specialists in Extension as well from agency partners from USDA Rural Development, US Department of Housing and Urban Development and Consumer Credit Counseling Services.
- * HomeWorks - This program draws upon the expertise of Extension specialists in Environmental Design Consumer and Family Economics, Agricultural Engineering and Community Development, along with expertise from local home inspectors, community action agencies, lenders and builders.
- * Healthy Indoor Air for America's Homes – This program draws upon the expertise of Extension specialists in Environmental Design, Community Development and Agricultural Engineering.
- * Affordable Housing through Community Partnership – This program will draw upon the expertise of Environmental Design, Consumer and Family Economics and Community Development Specialists, as well as local stakeholders.

Target Audience:

- * First time homebuyers, renters, homeowners interested in home maintenance and retention issues, communities interested in affordable housing development.

Program Duration:

Home Ownership Made Easier – Long term
 HomeWorks – Long term
 Healthy Indoor Air for America's Homes – Short term
 Affordable Housing Development through Community Partnership – Long term

Allocated Resources:

Home Ownership Made Easier	15percent
HomeWorks	40percent
Healthy Indoor Air	15percent
Afford. Housing Through Community Partnership	30percent

(See Summary following Goal 5, VIII)

Extension and Outreach Programs Underway:

- * All of University Outreach and Extension's field staff are "regional" specialists who have multi-county assignments. A majority of the programming implemented in Missouri would be conducted on a multi-county basis. During FY96-99 educational programs were available in all of the areas included in the FY00-04 plan of work. The research based programs included the following:
 - ♣ Educational Programs for Parents and Their Children
 - ♣ Building Better Child Care for Missouri: A Six Session Program for Directors

- ♣ Family Financial Management
- ♣ Affordable Housing
- ♣ Building Strong Families
- ♣ Elderly Issues: Center on Aging without Walls
- ♣ Poverty at Issue

* Results of these programs are summarized in the FY98 Annual Report submitted to CSREES.

Overall Program Impacts:

Home-based Business:

<http://ext.msstate.edu/srdc/cred/programs/examples/smallhome/0021.htm>

Success Stories

[Opening Doors for Home Buyers](#)

A boom in new jobs has created unprecedented demands for housing in Missouri, particularly in communities where population is soaring. But many new jobs pay low wages, making it hard for families to find affordable housing. For solutions, many turn to the Missouri Housing Partners Initiative, a partnership that includes University Outreach and Extension. Since 1997, some 622 persons have requested home ownership information from MHP.

Since the program began, 80.2 percent of MHP clients have requested down payment assistance information. In a 1998 survey of 202 MHP clients, one-fifth reported they had purchased a home after receiving information from MHP. See:

<http://outreach.missouri.edu/edninfo/home/index.htm>

[Welcome Home, First-Time Buyers](#)

Affordable housing is in demand in Missouri, where a large segment of households do not qualify for mortgages under conventional financing guidelines. Fortunately, programs are available to help put the American dream of home ownership within reach of families with moderate incomes.

University Outreach and Extension is helping to spread the word about affordable home ownership. Last year, 50 people attended Home Ownership Made Easier (HOME) classes in seven Missouri towns and cities. By completing the course, participants became eligible for special credits and loans when purchasing a home. Outreach and Extension also has joined efforts with the Catholic Commission on Housing in St. Louis, which offers a program on home buying for low- and moderate-income families. During the past year, 30 percent of the program's 520 participants purchased homes. See:

<http://outreach.missouri.edu/stcharles/home/>

GOAL 5: III. FAMILY FINANCIAL MANAGEMENT (Smith-Lever Act)

Key Theme: Family Resource Management

Statement of Issue(s):

- * Over the past several years the United States economy has shown continued growth, unemployment rates have fallen, and the number of families receiving welfare has decreased.
- * Despite these economic improvements, many individuals and families face continued economic challenges. Household debt levels have increased faster than income over the past six years. Personal bankruptcies reached an all-time high in 1998 at almost 1.4 million filings. This increase correlates closely with the increased debt load carried by American families. The personal savings rate has continued to fall. Currently, people spend \$9.99 of every \$10.00 they earn. The Retirement Confidence Survey reports that only half of all workers have even tried to determine how much they need to save for retirement. These and other economic challenges are exacerbated by the lack of financial skills of adults and youth. This leads to poor consumer and financial decision making.
- * Recent deliberative groups and County Extension Councils identified several key issues to be addressed. These include basic financial management skills and consumer education. Thirty-one counties identified these issues. Sixty program efforts were identified in county plans of work.

Performance Goals and Indicators:

Goals/Objectives

1000 individuals and/or families will increase their financial management skills through participation in financial management education programs.

Output Indicators

One thousand people will attend family financial programs.

Accomplishments and Results:

10,980 Missourians participated in family financial management programs in 1999-2000.

Eighty percent of participants who show increased knowledge of financial management concepts after participating in financial management programs as indicated on pre and post learning surveys.

Accomplishments and Results:

83percent of participants completing program evaluations reported increased knowledge of and skill in: record keeping, tracking expenses, developing a spending plan, retirement planning strategies, estate planning, insurance, Medicare, investment option, and health care directives.

Sixty percent of participants who plan to adopt one or more new financial management practices.

Accomplishments and Results:

80percent of participants completing program evaluations reported plans to adopt one or more of the following recommended financial management practices: develop spending plan/budget, keep financial records, pay creditors on time, set goals, increase income, set up emergency fund, communicate asset distribution plans to family members, prepare household inventor, and communicate with family about money issues.

Fifteen different agencies and organizations collaborating on financial management programs

Accomplishments and Results:

The following agencies and organizations are collaborators of financial management programs: AARP, Cameron High School, Marshall School District, Sweet Springs School District, Missouri Retired Teacher's Association, Probation and Parole, Nursing Home

Activities Directors of Southwest Missouri, Taney County Health Department and Brookfield Area Career Center.

Outcome Indicators

Thirty percent of participants of financial management programs who adopt one or more recommended financial management practices.

Accomplishments and Results:

80percent of participants returning follow-up evaluations indicated they had adopted one or more recommended financial management practices, such as: set financial goals, develop record keeping system, use a spending plan/budget, review credit report, establish credit in own name, pay off debt/credit cards, increase savings, create estate plan, evaluate insurance policies, establish IRA or 403(b) retirement savings accounts, update household inventory and talk with children about household finances.

Learners reported savings increases in excess of \$31,500and debt reduced by \$25,000.

Key Program Components:

- * Family financial management programs – educational programs teaching basic financial management concepts and skills, credit management, basic savings and investing, and consumer decision making.
- * Women's financial management program (WFIP) – 7-week workshop series teaching mid-life and older women basic financial management skills.
- * Money action plan (MAP) – program designed to train helping professionals working with clients having financial problems. it currently includes information on the basics of money management, budgeting, record keeping, credit and communication.

Internal and External Linkages:

- * The WFIP program includes collaborative efforts with AARP and other agencies and organizations working with mid-life and older adult women.
- * The MAP program includes collaborations with social service agencies and organizations that work with clients having financial problems.

Target Audiences:

- * Individuals and families.
- * Mid-life and older adult women.
- * Social service agency and organization personnel working with clients having financial problems.

Program Duration:

- * These program efforts will continue for five years.

Allocated Resources:

Financial Management Programs – 40percent
WFIP – 25percent
MAP – 35percent
(See Summary following Goal 5, VIII)

Extension and Outreach Programs Underway:

- * All of University Outreach and Extension's field staff are "regional" specialists who have multi-county assignments. A majority of the programming implemented in Missouri would be conducted on a multi-county basis. During FY96-99 educational programs were available in all of the areas included in the FY00-04 plan of work. The research based programs included the following:

- ♣ Educational Programs for Parents and Their Children
 - ♣ Building Better Child Care for Missouri: A Six Session Program for Directors
 - ♣ Family Financial Management
 - ♣ Affordable Housing
 - ♣ Building Strong Families
 - ♣ Elderly Issues: Center on Aging without Walls
 - ♣ Poverty at Issue
- * Results of these programs are summarized in the FY98 Annual Report submitted to CSREES.

Overall Program Impacts:

Some 373,000 working families received earned income tax credits averaging \$1,600 in 2000. UO/E's statewide network plays an important role in informing eligible families. For one single mother, the EIC enabled her to provide medical care for her children enabled her to pursue a college degree. "The EIC helped me make ends meet, and my children will be better off for it."

GOAL 5: IV. CHILD CARE PROGRAM (Smith-Lever Act)

Key Theme: Child Care/Dependent Care

Statement of the Issue(s):

- * Currently, the state of MO does not require childcare workers to obtain training and education prior to caring for children. Research demonstrates that childcare provider education and preparation are the best indicators of the quality of care children receive. During the recent MO Program of Work planning process, 44 counties reported that child care provider education and training was a program priority. Toward that end, the UO/E childcare program will develop a research-based educational program for newly hired, undereducated childcare workers and train staff from statewide childcare provider training organizations to implement the program. The ultimate goal is to insure statewide access to the educational program.

Performance Goals and Indicators:

Output Indicators

*

One statewide, research-based preservice curriculum will be developed.

Accomplishments and Results:

Missouri's GEMS (Growing through Education Means Success) is a 30-hour educational program for newly-hired center- and home-based child care workers. The curriculum was developed within the Child Development Associate (eight functional areas framework and was designed to articulate into the credential or to a 2 credit college course. The curriculum was written and delivered during a pilot program and will be used to prepare program instructors.

WWWWWWWWWWWWWWWWWW.

Twenty UO/E regional staff will be trained to train 120 other agency/organization's staff to conduct the curriculum.

Accomplishments and Results:

Prior to preparing others to be GEMS instructors, a set of minimum credentials

for instructors was established. Specifically, to be a GEMS instructor, an individual must have a four-year degree in child development, early childhood education, or family and consumer sciences education plus two years of experience in a regulated child care program OR a two-year degree in child development, early childhood education, or family and consumer sciences education plus four years of experience in a regulated child care program. Currently, 43 individuals from around the state are under consideration for GEMS instructor approval (the application period is still open). Approved individuals will be trained as GEMS instructors between March and May, 2001.

XXXXXXXXXXXXXXXXXXXX.

Three thousand five hundred newly hired, undereducated child care providers will complete the preservice training program.

Accomplishments and Results:

Eleven providers participated in the pilot program; none have participated since then.

Outcome Indicators

Twenty percent of those trained with the preservice curriculum will exhibit positive behavior changes associated with the program.

Accomplishments and Results:

The pilot program evaluation data are under analysis.

Key Program Components:

- * Preservice curriculum designed
- * Preservice curriculum pilot-tested
- * Preservice curriculum evaluated
- * UO/E staff trained to train other child care provider trainers
- * Program is accessible to child care workers statewide

Internal and External Linkages:

- * The program has been made possible through a contract between the University of Missouri and the Missouri Department of Health. As progress is made, additional linkages will be forged between UO/E and statewide child care provider training organizations (Missouri Departments of Social Services, Elementary and Secondary Education, Health, and Mental Health).

Target Audience(s):

- * MO child care provider-training organizations and newly hired, undereducated child care workers.

Program Duration:

- * 3 years total, starting in August, 1999

Extension and Outreach Programs Underway:

- * All of University Outreach and Extension's field staff are "regional" specialists who have multi-county assignments. A majority of the programming implemented in Missouri would be conducted on a multi-county basis. During FY96-99 educational programs were available in all of the areas included in the FY00-04 plan of work. The research based programs included the following:
 - ♣ Educational Programs for Parents and Their Children
 - ♣ Building Better Child Care for Missouri: A Six Session Program for Directors
 - ♣ Family Financial Management

- ♣ Affordable Housing
- ♣ Building Strong Families
- ♣ Elderly Issues: Center on Aging without Walls
- ♣ Poverty at Issue

* Results of these programs are summarized in the FY98 Annual Report submitted to CSREES.

Overall Program Impacts:

A new preservice training program for child care providers has been created and pilot-tested. At present, more than 40 professionals have been identified to participate in a train-the-trainer program. These professionals will train childcare providers during this next year.

Central Missouri regional specialists offer training sessions for child care directors and providers. Some of the available workshop sessions were Building Strong Families, Supporting Stressed Children, Transitions: Comings and Goings, Curriculum, Discipline, Food Safety, Creative Food Experiences, Diversity and Profitable Business. These training sessions provided the opportunity to obtain the required 12 clock hours training to meet state certification requirements.

A shortage of child-care services created problems for employers and working parents. In Montgomery County, University Outreach and Extension created a task force to support quality child care in existing facilities and encourage new providers to enter the field. The task force's efforts brought Project REACH—Rural EARly Childhood Educational Institute—into the county to provide support for child-care professionals and put them in touch with community resources.

To attract new care providers, the task force advertised in newspapers and on radio and posted fliers in agencies whose clients might be interested in starting a home-based business. The group followed up all responses with personal phone calls and invitations to meet informally with the state licensing representative. In addition, workshops in Montgomery City and Warrenton helped potential providers understand licensure and the resources available to assist them in starting their own child-care business.

The task force encouraged child-care providers to start a network or support group. Members met with administrators from the county's three school districts and Head Start to explore the possibilities of using grants to increase the number of quality early-childhood programs and encourage more collaboration among community stakeholders. One of the biggest challenges to improving the quality and availability of child care was the lack of financial rewards for those in this field. Low wages for parents who need child care was part of the problem. The task force developed new strategies to deal with this issue.

A grant from the Missouri Division of Family Services provided funding for the task force, which began meeting in 1993. The group disbanded when the number of child-care facilities increased in Montgomery County. But by 1997, child-care services in the county again were far too few in number to meet the need, so the group reconvened.

Members of the task force, in addition to University Outreach and Extension, are the child-care licensing representative from the Missouri Department of Health, Montgomery County Health Department, Division of Family Services, Northeast Community Action Corp., Child Care Connection and a local child-care provider.

Goal 5: V. BUILDING STRONG FAMILIES: (Smith-Lever Act)

Key Theme: Child, Youth and Families at Risk

Statement of Issue(s):

- * More than fifty Missouri counties specifically included “building strong families” in their plans of work. Nearly every county in Missouri included topics directly related to family strengths. The Building Strong Families for Missouri program is being implemented statewide and evaluated by a team of 40 extension specialists. A statewide training of agency trainers is planned for March 2000.

Performance Goals and Indicators:

Output indicator:

One hundred agency trainers will be certified to offer Building Strong Families.

Accomplishments and Results:

From Sept. 30, 1999, to Oct.1, 2000, 114 trainers were certified to offer Building Strong Families. Of the 114 people, 65 were agency trainers and 49 were Extension trainers.

Certified Building Strong Family’s trainers will reach 750 participants with the program.

Accomplishments and Results:

From Sept.30, 1999, to Oct. 1, 2000, Building Strong Families trainers reached 242 people with the program.

Outcome indicator:

Of those 750, at least 500 participants will adopt at least one recommended practice for strengthening their family.

Accomplishments and Results:

Most participants who responded to a three-month follow-up survey are making changes as a result of setting goals at the Building Strong Families programs. Although they may not be making changes in every goal area, 27 of 28 respondents responded “yes” to at least one area in which they were making changes. Many, in fact, mentioned several areas in which they were making changes.

Key Program Components:

- * A seven-session program is designed by a trainer working with local partners or participants to customize the program from a core curriculum containing the following modules: Identifying Strengths, Communicating, Managing Stress, Child Self-Care, Food & Fitness, Working, Setting Goals, Parenting, Spending, Balancing Work & Family, Alert Consumer, Healthy House, and Self-Esteem.

Internal and External Linkages:

- * The program draws upon expertise from human development and family studies, food science and human nutrition, consumer and family economics, environmental design, and addiction technology transfer from the University of Missouri’s Columbia and Kansas City campuses and from counties in every Missouri region.

Target Audiences: Working parents with dependents.

Program Duration: Long-term.

Allocated Resources: (See Summary following Goal 5, VIII)

Extension and Outreach Programs Underway:

- * All of University Outreach and Extension's field staff are "regional" specialists who have multi-county assignments. A majority of the programming implemented in Missouri would be conducted on a multi-county basis. During FY96-99 educational programs were available in all of the areas included in the FY00-04 plan of work. The research based programs included the following:
 - ♣ Educational Programs for Parents and Their Children
 - ♣ Building Better Child Care for Missouri: A Six Session Program for Directors
 - ♣ Family Financial Management
 - ♣ Affordable Housing
 - ♣ Building Strong Families
 - ♣ Elderly Issues: Center on Aging without Walls
 - ♣ Poverty at Issue
- * Results of these programs are summarized in the FY98 Annual Report submitted to CSREES.

Overall Program Impacts:

From Sept. 30, 1999, to Oct. 1, 2000:

- ***Of the 242 people who participated in program sessions, 95 percent gained new information or skill.***
- ***Of the 242 participants, 75 percent intend to try a new skill or use the information with their families.***

Goal 5: VI. PARENT EDUCATION PROGRAMS (Smith-Lever Act)

Key Theme: Parenting

Statement of Issue(s):

- * The diversity in composition and structure of families in Missouri creates unique parenting needs. These needs range from general information on basic parenting skills to specific information on coping with divorce, single parenting and anger management. In deliberative group discussions, the need for parenting information was identified as a high priority in 52 counties. In county plans of work, parenting programs were listed 88 times.

Goals and Indicators:

Parents will be reached with general information through the media and with specific information through targeted programs. It is expected that there will be 2,500 parents each year that will receive parenting information and participate in programs from University Outreach and Extension in Missouri.

Accomplishments and Results:

During the program year, 22,042 parents participated in educational programs for divorcing parents, effective parenting and programs that addressed conflict management in families.

Output Indicator

Seventy percent of those individuals will adopt at least one new parenting practice, as a result of extension programming.

Accomplishments and Results:

In a sample of 1,426 parents who attend the program for divorcing families, almost all agree or strongly agree that they have greater understanding of the effects of divorce on children, how to manage conflict with former spouses and how to reduce the stress experienced by children. Additionally, most indicated they plan to try strategies for working more effectively with their former spouses to reduce conflict.

Key Program Components:

- * Programs will include three major parent education efforts in Missouri which are: Programs for Parents (general curriculum); Focus On Kids (divorcing parents); and RETHINK (anger management for parents).

Internal and External Linkages:

- * Program cooperators include the court system, local departments of family services, 4-H Youth Development and Lincoln University (through MO-CYF).

Target Audiences:

- * The target audiences include parents and divorcing parents with children under the age of 18, single parents and stepparents.

Program Duration:

Programs for Parents (general curriculum) short-term
RETHINK (anger management for parents) short-term
Focus On Kids (divorcing parents, court mandated program) long-term

Allocated Resources:

Programs for Parents - 30percent
RETHINK - 20percent
Focus On Kids - 50percent
(See Summary following Goal 5, VIII)

Extension and Outreach Programs Underway:

- * All of University Outreach and Extension's field staff are "regional" specialists who have multi-county assignments. A majority of the programming implemented in Missouri would be conducted on a multi-county basis. During FY96-99 educational programs were available in all of the areas included in the FY00-04 plan of work. The research based programs included the following:
 - ♣ Educational Programs for Parents and Their Children
 - ♣ Building Better Child Care for Missouri: A Six Session Program for Directors
 - ♣ Family Financial Management
 - ♣ Affordable Housing
 - ♣ Building Strong Families
 - ♣ Elderly Issues: Center on Aging without Walls
 - ♣ Poverty at Issue
- * Results of these programs are summarized in the FY98 Annual Report submitted to CSREES.

Overall Program Impacts:

Numerous parents were involved in educational programs for divorcing parents, effective parenting and conflict management in families. Results of the program for divorcing parents indicates that parents were very likely to have a greater understanding of their children's needs, and many indicated they plan to try conflict management strategies to deal more effectively with their former spouses.

Goal 5: VII. FAMILY STRENGTHS (ADOLESCENTS AT RISK) (Smith-Lever Act)

Key Theme: Children, Youth and Families at Risk

Statement of Issue(s): *(Teen Pregnancy)*

- * A review of the deliberative group process results revealed that 17 counties identified teen pregnancy as a need. In addition, 10 counties have identified teen pregnancy in their plans of work.
- * A review of the deliberative group process results revealed that 16 counties identified family and child abuse/neglect/violence as a need. In addition, 7 counties have identified family and child abuse/neglect/violence in their plans of work.
- * A review of the deliberative group process results revealed that 7 counties identified both teen pregnancy and family and child abuse/neglect/violence as needs.

Performance Goals and Indicators:

Output Indicators

At the end of the reporting period, State and Regional Extension staff will train 100 school personnel on two teen pregnancy prevention curricula that have been identified by the Centers for Disease Control as having the strongest evidence of effectiveness. In turn, these school personnel will implement the curricula with 1000 students.

Accomplishments and Results:

Between Sept. 30, 1999, and Oct. 1, 2000, regional Extension staff trained 71 school personnel on one teen pregnancy prevention curriculum called Reducing the Risk. This curriculum has been identified by the Center for Disease Control as having the strongest evidence of effectiveness in delaying sexual activity and/or decreasing risky sexual behaviors among adolescents. Implementation within schools will begin in September 2001.

A the end of the reporting period, 10 communities in Missouri will establish mentoring programs for pregnant and parenting teens and sustain those programs for at least two years, thereby reaching 150 teens.

Accomplishments and Results:

Between Sept. 30, 1999, and Oct. 1, 2000, 12 mentoring programs for pregnant and parenting teens were established and reached 160 pregnant or parenting adolescents. The programs will be monitored closely for evidence of sustainability over at least two years.

At the end of the reporting period, State and Regional Extension staff will train 200 citizens on the MAPP program related to maltreatment and adolescent pregnancy and parenting and 10 communities will establish coalitions to address issues around maltreatment and adolescent pregnancy and parenting.

Accomplishments and Results:

Between Sept. 30, 1999 and Oct. 1, 2000, 150 citizens were trained on the MAPP program

related to maltreatment and adolescent pregnancy. Seven communities have requested more advanced training and technical assistance related to MAPP in 2001.

Outcome Indicators

Twenty percent of adolescents participating in educational programs will adopt at least one recommended practice or make at least one healthy life decision as a result of the program effort.

Accomplishments and Results:

In 1998, the community-based mentoring program (Missouri Volunteer Resource Mothers) for pregnant and parenting teens was evaluated in three counties in Missouri. More than 96 teens received mentoring. Results of the evaluation showed that, compared to a non-mentored comparison group, the group that received mentoring for at least one year had: a) significantly reduced child abuse potential, b) fewer infant hospital visits, c) no repeat pregnancies, d) greater commitment to breast-feeding, and e) significantly reduced feelings of distress and loneliness.

Key Program Components:

- * Adolescent Pregnancy Prevention--Contract with the Missouri Department of Elementary and Secondary Education to support the "Programs That Work" effort in the Missouri public schools. This effort involves training school personnel to implement two teen pregnancy prevention curricula that have been identified by the Centers For Disease Control as having the strongest evidence of effectiveness in delaying the initiation of sexual activity, increasing the use of protection or decreasing the number of sexual partners.
- * Mentoring Pregnant and Parenting Teens--Provide resources, training and technical assistance to community-based coalitions to establish Missouri Volunteer Resource Mothers (MVRM) programs. Missouri Volunteer Resource Mothers is a mentoring program for pregnant and parenting teens in which they are paired with community volunteers who provide information, support and resources for approximately three hours per week until the young mother is one year postpartum. MVRM has been shown to reduce child abuse potential, decrease parenting stress, and improve the health of the infant.
- * Violence Prevention--Provide training and materials to community groups to implement MAPPP (Maltreatment and Adolescent Pregnancy and Parenting Program). The MAPPP training manual and video challenges community members to address abuse prior to, during and after an adolescent pregnancy. It has been estimated that 60percent of pregnant teens were sexually abused before the age of eleven. In addition, many pregnant and parenting adolescents are simultaneously abused at home and by partners. In addition, children of teen parents are at increased risk for child abuse and neglect.

Internal and External Linkages:

- * Internally, CASPP will link with campus-based faculty in Columbia, St. Louis and Kansas City to carry out the three major program efforts identified above. These linkages will involve faculty from Nursing, Social Work, and Law.
- * Externally, CASPP will link with the Missouri Department of Elementary and Secondary Education, the Missouri Department of Social Services, and the Missouri Department of Health. Regional staff will link with a wide variety of community agencies, such as Parents as Teachers, CHART, and Community 2,000 teams.

Target Audiences:

- * There are three target audiences for the three major program efforts: Regional Extension Staff who serve as the link between CASPP efforts and local communities, local community-based coalitions, and pregnant and parenting teens.

Program Duration:

- * All three programmatic efforts (pregnancy prevention, mentoring pregnant an parenting teens, and violence prevention) will exist for at least an additional five years.

Allocation of Resources:

Adolescent Pregnancy Prevention-----20percent
 Mentoring Pregnant and Parenting Teens--50percent
 Violence Prevention--30percent
 (See Summary following Goal 5, VIII)

Extension and Outreach Programs Underway:

- * All of University Outreach and Extension’s field staff are “regional” specialists who have multi-county assignments. A majority of the programming implemented in Missouri would be conducted on a multi-county basis. During FY96-99 educational programs were available in all of the areas included in the FY00-04 plan of work. The research based programs included the following:
 - ♣ Educational Programs for Parents and Their Children
 - ♣ Building Better Child Care for Missouri: A Six Session Program for Directors
 - ♣ Family Financial Management
 - ♣ Affordable Housing
 - ♣ Building Strong Families
 - ♣ Elderly Issues: Center on Aging without Walls
 - ♣ Poverty at Issue
- * Results of these programs are summarized in the FY98 Annual Report submitted to CSREES.

Overall Program Impacts:

School and community professionals are more knowledgeable and skilled in regards to helping their communities deal with adolescent sexuality. In particular, mentoring programs for adolescent parents have been shown to be especially effective at reducing attitudes and behaviors that are likely to result in adverse consequences for the mothers or their children.

Goal 5: VIII. OLDER ADULTS AND THEIR FAMILIES (Smith-Lever Act)

Key Theme: Aging

Statement of Issue(s):

- * The context for the UMKC Center on Aging Studies’ role in working with UM Outreach/Extension is the rapidly increasing population of elders in Missouri (which has 750,000 persons over age 65 and ranks 7th nationally in proportion of population over age 65). With the aging of the “baby boom” generation the proportion of persons over age 65 in the U.S. will increase from 13percent in 2000 to 17percent in 2020 and 20percent in 2030. The most rapidly growing segment of the elder population is the oldest-old, or those over age 85. Nearly every sector of life is significantly influenced by these trends,

and it is important for Extension professionals to have resources readily available to meet the needs of older adults and their families in their communities.

- * As the result of county needs assessments and deliberations of the Elderly Base Program Planning Team, two primary foci guide our current programs and plans:

vvvvvvvvvvvvvvvvvvvv)Needs of frail elders and their families for information on caregiving and dependent care; caregiving also includes older adults as caregivers to developmentally disabled adult children and to grandchildren (where the parent is absent)

wwwwwwwwwwwwwwwwww)Positive models for social roles in later life, or “successful aging,” which recognizes the potential for older adults to continue to be contributing and productive members of their communities.

Performance goals and indicators:

- * Our program efforts will result in the following outputs and outcomes:

Outputs

Comprehensive web site on care giving and on successful aging

Accomplishments and Results:

A website called the Center on Aging Studies Without Walls (<http://iml.umkc.edu/casww/> <http://iml.umkc.edu/casww>) has been developed and continues to be refined. It provides comprehensive information on caregiving and successful aging that can be used by Extension field faculty to develop community programs on a variety of topics. Among the topics in the Caregiving section are: personal care, health concerns, mental health issues, family issues and relationships, caregiving resources, elder mistreatment, and caregiving myths. Included in the Successful Aging section are: activities and leisure; creativity; emotional well-being; exercise and nutrition; intelligence, memory, and learning; relationships; work; retirement; sexuality, intimacy, companionship and family; spirituality; and volunteerism.

Currently, the Elderly Issues Team is working to develop specific lesson plans through which these materials can be adapted to programs of different lengths in their community.

Short-term educational opportunities for Extension field faculty by interactive television and Program Implementation Experiences (P.I.E.s)

Accomplishments and Results:

A program implementation experience (PIE) on the topic of Successful Aging: Programs and Resources for Your Community was held and attended by 20 Extension field faculty. Each participant committed to develop one or two programs in their community using resources from the Center on Aging Studies Without Walls. Participants have been in the process of implementing those programs the past year.

Longer-term credit opportunities for professional improvement

Accomplishments and Results:

At this point, the main credit opportunity for professional improvement is that field faculty who live close enough to Kansas City can enroll in an 18-credit Gerontology Certificate Program.

Positive models/programs for successful aging in communities

Accomplishments and Results:

Field faculty have developed programs on successful aging utilizing materials from the Center on Aging Studies Without Walls website. See above.

One thousand persons will receive current information on caregiving in an easily accessible and usable format

Accomplishments and Results:

There is not a system in place to accurately measure this. The CASWW website has had 139 hits in the past month, although it is unknown how many of these came from Missouri citizens. Several field faculty have conducted sessions in their local communities to teach older adults and their families to access information from the website. Also, the 1996 guidesheet on "Elderly Caregiving" (by Janet A. Clark and Katherine A. Weber) continues to be requested and used.

Fifteen Extension field faculty in using technology to access current information and develop community programs in aging

Accomplishments and Results:

Twenty field faculty participated in the Successful Aging PIE, introducing them to the use of the Center on Aging Studies Without Walls website. Everyone was taught to access

information from it, and they were given a variety of ideas for community programs that could be developed from this information.

Outcomes

Forty percent of the 1,000 persons reached through programming for older adults and their families will adopt at least one recommended practice.

Accomplishments and Results:

This outcome is difficult to measure. A total of 2,044 hours of programming and contact with older adults is reported by all counties—with individual counties ranging from one to 320 hours. It is likely that well over 1,000 persons were reached in those 2,044 hours.

Major Efforts in the program:

- * The programs in the aging area will continue to build on efforts of the past several years and will consist of the following:
 - ♣ Using technology to convey new information and resources on aging (especially family caregiving and positive social roles/successful aging) to Extension professionals and lay persons – particularly the Center on Aging Studies Without Walls web site and a daily on-line news bulletin of new development and research findings
 - ♣ Working directly with Extension field faculty through Program Implementation Experiences and interactive television programs to learn how to access new information and translate it into community programs
 - ♣ Working toward making formal credit education available to Extension field faculty in a web-based format

Internal and External linkages:

- * Gerontology and aging studies is inherently interdisciplinary. The UMKC Center on Aging Studies is positioned to draw on a wide variety of faculty resources in academic units across the campus (e.g., sociology, psychology, pharmacy, medicine, dentistry, nursing, public administration, music therapy, social work, counseling) and on other campuses of the UM system. Aging topics can impact a range of Extension disciplines (e.g., agriculture, business, community development, human development/families), and aging resources will be directed toward these areas as appropriate. The Center on Aging Studies also is positioned to work with and integrate resources from a number of governmental agencies (e.g., Missouri Division on Aging) and professional associations in aging.

Target Audience(s):

- * The “customers” for programs of the Center on Aging Studies ultimately are older adults and their families in communities all over Missouri, but we work primarily by providing resources and training to Extension field staff and other community professionals--who in turn interface with these citizens and translate our resources into formats that apply in their local areas.

Program Duration:

- * The program is ongoing and long-term since there is a steady flow of new information to transmit and build into local programming efforts.

Allocated resources for Goal 5, Programs I-VIII:

Goal 5 Program, I-VIII	Year	FTEs	Dollars
Missouri Youth and	2000	40	\$2,639,600

Families at Issue, Affordable Housing, Family Financial Mgt., Child Care, Building Strong Families, Parent Education, Family Strengths, and Older Adults			
	2001	40	\$2,639,600
	2002	40	\$2,639,600
	2003	40	\$2,639,600
	2004	40	\$2,639,600

Extension and Outreach Programs Underway:

- * All of University Outreach and Extension’s field staff are “regional” specialists who have multi-county assignments. A majority of the programming implemented in Missouri would be conducted on a multi-county basis. During FY96-99 educational programs were available in all of the areas included in the FY00-04 plan of work. The research based programs included the following:
 - ♣ Educational Programs for Parents and Their Children
 - ♣ Building Better Child Care for Missouri: A Six Session Program for Directors
 - ♣ Family Financial Management
 - ♣ Affordable Housing
 - ♣ Building Strong Families
 - ♣ Elderly Issues: Center on Aging without Walls
 - ♣ Poverty at Issue
- * Results of these programs are summarized in the FY98 Annual Report submitted to CSREES.

Overall Program Impacts:

The aging population continues to grow in Missouri. New program efforts in caregiving and successful aging have been launched recently to prepare Missourians for dealing with aging families.

Goal 5: IX. 4-H YOUTH DEVELOPMENT (Smith-Lever Act)

KEY THEME: Youth Development/4-H
Multi-state Extension: Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada,

New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Puerto Rico, Rhode Island, South Carolina, South Dakota, Oregon, Tennessee, Texas, Utah, Vermont, Virginia, Washington, and Wisconsin

Multi-campus: University of Missouri-Columbia, UM - St. Louis, Lincoln University

IX a. BUILDING CHARACTER THROUGH COMMUNITY SERVICE LEARNING

Statement of Issue(s):

- * The need for character education for youth was identified through citizen input in 43 Missouri counties. Additionally, 30 counties identified the need for youth leadership development and 19 counties called for citizenship education. Repeatedly, plans developed by county advisory groups call for programs that help young people develop the traits of responsibility, fairness, citizenship, trustworthiness, respect and caring. In Missouri, the Character Counts! Program and community service learning are two 4-H youth/Extension initiatives that are addressing these issues.

Performance Goals and Indicators:

Output Indicators:

1,500 youth will enroll in Show-Me Character Education programs (A13)

Accomplishments and Results:

927 youths enrolled in Show-Me Character Education.

200 classrooms will enroll in Show-Me Character Education Programs (S13)

Accomplishments and Results:

200+ classrooms involving 2,046 youths enrolled in Show-Me Character Education Programs.

175 4-H clubs will enroll in 4-H Community Service activity (A12)

Accomplishments and Results:

39 4-H clubs enrolled in 4-H Community Service activity (A12).

175 4-H clubs will submit community service logs

Accomplishments and Results:

159 4-H clubs submitted community service logs.

5,000 youth and adults will participate in 4-H community service learning activities

Accomplishments and Results:

5,084 persons (3,538 youth and 1,546 adults) participated in 4-H community service learning activities.

800 community service learning activities will be completed by 4-H clubs

Accomplishments and Results:

795 community service learning activities were completed by 4-H clubs.

35 4-H clubs will secure Missouri 4-H Foundation Community Service grants

Accomplishments and Results:

- *28 4-H clubs secured Missouri 4-H Foundation Community Service grants.*
- *13,175 youths were enrolled in Talking with TJ (S10 and S11), a curriculum that teaches elementary-age children about cooperation, respect for differences and problem solving.*
- *1,620 youths were enrolled in Puppet Power, (S94) a curriculum that involved adolescents in teaching substance abuse prevention skills to elementary-age youths.*

Outcome Indicators:

As a result of community service learning and character education programs, 4-H volunteers and youth will report that youth are more responsible and are viewed by the community as valued, contributing members.

Accomplishments and Results:

- *88 percent of 4-H youth surveyed reported that 4-H taught them to be responsible for their own actions.*
- *89 percent of 4-H youth surveyed reported that 4-H helped them learn to set goals.*
- *93 percent reported that 4-H taught them to be involved in their community.*
- *98 percent reported that adults in 4-H expect them to respect the feelings and property of others.*
- *89 percent reported that 4-H helped them to accept differences in others.*
- *Students participating in the Talking with TJ 4-H program were significantly more likely to understand why a student from another country might face challenges in school and were better able to give examples of ways they could provide help or support to that student.*

4-H clubs will generate \$20,000 in matching community funds and in-kind services for 4-H community service grants

Accomplishments and Results:

- *4-H clubs generated \$26,725 in matching community funds and in-kind services for 4-H community service grants.*
- *36 4-H clubs secured BOAC (Building Our American Communities) grants totaling \$18,000 from the Missouri Department of Agriculture to conduct community improvement/service projects.*

Key Program Components:

- * Show Me Character is Missouri 4-H's character education initiative, partnering with the National CHARACTER COUNTS! Coalition. The program emphasizes six pillars of character—caring, citizenship, fairness, responsibility, respect, and trustworthiness. Missouri 4-H staff will provide training, materials and technical assistance for parents, youth, volunteers, educators, childcare providers and community groups. The six pillars will be integrated into 4-H newsletters, camps, fairs, judging classes and other traditional 4-H programs. Collaboration with local school districts, parks and recreation departments, juvenile justice centers, U.S. Army bases and other community groups will expand the outreach.

- * Educational programs will stress the importance of citizenship, caring and sharing through service to the community. Each 4-H club will be asked to voluntarily report community service activities completed throughout the year. They will record the number of young people and adults involved in service as well as the types of service provided. A recognition certificate will be presented to clubs that meet criteria. The Missouri 4-H Foundation will provide a grant incentive program that encourages 4-H clubs to plan and implement community service learning projects. Each project requires a match of community resources.

Internal and External linkages:

- * Through national events such as the creation of the Corporation for National Service, Thousand Points of Light Foundation and the Presidents’ Summit on America’s Future there has been a renewed emphasis on service. These events, coupled with the 4-H national ad campaign, “Are You Into It, have re-focused 4-H members on community service learning. The National 4-H Base Program Strategic Team identified community service learning as one four “programs of excellence” in its 1998 report. Missouri 4-H will partner with many initiatives, including the CHARACTER COUNTS! Coalition, the Missouri School Board Association, Girl Scouts, Boy Scouts, and PREP.

Target Audiences:

- * Youth, parents, community members

Program Duration:

- * Long-term

Allocated Resources:

- * Character Education – 70percent; community service learning 30percent

Extension and Outreach Programs Underway:

- * All of University Outreach and Extension’s field staff are “regional” specialists who have multi-county assignments. A majority of the programming implemented in Missouri would be conducted on a multi-county basis. During FY96-99 educational programs were available in all of the areas included in the FY00-04 plan of work. The research based programs in 4-H Youth Development included the following:

- ♣ Character Counts
- ♣ School Age Child Care
- ♣ Environmental Stewardship
- ♣ Family and Parenting
- ♣ Health Education
- ♣ Leadership Development (Youth and Adult)
- ♣ Workforce Preparedness

- * Results of these educational programs are summarized in the FY98 Annual Report submitted to CSREES.

Goal 5 Anticipated Impact:

The overriding goal of all education programming related to the Enhancing Economic Opportunity and Quality of Life for Americans areas is to cause adoption by Missouri citizens of recommended practices. In the Family Strengths program area, in which more than 10,000 citizens will participate, this kind of impact is expected on 10-70percent of persons participating, depending upon the specific program; 75-90percent will gain knowledge and skills; and 20-80percent will intend to adopt recommended practices.

Overall Program Impact:

Carol Gehrs, 4-H Youth Specialist, reports that The West Central Extension region strives to include character education programming for all ages of 4-H clientele. Over the course of the last seven months, three major programs have been implemented to share the character message with clover kids, 4-H teens, preschool teachers and adults, parents and 4-H volunteer leaders.

Four-H Teen Camp focused on Show Me Character in June 2000. Ninety 12- and 13-year-olds participated in three days of camp activities and workshops on character at Camp Bob White in Knob Noster, Mo.. In September 44 teen campers were randomly selected and surveyed regarding their camp experiences. More than 98 percent of those returning the written survey reported gaining new information about character and could list ways to be a person of good character. Ideas included: "showing good sportsmanship, helping others, not making fun of others and looking for the best in others." One hundred percent of the respondents agreed that people's behavior relates to being a person of character. In addition to the workshop sessions, teen campers completed community service projects designed to help reinforce the six pillars of character. Campers made 4-H wreaths and stamped stationary sets for nursing home residents, made 4th of July tray favors for John Knox Village residents, and stamped leather bookmarks to be placed in libraries during National 4-H Week. One camper wrote: "Community service is so important in making this world a better place. I think it was a great way to give back to the community!"

Our second regional program effort was with Head Start employees from a three-district area. Held in Appleton City (St. Clair County), 101 employees (teachers, bus drivers, cooks, etc.) were trained in the six pillars of character. Workshop sessions provided participants with hands-on activities that could be used in their work with preschool children. Handouts with activities and resources relating to each pillar were given to the employees. Participants were surprised to learn that the character pillars could be taught to small children. They also reported learning ways to reinforce values both in the classroom and in [their] own family. Introducing this group of Head Start employees to the character terminology was quickly embraced as an important way to connect [character] concepts with actions.

See also, "Helping Others: a Pillar of the 4-H Philosophy,": 2000 Missouri 4-H Annual Report

Cass County Suitcase Project

Teddy Bear Drive

Hope's Kitchen

<http://mo4h.missouri.edu/2000report/index.htm>

Youth Academy

Some habits are hard to break. When members of the Youth Academy in St. Joseph proposed a city ordinance against underage use of tobacco, they faced opposition from some community members, including adults. But after a year of working with city leaders, the youth were successful in passing the ordinance.

The academy, a youth leadership project sponsored by the YMCA, United Way and University Outreach and Extension, involves about 90 students. Academy members also work with local police officers to check compliance with tobacco laws. Since 1995, the number of retailers willing to sell to minors has dropped from more than 50 percent to 25 percent.

Academy participants also took part in a mock legislative experience in Jefferson City. The academy is so well respected in the community that more than 160 nominations were received for 20 openings in 1999-2000.

4-H Youth Forum

Each summer, dozens of teens from across the state gather in Jefferson City during the 4-H Citizenship Youth Forum to experience the workings of state government. During the three-day event, delegates take part in one of three tracks: legislative, judicial or media.

Whether writing a press release or arguing a court case, 115 4-H members learned about state government firsthand this year. Participants in the legislative track worked on mock committee hearings and proceedings on the floor of the House of Representatives. Judicial track participants heard court cases of interest to youth in mock sessions of the Missouri Supreme Court, and the ones in media worked on print, radio and video as it relates to state government.

Rhonda Shafer, 4-H Youth Specialist and a coordinator of the event, said the forum is focused on helping 4-H'ers gain knowledge to be more responsible citizens, become more informed about Missouri government, identify statewide issues that affect their lives and be aware of the role of media in the government process.

Kids Voting

During the 2000 November election, adults weren't the only ones who exercised their right to vote. In Platte County, students in K-12 grades participated in mock elections through Platte County Kids Voting, a school and community citizenship program.

On election day, the young people voted on actual ballots along with their parents at 40 official polling sites throughout the county. Since all the students had to vote before or after school, nearly 1,000 hours were donated by adult volunteers and 4-H members to make the program a success.

The local support of in-kind and grant contributions is also important to our county," said Sharen Hunt, county 4-H Youth Specialist and coordinator of the program. "It wasn't just school districts but also businesses, organizations, grant agencies, the election commission and county candidates who supported this effort."

More than 5,000 students took part this year, a 25 percent increase from 1998. In conjunction with the voting program, Hunt also has developed a county

government curriculum that included a game specific to Platte County, a tax unit and maps for each school in the county.

Similar voting programs are offered in Clay and Jackson counties.

IX b. SCHOOL-AGE CARE AND OPPORTUNITIES FOR YOUTH DURING OUT-OF-SCHOOL HOURS (Smith-Lever Act)

Key Theme: Children, Youth, and Families at Risk

Statement of Issues(s):

- * Child care in the broadest sense—serving infants through early teens in a wide range of settings—has been approved by the Extension Committee on Policy (ECOP) as a new national initiative for the Cooperative Extension System. The need for supervised care and positive activities for youth during non-school hours was validated through citizen input in numerous Missouri counties. Specifically, 22 counties identified the need for youth activities and 8 counties called for latchkey or after school programs. Additionally, 11 counties identified the need for community/youth centers, 9 for recreational facilities, 8 for increased educational opportunities for persons of all ages and 3 for recreation opportunities for youth. More than 30 counties pointed to the need for improved access to child care. Studies show that high-quality infant and school-age care are the most difficult to secure. The plans developed by county advisory groups call for programs that provide young people and their families with safe, supervised and educationally-enriching programs and services that are available year-round during non-school hours.

Performance Goals and Indicators:

Output Indicators:

1,300 youth enrolled in 4-H Adventure Clubs or 4-H supported School Age Child Care (SACC) programs.

Accomplishments and Results:

1,503 youth enrolled in 4-H Adventure Clubs or 4-H-supported School Age Child Care (SAAC) programs

60 SACC programs assisted in 35 communities

Accomplishments and Results:

30 programs were assisted/trained through Children, Youth and Families at Risk (CYFAR) conference and website contacts.

Seven) programs received technical assistance in securing accreditation. Two SACC programs received technical assistance for start-up and ongoing program quality.

50 programs received technical assistance via e-mail and telephone on funding, quality standards, etc.

500 SACC providers trained

Accomplishments and Results:

TOTALS: 2,285 SAAC providers were trained; 184 Extension professionals were trained.

Twenty (20) Extension professionals were trained through Children, Youth and Families at Risk (CYFAR) conference and website contacts. It is estimated that each professional reached 10 providers, for a total of 200 providers trained.

150 Extension professionals were trained at national Extension Cares Conference. It is estimated that each professional reached 10 providers for a total of 1,500 providers trained.

14 Extension professionals trained at Missouri professional development conference. It is estimated that each professional reached 10 providers for a total of 140 providers trained.

350 SACC providers were trained at Missouri School Age Care Conference.

95 SACC providers were trained (Boone County Adventure clubs; Central Missouri Workshop on Wheels conference).

A library of SACC resources available from CES across the nation will be assembled.

Accomplishments and Results:

The library was completed.

20 new after-school computer labs started

Accomplishments and Results:

A \$55,477 grant to establish additional after-school computer labs was awarded.

Implementation will begin in 2001.

Outcome Indicators:

As a result of SACC provider training, 250 will adopt recommended practices

Accomplishments and Results:

Data are not available in 2000.

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Of the 20 new after-school computer labs started with 4-H support, the community will sustain 15 after grant funding ends.

Accomplishments and Results:

At the conclusion of grant funding and over a two-grant cycle, 25 after-school computer labs have been sustained by the school and/or community.

B.

As a result of technical assistance by 4-H faculty, \$10,000 will be secured in grants by local SACC programs.

Accomplishments and Results:

The following grants have been awarded:

\$10,000 CYFERnet for technical assistance

\$14,000 Camdenton R-III 21st Century Community Learning Center

\$30,000 Polk County 4-H Juvenile Justice

\$50,000 Department of Elementary and Secondary Education program evaluation contract

Key Program Components:

- * The National 4-H Base Program Strategic Team identified school-age care as one four “programs of excellence” in its 1998 report. 4-H Youth Development staff will facilitate training sessions for school-age child care (SACC) providers throughout Missouri and the nation on a number of topics such as developmentally appropriate practice, accreditation, SACC credential process, child care resources, guidance and discipline, program development, character education, parent involvement and computer technology. In addition, Missouri 4-H faculty will assemble a library of CES resources for SACC programs that can be checked out by persons from across the nation. Missouri 4-H faculty will also continue to assist local school districts in securing funding to implement SACC programs.
- * The program is to establish after-school computer labs for middle school youth will continue. The project meets the needs of at-risk youth by providing a safe, engaging and recreational setting during the after school hours. A partnership with the state Department of Elementary and Secondary Education and local school districts makes the program possible. Special efforts will be made to develop computer labs in school districts and communities with underserved audiences including minorities, low-income youth, and youth for whom English is a second language.

Internal and External linkages:

- * Missouri 4-H will partner with the National Network for Child Care, the National School Age Care Alliance, the Missouri School Age Care Alliance, Missouri Child Care Accreditation, and the Missouri Department of Elementary and Secondary Education.

Target Audiences:

- * Youth, parents, school personnel, communities

Program Duration:

- * Long-term

Allocated Resources:

- * SACC training, resources, technical assistance-80 percent
- * After-school computer labs – 20 percent

Extension and Outreach Programs Underway:

- * All of University Outreach and Extension’s field staff are “regional” specialists who have multi-county assignments. A majority of the programming implemented in Missouri would be conducted on a multi-county basis. During FY96-99 educational programs were available in all of the areas included in the FY00-04 plan of work. The research based programs in 4-H Youth Development included the following:
 - ♣ Character Counts
 - ♣ School Age Child Care

- ♣ Environmental Stewardship
- ♣ Family and Parenting
- ♣ Health Education
- ♣ Leadership Development (Youth and Adult)
- ♣ Workforce Preparedness

* Results of these educational programs are summarized in the FY98 Annual Report submitted to CSREES.

Goal 5 Anticipated Impact:

The overriding goal of all education programming related to the Enhancing Economic Opportunity and Quality of Life for Americans areas is to cause adoption by Missouri citizens of recommended practices. In the Family Strengths program area, in which more than 10,000 citizens will participate, this kind of impact is expected on 10-70percent of persons participating, depending upon the specific program; 75-90percent will gain knowledge and skills; and 20-80percent will intend to adopt recommended practices.

Overall Program Impact:

One in five young people learn skills to improve their lives and contribute to their community through Missouri 4-H. Eighty percent of the elementary students enrolled in the Kansas City 4-H After School Academic Program are on the honor roll, and the graduation rate among high-school mentors is 95 percent; 75 percent enter college. The 4-H ASAP helps young people with academic and social skills while decreasing at-risk behaviors.

4-H School enrichment programs are short-term educational experiences that supplement learning in the classroom. Most are led by teachers or 4-H volunteers. 4-H participants involved number 164,304.

4-H special-interest programs include conferences, distance learning programs, day camps and other educational activities such as school-age care. They often reach youths with special needs, such as those living in group homes or youths who are physically or mentally challenged.

See “4-H offers safe and healthy environments for kids,” 2000 Missouri 4-H Annual Report:

Kids in Charge - <http://mo4h.missouri.edu/2000report/index.htm>

See “Belonging fosters tolerance, acceptance of diversity”, 2000 Missouri 4-H Annual report:

Juvenile Justice - <http://mo4h.missouri.edu/2000report/index.htm>

Juvenile Justice

Since June 2000, staff members at the Polk County University Outreach and Extension Center have created a program to give children a little extra attention outside the classroom.

Dale Cox, 4-H Youth Development Specialist in Southwest Missouri, received a \$23,764 grant from the Missouri Department of Public Safety to implement a violence prevention

initiative at local schools and the juvenile center through Sept. 30, 2001.

With the grant, Extension staff members have helped coordinate daily tutoring sessions and other weekly activities at the 30th Circuit Juvenile Center in Polk County. In addition, the center combined their funds and the grant funds to provide daily summer school activities this year.

”This was the first time an organized summer school activity was provided by the center,” said Cox. “A full-time summer tutor was employed, and special weekly activities were provided.”

Books dealing with Ozark lore, hunting and hunting ethics were donated to the center’s library. Cox said that when the youths at the Center were asked to complete a pre- and post- Youth Self Report, findings indicated that the students made positive attitude changes in areas such as helping others, cheating less, thinking before acting and being more friendly.

Tutoring was a fundamental component of the public school programs. In Humansville, after-school tutoring sessions were available to fourth-grade students, stressing reading and language skills. For adults, parenting-education classes were offered. Monthly challenge activities also are being continued for the students to develop team-building skills and self-esteem.

In Halfway, after-school tutoring emphasizes reading and computer skills. A collection of outdoor books and a variety of computer programs were provided to help improve problem-solving skills.

Cox said he and Deanna Stucky, 4-H Youth Education Assistant, have helped 60 to 90 children, including 30 at the juvenile center, since the project started last summer.

IX c. SCIENCE AND TECHNOLOGY EDUCATION (Smith-Lever Act)

Key Theme: Youth Development/4-H

Multi-state: Missouri, Kentucky, Minnesota, Indiana, Illinois, Idaho, Washington

Multi-campus: University of Missouri-Columbia, Lincoln University

Statement of Issue(s):

- * The Secretary of Labor’s SCANS report identified working with technology as one of five essential competencies that workers will need for the future. The need for science and technology education was validated through citizen input in numerous Missouri counties. In the area of science education, 23 counties identified the need for water quality and environmental education and 15 counties called for 4-H school enrichment programs. The need for technology education was expressed as the need for workforce preparation for youth in 21 counties and for programs on the increased use of information technology in 24 counties. In Missouri, the following programs are addressing science and environmental education needs: Streets to Streams, Hatching Chicks and Observation

Earth. Technology education for youth includes several workforce preparation initiatives, as well as 4-H computer projects and related programs.

Performance Goals and Indicators:

Output Indicators:

85,000 youth and volunteers will enroll in 4-H school enrichment and group programs Observation Earth (S97), Hatching Chicks (S15), Streets to Streams (A66)

Accomplishments and Results:

69,913 youths were enrolled in 4-H school enrichment and group programs: Observation Earth, Hatching Chick and Streets to Streams.

1,197 youths were enrolled in 4-H school enrichment and group programs: SERIES, Blue Sky Beneath My Feet and Water Riches.

508 youths and 258 volunteers enrolled in the 4-H Aerospace project.

1

20 after-school computer labs will be established

Accomplishments and Results:

A \$55,477 grant to establish additional after-school computer labs was awarded. Implementation will begin in 2001.

B.

1,100 youth and 250 volunteers will enroll in 4-H computer projects. .

Accomplishments and Results:

1,504 youths and 212 volunteers enrolled in 4-H computer projects .

C.

The national 4-H computer curriculum for the Cooperative Curriculum Service will be completed and piloted.

Accomplishments and Results:

The curriculum is complete and became available for nationwide use in Fall 2000.

Outcome Indicators:

Of the 20 new after-school computer labs started with 4-H support, the community will sustain 15 after grant funding ends.

Accomplishments and Results:

At the conclusion of grant funding and over a two-grant cycle, 25 after-school computer labs have been sustained by the school and/or community.

Of the 1,100 youth enrolled in 4-H computer projects, 65percent will complete the project and adopt new practices as a result of the program.

Accomplishments and Results:

Staff report that on average, 70 percent of youth who enroll in any project complete the project.

\$15,000 in funding was secured to support the 4-H/University of Missouri-Rolla Aerospace Camp.

Key Program Components:

- * 4-H Youth Development programs reach youths and adults who enroll as volunteers in 4-H youth development programs through 4-H clubs, 4-H School enrichment and 4-H special interest groups. They receive support from 4-H and Extension staff in the form of printed materials, training, seminars, conferences, and on-line information. Statewide 4-H

enrollments, county ES-237 reports are used to determine the number of persons completing non-formal programs in these areas.

- * The program to establish after-school computer labs for middle school youth will continue. The project meets the needs of at-risk youth by providing a safe, engaging and recreational setting during the after school hours. A partnership with the state Department of Elementary and Secondary Education and local school districts makes the program possible.

Internal and External linkages:

- * Missouri 4-H will partner with the Missouri Department of Elementary and Secondary Education, UOE Water Quality Programs and the National Network for Science and Technology.

Target Audiences:

- * Youth, parents, school personnel, communities

Program Duration:

- * Long-term

Allocated Resources::

- * Science and environmental education- 75percent
- * Technology education—25percent

Extension and Outreach Programs Underway:

- * All of University Outreach and Extension's field staff are "regional" specialists who have multi-county assignments. A majority of the programming implemented in Missouri would be conducted on a multi-county basis. During FY96-99 educational programs were available in all of the areas included in the FY00-04 plan of work. The research based programs in 4-H Youth Development included the following:
 - ♣ Character Counts
 - ♣ School Age Child Care
 - ♣ Environmental Stewardship
 - ♣ Family and Parenting
 - ♣ Health Education
 - ♣ Leadership Development (Youth and Adult)
 - ♣ Workforce Preparedness
- * Results of these educational programs are summarized in the FY98 Annual Report submitted to CSREES.

Goal 5 Anticipated Impact:

The overriding goal of all education programming related to the Enhancing Economic Opportunity and Quality of Life for Americans areas is to cause adoption by Missouri citizens of recommended practices. In the Family Strengths program area, in which more than 10,000 citizens will participate, this kind of impact is expected on 10-70percent of persons participating, depending upon the specific program; 75-90percent will gain knowledge and skills; and 20-80percent will intend to adopt recommended practices.

Overall Program Impact:

Community Leadership Development:

<http://ext.msstate.edu/srdc/cred/programs/examples/comleadership/0002.htm>

Community Planning:

<http://ext.msstate.edu/srdc/cred/programs/examples/complanning/0018.htm>

Missouri Issues Forums:

http://ext.msstate.edu/srdc/cred/programs/accomplishments/public_accom.htm

The Local Government CECH-UP Program challenges middle-school students to get involved in their communities through hands-on activities and interaction with local government. The curriculum, developed by UO/E and the UM-St. Louis Citizen Education Clearing House, is designed to meet the Missouri Show-Me Performance and Content Standards. In Creve Coeur, students assisted with passage and implementation of the state's first bicycle helmet safety ordinance. In Salem, students created a brochure and electronic presentation to attract businesses.

See “Learning by doing is one of 4-H’s strengths,” 2000 Missouri 4-H annual report Tech Teams - <http://>

*See National 4-H Cooperative Curriculum System
Computer Mysteries - <http://www.n4hccs.org/>*

IX d. VOLUNTEER LEADERSHIP DEVELOPMENT (Smith-Lever Act)

Key Themes: Leadership Training and Development

Multi-state Extension: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

Statement of Issue(s):

- * The National 4-H Base Program Strategic Team identified volunteer leadership development as one four “programs of excellence” in its 1998 report. The need for volunteer leadership development was identified through citizen input in 34 Missouri counties. Additionally, 8 counties identified the need for coalitions to support youth and 30 called for youth leadership development.

Performance Goals:

Output Indicators:

15,000 youth and adults will volunteer with 4-H programs

Accomplishments and Results:

18,049 youths and adult volunteered with 4-H programs.

200 persons will access and use part or all of the on-line volunteer training course

Accomplishments and Results:

129 on-line registrations were completed, including persons from 33 states, Virgin Islands and Albania (registration is optional).

2,500 “hits” were received on the website in a one-year period.

The website is used by Utah Extension to provide orientation for staff and volunteers.

1,500 4-H club members will be surveyed for the Missouri 4-H impact study

Accomplishments and Results:

4-H Impact Assessment surveys were completed by 1,685 youths and 1,162 adults.

114 counties will receive a resource packet on working with Latino audiences.

Accomplishments and Results:

Resource packets were distributed.

1,827 youths and 409 adults enrolled in 4-H leadership education projects.

Outcome Indicators:

90,000 hours of volunteer time valued at \$12 per hour will be donated.

Accomplishments and Results:

100,000+ hours of volunteer time were donated.

A.

50 percent of the persons accessing the on-line volunteer training course will correctly answer self-study questions on positive youth development.

Accomplishments and Results:

Information was not available in 2001.

B.

75 percent of the youth surveyed for the 4-H impact study will report that the adults in 4-H respect them and provide them with safe environments.

Accomplishments and Results:

86 percent reported that adults in 4-H listened to them.

89 percent reported that adults in 4-H helped them feel they can make a difference.

80 percent reported that they feel comfortable going to adults in 4-H for advice.

97 percent reported that they feel safe to try new things in 4-H.

C.

75 percent of the youth surveyed for the 4-H impact study will report that 4-H provides them with opportunities to be leaders, to volunteer and to help others.

Accomplishments and Results:

93 percent reported that 4-H teaches them to help other people.

87 percent reported that 4-H helps them be a leader.

93 percent reported that 4-H shows them that volunteering is important.

91 percent reported that 4-H shows that “kids can help out in important ways.”

93 percent reported that 4-H teaches them to be involved in community.

D.

The number of Latino/Latina volunteers working in Missouri 4-H will increase by 100 percent in four years.

Accomplishments and Results:

After one year, there was no significant increase in volunteers.

Key Program Components:

- * 4-H Youth Development programs reach youths and adults who enroll as volunteers in 4-H youth development programs. Volunteers will be enrolled and receive support from 4-H and Extension staff in the form printed materials, training, seminars, conferences, on-line information and recognition. State-level volunteer training include Shootings Sports volunteer certification, the North Central Regional 4-H Leaders Forum and the Missouri

4-H Leaders Forum. A new, on-line self-study course for volunteers who work with youth will be introduced.

- * Modeling after the national 4-H Impact Assessment Project, Missouri will conduct its own impact assessment in 2000. A survey will be administered to 1,900 youth in 4-H clubs. The survey will provide data on the youth's perception of the adults who work with them in 4-H. It will also collect data from the youth on how they feel about volunteering.
- * Initiatives to recruit, retain and support volunteers from the Latino community will include the development of resource materials, special training for faculty and staff, and partnerships with other human service agencies and groups.

Internal and External linkages:

- * Missouri 4-H will partner with the Missouri 4-H Foundation and private funders, the North Central states' 4-H programs, National 4-H Council and CSREES.

Target Audiences:

- * Youth, parents, school personnel, communities

Program Duration:

- * Long-term

Allocated Resources:

- * Volunteer recruitment, enrollment, support and recognition—60percent
- * Volunteer training—20percent
- * Volunteer self-study course—10percent
- * Impact study—10percent

Allocated Resources for Goal 5, IX – 4-H Youth Development:

Goal 5 Program	Year	FTEs	Dollars
4-H Youth Development: Building Character School Age Child Care Science & Technology Volunteer Leadership	2000	46	\$3,035,540
	2001	46	\$3,035,540
	2002	46	\$3,035,540
	2003	46	\$3,035,540
	2004	46	\$3,035,540

Extension and Outreach Programs Underway:

- * All of University Outreach and Extension's field staff are "regional" specialists who have multi-county assignments. A majority of the programming implemented in Missouri would be conducted on a multi-county basis. During FY96-99 educational programs were available in all of the areas included in the FY00-04 plan of work. The research based programs in 4-H Youth Development included the following:

- ♣ Character Counts
- ♣ School Age Child Care
- ♣ Environmental Stewardship
- ♣ Family and Parenting
- ♣ Health Education
- ♣ Leadership Development (Youth and Adult)
- ♣ Workforce Preparedness

- * Results of these educational programs are summarized in the FY98 Annual Report submitted to CSREES.

Goal 5 Anticipated Impact:

The overriding goal of all education programming related to the Enhancing Economic Opportunity and Quality of Life for Americans areas is to cause adoption by Missouri citizens of recommended practices. In the Family Strengths program area, in which more than 10,000 citizens will participate, this kind of impact is expected on 10-70percent of persons participating, depending upon the specific program; 75-90percent will gain knowledge and skills; and 20-80percent will intend to adopt recommended practices.

Overall Program Impact:

18,049 youth and adult volunteers contributed time to Missouri 4-H. Their time was valued at \$47 million. National statistics suggest that the average 4-H volunteer contributes 200 hours per year. Valuing their time at \$12 per hour, the contribution of Missouri 4-H volunteers was worth more than \$47 million in 2000! Of the total, 3,885 were teen volunteers

Community Leadership Development:

<http://ext.msstate.edu/srdc/cred/programs/examples/comleadership/0002.htm>

Missouri Issues Forums:

http://ext.msstate.edu/srdc/cred/programs/accomplishments/public_accom.htm

See "Missouri 4-H connects kids with caring adults," 2000 Missouri 4-H annual report

Shooting Sports - <http://mo4h.missouri.edu/2000report/index.htm>

Schoen wins Naomi Crouch award - <http://mo4h.missouri.edu/2000report/index.htm>

4-H Teen Conference

Teen-agers teaching other teens is the simple concept behind one of the most popular state 4-H events. Each year, members of the State 4-H Council spend months planning, organizing and implementing Teen Conference, an event for 12- and 13- year-olds.

"The Council members were in the same shoes as the kids coming to Teen Conference not too many years ago, so we know what motivates them," said Wade Foster, State 4-H Council member from Hale, Mo. "For most, this is the first overnight event away from their parents. We know what will get them comfortable with the other kids and get their mind off of being away from home."

During a 24-hour period, these younger 4-H'ers learn about opportunities in 4-H, participate in educational workshops, attend their first regional meetings and interact with other teens from across the state. Council members use the leadership skills they've developed to motivate the younger members and facilitate workshops, along with the help of Mizzou Collegiate 4-H members.

"Council members see this conference as the future of the State Council," said Foster. "We want to excite these kids about being in 4-H and wanting to stay in 4-H when they get

older. Teen Conference was the event that got me excited about State Council. I looked at the council members as role models, and I knew I wanted to be the one in the green jackets to motivate all the kids.”

See “Missouri 4-H encourages decision-making,” 2000 Missouri 4-H annual report 4-H Teen Conference - <http://mo4h.missouri.edu/2000report/index.htm>

MoRULES

MoRULES isn’t the latest charge heard at an MU pep rally. It’s the acronym for the newest leadership conference offered to young adults, under the guidance of the 4-H youth development program. In June, the Governor’s Academy for Rural and Urban Leadership Experiences and Service (MoRULES) made its grand debut and gave high school sophomores and juniors a chance to learn about themselves, teamwork and community leadership.

During the six-day event, groups of teens from across the state participated in activities to teach them about different cultures, citizenship and how to impact social, political and economic change. Mary Jo Williams, State 4-H Youth Specialist and coordinator of the event, said each group was encouraged to take an idea home and incorporate it into their own communities.

One group in particular took this task to heart. About 10 teens from St. Louis participated in MoRULES and returned home with a passion to improve their communities. Named the S.T.L. (Stay to Learn) Educators, they have a focus of reaching at-risk children, ages 7 to 12 years.

”This is where they feel they can be most effective in our community as leaders and mentors to these children,” said Kelli Hill, 4-H Youth Education Assistant and advisor to the group.

After converting a room at the County Extension Center into their office, S.T.L. Educators officially had a place to call home. Next the group recruited 35 youngsters from the neighborhood to participate in a weeklong leadership camp, which they planned and led. Then the educators volunteered as counselors for Washington University’s literacy camp for kids. During the following months, other projects included volunteering with an after-school program, planning a Halloween Safe Party and Haunted House for local children, and raising money for children in need through the Mike Jones Celebrity Basketball Game.

Hill credits the MoRULES conference for bringing together and motivating this group of young leaders. “They took the training and philosophy very seriously. And one of their main goals is to make everyone who helped start the MoRULES program proud of them and their accomplishments.”

See “4-H helps youths have a sense of belonging,” 2000 Missouri 4-H annual report MoRULES - <http://mo4h.missouri.edu/2000report/index.htm>

Evaluation of the Success of Multi-state, Multi-institutional, Multidisciplinary, and Integrated research and Extension Programs

Multistate, multi-institutional, multidisciplinary, and integrated research and extension programs in FY2000 were in congruence with the UO/E 21st Century Strategic Direction, based on stakeholder input, needs and aspirations. This programming related to one or more of the priority program areas, economic viability, strong individuals, families and communities and healthy environment. Under served and under-represented populations were targeted in the multistate, multi-institutional and multidisciplinary programs under goal 5, affordable housing, 4-H youth and leadership development. They were also targeted in the integrated program under goal 3, improving human nutrition and health.

All multistate, multi-institutional, multidisciplinary, and integrated research and extension programs in FY2000 describe expected outcomes and impacts and these are identified in the approved plan of work. Accomplishments for FY2000 are reported under each goal in this document. Each of these programs is improved as learners make suggestions or needs and aspirations of learners change. This is an ongoing process of learning with the learners and improving both the effectiveness of the learning and the efficiency of program delivery.

Reporting Requirements for Multistate Extension Programs (attach appendix C)

Summaries

Goal 1 — (3) Livestock Systems

Show-Me Select cattle bring higher prices at market sales. Beef producers are netting greater profits at market through Show-Me Select Replacement Heifers. UO/E faculty work with 78 veterinarians and 235 producers to raise genetically superior animals that bring higher prices and create a reliable source of replacement heifers. At the 2000 Show-Me Select sales, heifers sold on average for \$1,047. The total net impact, of the Show-Me Select Program, on the state's economy during 1999 was \$6 million.

The Show-Me Buying Cooperative markets more than 300,000 pigs annually. The cooperative's members purchased more than \$25 million in feed annually. By purchasing cooperatively, the members realized an estimated annual feed savings of \$5 million.

Goal 4 — Animal Waste Management

Missouri state specialist assisted with development and conducting of training of sixty professional on odor and environmental assessment from five states.

Missouri Manure Management Action Group – Producers and agency personnel need a source of information on manure management issues. State Environmental Quality Incentive Program funds were used to develop a website, display and brochure for the Missouri Manure Management Action Group. The website includes policy and research

reports, permit information, legislative links, links to consultants and hot topics. See <http://outreach.missouri.edu/mommag/>

Goal 5 — (7) Affordable Housing

[Opening Doors for Home Buyers](#)

A boom in new jobs has created unprecedented demands for housing in Missouri, particularly in communities where population is soaring. But many new jobs pay low wages, making it hard for families to find affordable housing. For solutions, many turn to the Missouri Housing Partners Initiative, a partnership that includes University Outreach and Extension. Since 1997, some 622 persons have requested home ownership information from MHP.

Since the program began, 80.2 percent of MHP clients have requested down payment assistance information. In a 1998 survey of 202 MHP clients, one-fifth reported they had purchased a home after receiving information from MHP. See:

<http://outreach.missouri.edu/edninfo/home/index.htm>

Goal 5 — (9) 4-H Youth

The Youth Academy, a youth leadership project sponsored by the YMCA, United Way, and University Outreach and Extension, involves about 90 students. Academy members also work with local police officers to check compliance with tobacco laws. Since 1995, the number of retailers willing to sell to minors has dropped from more than half to 25 percent.

During the 2000 November election, adults weren't the only ones who got a chance to exercise their right to vote. In Platte County, students in kindergarten through twelfth grades participated in mock elections through Platte County Kids Voting, a school and community citizenship program.

On Election Day, the young people were given a chance to vote on actual ballots along with their parents at 40 official polling sites throughout the county. Since all the students had to vote before or after school, nearly 1,000 hours were donated by adult volunteers and 4-H members to make the program a success.

One in five young people learned through UO/E education. One in five young people learn skills to improve their lives and contribute to their community through Missouri 4-H. Eighty percent of the elementary students enrolled in the Kansas City 4-H After School Academic Program are on the honor roll, and the graduation rate among high-school mentors is 95 percent; 75 percent enter college. The 4-H ASAP helped young people with academic and social skills while decreasing at-risk behaviors.

Goal 5 — (12) Leadership Development

In June, the Governor's Academy for Rural and Urban Leadership Experiences and Service (MoRULES) made its grand debut and gave high school sophomores and juniors a chance to learn about themselves, teamwork and community leadership.

During the six-day event, groups of teens from across the state participated in activities to teach them about different cultures, citizenship and how to impact social, political and economic change. Mary Jo Williams, state 4-H youth specialist and coordinator of the event, said each group was encouraged to take an idea home and incorporate it into their own communities.

Re

Reporting Requirements for Integrated research and Extension Programs (attach appendix C)

Integrated Activities (Smith-Lever Act Funds)

Goal 1 — (A) Integrated Cropping Systems

A survey of Missouri producers has indicated that site-specific crop management activities are clustered in the areas characterized by intensive row-crop management. In NE Missouri, 3.5% of farmers use site-specific technologies on 4% of the cropped acres. In SE Missouri, 8.8% of farmers use the technologies on 2.9% of cropped acres. In Central/West Central Missouri, 9.3% of producers have applied the technologies to 5.6% of cropped acres

Goal 1 — (B) Forages and Livestock

More than 1,400 audience contacts were made by the Pasture-based Dairies team. More importantly, a base curriculum was developed and the ensuing program “customered” through four core groups. These core groups each contain 15 to 20 producers. Each group is learning and adopting the principles of financial management and grazing systems

Goal 3 Improving Human Nutrition and Health

The intended outcome of University Outreach and Extension’s program related to Goal 3 — A Healthy and Well Nourished Population is: “Missourians will maintain a good quality of life well into old age.”

During the past year, 140,958 individuals received information related to health and nutrition from University Outreach and Extension Specialists. Evaluation data was collected for 2,557 individuals. Based on that data, 1,870 individuals (73.1%) reported increased knowledge about nutrition, food safety, and health practices that promote health and disease prevention. About 29% (742 individuals) reported they learned new skills and 31.5% (806) individuals reported that they planned to adopt new behaviors. In addition, 324 program participants (12.7%) reported that they adopted new practices.

More than 103,000 people are reached through the Family Nutrition Education Program. Of adults receiving family nutrition lessons, 87 percent improved nutrition practices, such as reading food labels and feeding children breakfast; 64 percent improved safety practices, such as thawing and storing foods properly; and 83 percent improved resource management practices, such as planning meals in advance.

Goal 4 — (A) Improved Water Quality

Precision Agriculture Program and ASEQ – UO/E provides a direct link to research information through the Missouri Precision Agriculture Center and Agricultural Systems

for Environmental Quality. Both programs offer an integrated systems approach to watershed management. UO/E links research and public access through publications and field days for the general public. The projects involve monitoring of fertilizer and herbicide use, total nutrients, yields and sediment runoff. Geographic Information Systems mapping tools assist producers in increasing plant nutrient efficiency and variable fertilizer application without loss of yields.

Goal 4 — (B) Animal Waste Management

Missouri Manure Management Action Group – Producers and agency personnel need a source of information on manure management issues. State Environmental Quality Incentive Program funds were used to develop a website, display and brochure for the Missouri Manure Management Action Group. The website includes policy and research reports, permit information, legislative links, links to consultants and hot topics. See <http://outreach.missouri.edu/mommag/>

**U.S. Department of Agriculture
 Cooperative State Research, Education, and Extension Service
 Supplement to the Annual Report of Accomplishments and Results
 Multistate Extension Activities and Integrated Activities
 (Attach Brief Summaries)**

Institution University of Missouri
State Missouri

Check one: **Multistate Extension Activities**
 Integrated Activities (Hatch Act Funds)
 Integrated Activities (Smith-Lever Act Funds)

Title of Planned Program/Activity	Actual Expenditures				
	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004
Goal 1 (3) Livestock Systems	<u>\$12,500</u>	_____	_____	_____	_____
Goal 4 (2) Animal Waste Mgmt	<u>\$78,000</u>	_____	_____	_____	_____
Goal 5 (7) Affordable Housing	<u>\$9,000</u>	_____	_____	_____	_____
Goal 5 (9) 4-H Youth	<u>\$126,000</u>	_____	_____	_____	_____
Goal 5 (12) Leadership Development	<u>\$300,000</u>	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
Total	<u>\$525,500</u>	_____	_____	_____	_____

Director

Date

Appendix C

**U.S. Department of Agriculture
 Cooperative State Research, Education, and Extension Service
 Supplement to the Annual Report of Accomplishments and Results
 Multistate Extension Activities and Integrated Activities
 (Attach Brief Summaries)**

Institution University of Missouri
 State Missouri

Check one: Multistate Extension Activities
 Integrated Activities (Hatch Act Funds)
 Integrated Activities (Smith-Lever Act Funds)

Title of Planned Program/Activity	Actual Expenditures				
	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004
Goal 1 (A) Integrated Cropping Systems	\$553,000	_____	_____	_____	_____
Goal 1 (B) Forages and Livestock	\$170,000	_____	_____	_____	_____
Goal 3 Improving Human Nutrition and Health	\$47,000	_____	_____	_____	_____
Goal 4 (A) Improved Water Quality	\$42,000	_____	_____	_____	_____
Goal4 (B) Animal Waste Management	\$144,000	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
Total	<u>\$956,000</u>	_____	_____	_____	_____

 Director

 Date