

# 2011 Southern University and A&M College Combined Research and Extension Annual Report of Accomplishments and Results

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## I. Report Overview

### 1. Executive Summary

**The mission of the Southern University Agricultural Research and Extension Center; in its land-grant role, is to conduct statewide basic and applied research and to disseminate information to the citizens of Louisiana in a manner that is useful in addressing their scientific, technological, social, economic and cultural needs.** In FY 2011, the Southern University Agricultural Research and Extension Center (SUAREC) programs addressed NIFA Priority Areas through its planned programs. The main focus was to assist diverse audiences, who have limited social and economic resources, improve their access to positive opportunities through research and outreach education. SUAREC aims to help small-scale and limited resource farmers and ranchers develop and/or maintain viable farming operations that are in harmony with the environment, help communities build capacity to enhance the growth and development of the business and industrial sectors, and improve the quality of life for families and youth throughout the State. To ensure that clientele needs are addressed effectively, the research and extension programs target the same clients. Research projects are designed with inputs from stakeholders and the findings are specially packaged and disseminated by the extension agents and specialists.

It is worth noting that since 2005, Louisiana has experienced three severe hurricanes and an oil spill which displaced and devastated a lot of small and limited resource families. However, in FY 2011, the state appropriation to the SU Ag Center was again reduced. Since 2008, state funding has been drastically reduced by about 45 percent oftentimes in the middle of the fiscal year. This action resulted in severe loss of employees and funding for planned activities, travel, materials and supplies, which in turn negatively affected outcomes. Despite the loss of state funds, the Center's faculty and staff applied for and received about 12 external grants and contracts for \$2.8 million and continued to provide services to citizens throughout the state. These grants have provided resources to hire additional staff, but not enough to replace those lost as a result of reduced state funding. But, since some of these grants require matching funds, the Center may be limited on applying for them in the future should the current state budget reductions continue.

The agricultural leadership institute continued to attract participants from six states (Louisiana, Texas, North Carolina, Atlanta, South Carolina, and Alabama) to intensive workshops where they gain new knowledge and skills to share and make a difference in their states. Over 6,500 individuals, youth and families benefited from obesity reduction activities conducted by the Center's personnel. The bio-security conference attracted 300 individuals, the procurement conference attracted about 400 small business owners and potential owners, and the 68<sup>th</sup> Annual Livestock Show had over 1,400 visitors. Research in nanotechnology, hibiscus utilization and ultraviolet-B are progressing with 10 graduate students developing their thesis/dissertation from the projects.

The Center holds periodic strategic planning retreats to provide a forum for sharing knowledge and information between research and extension faculty and staff and for creating a model designed to integrate both entities. As a follow up to the strategic planning conference, joint research-extension exchange meetings were held to identify critical areas which warrant research by the Center to better serve the needs of clients. Other methods of seeking inputs were: plan of work conference, parish advisory council, survey of program staff, survey of clients, parish performance and planning review, chancellor's

executive council, planned program advisory council, etc. In order to address the state and national needs, the Southern University Agricultural Research and Extension Center placed emphasis on the following broad areas:

- I. Sustainable Agricultural Systems
- II. Urban Forestry and Natural Resource Management
- III. Nutrition and Health
- IV. Family and Human Development
- V. Youth Development
- VI. Economic and Community Development

Strong and very close working relations continued as faculty and staff worked in multi-discipline teams to achieve maximum benefits for audiences among these broad areas. For instance, in order to address global food safety and childhood obesity issues, Nutrition and Health personnel collaborated with personnel from Sustainable Agricultural Systems, Youth Development and Family and Human Development.

**Total Actual Amount of professional FTEs/SYs for this State**

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	0.0	45.0	0.0	44.0
Actual	0.0	43.0	0.0	43.5

**II. Merit Review Process**

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

- Internal University Panel
- Combined External and Internal University Panel
- Expert Peer Review

**2. Brief Explanation**

SUAREC continues to conduct internal evaluation of all research projects and extension programs to ensure that they are meeting the needs of its clients. The United States Department of Agriculture/National Institute of Food and Agriculture (USDA/NIFA) conducted a comprehensive review of the research program in 2004. The model and findings of that review continue to serve as benchmarks for merit and peer review. Additionally, as part of the Louisiana Cooperative Extension Service (LCES) agreement, extension programs and activities are reviewed annually for relevance and applicability to clients' needs by a joint team of experienced staff from both the Louisiana State University Agricultural Center (LSU AgCenter) and the Southern University Agricultural Research and Extension Center (SUAREC). Peer Review: all NIFA funded programs/projects and others seeking funding are subjected to a thorough scientific and educational peer review process. A Proposal Review and Evaluation Committee (PREC) comprising of faculty and staff from SUAREC and the greater university community is functioning effectively. It operates as a standing committee to review proposals consistent with standard agency guidelines and other established scientific and educational criteria. Proposals usually undergo strict review, scrutiny and endorsement by discipline peers, program heads, and a select review committee. Additionally, each proposal must show clear evidence of stakeholder input prior to approval by the Vice

Chancellor for Research and/or Vice Chancellor for Extension. Strategic Planning: SUAREC holds periodic strategic planning retreats to provide a forum for sharing knowledge and information between research and extension faculty and staff and for creating a model designed to integrate both entities. The main outcome is the exchange of information to ensure that research and extension programs in the Center as designed are relevant to the needs of the people of Louisiana and implemented to meet and address the needs of citizens.

### **III. Stakeholder Input**

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

- Use of media to announce public meetings and listening sessions
- Targeted invitation to traditional stakeholder groups
- Targeted invitation to non-traditional stakeholder groups
- Targeted invitation to traditional stakeholder individuals
- Targeted invitation to non-traditional stakeholder individuals
- Survey of traditional stakeholder groups
- Survey of traditional stakeholder individuals

#### **Brief explanation.**

Soliciting stakeholder input is a continuous process which is embedded in the Southern University Agricultural Research and Extension Center's entire program development process. Stakeholder inputs are used to establish priorities, goals and objectives consistent with state, regional and national issues based on the land-grant philosophy. The Parish Advisory Council is organized at the grassroots level by each extension program to involve clients, community leaders, state and local government officials, and other stakeholders in the process of identifying community needs and/or resources, programs and projects to address them. Parish advisory council meetings are conducted at least once annually and important discussions are documented and utilized by the extension agents in developing the parish plan of work. One indication from parish surveys is that all SUAREC extension staff have functioning parish advisory councils.

The Louisiana Cooperative Extension Service (LCES), annual parish review also indicates that all SUAREC extension staff do seek and obtain inputs from parish advisory councils, focus groups, public forums, clients and community leaders when planning their work. Extension Agents use information from focus groups, public forums, community leaders, and the client needs assessment to develop their plan of work. Meetings were announced using different forms of media available in the community. Agents' plans of work, needs assessment, and information from the forums are submitted to the specialists at the state office. The state specialists meet monthly with the Vice Chancellor for Extension to report on progress of work (and problems) and to review and/or revise where necessary. Additionally, joint research-extension exchange meetings are held periodically to identify critical areas that warrant research by the Center to better serve the needs of clients. Furthermore, the Chancellor's Executive Council serves to advise the Chancellor on ways that would ensure greater stakeholder input in identifying and planning meaningful, effective and efficient research, education and outreach programs to benefit the citizenry of the state of Louisiana. The Center's research and extension programs, the federal plan of work and the state strategic plan are developed based on the information received from the grassroots such as, Parish Advisory Councils, parish plan of work, the Louisiana Cooperative Extension Service, parish review team, needs assessment, evaluation studies, Strategic Planning Meeting, Joint Research-Extension Exchange Meetings, Chancellor's Executive Council, Federal and State Agencies, Commodity

Organizations, and Land Grant Institutions. The Office of Planning and Evaluation conducts regular surveys of program activities. Participants/respondents at these program activities continue to provide positive feedback regarding the knowledge and skills they gain as a result of their participation in the SUAREC educational programs and activities. Data collected from these sources by the Office of Planning and Evaluation are made available to the Research and Extension administrators who in turn utilize them to plan and prioritize their program/projects to address needs/problems of Louisiana citizens.

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

**1. Method to identify individuals and groups**

- Use Advisory Committees
- Use Internal Focus Groups
- Needs Assessments
- Use Surveys

**Brief explanation.**

SUAREC extension personnel are required to establish parish advisory committees and conduct meetings to seek inputs necessary for planning their educational activities. These advisory committees involve clients, community leaders, state and local government officials, and other stakeholders in identifying community needs and/or resources, programs and projects to address them. Parish advisory council meetings are conducted regularly, and important discussions are documented and shared in the joint research-extension exchange meetings. For some planned programs, internal focus groups were used as an additional source of identifying the changing needs of the community and the citizens. Also, as part of the customer satisfaction survey, needs assessments were conducted particularly to obtain information regarding unmet needs or changing needs. In addition, SUAREC research and extension personnel conducted various activities in FY 2010/2011 such as field days, workshops, classes, trainings, livestock show, etc. Surveys were employed to seek participants' views regarding knowledge and skills gained and also to solicit their suggestions regarding the types of activities they desire in the future.

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

**1. Methods for collecting Stakeholder Input**

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

**Brief explanation.**

Stakeholder input is an important source of information for program planning at SUAREC. The parish advisory committee was the primary source of inputs for the extension agents. And to ensure

quality input, the parish advisory committees were comprised of a diverse group of individuals in the community; also traditional and nontraditional individuals and groups were invited to join the advisory committee. To encourage further inputs and ensure consistency, surveys were conducted at various program activities to solicit participants' opinion/suggestions regarding their needs. Traditionally, such information is used to plan and/or adjust future activities to meet these identified needs. To ensure a wide coverage, different types of media were used to advertise and publicize SUAREC activities.

### **3. A statement of how the input will be considered**

- In the Budget Process
- To Identify Emerging Issues
- Redirect Extension Programs
- Redirect Research Programs
- In the Staff Hiring Process
- In the Action Plans
- To Set Priorities
- Other (Determining strategic directions)

#### **Brief explanation.**

Information from the extension agents was channeled to the extension specialists and brought for discussion at the state monthly meetings with the vice chancellor for extension. The monthly meeting is conducted as stated to include extension specialists from the six planned programs and the directors of special projects involving outreach education. Decisions on dealing with issues were reached and issues requiring research expertise were channeled to the vice chancellor for research at the joint research-extension exchange meeting. At the joint research-extension exchange meeting, there was information sharing on emerging issues and followed with plans of action. Critically important issues were normally brought to the attention of the Chancellor's Advisory Council which also meets monthly, for further actions. The Chancellor's Advisory Council is comprised of persons who have budgetary authority at the Center. The Louisiana Cooperative Extension Service (LCES), the joint annual meeting of the Louisiana State University Agricultural Center and the Southern University Agricultural Research and Extension Center served as the other media where stakeholders inputs were sought for (through the joint meeting of extension and research professionals), deliberated and strategic directions planned.

#### **Brief Explanation of what you learned from your Stakeholders**

Despite overwhelming availability of technology and other means of communication and delivery of knowledge, some small and limited resource producers still prefer face-to-face contacts with their extension agents and research scientists.

IV. Expenditure Summary

<b>1. Total Actual Formula dollars Allocated (prepopulated from C-REEMS)</b>			
<b>Extension</b>		<b>Research</b>	
<b>Smith-Lever 3b &amp; 3c</b>	<b>1890 Extension</b>	<b>Hatch</b>	<b>Evans-Allen</b>
0	1656288	0	1997921

<b>2. Totaled Actual dollars from Planned Programs Inputs</b>				
<b>Extension</b>			<b>Research</b>	
	<b>Smith-Lever 3b &amp; 3c</b>	<b>1890 Extension</b>	<b>Hatch</b>	<b>Evans-Allen</b>
<b>Actual Formula</b>	0	1656288	0	1997921
<b>Actual Matching</b>	0	1656288	0	1997921
<b>Actual All Other</b>	0	0	0	273400
<b>Total Actual Expended</b>	0	3312576	0	4269242

<b>3. Amount of Above Actual Formula Dollars Expended which comes from Carryover funds from previous</b>				
<b>Carryover</b>	0	0	0	0

## V. Planned Program Table of Content

S. No.	PROGRAM NAME
1	Global Food Security and Hunger
2	Climate Change
3	Food Safety
4	Childhood Obesity
5	Sustainable Energy
6	Economic and Community Development
7	Family and Human Development
8	Youth Development
9	Other

**V(A). Planned Program (Summary)**

**Program # 1**

**1. Name of the Planned Program**

Global Food Security and Hunger

**V(B). Program Knowledge Area(s)**

**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships		10%		10%
205	Plant Management Systems		20%		20%
301	Reproductive Performance of Animals		10%		10%
302	Nutrient Utilization in Animals		20%		20%
307	Animal Management Systems		20%		20%
313	Internal Parasites in Animals		5%		5%
601	Economics of Agricultural Production and Farm Management		5%		5%
703	Nutrition Education and Behavior		5%		5%
704	Nutrition and Hunger in the Population		5%		5%
	<b>Total</b>		100%		100%

**V(C). Planned Program (Inputs)**

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

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	0.0	8.0	0.0	23.0
Actual Paid Professional	0.0	7.0	0.0	19.0
Actual Volunteer	0.0	0.0	0.0	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
0	247670	0	861134
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	213990	0	767697
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	19604

### V(D). Planned Program (Activity)

#### 1. Brief description of the Activity

1. Conduct research and experiments using cattle, goats, swine, poultry, vegetables, pasture, forage, and other plants.

2. Continue to expand building projects, modernize facilities and acquire adequate land for research and extension programs.

3. Develop products, curriculum, and resources. Conduct workshops, demonstration plots, training sessions, and one day and/or multiple field days for farmers especially small and limited resource producers.

4. Hire additional experienced personnel and build capacity to respond to clientele needs.

5. Deliver services to producers and potential producers. Conduct assessment; work with media to disseminate important information to clients and stakeholders.

6. Conduct farm and site visits, field days, shows and encourage client and potential client participation.

7. Collaborate, cooperate and partner with local, state and federal agencies, institutions, groups, private organizations/associations in seeking and delivering services to citizens and work to eliminate hunger in the population.

8. Continue to create and enhance marketing opportunities in traditional and alternative outlets, such as farmer's markets, community supported agriculture (CSA), and other outlets.

9. Develop disaster/emergency plan including mechanisms for assistance to victims.

10. Provide nutrition and healthy lifestyle education to citizens.

#### 2. Brief description of the target audience

Our target audience includes (but is not limited to) , small producers, limited resource producers, socially and economically disadvantaged individuals, the underrepresented, the underserved, women, and minorities. Others are youth 13 - 18 years, policy makers, community leaders/stakeholders, interested agencies and organizations.

#### 3. How was eXtension used?

{No Data Entered}

### V(E). Planned Program (Outputs)

**1. Standard output measures**

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	14385	78624	0	0

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

**Patent Applications Submitted**

Year: 2011

Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2011	Extension	Research	Total
<b>Actual</b>	1	7	8

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- 1. Number of educational program activities

Year	Actual
2011	204

**Output #2**

**Output Measure**

- 2. Number of educational contacts

Year	Actual
2011	93009

**Output #3**

**Output Measure**

- 3. Number of published materials distributed

<b>Year</b>	<b>Actual</b>
2011	13894

**Output #4**

**Output Measure**

- 4. Number of research & extension outreach publications

<b>Year</b>	<b>Actual</b>
2011	65

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	1. Percent of clients who gained new knowledge/skills, awareness and/or changed attitudes
2	2. Percentage of adoption rate for recommendations by clients

## **Outcome #1**

### **1. Outcome Measures**

1. Percent of clients who gained new knowledge/skills, awareness and/or changed attitudes

### **2. Associated Institution Types**

- 1890 Extension
- 1890 Research

### **3a. Outcome Type:**

Change in Knowledge Outcome Measure

### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	80

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

Addressing global food security and hunger is closely linked to sustainable animal and plant productivity and profitability which are of paramount importance to the agricultural sector of Louisiana. Small-scale producers faced the greatest challenges on generating sufficient income and being profitable. Small agricultural producers who adopt alternative livestock and crop enterprises such as, goats, rabbits, vegetables, fruits, and herbs can earn profit while addressing global food security and hunger issues. Addressing these close knit and perennial problems could benefit the farmers, consumers, and governments worldwide.

#### **What has been done**

Faculty and staff wrote two research grants for additional funding to implement sustainable agriculture projects and one was funded for \$287,005. This grant studies the sustainable forage management practices using intensive sequential grazing system for cattle and goat production. NIFA Formula Grants were used to fund three research projects. In FY 2011, three sustainable agriculture field days were conducted with over 175 producers in attendance. Two goat field days were conducted in collaboration with LSU Veterinary School with 130 producers and potential producers in attendance. Research-based educational information was packaged and disseminated through extension agents to the clients. Farm visits were conducted by research and extension personnel to advise clients and sometimes provide "on the spot" solutions to problems they may have.

#### **Results**

- Ninety percent of participants in the sustainable agriculture field days stated that they gained new knowledge and skills;
- Eighty-five percent said they will certainly utilize knowledge and skills gained.
- Participants at the goat field days gained knowledge/skills about the benefits of the FAMACHA

chart, used the chart and saved money in goat health care costs. Through the assistance of Southern University personnel, the Goat Cooperative continues to attract new members under the auspices of the Louisiana Cooperative Association.

Results from other projects:

- Fifty farmers are increasing their incomes by actively growing hibiscus, making hibiscus-related products such as, tea, jelly, jam, and cookies and selling them in the local farmers' market.
- with the assistance of faculty and staff, one 972 acre farm transitioning to organic production has adopted burnt corn gluten meal in their fertilizer program due to the abundance and low cost.
- Faculty and staff wrote two research grants for additional funding to implement sustainable agriculture projects and one was funded for \$287,005.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
301	Reproductive Performance of Animals
302	Nutrient Utilization in Animals
307	Animal Management Systems
313	Internal Parasites in Animals

#### Outcome #2

##### 1. Outcome Measures

2. Percentage of adoption rate for recommendations by clients

##### 2. Associated Institution Types

- 1890 Extension
- 1890 Research

##### 3a. Outcome Type:

Change in Condition Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2011	55

##### 3c. Qualitative Outcome or Impact Statement

###### **Issue (Who cares and Why)**

Formal training and instruction in leadership development is a crucial skill which had not been offered to small, limited resource agricultural producers in the state of Louisiana (and possibly in the country). Economic crisis over the past decade, especially the high cost of farm inputs during FY 2011 made it difficult for producers to compete and remain profitable. The existence of many small farmers is in serious jeopardy as they are debt-ridden and are in the verge of being bankrupt. The Small Farmer Agricultural Leadership Training Institute at Southern University

Agricultural Research & Extension Center continued to address these needs with the goal of promoting small and family farm sustainability, survival and profitability through enhanced decision making skills and leadership development. This goal was to help farmers become better leaders while enhancing their farm management skills.

### **What has been done**

Nine, 4-day intensive training workshops (over 8 hours each day) and tours were held from October 2010 until March 2011 in six states (Louisiana, Texas, North Carolina, Atlanta, South Carolina, and Alabama) with 32 participants in each session. Topics discussed were: Developing the Leader Within, Planning the Business and the Team, Agricultural Legal Issues and Risks, Talking it to the Next Level, Agricultural Opportunities Unlimited (Summer Tour featuring Urban Agriculture), Civic Engagement, The Agricultural Professional, and Promoting the Business. Participants attended and experienced the Professional Agricultural Workers Conference, Tuskegee University, Tuskegee, Alabama. They also participated at the Small Farm Week in Greensboro, North Carolina, and the Graduation Ceremony in Washington, DC hosted by USDA. In addition, participants had opportunity to interact and network with their peers in six states, research scientists, extension specialists, and legal scholars from six universities and agricultural professionals from the USDA.

In FY 2011, the Center also continued with the second class of the Louisiana Small Farmers Leadership Institute for farmers and shared strategies and information by experts about the latest educational tools and resources which they can use to improve productivity and sustainability of their agricultural businesses.

### **Results**

-A participant was recognized as a Cox Community Hero by Louisiana Cox Communications. She received a monetary award to assist in creating another community garden in the Lower Ninth Ward of New Orleans to bring fresh fruits and vegetables to that area.

-A participant who had never served on any type of governmental committee was appointed Secretary's Advisory Committee on Animal Health by United States Agriculture Secretary Tom Vilsack. The committee is composed of 20 individuals who advise the Secretary on strategies, policies and programs that prevent, control, or eradicate diseases of national significance. The committee considers the implications of public health, conservation of natural resources and the stability of livestock economics.

-Another participant and a former participant (Class II) were appointed by Secretary Vilsack to serve on the Advisory Committee on Beginning Farmers and Ranchers. The Committee will advise the Secretary on ways to develop programs to provide coordinated assistance to beginning farmers and ranchers while maximizing new farming and ranching opportunities. They will also work to enhance and expand federal-state partnerships to provide financing for beginning farmers and ranchers.

-Through grantsmanship skill enhancement training provided in the class, several members were able to secure funding for community activities to strengthen local agriculture and to involve youth in agricultural endeavors.

-Two participants were awarded research and development grants to test new and emerging agricultural markets, alternative enterprises and new technologies such as hydroponics.

-Two participants opened retail stores to market fresh food to their local communities.

-Several participants have been recruited, invited and selected to serve as grant reviewers for the competitive USDA grant programs.

After attending the leadership institute (including the classes, tours and graduation ceremony with the Secretary of Agriculture as special guest), the participants said they had started thinking nationally and globally about their farm business operations. Evaluation conducted showed the

following: 100 percent of participants said they gained new knowledge and skills; 100 percent indicated that new knowledge and skills gained will be very useful; and 100 percent indicated that they will definitely use new knowledge and skills gained.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
205	Plant Management Systems
301	Reproductive Performance of Animals
302	Nutrient Utilization in Animals
307	Animal Management Systems
313	Internal Parasites in Animals
601	Economics of Agricultural Production and Farm Management

#### V(H). Planned Program (External Factors)

##### External factors which affected outcomes

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

##### Brief Explanation

Ongoing economic crisis caused serious setback on the availability of state funds in Louisiana. In FY 2011, the state budgets were again drastically reduced, oftentimes in the middle of the fiscal year. This action resulted in severe loss of funding for planned activities which in turn negatively affected outcomes. Additionally, budget problems and government priority changes caused the relocation of some program participants resulting in decline in number of citizens impacted. Additionally, the decline in rural population for Louisiana means that the state receives less federal formula fund. Furthermore, the continuing recovery from previous hurricanes (2005 and 2008) and the 2010 oil spill inflicted much havoc on the state and impacted outcomes.

#### V(I). Planned Program (Evaluation Studies)

##### Evaluation Results

At the 2011 Beef Cattle Field Day, participants' response to survey questions indicated that they gained knowledge about the following:

100% on disasters relating to farm security, tornadoes, droughts, and floods 100%;

96% on pasture management  
100% on Louisiana cattle markets  
100% on herd health and diseases  
96% on calf to carcass program  
96% on USDA Drought Relief Program  
100% on renewable energy and biofuel  
100% on legal land issues

**Key Items of Evaluation**

One important message that stood out from the results of the surveys and evaluation, especially the customer satisfaction survey, was clients' emphasis on the need for continuing face-to-face contacts when information was disseminated. While most clients indicated that receiving research-based and other educational materials via postal mail, e-mail, text, etc. was appropriate, they stated that face-to-face contacts (meetings, visits, demonstrations, workshops, classes, etc.) would be preferred.

**V(A). Planned Program (Summary)**

**Program # 2**

**1. Name of the Planned Program**

Climate Change

**V(B). Program Knowledge Area(s)**

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
123	Management and Sustainability of Forest Resources		10%		10%
124	Urban Forestry		45%		45%
132	Weather and Climate		10%		10%
133	Pollution Prevention and Mitigation		10%		10%
134	Outdoor Recreation		5%		5%
205	Plant Management Systems		5%		5%
403	Waste Disposal, Recycling, and Reuse		15%		15%
	<b>Total</b>		100%		100%

**V(C). Planned Program (Inputs)**

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	0.0	3.0	0.0	6.0
Actual Paid Professional	0.0	2.0	0.0	5.0
Actual Volunteer	0.0	0.0	0.0	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
0	54000	0	265961
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	58917	0	137174
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	1000

**V(D). Planned Program (Activity)**

**1. Brief description of the Activity**

1. Research and quantify the environmental benefits of urban forests, carbon sequestration and the urban forest effects on air quality.
2. Research and quantify urban forest effects on UV exposure in relation to proper vegetation design. Communicate research results and other information with customers through extension personnel in the form of publications, conferences, workshops, field days, home/office visits, demonstrations and other educational resources.
3. Prepare publications such as research reports and highlights based on gulf coast climate/weather studies, plant biosecurity and disseminate information to citizens through extension personnel in the form of conferences, workshops, field days, home/office visits, demonstrations and other educational venues.
4. Areas affected by past hurricanes and other natural disasters will receive specific attention to enable them rebuild their tree population.
5. Collaborate, cooperate and partner with local, state and federal agencies, institutions, groups, private organizations/associations in seeking and delivering services to citizens.
6. Hire additional experienced personnel and build capacity to respond to clientele needs.
7. Assist citizens in developing disaster/emergency plan including mechanisms for assistance to victims

**2. Brief description of the target audience**

Target audience includes all citizens such as homeowners, metro areas, garden clubs, arborists, small producers, limited resource producers, socially and economically disadvantaged, women, minorities, and communities. Others are youth (13 &ndash 18 years and even those in grades K-8), community leaders/stakeholders, interested agencies and organizations.

**3. How was eXtension used?**

{No Data Entered}

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	0	0	0	0

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

**Patent Applications Submitted**

Year: 2011

Actual: {No Data}

**Patents listed**

{No Data Entered}

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2011	Extension	Research	Total
Actual	0	5	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- 1. Number of educational program activities

Year	Actual
2011	0

**Output #2**

**Output Measure**

- 2. Number of educational contacts

Year	Actual
2011	0

**Output #3**

**Output Measure**

- 3. Number of published materials distributed

Year	Actual
2011	0

**Output #4**

**Output Measure**

- 4. Number of research & extension outreach publications

Year	Actual
2011	0

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	1. Percent of clients who gained new knowledge/skills, awareness and/or changed attitudes.
2	2. Percentage of adoption rate for recommendations by clients.

## **Outcome #1**

### **1. Outcome Measures**

1. Percent of clients who gained new knowledge/skills, awareness and/or changed attitudes.

### **2. Associated Institution Types**

- 1890 Extension
- 1890 Research

### **3a. Outcome Type:**

Change in Knowledge Outcome Measure

### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	70

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

Ozone depletion in the upper atmosphere has resulted in a significant increase in solar ultraviolet-B radiation (UV-B, 280-315nm) on the earth surface. Effects of the enhanced UV-B on living organisms and ecosystems have been a major concern for more than two decades. Nearly two-thirds of 400 plant species/cultivars, mainly annual crops, appear to be UV-B sensitive. Relatively little information exists on the effects of UV-B radiation on forest tree species, which account for 80% of the global net primary production. With the future uncertainty of ozone recovery and climate change, there is a critical need for systematic evaluation of UV-B impacts on forest/tree species. UV-B impacts are many and some have serious economic consequences. Many United States residents do not have sufficient knowledge about these impacts especially as they relate to health.

#### **What has been done**

Research scientists applied for and received grants to study Ultraviolet-B Radiation protection strategies especially in selected southern trees. The study is helping to identify and quantify UV-B absorbing compounds (flavonoids/phenolics) using UV-VIS Spectroscopy and HPLC, and to measure leaf epidermal screening effectiveness to enhanced UVB using a fiber-optic microprobe system. Information gathered through this research is being prepared and shared to citizens and the scientific community. The aim is to provide reader-friendly fact sheets that citizens can use to increase knowledge on ways of selecting trees that can help to protect the environment from the adverse effects of UV-B. Information sessions, workshops, and seminars about climate change were also provided. A 2-day conference dealing with plant biosecurity was conducted November 9-10, 2010 with over 200 individuals from communities, institutions, government agencies several states (Louisiana, Texas, Florida, Mississippi, Georgia, Virginia, and North Carolina; and the District of Columbia) in attendance.

**Results**

Evaluation of conference participants showed the following: 97 percent of participants said they gained new knowledge about climate change; 95 percent indicated that new knowledge gained will be very useful.

The results of the UV-B research was shared with the scientific community and also with the target audience - homeowners, garden clubs, arborists, small producers, limited resource producers, socially and economically disadvantaged, women, minorities, and communities. They gained new knowledge about climate change, the impacts of UV-B on the environment, and the possible adaptation strategies. Implementation of these projects has resulted in strengthened relationship and collaboration with other states and institutions.

One doctoral dissertation is underway and two other students are gaining knowledge of conducting climate change research through their involvement in data collection for dissertation. Additionally, 12 students in the urban forestry program gained knowledge about climate change and UV-B research.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
124	Urban Forestry
132	Weather and Climate
133	Pollution Prevention and Mitigation
134	Outdoor Recreation
403	Waste Disposal, Recycling, and Reuse

**Outcome #2**

**1. Outcome Measures**

- 2. Percentage of adoption rate for recommendations by clients.

**2. Associated Institution Types**

- 1890 Extension
- 1890 Research

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	50

**3c. Qualitative Outcome or Impact Statement**

### **Issue (Who cares and Why)**

Knowledge of urban wood waste utilization and mulch management is lacking due to insufficient research and low availability of research-based educational information. Knowledge urban wood waste utilization and mulch management could allow for more efficient and economic use of urban plant-based residue (including wood waste) by way of organic mulches. Research can assist in assessing the impact of the following Louisiana natural resources: cypress mulch, longleaf pine needles, loblolly pine bark, municipal oak tree residue, and mixed non-oak hardwood mulch products, on soil carbon cycling, sequestration, and chemical composition. Also, the effects of selected tree-based mulch treatments on the dynamics of growth and development (physiology, morphology, and anatomy) of live oak tree species and its associated rhizosphere dynamics can be studied. Research-based educational information can be made available to producers, land owners and home owners on the effects of selected tree-based mulch on root disease severity of live oak tree rhizosphere, microbial population dynamics, and saprophytic survival of selected soil borne plant pathogens.

### **What has been done**

A collaborative project between Southern University Agricultural research and Extension Center, USDA-NIFA, and the USDA-FS was conducted to make contributions toward addressing the challenges of the emerging biobased industry with outcomes that support research, development, demonstration, and pre-commercialization activities. Additionally, through collaborative efforts with the Gulf Coast Cooperative Ecosystem Studies Unit (GC-CESU) and non-profit organizations the restoration efforts in Louisiana, Mississippi and other neighboring states are being impacted. Collaboration with the private sector and arboricultural companies has promoted the utilization of wood waste, especially, the urban wood waste in Louisiana. Utilization of urban wood waste and biobased plant residue has several potentials and major impacts such as: expanding and extending the life of the wood fiber supply; contributing to carbon storage, thereby reducing greenhouse gases; reducing the amount of recoverable wood going to landfills; and stimulating new technologies and market to utilize recoverable wood fibers. Students and faculty in urban forestry and traditional agricultural research and extension were involved. Five publications were produced. Four training seminars and field workshops were accomplished for the educational, research, and industrial communities. Two media presentations were conducted. One web site was developed to report the project output and accomplishments. Over 1,100 professionals have been reached through conferences; and 300 homeowners in Louisiana have been reached through direct and indirect research, educational and outreach activities. Five graduate students, one post-doctoral associate, and five undergraduate students have been trained on the techniques of conducting this research. Six class workshops have been conducted with 46 participants.

### **Results**

This initiative has increased the capacity of Southern University Agricultural Research and Extension Center in biomass utilization research and other initiatives are underway to assess the utilization of urban wood-waste in biofuel and bioenergy production. Seven graduate and 25 undergraduate students have gained knowledge and skill about conducting research through their participation in this project. Five hundred homeowners in Louisiana have been reached through direct and indirect research, educational and outreach activities. A survey indicated that more than 65% of the homeowners and 85% of the businesses in Louisiana are utilizing some sources of biobased plant residue as mulching materials in their landscaping projects. One doctoral dissertation has been produced and student graduated. One doctoral dissertation is being developed and three M.S. students are developing thesis and capstone projects. The Evans-Allen project was used to leverage and obtain a grant project for \$299,947 during the fiscal year to study and quantify the responses of urban tree species to elevated carbon dioxide and flooding.

Six graduate and nine undergraduates will benefit by working directly with this project to gain knowledge and skills about climate change research. Another 20 undergraduate and 15 graduate students will also benefit from the use of equipment and laboratory to learn about climate change.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources
124	Urban Forestry
132	Weather and Climate
133	Pollution Prevention and Mitigation
134	Outdoor Recreation
205	Plant Management Systems
403	Waste Disposal, Recycling, and Reuse

#### V(H). Planned Program (External Factors)

##### External factors which affected outcomes

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

##### Brief Explanation

Ongoing economic crisis caused serious setback on the availability of state funds in Louisiana. In FY 2011, the state budgets were again drastically reduced, oftentimes in the middle of the fiscal year. This action resulted in severe loss of funding for planned activities which in turn negatively affected outcomes. Additionally, budget problems and government priority changes caused the relocation of some program participants resulting in decline in number of citizens impacted. Additionally, the decline in rural population for Louisiana means that the state receives less federal formula fund. Furthermore, the continuing recovery from previous hurricanes (2005 and 2008) and the 2010 oil spill inflicted much havoc on the state and impacted outcomes.

#### V(I). Planned Program (Evaluation Studies)

##### Evaluation Results

{No Data Entered}

##### Key Items of Evaluation

{No Data Entered}

**V(A). Planned Program (Summary)**

**Program # 3**

**1. Name of the Planned Program**

Food Safety

**V(B). Program Knowledge Area(s)**

**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
502	New and Improved Food Products		10%		10%
504	Home and Commercial Food Service		10%		10%
701	Nutrient Composition of Food		10%		10%
702	Requirements and Function of Nutrients and Other Food Components		10%		10%
703	Nutrition Education and Behavior		20%		20%
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources		10%		10%
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins		10%		10%
724	Healthy Lifestyle		20%		20%
	<b>Total</b>		100%		100%

**V(C). Planned Program (Inputs)**

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

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	0.0	11.0	0.0	8.0
Actual Paid Professional	0.0	8.0	0.0	7.5
Actual Volunteer	0.0	2.0	0.0	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
0	305110	0	359713
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	264000	0	530847
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	9000

## V(D). Planned Program (Activity)

### 1. Brief description of the Activity

1. Collaborate and conduct research on the effects of diet on obesity, diabetes, hypertension, and other prevalent diseases.

2. Promote focus groups; advisory committees; mentor program; use of food safety and nutrition curriculum; safe school food nutrition curriculums; health tips to ensure food safety during school activities

3. Use focus groups, advisory committees, mentor program, etc. to provide awareness to citizens about the negative impacts of tobacco and tobacco products.

4. Conduct the following activities:

- Sisters Together
- School In-Service
- Kids Café
- Industry/Corporation In-Services
- FF-NEWS
- Faith Based Health & Aging seminar
- After-School Health Workshops (with parent teacher association involvement)
- Youth and Adult Health Fairs
- Youth Day Camps seminar
- Educational workshops
- Nutrition Classes
- Coalition
- Fitness Workshops
- Parish Visits
- Advisory Committee
- Food Demonstrations (including functional foods)

5. Disseminate publications such as fact sheets, newsletters, technical bulletins, research reports, etc. dealing with proper food safety practices.

6. Communicate research results, findings and other useful information with customers through extension personnel in the form of publications, conferences, workshops, home/office visits, demonstrations and other educational resources.

7. Collaborate, cooperate and partner with local, state and federal agencies, institutions, groups, private organizations/associations in seeking and delivering services to citizens.

8. Hire additional experienced personnel and build capacity to respond to clientele needs.

**2. Brief description of the target audience**

There is a large number of low income and limited resource families in Louisiana that are found in target areas which SUAREC serves. Most of these families live below the poverty level. They lack knowledge, information, and skills to utilize existing resources to improve their diet, nutrition, health, and quality of life. Children and adolescents who are placed at risk and those that are potentially at risk will also be beneficiaries. Additionally, citizens with sedentary jobs who need information on the benefits of regular physical activity and healthy lifestyles will also be targeted. The SU Ag Center will continue to utilize data from the Louisiana Health Report Card to identify and target other audiences.

**3. How was eXtension used?**

{No Data Entered}

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	0	0	0	0

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

**Patent Applications Submitted**

Year: 2011

Actual: {No Data}

**Patents listed**

{No Data Entered}

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2011	Extension	Research	Total
<b>Actual</b>	1	2	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- 1. Number of educational program activities

<b>Year</b>	<b>Actual</b>
2011	0

**Output #2**

**Output Measure**

- 2. Number of educational contacts

<b>Year</b>	<b>Actual</b>
2011	0

**Output #3**

**Output Measure**

- 3. Number of published materials distributed

<b>Year</b>	<b>Actual</b>
2011	0

**Output #4**

**Output Measure**

- 4. Number of research & extension outreach publications

<b>Year</b>	<b>Actual</b>
2011	0

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	1. Percent of clients who gained new knowledge/skills, awareness and/or changed attitudes.
2	2. Percentage of clients who adopt healthy recommendations
3	3. Percentage of clients who changed behavior

## **Outcome #1**

### **1. Outcome Measures**

1. Percent of clients who gained new knowledge/skills, awareness and/or changed attitudes.

### **2. Associated Institution Types**

- 1890 Extension
- 1890 Research

### **3a. Outcome Type:**

Change in Knowledge Outcome Measure

### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	80

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

Food-related diseases affect tens of millions of people and kill thousands. Increasingly, fresh fruit and vegetable products have been implicated as the source for foodborne pathogens causing foodborne illnesses. Outbreaks due to Salmonella and E-Coli contamination were reported during the year. This has led to the development of recommendations for some commodity producers, that precautions be taken in the fields and during post-harvest processing and handling to prevent pathogen contamination. Some Louisiana environmental conditions provide great opportunities for food borne illnesses particularly the hot humid climate. As a way of life, Louisiana citizens participate in many outdoor events where foods are pre-cooked, kept for a longer period and served outside.

#### **What has been done**

Tracking single cases of foodborne illness and investigating outbreaks are critical public health functions in which Center for Disease Control (CDC) is deeply involved. Research scientists and extension personnel in the Nutrition and Health Program at the SU Ag Center collaborated and worked with the LSU Ag center and citizens of Louisiana to increase their understanding of the impacts of foodborne illnesses. The goal was to help citizens especially the elderly, low income, educationally disadvantaged and poor families enhance their skills in proper food selection, storage and preparation. To ensure a sustainable and safe food, research and educational information was also directed at producers, food businesses, food handlers, and youth. In collaboration with EFNEP staff, nutrition educators conducted food safety activities in four parishes (Avoyelles, Rapides, Lafayette, and St. Landry) and reached over 3,149 youth and 317 families through schools, head start sites, libraries, churches and community centers.

#### **Results**

Information on fresh food products implicated as the source for foodborne pathogens or causing foodborne illnesses and recent news about Salmonella and E-Coli contamination was disseminated. Participants at workshops and food demonstrations gained knowledge about food safety in the areas of fresh product harvest, post-harvest storage, food preparation, storage, right storage temperature, etc. Ninety-five percent of them learned how to make their own healthy snacks and how to ensure that food safety guidelines are adhered to while doing so. Two graduate and 10 undergraduate students gained knowledge and skills on how to conduct food safety research by working with project staff in collecting, storing and analyzing samples.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
701	Nutrient Composition of Food
702	Requirements and Function of Nutrients and Other Food Components
703	Nutrition Education and Behavior
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins
724	Healthy Lifestyle

#### Outcome #2

##### 1. Outcome Measures

2. Percentage of clients who adopt healthy recommendations

##### 2. Associated Institution Types

- 1890 Extension
- 1890 Research

##### 3a. Outcome Type:

Change in Action Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2011	65

##### 3c. Qualitative Outcome or Impact Statement

###### **Issue (Who cares and Why)**

Food-related diseases affect tens of millions of people and kill thousands. Increasingly, fresh fruit and vegetable products have been implicated as the source for foodborne pathogens causing foodborne illnesses. Outbreaks due to Salmonella and E-Coli contamination were reported during the year. This has led to the development of recommendations for some commodity producers,

that precautions be taken in the fields and during post-harvest processing and handling to prevent pathogen contamination. Some Louisiana environmental conditions provide great opportunities for food borne illnesses particularly the hot humid climate. As a way of life, Louisiana citizens participate in many outdoor events where foods are pre-cooked, kept for a longer period and served outside.

#### **What has been done**

Research scientists and extension personnel in the Nutrition and Health Program at the SU Ag Center collaborated and worked with citizens of Louisiana to increase their understanding of the impacts of foodborne illnesses. The goal was to help citizens especially the elderly, low income, educationally disadvantaged and poor families enhance their skills in proper food selection, storage and preparation. To ensure a sustainable and safe food, research and educational information was also directed at producers, food businesses and food handlers. Research and extension staff provided nutritional instruction, food safety and food resource management workshops to the clientele throughout the state. In collaboration with EFNEP staff, nutrition educators reached over 2,965 families through schools, head start sites, libraries, churches and community centers.

#### **Results**

Ninety-five percent of the participants learned how to make their own healthy snacks and how to ensure that food safety guidelines are adhered to while doing so. According to pre/post data 90 percent of all participants can correctly identify healthy foods; 89 percent can correctly read the nutrition facts label; 90 percent comparison shop and 70 percent plan meals. A total of five undergraduate students gained knowledge of obesity research and information dissemination through their involvement in the project.

#### **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
701	Nutrient Composition of Food
702	Requirements and Function of Nutrients and Other Food Components
703	Nutrition Education and Behavior
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins
724	Healthy Lifestyle

#### **Outcome #3**

##### **1. Outcome Measures**

3. Percentage of clients who changed behavior

##### **2. Associated Institution Types**

- 1890 Extension
- 1890 Research

### 3a. Outcome Type:

Change in Condition Outcome Measure

### 3b. Quantitative Outcome

Year	Actual
2011	45

### 3c. Qualitative Outcome or Impact Statement

#### Issue (Who cares and Why)

Food-related diseases affect tens of millions of people and kill thousands. Increasingly, fresh fruit and vegetable products have been implicated as the source for foodborne pathogens causing foodborne illnesses. Outbreaks due to Salmonella and E-Coli contamination were reported during the year. This has led to the development of recommendations for some commodity producers, that precautions be taken in the fields and during post-harvest processing and handling to prevent pathogen contamination. Some Louisiana environmental conditions provide great opportunities for food borne illnesses particularly the hot humid climate. As a way of life, Louisiana citizens participate in many outdoor events where foods are pre-cooked, kept for a longer period and served outside.

#### What has been done

Research scientists and extension personnel in the Nutrition and Health Program at the SU Ag Center collaborated and worked with citizens of Louisiana to increase their understanding of the impacts of foodborne illnesses. The goal was to help citizens especially the elderly, low income, educationally disadvantaged and poor families enhance their skills in proper food selection, storage and preparation. To ensure a sustainable and safe food, research and educational information was also directed at producers, food businesses and food handlers. Research and extension staff provided nutritional instruction, food safety and food resource management workshops to the clientele throughout the state. In collaboration with FF-NEWS staff, nutrition educators reached over 2,965 families through schools, head start sites, libraries, churches and other community centers/events. With AFRI research grant, food safety researchers also worked with cow-calf farmers to reduce the transfer of foodborne pathogens associated with farm animals.

#### Results

The cow-calf project reached some 51 producers, shared information about production safety (such as detection, prevention, control, etc.) and collected samples for analyses. The producers indicated that information shared were relevant to their operations and that they would definitely use them.

The outreach program evaluation on understanding the impacts of foodborne illnesses showed that 95% of the participants learned how to make their own healthy snacks and how to ensure that food safety guidelines were adhered to while doing so. According to pre/post data 90 percent of all participants can correctly identify healthy foods; and 89 percent can correctly read the nutrition facts label.

#### 4. Associated Knowledge Areas

<b>KA Code</b>	<b>Knowledge Area</b>
502	New and Improved Food Products
701	Nutrient Composition of Food
702	Requirements and Function of Nutrients and Other Food Components
703	Nutrition Education and Behavior
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins
724	Healthy Lifestyle

#### V(H). Planned Program (External Factors)

##### External factors which affected outcomes

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

##### Brief Explanation

Ongoing economic crisis caused serious setback on the availability of state funds in Louisiana. In FY 2011, the state budgets were again drastically reduced, oftentimes in the middle of the fiscal year. This action resulted in severe loss of funding for planned activities which in turn negatively affected outcomes. Additionally, budget problems and government priority changes caused the relocation of some program participants resulting in decline in number of citizens impacted. Additionally, the decline in rural population for Louisiana means that the state receives less federal formula fund. Furthermore, the continuing recovery from previous hurricanes (2005 and 2008) and the 2010 oil spill inflicted much havoc on the state and impacted outcomes.

#### V(I). Planned Program (Evaluation Studies)

##### Evaluation Results

{No Data Entered}

##### Key Items of Evaluation

{No Data Entered}

**V(A). Planned Program (Summary)**

**Program # 4**

**1. Name of the Planned Program**

Childhood Obesity

**V(B). Program Knowledge Area(s)**

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
701	Nutrient Composition of Food		10%		10%
702	Requirements and Function of Nutrients and Other Food Components		30%		30%
703	Nutrition Education and Behavior		10%		10%
724	Healthy Lifestyle		40%		40%
805	Community Institutions, Health, and Social Services		10%		10%
	<b>Total</b>		100%		100%

**V(C). Planned Program (Inputs)**

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	0.0	11.0	0.0	2.0
Actual Paid Professional	0.0	6.0	0.0	2.0
Actual Volunteer	0.0	0.0	0.0	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
0	284057	0	254640
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	232834	0	287867
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	2000

## **V(D). Planned Program (Activity)**

### **1. Brief description of the Activity**

1. Conduct obesity prevention research and disseminate research-based information to youth, parents, headstart and elementary school teachers, schools administrators, and other citizens/organizations.
2. Research findings and other useful information will be communicated to youth through extension personnel in the form of publications, conferences, workshops, field days, home/office visits, demonstrations and other educational resources.
3. Meetings/workshops; PSA'S, fact sheets, mentoring programs (with community leaders); and commercial peer counseling will be developed or conducted.
4. Encourage physical activities and collaborate, cooperate and partner with local, state and federal agencies, institutions, groups, private organizations/associations in seeking and delivering services to youth and other citizens.
5. Hire additional experienced personnel (including volunteers) and build capacity to respond to clientele needs.
6. Develop a plan for engaging volunteers/parents in parish programs and activities.
7. Design a volunteer/parents development activities and educate youth development agents and other community-based programs that have youth development responsibilities.
8. Conduct a volunteer/parent conference for volunteers and explore the ways to organize a volunteer/parent development committee in each parish.
9. Conduct innovative programs that will enhance social status for rural and urban youth.
10. The following activities will be continued: Livestock, Poultry and Rabbit Show; Youth Educational Support (YES) and After School Program; Parish Achievement Days; Science Fairs; Field Trips; Family and Youth Exposition.
11. Focus on the learning experience of children, youth, and families in communities with at risk environments to increase self-reliance, self-esteem, and confidence.
12. Develop a promotional packet for the youth's development program and train extension agents and volunteer leaders to use the packet.
13. Teach youth the theoretical aspects of entrepreneurship, provide general business education seminars and offer self-esteem training as preparation for self-employment.
14. Teach business ethics and business etiquette as prerequisite to business start-up and teach professional image skills for traditional employment and self employment.
15. Update educational fact sheets and brochures on tobacco use and disseminate age-appropriate educational fact sheets and brochures on risky behaviors.

### **2. Brief description of the target audience**

A large number of children under 18 years of age are placed at risk because their families survive on low income and limited resources. They lack knowledge, information, and/or skills to utilize existing resources to improve their quality of life. The program targets such children ages 5 -18 years who are vulnerable to these situations. Parents and/or guardians of these children are also targeted. Additionally, teachers, children and adolescents who are placed at risk, those who are potentially at risk and children who need various forms of mentoring will be the beneficiaries. It is also necessary to train program staff and volunteers to ensure effective and efficient delivery of information.

### **3. How was eXtension used?**

{No Data Entered}

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	0	0	0	0

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

**Patent Applications Submitted**

Year: 2011

Actual: {No Data}

**Patents listed**

{No Data Entered}

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2011	Extension	Research	Total
<b>Actual</b>	0	0	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- 1. Number of educational program activities

Year	Actual
2011	0

**Output #2**

**Output Measure**

- 2. Number of educational contacts

Year	Actual
2011	0

**Output #3**

**Output Measure**

- 3. Number of published materials distributed

<b>Year</b>	<b>Actual</b>
2011	0

**Output #4**

**Output Measure**

- 4. Number of research & extension outreach publications

<b>Year</b>	<b>Actual</b>
2011	0

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	2. Number of youth participants involved in community activities
2	3. Percent of youth who gained new knowledge/skills, awareness and/or changed opinions
3	4. Percentage of youth who changed behavior or experienced positive life changing conditions
4	1. Number of volunteer leaders (trained to lead youth participants)

**Outcome #1**

**1. Outcome Measures**

2. Number of youth participants involved in community activities

Not Reporting on this Outcome Measure

**Outcome #2**

**1. Outcome Measures**

3. Percent of youth who gained new knowledge/skills, awareness and/or changed opinions

**2. Associated Institution Types**

- 1890 Extension
- 1890 Research

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	80

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

The prevalence of obesity has steadily increased over the past 35-40 years among children and youth in the U.S. Louisiana youth are among the unhealthiest in the nation; 36 percent of 10-17 year olds are overweight and 53 percent don't exercise regularly. (Louisiana Report Card on Physical Activity and Health for Children and Youth, 2010). A total of 9 bills have been passed since 2004 in the Louisiana Legislature relevant to physical activity or the prevention of obesity among children and youth. In 2005, Senate Bill No. 146/Act 331 of the Louisiana Legislature enacted a vending bill which limited certain food items sold during elementary and secondary schools in Louisiana. While there were also restrictions on beverages offered during the school day, House Bill No. 767/Act No. 306 of the 2009 Legislative Session amended Act 331 to further restrict beverages offered in public high schools.

**What has been done**

SU Ag Center's Youth Program and the Nutrition and Health Program collaborated to implement activities to reduce childhood obesity. One research project has just concluded: the Effectiveness of Early Nutritional intervention strategies for elementary school teachers; three research projects have been initiated; Expanding Nutritional Knowledge and Food Label Use Among College

Students in Louisiana; Childhood Obesity Risk Reduction Risk Initiative for Children in Louisiana; and Acceptability of Value-added Goat Products by School-age Children- a Strategy to Combat Obesity. One grant project with collaboration with the LSU AgCenter was received this fiscal year. Findings of these studies were shared with the scientific community in the form of publications and presentations. Fact sheets were developed and disseminated to youth through schools, communities, faith-based organizations, and other related entities. Food demonstrations and other supplemental activities were provided to assist participants with creating healthy meals as well as lower fat, sodium, cholesterol, sugar alternative and stretching the food dollar with their family. Early nutrition intervention materials (brochures, newsletters, and power points among others) were developed and used to teach school teachers, volunteers, and children how to make healthy food choices, and the importance of incorporating daily physical activities into each day to achieve optimum health status. So far, 173 out of 400 students have been surveyed and the data are being assembled for analysis.

### **Results**

Participants gained knowledge about the USDA's food guidance system, dietary guidelines, steps necessary to reduce obesity, reading nutrition labels, and the importance of implementing some type of physical activity into their daily lifestyles. Targeted students were able to incorporate nutritional intervention strategies to help improve their daily meals and activities. Participants learned the importance of making healthy food choices, proper reading of nutrition labels and daily physical activity to improve their over-all health and nutritional status. A total of 10 Undergraduate students gained knowledge of obesity prevention research and information dissemination through their involvement in the project. Scientists received two externally funded grants in the amount of \$429,354 to enhance their obesity prevention research.

### **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
701	Nutrient Composition of Food
703	Nutrition Education and Behavior
724	Healthy Lifestyle

### **Outcome #3**

#### **1. Outcome Measures**

4. Percentage of youth who changed behavior or experienced positive life changing conditions

#### **2. Associated Institution Types**

- 1890 Extension
- 1890 Research

#### **3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2011	60

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

The Louisiana Department of Health and Hospitals reported that the percentage of obese people in Louisiana has nearly doubled since 1999 and two-thirds of the state's schoolchildren get less than 20 minutes of vigorous activity a day. The obesity rate was 17.7 percent in 1999 and is now nearly 34 percent. Louisiana was also named the 5th most obese state in the country, according to the eighth annual F as in Fat: How Obesity Threatens America's Future 2011, a report from the Trust for America's Health (TFAH) and the Robert Wood Johnson Foundation (RWJF). Twelve states including Louisiana now have obesity rates over 30 percent.

For Louisiana, long-term trends in rates include:

- Diabetes rates have doubled in ten states in the past 15 years. In 1995, Louisiana had a diabetes rate of 6.2 percent, now the diabetes rate is 10.7 percent.

- Fifteen years ago, Louisiana had a hypertension rate of 23.5 percent, now, the rate is 32.5 percent.

- More than 33 percent of adults who earn less than \$15,000 per year were obese compared with 24.6 percent of adults who earn \$50,000 or more per year.

**What has been done**

The Southern University Ag Center secured a contract through the Louisiana Department of Children and Family Services to provide nutrition education to Supplemental Nutrition Assistance Program (SNAP) participants and eligible participants. Information was provided through one page fact sheets entitled, "Nutrition Nibbles", that utilized concepts presented in lessons from the FF-NEWS curriculum. Each one hour lesson includes helpful tips and an activity along with a food demonstration emphasizing the designated topic for the month and was taught in a classroom format. Many of the food demonstrations utilized foods received by the participants through food supplemental programs as well as slower fat, sodium, and sugar alternative and cost recipes that were easy to prepare. Food demonstrations and other supplemental activities were provided to assist participants with creating healthy meals and stretching the food dollar with their family. Incentives were provided that emphasized the lesson but also acted as a marketing strategy for the program so that one-time participants could associate nutrition education with the FF-NEWS program.

**Results**

FF-NEWS Nutrition Educators and Nutrition Education Assistants in twelve parishes made 64,634 direct and indirect contacts through the FF-NEWS program. Of this number 4,218 were enrolled families. According to program surveys and pre and post test results, participants indicated that they have made healthy lifestyle changes such as incorporating physical activity into their daily lifestyles and adding fruits and vegetables to their daily diets.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
701	Nutrient Composition of Food

702	Requirements and Function of Nutrients and Other Food Components
703	Nutrition Education and Behavior
724	Healthy Lifestyle

#### **Outcome #4**

##### **1. Outcome Measures**

1. Number of volunteer leaders (trained to lead youth participants)

Not Reporting on this Outcome Measure

#### **V(H). Planned Program (External Factors)**

##### **External factors which affected outcomes**

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

##### **Brief Explanation**

Ongoing economic crisis caused serious setback on the availability of state funds in Louisiana. In FY 2011, the state budgets were again drastically reduced, oftentimes in the middle of the fiscal year. This action resulted in severe loss of funding for planned activities which in turn negatively affected outcomes. Additionally, budget problems and government priority changes caused the relocation of some program participants resulting in decline in number of citizens impacted. Additionally, the decline in rural population for Louisiana means that the state receives less federal formula fund. Furthermore, the continuing recovery from previous hurricanes (2005 and 2008) and the 2010 oil spill inflicted much havoc on the state and impacted outcomes.

#### **V(I). Planned Program (Evaluation Studies)**

##### **Evaluation Results**

###### List and Defined Indicators:

1. Of the anticipated sample size of about **400** students, **172** have been surveyed.
2. The average score on the nutrition quiz was **56%**.
3. The number and percentage of students scoring greater than 70% on the quiz were **15** and **8.7%**, respectively.

4. Percentage of students who correctly answered questions on consuming the full supply of the following

a.	100% Daily Value of Total Fat	9.3%
b.	100% Daily Value of Saturated Fat	46%
c.	100% Daily Value of Cholesterol	36%
d.	100% Daily Value of Calcium	51.7%
e.	100 % Daily Value of Sodium	9.9%
f.	100% Daily Value of Potassium	61.6%
g.	100% Dietary Value of Dietary Fiber	12.2%
h.	100% Daily Value of Total Carbohydrate	36%

**Key Items of Evaluation**

Reading and understanding food labels are crucial to healthy food consumption. Most of our youth and students need help to increase their literacy and understanding of food labeling information.

**V(A). Planned Program (Summary)**

**Program # 5**

**1. Name of the Planned Program**

Sustainable Energy

**V(B). Program Knowledge Area(s)**

**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
123	Management and Sustainability of Forest Resources		30%		30%
124	Urban Forestry		60%		60%
125	Agroforestry		10%		10%
	<b>Total</b>		100%		100%

**V(C). Planned Program (Inputs)**

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

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	0.0	6.0	0.0	2.0
Actual Paid Professional	0.0	2.0	0.0	5.5
Actual Volunteer	0.0	0.0	0.0	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
0	50723	0	95041
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	51275	0	137168
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	240796

**V(D). Planned Program (Activity)**

**1. Brief description of the Activity**

1. Work with existing organizations to strengthen links between businesses, community based organizations and outreach education.
2. Assist local farmers and land owners/users to develop alternative enterprise initiatives for rural businesses.
3. Empower community leaders and residents in the targeted areas to develop strategic plans for optimum utilization of natural resources.
4. Communicate and disseminate research findings to customers through extension personnel in the form of publications, conferences, workshops, field days, home/office visits, demonstrations and other educational resources.
5. Organize grant writing workshops to empower individuals, businesses and communities enhance their skills on how to write for successful grants.
6. Collaborate, cooperate and partner with local, state and federal agencies, institutions, groups, private organizations/associations in seeking and delivering services to citizens.
7. Hire additional experienced personnel and build capacity in the area of alternative energy to respond to clientele needs.
8. Encourage community organizations and resident involvement in developing plans for sustainable energy. Provide community leaders with advice and recommendations regarding best practices in community economic development programs for their communities.

**2. Brief description of the target audience**

Rural and urban dwellers, under-represented, underserved, socially and economically disadvantaged groups in traditionally agricultural and urban communities in the State will be targeted for the purpose of encouraging and educating them on the need for, and the benefits of sustainable energy.

**3. How was eXtension used?**

{No Data Entered}

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	0	0	0	0

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

**Patent Applications Submitted**

Year: 2011

Actual: {No Data}

**Patents listed**

{No Data Entered}

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2011	Extension	Research	Total
Actual	0	0	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- 1. Number of educational program activities

Year	Actual
2011	0

**Output #2**

**Output Measure**

- 2. Number of educational contacts

Year	Actual
2011	0

**Output #3**

**Output Measure**

- 3. Number of published materials distributed

Year	Actual
2011	0

**Output #4**

**Output Measure**

- 4. Number of research & extension outreach publications

Year	Actual
2011	0

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	1. Percent of clients who gained new knowledge/skills, awareness and/or changed attitudes
2	2. Percentage of clients who adopt recommendations
3	3. Percentage of clients who utilized skills to gain positive economic results

## **Outcome #1**

### **1. Outcome Measures**

1. Percent of clients who gained new knowledge/skills, awareness and/or changed attitudes

### **2. Associated Institution Types**

- 1890 Extension
- 1890 Research

### **3a. Outcome Type:**

Change in Knowledge Outcome Measure

### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	70

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

Long-term rising costs of transportation fuels, dependence on foreign resources and concern that fossil fuels adversely affect climate have stimulated interest in renewable fuels. Louisiana is rich in natural resources such as forestry and other sources suitable for consideration as bioenergy feedstocks. The climate is also highly adaptable to growth of highly productive to non-food feedstocks which could serve as energy sources such as urban wood wastes and cane biomass. Development of methodologies and technologies for the utilization of such natural resources for the purpose of energy is an important priority for our country's energy-based economy. Louisiana producers, farmers, land owners and communities who are endowed with these natural resources need research-based information to make decisions that could impact their economic and social well-beings.

#### **What has been done**

Producers need new knowledge to plan and make decisions in adapting to changing environments, sustaining economic vitality, and taking advantage of emerging economic opportunities offered by the renewed wave in demand for alternative energy projects. Our scientists collaborated with scientists at LSU AgCenter to obtain a \$490,128 research grant to study the development of biofuels from sustainable alternative non-food feedstocks in Louisiana. Research was also conducted to assess and quantify plant-based mulch products especially for the management of live oak. Research-based information was made available to producers, farmers, land owners and community organizations in the form of meetings, site and home visits, and demonstrations. Twenty-eight educational activities were held for 805 individuals. Faculty members associated with the project have made four national, two international, and three statewide presentations. Collaborative efforts with the Gulf Coast Cooperative Ecosystem Studies Unit (GC-CESU) and non-profit organizations are impacting the restoration efforts in Louisiana, Mississippi and other neighboring states. Collaboration with the private sector and arboricultural

companies has promoted the utilization of wood waste, especially, the urban wood waste in Louisiana. Along with the RREA funding, outreach to extension agents was enhanced.

**Results**

Thirty educational events were organized, 300 landowners and managers were trained to develop stewardship and urban forestry plans, 5,000 direct and 4,000 indirect contacts were made to increase awareness of benefits and opportunities in urban and community forestry areas. Another 600 direct contacts were made to increase knowledge of benefits and opportunities available to landowners. Five urban forestry stewardship plans were developed, 100 landowners, urban foresters and arborists implemented at least one new practice. About 2,500 acres were impacted in Louisiana. From estimates, approximately \$560,000.00 were saved in avoided costs. Research-based educational materials on the utilization of wood-waste and biobased materials were provided to 5,400 participants at the Annual SAF Conferences and 6,000 participants at the Annual ISA Conferences. New outreach initiatives have been formulated to increase awareness of the climate change impact, plant biosecurity, and bioenergy. Several minority and underserved communities in Louisiana have been visited and printed educational materials been disseminated to 6,200 residents, arborists, farmers, and businesses. Two doctoral graduate students are gaining skills in conducting research through their involvement in the project. Data from the project were used by a student to developed doctoral dissertation. The program is helping many farmers consider diversification as an alternative to their traditional cropping method.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
123	Management and Sustainability of Forest Resources
124	Urban Forestry
125	Agroforestry

**Outcome #2**

**1. Outcome Measures**

- 2. Percentage of clients who adopt recommendations

**2. Associated Institution Types**

- 1890 Extension
- 1890 Research

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	50

### 3c. Qualitative Outcome or Impact Statement

#### Issue (Who cares and Why)

Louisiana is rich in natural resources such as forestry and other sources suitable for consideration as bioenergy feedstocks. The climate is also highly adaptable to growth of highly productive to non-food feedstocks which could serve as energy sources such as urban wood wastes and cane biomass. Development of methodologies and technologies for the utilization of such natural resources for the purpose of energy is an important priority for our country's energy-based economy. Additionally, there is need to develop screening strategies to understand trees tolerance to changing environmental conditions and the development of new technologies to improve forest health and resistance to pest.

#### What has been done

Research scientists developed grant proposals which were funded to study (among other issues) the application of nanotechnology in forest health management and also Ultraviolet-B radiation protection strategies in selected southern trees. The first goal was to discover UV-B screening strategies which could lead to better understanding UV-B tolerance mechanisms in diverse trees that will be useful in tree species selection in urban forestry and forest regeneration for the southern states in the USA. Second, was to develop safe and effective formulations and treatment strategies that use nanotechnology to improve forest health and increase pest resistance of forest wood products. The Center collaborated with scientists from the LSU AgCenter and the USDA-FS Northern Research Station in these endeavors. Graduate and undergraduate students from both Southern University and LSU gained useful research knowledge and skills through their involvement in these and other projects. Findings from these research projects have been made in the form of presentations at international, national and regional conferences. The extension agents, research scientists, practitioners, land owners, etc. will continue to benefit from findings of these research projects.

#### Results

Eight graduate students from both SU and LSU including four Ph.D. level students and four M.S. level students were trained and supported through this research. All have actively participated in the research and received training, gained knowledge and skills about nanotechnology and UV-B and their application in forestry and forest product industry. Six of them have developed their thesis/dissertation topics based on these projects. These students have made seven presentations at international, national and regional conferences. One graduated with a M.S. degree in summer 2011. Others are expected to graduate in the following year. The project has involved many undergraduate students in urban forestry, forest product and agriculture by introducing them to this new field of integrated research in nanotechnology and UV-B through laboratory demonstrations, project visits, summer research experience, field trips, and class presentations and lectures.

### 4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources
124	Urban Forestry
125	Agroforestry

**Outcome #3**

**1. Outcome Measures**

3. Percentage of clients who utilized skills to gain positive economic results

**2. Associated Institution Types**

- 1890 Extension
- 1890 Research

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	30

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
123	Management and Sustainability of Forest Resources
124	Urban Forestry
125	Agroforestry

**V(H). Planned Program (External Factors)**

**External factors which affected outcomes**

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

**Brief Explanation**

Ongoing economic crisis caused serious setback on the availability of state funds in Louisiana. In FY 2011, the state budgets were again drastically reduced, oftentimes in the middle of the fiscal year. This action resulted in severe loss of funding for planned activities which in turn negatively affected outcomes. Additionally, budget problems and government priority changes caused the relocation of some program participants resulting in decline in number of citizens impacted. Additionally, the decline in rural population for Louisiana means that the state receives less federal formula fund. Furthermore, the continuing recovery from previous hurricanes (2005 and 2008) and the 2010 oil spill inflicted much havoc on the state and impacted outcomes.

**V(I). Planned Program (Evaluation Studies)**

**Evaluation Results**

{No Data Entered}

**Key Items of Evaluation**

{No Data Entered}

**V(A). Planned Program (Summary)**

**Program # 6**

**1. Name of the Planned Program**

Economic and Community Development

**V(B). Program Knowledge Area(s)**

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
601	Economics of Agricultural Production and Farm Management		20%		20%
602	Business Management, Finance, and Taxation		40%		40%
607	Consumer Economics		10%		10%
608	Community Resource Planning and Development		20%		20%
610	Domestic Policy Analysis		5%		5%
903	Communication, Education, and Information Delivery		5%		5%
	<b>Total</b>		100%		100%

**V(C). Planned Program (Inputs)**

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Actual Paid Professional	0.0	5.0	0.0	1.0
Actual Volunteer	0.0	0.0	0.0	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
0	229000	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	201233	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

**V(D). Planned Program (Activity)**

**1. Brief description of the Activity**

To address economic and community development issues, Southern University Ag Center conducted the following activities: worked with existing organizations to strengthen links between businesses, community based organizations and outreach education. Assisted established businesses with planning, market assessment, management, and marketing strategies. Assisted local farmers and other producers to develop alternative enterprise initiatives for rural businesses. Encouraged the development of agribusinesses to include utilization of niche markets (vegetables, organic products pasture-raised poultry and beef, etc.) for agricultural producers. Empowered community leaders and residents in the targeted areas to develop strategic plans for optimum utilization of natural resources. Conducted research and provided impact studies results to local and regional government leaders to aid them in policy formulation and strategies to enhance and sustain the small and minority business sector. Communicated and disseminated research-based educational information to citizens through extension personnel in the form of publications, conferences, workshops, field days, home/office visits, demonstrations and other educational resources. Organized grant writing workshops to empower individuals, businesses and communities to enhance their skills on how to write for successful grants. We also collaborated with local, state and federal agencies to conduct a procurement conference for business owners and potential business owners.

**2. Brief description of the target audience**

Rural families, urban dwellers, and those needing assistance with business start up and expansion were targeted. Additionally, activities were planned to assist citizens who continued to experience high levels of poverty due to lack of economic opportunities. Individuals and communities with no skills for business start-ups, business expansions, housing, economic development and growth also benefited. Under-represented, underserved, socially and economically disadvantaged groups in traditionally agricultural and urban communities in the state were also targeted.

**3. How was eXtension used?**

{No Data Entered}

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	19838	301280	0	0

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

**Patent Applications Submitted**

Year: 2011

Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2011	Extension	Research	Total
<b>Actual</b>	0	1	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- 1. Number of educational program activities

Year	Actual
2011	252

**Output #2**

**Output Measure**

- 2. Number of educational contacts

Year	Actual
2011	321118

**Output #3**

**Output Measure**

- 3. Number of published materials distributed

<b>Year</b>	<b>Actual</b>
2011	154010

**Output #4**

**Output Measure**

- 4. Number of research & extension outreach publications

<b>Year</b>	<b>Actual</b>
2011	26

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	1. Percent of clients who gained new knowledge/skills, awareness and/or changed attitudes
2	2. Percentage of clients who adopt recommendations
3	3. Percentage of clients who utilized skills to gain positive economic results

## **Outcome #1**

### **1. Outcome Measures**

1. Percent of clients who gained new knowledge/skills, awareness and/or changed attitudes

### **2. Associated Institution Types**

- 1890 Extension
- 1890 Research

### **3a. Outcome Type:**

Change in Knowledge Outcome Measure

### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	85

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

Louisiana citizens and communities suffered economically and socially as a result of hurricanes and oil spill; these factors had devastating impact on business expansion growth and investment. The state was ranked among the top five states for poverty and for the opportunities of mainstream America. Louisiana's poverty rate (17 percent) was higher than the national average (12 percent). Poverty rate in some rural Louisiana parishes (counties) was as high as 27 percent. Rural areas in Louisiana suffer greatly from the lack of access to education, access to broadband internet connectivity, adequate healthcare, and persistent poverty. Many parishes (counties) developed individual strategic plans in hopes of attracting business and industry to their areas. What was lacking was the ability of these parishes to collaborate their strengths by coming together as a region to attract new businesses and industries. This project was developed to assist with this effort and piloted across selected states throughout the southern region of the U.S.

#### **What has been done**

The Southern Rural Development Center developed curriculum for regional development training with pilot states including Louisiana. Trainings were held once monthly using the provided curriculum. Assistant Specialist of community and economic development of SUAREC was selected and trained to implement this program in the state. In FY 2011, 12 individuals participated in 12 training sessions where they learned organizational techniques, leadership development, strategic planning, loan application packaging, etc. Developed by USDA and SRDC, SET was established to provide regional strategic planning assistance to multi-parish areas in rural parts of selected states. The SET program provides intensive training and technical assistance to entities encompassing two or more parishes to facilitate collaborative regional development. The goal is to assist parishes that wish to work together to capitalize on the strengths of their region and develop ways to enhance the quality of life in their region. The SET

program is an opportunity for current or newly formed multi-parish teams to receive the latest tools, training, and technical assistance to help their region move forward and take advantage of positive growth and quality of life opportunities in their region.

**Results**

Participants gained knowledge and skills from experts during the training sessions and are utilizing some of the information they obtained. Regional teams have begun to develop nonprofits and soliciting grant funding for infrastructure and other community development initiatives statewide. The twelve (12) participants have organized individuals and groups in their areas to strengthen the existing non-profit organizations and are in the process of applying for grant and loan to enhance their nonprofit organizations.

-Additionally, the project director wrote and obtained \$122,292 in external funded grant to enhance this program.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
602	Business Management, Finance, and Taxation
608	Community Resource Planning and Development
610	Domestic Policy Analysis

**Outcome #2**

**1. Outcome Measures**

- 2. Percentage of clients who adopt recommendations

**2. Associated Institution Types**

- 1890 Extension
- 1890 Research

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	63

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Louisiana citizens and communities suffered economically and socially as a result of hurricanes and oil spill; these factors had devastating impact on business expansion growth and investment. The state was ranked among the top five states for poverty and for the opportunities of

mainstream America. Louisiana's poverty rate (17 percent) was higher than the national average (12 percent). Poverty rate in some rural Louisiana parishes (counties) was as high as 27 percent. Rural areas in Louisiana suffer greatly from the lack of access to education, access to broadband internet connectivity, adequate healthcare, and persistent poverty. Many parishes (counties) developed individual strategic plans in hopes of attracting business and industry to their areas. What was lacking was the ability of these parishes to collaborate their strengths by coming together as a region to attract new businesses and industries. This project was developed to assist with this effort and piloted across selected states throughout the southern region of the U.S.

### **What has been done**

The Southern Rural Development Center developed curriculum for regional development training with pilot states including Louisiana. Trainings were held once monthly using the provided curriculum. Assistant Specialist of community and economic development of SUAREC was selected and trained to implement this program in the state. In FY 2011, 12 individuals participated in 12 training sessions where they learned organizational techniques, leadership development, strategic planning, loan application packaging, etc. Developed by USDA and SRDC, SET was established to provide regional strategic planning assistance to multi-parish areas in rural parts of selected states. The SET program provides intensive training and technical assistance to entities encompassing two or more parishes to facilitate collaborative regional development. The goal is to assist parishes that wish to work together to capitalize on the strengths of their region and develop ways to enhance the quality of life in their region. The SET program is an opportunity for current or newly formed multi-parish teams to receive the latest tools, training, and technical assistance to help their region move forward and take advantage of positive growth and quality of life opportunities in their region.

### **Results**

Participants gained knowledge and skills from experts during the training sessions and are utilizing some of the information they obtained. Regional teams have begun to develop nonprofits and soliciting grant funding for infrastructure and other community development initiatives statewide. The twelve (12) participants have organized individuals and groups in their areas to strengthen the existing non-profit organizations and are in the process of applying for grant and loan to enhance their nonprofit organizations.

## **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
602	Business Management, Finance, and Taxation
608	Community Resource Planning and Development
610	Domestic Policy Analysis

## **Outcome #3**

### **1. Outcome Measures**

3. Percentage of clients who utilized skills to gain positive economic results

### **2. Associated Institution Types**

- 1890 Extension
- 1890 Research

### 3a. Outcome Type:

Change in Condition Outcome Measure

### 3b. Quantitative Outcome

Year	Actual
2011	50

### 3c. Qualitative Outcome or Impact Statement

#### Issue (Who cares and Why)

Louisiana suffered economically and socially as a result of hurricanes and oil spill; these factors had devastating impact on business expansion growth and investment. The state was ranked among the top five states for poverty and for the opportunities of mainstream America. Louisiana's poverty rate (17 percent) was higher than the national average (12 percent). Poverty rate in some rural Louisiana parishes (counties) was as high as 27 percent. Rural areas in Louisiana suffer greatly from a lack of access to education, access to broadband internet connectivity, adequate healthcare, and persistent poverty.

#### What has been done

During FY 2011, the SU Ag Center did the following: worked with profit and non-profit organizations to strengthen links between businesses and community-based organizations; assisted small businesses with planning, market strategies/assessment, and management; assisted area local farmers to develop alternative enterprise initiatives. For FY 2011, 31 technology outreach workshops were conducted with 530 persons in attendance. Microsoft Office Excel, Quick Books, Access, Publisher and E-Business seminars are also continuing in seven Louisiana rural parishes. In collaboration with community organizations, 135 computers with access to the internet have been placed in 14 locations mainly in rural areas to serve 2,964 users. Additionally, the annual procurement conference was conducted with over 200 business owners and potential business owners in attendance.

#### Results

The 135 computers with internet access placed in 14 locations and used by over 2,964 individuals saved those users about \$89,500 in annual bills payment. At the 2011 Procurement Conferences where 200 business owners and potential business owners participated, 92 percent respondents to a survey indicated that they gained knowledge and skills which would be useful to their organizations in areas such as grant writing, evaluation, leadership, strategic planning, etc. Some 60 participants who were assisted in preparing loan application packages and 22 of them received \$575,572 in loan approval, 50 are still pending for FY 2010 and 2011. Participants in the Microsoft Office Excel workshops, Quick Books, Access, Publisher and E-Business seminars are utilizing knowledge and skills gained to enhance their businesses, family and personal well being. With the assistance of our staff, 25 procurement contracts in construction and home renovation were awarded to several small contractors. In addition, seven new businesses were started which created 19 new jobs in the state.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
602	Business Management, Finance, and Taxation
608	Community Resource Planning and Development
610	Domestic Policy Analysis

#### V(H). Planned Program (External Factors)

##### External factors which affected outcomes

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

##### Brief Explanation

Ongoing economic crisis caused serious setback on the availability of state funds in Louisiana. In FY 2011, the state budgets were again drastically reduced, oftentimes in the middle of the fiscal year. This action resulted in severe loss of funding for planned activities which in turn negatively affected outcomes. Additionally, budget problems and government priority changes caused the relocation of some program participants resulting in decline in number of citizens impacted. Additionally, the decline in rural population for Louisiana means that the state receives less federal formula fund. Furthermore, the continuing recovery from previous hurricanes (2005 and 2008) and the 2010 oil spill inflicted much havoc on the state and impacted outcomes.

#### V(I). Planned Program (Evaluation Studies)

##### Evaluation Results

Evaluation results from Procurement conference attended by over 400 small business owners and prospective owners

##### Key Items of Evaluation

One important message that stood out from the results of the surveys and evaluation, especially the customer satisfaction survey, was clients' emphasis on the need for continuing face-to-face contacts when information was disseminated. While most clients indicated that receiving research-based and other educational materials via postal mail, e-mail, text, etc. was appropriate, they stated that face-to-face contacts (meetings, visits, demonstrations, workshops, classes, etc.) would be preferred.

**V(A). Planned Program (Summary)**

**Program # 7**

**1. Name of the Planned Program**

Family and Human Development

**V(B). Program Knowledge Area(s)**

**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
724	Healthy Lifestyle		10%		10%
801	Individual and Family Resource Management		40%		40%
802	Human Development and Family Well-Being		40%		40%
804	Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures		5%		5%
805	Community Institutions, Health, and Social Services		5%		5%
	<b>Total</b>		100%		100%

**V(C). Planned Program (Inputs)**

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

Year: 2011	Extension		Research	
	1862	1890	1862	1890

Actual Paid Professional	0.0	5.0	0.0	3.0
Actual Volunteer	0.0	0.0	0.0	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
0	154329	0	161432
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	274088	0	137168
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	1000

**V(D). Planned Program (Activity)**

**1. Brief description of the Activity**

Extension and Research faculty worked cooperatively to obtain external grants, implement relevant programs, develop and disseminate educational materials devoted to helping the family set goals and manage their limited resources. Community Volunteers (advisory committee, community organizations, etc.) were organized to help disseminate information, increase awareness and implement programs. Consumer issues and brochures were designed to support objectives on financial planning and management. Research results and other information were communicated to customers through extension personnel in the form of publications, conferences, workshops, home/office visits, demonstrations and other educational resources. The Second Chance 2 Recover program taught prison inmates to avoid recidivism. Planned program staff cooperated with local, state and federal agencies, institutions, groups, private organizations/associations in seeking and delivering services to citizens. Additional collaborations were in the areas of: nutrition classes; training sessions for adults and children; parenting workshops; anger management; parish and home visits; and demonstrations. Program staff and volunteers were trained to ensure effective and efficient delivery of educational information.

**2. Brief description of the target audience**

There are large numbers of low income and limited resource families in Louisiana who reside in the target areas that the SU Ag Center serves. Most of these families live below the poverty level. They lack knowledge, information, and/or skills to utilize existing resources to improve their parenting and child care skills, family nurturing, learning, resource management, and quality of life. Children and adolescent who were placed at risk and those that were potentially at risk also benefited from the services provided by the planned program.

**3. How was eXtension used?**

{No Data Entered}

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	17799	110238	0	0

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

**Patent Applications Submitted**

Year: 2011

Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2011	Extension	Research	Total
Actual	0	0	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- 1. Number of educational program activities

Year	Actual
2011	854

**Output #2**

**Output Measure**

- 2. Number of educational contacts

Year	Actual
2011	128037

**Output #3**

**Output Measure**

- 3. Number of published materials distributed

Year	Actual
2011	6393

**Output #4**

**Output Measure**

- 4. Number of research & extension outreach publications

Year	Actual
2011	69

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	1. Percent of clients who gained new knowledge/skills, awareness and/or changed attitudes
2	2. Percentage of families or individuals who adopt recommendations
3	3. Percentage of clients who changed behavior or experienced positive changing family conditions

**Outcome #1**

**1. Outcome Measures**

- 1. Percent of clients who gained new knowledge/skills, awareness and/or changed attitudes

**2. Associated Institution Types**

- 1890 Extension
- 1890 Research

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2011	86

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Louisiana is home to many prisons and correctional institutions. Louisiana has the highest rate of imprisonment of any state in the United States. As of January 2008, one out of every 55 adults in Louisiana was behind bars, either in prison or in jail ([http://www.pewcenteronthestates.org/initiatives\\_detail.aspx?initiativeID=327561](http://www.pewcenteronthestates.org/initiatives_detail.aspx?initiativeID=327561)). Although, over the past 25 years, Louisiana's prison budget has skyrocketed from \$106 to \$548 million, the state is maintaining the status of having the highest incarceration rate in the world and one of the highest violent crime rates in the country. A great majority of those who are incarcerated are young males of African-American descent. Once incarcerated, most of these prisoners do not have enough rehabilitation to deal with the stress associated with being away from their families and the larger free society once they are released. Also, despite the fact that they acquired technical and other useful job enhancing skills while in prison, the prisoners do not have the skills to write and submit good resumes for jobs. Upon release from prison, most of these individuals will re-offend as a result of not having access to adequate post-prison rehabilitative services, which lead to their being imprisoned again. Nationally, in 2002 the recidivism rate was reported in 41 states to be about 45 percent. There was an overwhelming need for these individuals to receive broad trainings in resume writing and for parents, training in stress and anger management before being released from prison. These individuals, their families, society in general could benefit from the skills acquired before the prisoners are released.

**What has been done**

Monthly classes were conducted at Elayn Hunt Correctional Center (EHCC), Louisiana Correctional Institution for Women (LCIW), Opelousas City Jail, and East Baton Rouge Parish Prison. The staff provided Pre-Release classes to inmates who were within 3-6 months of being released. The classes were taught at. In addition, the Southern University Agricultural Research and extension Center faculty wrote and obtained a successful grant to provide training to

incarcerated individuals in two Louisiana parishes. The program is a replication from the University of Missouri's 4-H LIFE program which provided parenting classes to inmates and affords inmates an opportunity to have intimate family visits, using a 4-H meeting model. The program includes a mentoring and caregiver component to provide additional support to the family and child. Program staff received instructions on how to deal with incarcerated individuals and how to conduct workshops in prison and correctional establishments. Workshops were conducted for prisoners who are parents, resume writing sessions were conducted with related topics on preparing for and attending successful job interviews. For the program year, there were 31 classes provided to the aforementioned sites, service 1,077 male and female inmates.

### **Results**

Approximately 1077 inmates who attended the workshops/training sessions gained knowledge and learned how to handle anger and stress and how to write resumes.

More than 93 percent of the participants actually developed their resumes which they said will assist them with finding gainful employment once they are released from prison.

Approximately 90 percent indicated that they will avoid stress and anger because the lessons they learned had actually given them facts to consider and be thankful for.

Additionally, the project coordinator wrote and obtained \$82,000 in external funded grant to enhance this program.

Some personal statements include:

- The Anger Management Class was very helpful?
- I learned to develop ways to control myself?
- I learned how to control my anger and be a better father to my kids.?

## **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
724	Healthy Lifestyle
801	Individual and Family Resource Management
802	Human Development and Family Well-Being

## **Outcome #2**

### **1. Outcome Measures**

2. Percentage of families or individuals who adopt recommendations

### **2. Associated Institution Types**

- 1890 Extension
- 1890 Research

### **3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	65

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Among the socially and economically disadvantaged, most families lack skills and knowledge in strengthening their family structure and developing a sense of community. Generally, families statewide also lack knowledge in communicating with other family members and individuals in their communities. Lack of communication usually results in misunderstanding and conflict that could lead to other serious social issues which could also affect the fabric of society with severe implications on the youth.

**What has been done**

Extension educators have provided workshops and conducted an annual program that acknowledges families and the culture of families statewide. The programs were couched in the concepts of strengthening families (e.g., communication, contentment, and community). There were other class sessions that helped parents grasp children’s stages of development, and modeling and understanding the appropriate behavior for children. These programs reached a total of 2,706 families.

**Results**

Families and other individuals were given a basic background in communication and participated in sessions that allowed for some pragmatic experiences among families. Evaluations reflect that participants attending workshop sessions developed a better sense of communication within the family structure. The short-term objectives for program participants were accomplished in sessions where 95 percent of the family members and other individuals were able to define communication, express the value of communication in their family, and identify methods that could improve their settings. Program participants (40 percent) acquired research-based information which allowed them to change the methods they used in communicating with family members. As a result of these workshops and other meeting sessions, SUAREC extension services saved tax payers about \$81,180. For the economically disadvantaged and limited resource families \$81,180 is a large sum of money which they could not afford.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
724	Healthy Lifestyle
801	Individual and Family Resource Management
802	Human Development and Family Well-Being

**Outcome #3**

**1. Outcome Measures**

3. Percentage of clients who changed behavior or experienced positive changing family conditions

**2. Associated Institution Types**

- 1890 Extension
- 1890 Research

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	45

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Louisiana has about 15,000 child care providers and over 215,900 children are enrolled in or in need of child care. About 12,000 of the workers are in licensed child care facilities or registered family child care homes. Children living in low income families are usually less likely to be enrolled in child care center. There was an overwhelming need for early child care along with continuous and comprehensive training for parents with limited or no resources and a lack of self-sufficiency. There is a strong connection between high quality early childhood programs and later success in school. Parenting programs help parents develop skills that will provide positive and effective parenting. The culturally sensitive program provides educational information basis norms and family values.

**What has been done**

The state of Louisiana requires that child care providers have 12 hours of continuing education hours annually, especially if they are to receive monetary benefits from the state for services rendered to limited income families. In order to ensure that childcare providers deliver quality care, providers in five Louisiana parishes have received at least six hours of professional training. To accommodate the needs of the underserved and socially disadvantaged, these training sessions were offered at convenient and flexible times, and held in accessible locations for providers in rural and urban areas of the state. Classes taught to the providers were based on the competency levels of the Child Development Associate (CDA) Credential. In 2011, Southern University Ag Center continued the sessions in partnership/collaboration with faith based-organizations ministries, families, etc. Additionally, workshops were organized for parents, head start and child care centers. Childhood obesity prevention was part of the course offered during the training for child care providers.

**Results**

Child care providers who attended classes conducted by the SU Ag Center saved over \$180,000 in fees and charges. A total of 1,637 providers completed surveys in the class sessions. The composition of the participants was as follows: 79 percent African-Americans, 15 percent Caucasians, 3 percent Hispanics, 1 percent Asians, and 2 of other races. Evaluation of the participants reflects knowledge gained and some behavior changes as a result of attendance at the training. Results of the evaluation can be summarized as follows:

- 89% of the providers stated that they learned more because the training was sensitive to all learning styles.
- 91% of the providers stated that the structure of the training sessions, and the hands-on activities made it easier to gain more knowledge and increase skills.
- 74% of the providers indicated that child care classes gave them more ideas for class interaction with children and other center teachers.
- 66% stated that child care training gave them a sense confidence in working at the center (or family child care) for their home.
- 87% of the providers indicated that they benefited more from the sessions than was intended.
- 5% of the providers who did not have credentials indicated that they would acquire Child Development Credentials.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle
801	Individual and Family Resource Management
802	Human Development and Family Well-Being

#### V(H). Planned Program (External Factors)

##### External factors which affected outcomes

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

##### Brief Explanation

Ongoing economic crisis caused serious setback on the availability of state funds in Louisiana. In FY 2011, the state budgets were again drastically reduced, oftentimes in the middle of the fiscal year. This action resulted in severe loss of funding for planned activities which in turn negatively affected outcomes. Additionally, budget problems and government priority changes caused the relocation of some program participants resulting in decline in number of citizens impacted. Additionally, the decline in rural population for Louisiana means that the state receives less federal formula fund. Furthermore, the continuing recovery from

previous hurricanes (2005 and 2008) and the 2010 oil spill inflicted much havoc on the state and impacted outcomes.

**V(I). Planned Program (Evaluation Studies)**

**Evaluation Results**

{No Data Entered}

**Key Items of Evaluation**

{No Data Entered}

**V(A). Planned Program (Summary)**

**Program # 8**

**1. Name of the Planned Program**

Youth Development

**V(B). Program Knowledge Area(s)**

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
724	Healthy Lifestyle		20%		20%
806	Youth Development		80%		80%
	<b>Total</b>		100%		100%

**V(C). Planned Program (Inputs)**

1. Actual amount of FTE/SYs expended this Program

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Actual Paid Professional	0.0	9.0	0.0	2.0
Actual Volunteer	0.0	7.0	0.0	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
0	331399	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	359951	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

**V(D). Planned Program (Activity)**

1. Brief description of the Activity

To address Youth development, SU Ag Center programs emphasized the following activities (which partly helped in addressing childhood obesity):

- Livestock, Poultry and Rabbit Show; Youth Educational Support and After School Program (YES); Parish Achievement Days; Science Fairs; Field Trips; Family and Youth Exposition, mentoring programs; and peer counseling.
- The Center also engaged in recruiting and training volunteers/parents to assists in parish program activities.
- Conducted innovative programs to enhance social status for rural and urban youth and introduced them to new scientific and technological discoveries.
- Focused on the learning experience of children, youth, and families in communities with at risk environments to increase self-reliance, self-esteem, and confidence.
- Organized youth back-to-school summit to address risky behaviors and encourage healthy lifestyles.
- Taught business techniques, ethics and etiquette as prerequisite to business start-up.
- Showed aspiring entrepreneurs how to identify and engage in potential business opportunities.

**2. Brief description of the target audience**

A large number of children under 18 years of age in Louisiana are placed at risk because their families survive on low income and limited resources. They lack knowledge, information, and/or skills to utilize existing resources to improve their quality of life. Eighteen percent of Louisiana's families with children and 23 percent of adults without children live in poverty. Poverty rates are higher among African-Americans (44 percent) and children 18 and under (31 percent). Louisiana ranks 13th in the United States for Food Stamp Program participation. This planned program targeted such children ages 5 -18 years who are vulnerable to these situations. Parents and/or guardians of these children are also targeted. Additionally, children and adolescents who are placed at risk, those who are potentially at risk and children who need various forms of mentoring benefited from planned program activities. Program staff and volunteers were trained to ensure effective, efficient, and age-appropriate delivery of educational information.

**3. How was eXtension used?**

{No Data Entered}

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	0	0	54783	230017

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

Year: 2011  
 Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2011	Extension	Research	Total
Actual	1	0	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- 1. Number of educational program activities

Year	Actual
2011	1104

**Output #2**

**Output Measure**

- 2. Number of educational contacts

Year	Actual
2011	284800

**Output #3**

**Output Measure**

- 3. Number of published materials distributed

Year	Actual
2011	9915

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	1. Percent of youth who gained new knowledge/skills and awareness
2	2. Number of youth participants involved in community activities
3	3. Number of volunteer leaders (trained to lead youth participants)

## **Outcome #1**

### **1. Outcome Measures**

1. Percent of youth who gained new knowledge/skills and awareness

### **2. Associated Institution Types**

- 1890 Extension
- 1890 Research

### **3a. Outcome Type:**

Change in Knowledge Outcome Measure

### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	85

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

Louisiana youth, like their counterparts in other American states face series of problems including: lack of access to health and mental health care; child abuse and neglect; failing schools; "zero tolerance" school discipline policies; tougher sentencing guidelines drugs and violence, racial and economic disparities; a lack of positive role models and a culture that glorifies excessive consumption violence and triviality. Louisiana's urban and rural youth lacked enrichment programs which focused on life skills, agricultural skills, social skills, and academic enhancement. Youth are still learning about the benefits of being involved in agricultural projects. 18 percent of Louisiana's families with children and 23 percent of adults without children live in poverty. Poverty rates are higher among African-Americans (44 percent) and children 18 and under (31 percent).

#### **What has been done**

SUAREC's Livestock Program designed activities that brought together the extension agents, agriculture teachers, students, parents and community supporters. These activities provided opportunity for the youth of Louisiana to develop high self esteem, leadership skills, and entrepreneurship skills. Livestock training programs were conducted that taught proper handling techniques, health management, production management, and proper showmanship techniques. These livestock programs carries a strong legacy of providing youth of Louisiana the possibility of learning valuable life skills and developing character by participation in a livestock or horse project. SUAREC conducted 18 meetings with 570 youth participants, parents, agriculture teachers and community supporters in preparation for the year's shows and activities.

#### **Results**

Through the auction process, SUAREC assisted youth participants in selling over \$62,551 worth of products that received premium values totaling \$15,500 above fair market prices. On average,

the champion steers received \$3,350; champion swine received \$1,025; and the champion goat received \$1,200. These animals were purchased from Louisiana's youth with money donated by livestock contributors. A survey conducted during the Livestock show indicated that 94 percent of the respondents stated that preparing for the Show helped them learn how to manage their time; 97 percent developed self confidence; 96 percent developed critical thinking skills; 95 percent developed leadership skills, and 97 percent learned about being responsible. Youth participants and exhibitors also acquired knowledge about planning and running a livestock business, being peer mentors and volunteer leaders. About 86 percent had attended/exhibited at the Livestock Show. A great testament to the value of the Livestock Show is that parents and grandparents who had exhibited at the Show have continued to accompany their children/grandchildren to this 3-day event.

Here are few quotes from the evaluation and letters received:

- ?Showing steers has helped me to have more confidence in myself and to excel in my life. I have developed a CAN DO Attitude?
- ? ?. We will never miss the Show? your show is the nicest, most caring people, efficient ??
- ?I love the livestock show ??

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
806	Youth Development

**Outcome #2**

**1. Outcome Measures**

- 2. Number of youth participants involved in community activities

**2. Associated Institution Types**

- 1890 Extension
- 1890 Research

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2011	3330

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

The Food and Agricultural systems have called for graduates with strong backgrounds in science, technology and humanities. As in the previous decades, projections indicate that there will not be sufficient numbers of graduates to fill crucial scientific and professional positions (Goecker et.al, 2005). Due to the negative connotations, unless exemplary initiatives are designed, supported and implemented, the agricultural industry in the USA may not have sufficient scientists and staff to fill vacant positions. Additionally, African-Americans and other minorities have had negative experiences with agricultural endeavors, these audiences still do not fully participate in this industry, primarily beyond service level positions. Bitter memories of poverty, slavery, and low socioeconomic status continues to cloud many minority people's perceptions of agriculture as a profession? (Larke and Barr, 1987, p 6). Financial assistance is a major concern for poor and underserved students and parents when choosing academic majors and career paths. In Louisiana, financial assistance is available to high school students who score high in both the ACT/SAT and the cumulative grade point average.

### **What has been done**

Southern University Ag Center faculty and staff successfully obtained a grant to enhance student's knowledge and application of standardized test taking skills through instruction in English, mathematics, science reasoning, communication skills, the humanities and computer literacy. Seventeen high school juniors from across the state of Louisiana were recruited to participate in an intensive 5-week summer preparatory program to meet the minimum requirements necessary to take advantage of the Louisiana Tuition Opportunity Program for Students (TOPS). In order to assist participants in meeting TOPS requirements, they were given instruction in mathematics, English, science reasoning, humanities, computer literacy and communication skills using the microcomputer as an educational tool. This instruction was enhanced by the utilization of preparatory software for the ACT as a weekly activity. They also had experiential short courses in the food and agricultural sciences highlighting horticulture, urban forestry, animal science, agricultural economics, food science, human nutrition, clothing and textiles and leadership development. Short courses and field trips were conducted to further enhance participants learning experience. University faculty and researchers, extension agents, USDA employees and collaborators conducted these courses. Topics of focus for these courses and field trips were primarily focused on food, agriculture and leadership development. A training manual with comprehensive information about the USDA will be developed to guide the participants through Phase II of the project.

### **Results**

This 2-year summer program is implemented in two phases. The goal of Phase I was to assist program participants increase their ACT score in order to qualify for the Tuition Opportunity Program for Students (TOPS) award. Participants had 18 hours of ACT preparation with Princeton Review; three practice 3.5 hrs long ACT tests, 20 hrs of instruction in each of the followings: English, Social Studies, Math & Science to include a 3-hour lab in each subject, and exposure to careers & majors in the Food & Agricultural Sciences.

-100 percent of the participants improved their ACT scores, 41% qualified for TOPS, and 41% scored close to qualifying for TOPS.

-Each participant (and their parent) saved \$2,400 (a total of \$41,000 for 17 participants. Besides, the participants gained useful knowledge of college life and how to adjust away from home.

-With a very rigorous schedule, each participant also performed 20 hours of community service with several organizations including entities that cater for at-risk youth.

-100 percent of the participants have indicated interest in enrolling in college and pursuing courses in agriculture and food discipline.

-Participants successfully read a leadership development book and each conducted individual SWOT (strengths, weaknesses, opportunities, and threats) promising to use the results to

enhance their well-being.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

#### Outcome #3

##### 1. Outcome Measures

3. Number of volunteer leaders (trained to lead youth participants)

##### 2. Associated Institution Types

- 1890 Extension
- 1890 Research

##### 3a. Outcome Type:

Change in Condition Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2011	881

##### 3c. Qualitative Outcome or Impact Statement

###### **Issue (Who cares and Why)**

Louisiana youth, like their counterparts in other American states face series of problems including: lack of access to health and mental health care; child abuse and neglect; failing schools; "zero tolerance" school discipline policies; tougher sentencing guidelines drugs and violence, racial and economic disparities; a lack of positive role models and a culture that glorifies excessive consumption violence and triviality. Louisiana's urban and rural youth lacked enrichment programs which focused on life skills, agricultural skills, social skills, and academic enhancement. Youth are still learning about the benefits of being involved in agricultural projects. 18 percent of Louisiana's families with children and 23 percent of adults without children live in poverty. Poverty rates are higher among African-Americans (44 percent) and children 18 and under (31 percent).

###### **What has been done**

To combat the devastating effects of severe state budget reductions on research and extension activities, SUAREC's Youth Program recruited volunteers to assist in programs. More than 1,000 individuals volunteered during scheduled activities in FY 2011, 881 of these volunteers were trained to assist in activities such as the livestock show, youth and family exposition, back-to-school summit and other large events that normally attract large crowd of participants and visitors. Volunteers included youth, retired extension agents, agriculture teachers, parents and community

supporters. These activities provided opportunity for the youth of Louisiana to develop high self esteem, leadership skills, and entrepreneurship skills.

**Results**

In the past five years, the state general funds for the SU Ag Center had been reduced by about 45 percent amidst increasing needs for extension and outreach activities. The recruitment and participation of 881 volunteers with an average of 20 volunteer hours greatly enhanced the ability of the center to deliver service to youth. Their volunteer assistance saved the tax payers over 17,620 hours of work or an equivalent of 8.50 FTE (about \$211,440 in realtime wages).

Additionally, volunteers gained new knowledge and skills which were greatly beneficial to them,

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
806	Youth Development

**V(H). Planned Program (External Factors)**

**External factors which affected outcomes**

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

**Brief Explanation**

Ongoing economic crisis caused serious setback on the availability of state funds in Louisiana. In FY 2011, the state budgets were again drastically reduced, oftentimes in the middle of the fiscal year. This action resulted in severe loss of funding for planned activities which in turn negatively affected outcomes. Additionally, budget problems and government priority changes caused the relocation of some program participants resulting in decline in number of citizens impacted. Additionally, the decline in rural population for Louisiana means that the state receives less federal formula fund. Furthermore, the continuing recovery from previous hurricanes (2005 and 2008) and the 2010 oil spill inflicted much havoc on the state and impacted outcomes.

**V(I). Planned Program (Evaluation Studies)**

**Evaluation Results**

{No Data Entered}

**Key Items of Evaluation**

{No Data Entered}

**V(A). Planned Program (Summary)**

**Program # 9**

**1. Name of the Planned Program**

Other

**V(B). Program Knowledge Area(s)**

1. Program Knowledge Areas and Percentage

**V(C). Planned Program (Inputs)**

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

Year: 2011	Extension		Research	
	1862	1890	1862	1890
Plan	0.0	7.0	0.0	3.0
Actual Paid Professional	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
Actual Volunteer	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

**V(D). Planned Program (Activity)**

**1. Brief description of the Activity**

1. Extension and Research faculty work cooperatively to develop and disseminate educational materials devoted to helping the family set goals and manage limited resources.
2. Community Volunteers (advisory committee, Community organizations, etc.) will be organized to help disseminate information, increase awareness and implement programs.
3. Consumer curriculum will be designed to support objectives on financial planning and management.
4. Partnerships with banks and other financial agencies will be solicited and their expertise utilized.
5. Research results and other information will be communicated to customers through extension

personnel in the form of publications, conferences, workshops, home/office visits, demonstrations and other educational resources.

6. Collaborate, cooperate and partner with local, state and federal agencies, institutions, groups, private organizations/associations in seeking and delivering services to citizens.

7. Others include: Nutrition Classes; Training sessions for adults and children; Parenting Workshops; Parish and home visits; and Demonstrations.

8. Hire additional experienced personnel and build capacity to respond to clientele needs.

9. Develop disaster plan including mechanisms for assistance to victims

**2. Brief description of the target audience**

There are large numbers of low income and limited resource families in Louisiana who reside in the target areas that SUAREC serves. Most of these families live below the poverty level. They lack knowledge, information, and/or skills to utilize existing resources to improve their parenting and child care skills, family nurturing, learning, resource management, and quality of life. Children and adolescents who are placed at risk and those that are potentially at risk will also be beneficiaries. It is also essential to train program staff and volunteers to ensure effective and efficient delivery of information.

**3. How was eXtension used?**

{No Data Entered}

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2011	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	0	0	0	0

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

**Patent Applications Submitted**

Year: 2011

Actual: {No Data}

**Patents listed**

{No Data Entered}

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2011	Extension	Research	Total
<b>Actual</b>	1	1	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- 1. Number of educational program activities

<b>Year</b>	<b>Actual</b>
2011	0

**Output #2**

**Output Measure**

- 2. Number of educational contacts

<b>Year</b>	<b>Actual</b>
2011	0

**Output #3**

**Output Measure**

- 3. Number of published materials distributed

<b>Year</b>	<b>Actual</b>
2011	0

**Output #4**

**Output Measure**

- 4. Number of research & extension outreach publications

<b>Year</b>	<b>Actual</b>
2011	0

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	1. Percent of clients who gained new knowledge/skills, awareness and/or changed attitudes
2	2. Percentage of families or individuals who adopt recommendations
3	3. Percentage of clients who changed behavior or experienced positive changing family conditions

**Outcome #1**

**1. Outcome Measures**

- 1. Percent of clients who gained new knowledge/skills, awareness and/or changed attitudes

**2. Associated Institution Types**

- 1890 Extension
- 1890 Research

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2011	0

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**  
{No Data Entered}

**What has been done**  
{No Data Entered}

**Results**  
{No Data Entered}

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
{No Data}	null

**Outcome #2**

**1. Outcome Measures**

- 2. Percentage of families or individuals who adopt recommendations

**2. Associated Institution Types**

- 1890 Extension
- 1890 Research

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2011	0

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

{No Data Entered}

**What has been done**

{No Data Entered}

**Results**

{No Data Entered}

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
{No Data}	null

**Outcome #3**

**1. Outcome Measures**

3. Percentage of clients who changed behavior or experienced positive changing family conditions

**2. Associated Institution Types**

- 1890 Extension
- 1890 Research

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2011	0

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**  
{No Data Entered}

**What has been done**  
{No Data Entered}

**Results**  
{No Data Entered}

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
{No Data}	null

**V(H). Planned Program (External Factors)**

**External factors which affected outcomes**

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

**Brief Explanation**

{No Data Entered}

**V(I). Planned Program (Evaluation Studies)**

**Evaluation Results**

{No Data Entered}

**Key Items of Evaluation**

{No Data Entered}