

# 2014 Auburn University and Alabama A&M University Combined Extension Annual Report of Accomplishments and Results

Status: Accepted

Date Accepted: 06/01/2015

## I. Report Overview

### 1. Executive Summary

#### OVERVIEW STATEMENT

Alabama is unique as the only state with three Land Grant institutions with USDA Research and Cooperative Extension responsibilities. Alabama A&M University, Auburn University, and Tuskegee University each provide Research and Cooperative Extension programs to meet the needs of the citizens of Alabama and the nation.

The Universities...

Alabama A&M University is an 1890 land-grant institution with a comprehensive university Carnegie classification, functioning in the areas of teaching, research, and Extension including public service. Alabama A&M is a doctoral degree granting institution with strong graduate programs in the STEM sciences. Through dynamic and contemporary research and outreach programs, the institution maintains a strong commitment to academic excellence and community engagement to meet the needs of its students and the community and nation at-large.

Auburn University is an 1862 land-grant institution with high research activity; comprehensive doctoral with medical/veterinary Carnegie classification. Auburn University's mission is defined by its land-grant traditions of service and access. The University serves the citizens of the State through its instructional, research and outreach programs and prepares Alabamians to respond successfully to the challenges of a global economy.

The Tuskegee University mission, historically and today, together with specific acts of the United States Congress and the State of Alabama defines Tuskegee as an 1890 land-grant University with a Master's Colleges and Universities Carnegie classification. Through integrative teaching/learning, research/discovery, and Extension/engagement programs the University addresses contemporary societal problems as opportunities to advance individuals, families, and communities.

Research and Cooperative Extension....

Research at each Alabama Land-Grant Institution has distinct programs based on clientele needs. Each component of the Alabama Agricultural Research Program works closely and cooperatively to enhance partnerships among the universities in all areas of research and Extension; with other universities in the region, nationally, and internationally; and with state and federal laboratories and agencies. Alabama's three land-grant universities have played key roles in the development of agricultural enterprises in Alabama. The agricultural research programs of these universities have formed a partnership, the Alabama Agricultural Land-Grant Alliance (AALGA), to better address critical issues in food, agriculture, rural sustainability, environment, bioenergy, and natural resources in the state, region, and nation through multidisciplinary, multi-institutional, science-based teams that focus on the opportunities and the challenges facing farmers, consumers and agribusinesses. AALGA also seeks to provide quality education

that prepares professionals for career opportunities in food, agriculture, environment, and natural resources. Research programs at each of our institutions are closely linked to Extension programs, which seek the largest possible positive social, economic, and environmental impact.

Alabama A&M University and Auburn University provide Extension educational outreach as a unified Alabama Cooperative Extension System. The Alabama A&M University (AAMU)-funded portion of the System focuses its resources on serving urban and nontraditional clientele; the Auburn University (AU)-funded portion of the System focuses its resources on serving rural and traditional clientele. However, given that the boundaries between rural and urban, and between nontraditional and traditional, are vague, the Alabama Cooperative Extension System employs a highly collaborative program development and delivery process that allows for the integrative and collaborative application of the resources from both Alabama A&M and Auburn Universities to serve and meet the needs of all Alabamians in all 67 counties within the state. Agents from the two institutions are co-located together in county Extension offices and function as a county Extension team.

Tuskegee University Cooperative Extension (TUCE) in partnership with the Evans Allen Research Program, Carver Integrative Sustainability Center (USDA 1890 Center of Excellence) and other research, teaching and outreach units, carries out a comprehensive Extension Plan of Work. TUCE continues to focus its major efforts in Alabama Black Belt and adjacent counties, but has programs in other counties, such as in Marshall County with the Cherokee Tribe of North East Alabama (CTNEAL) and other targeted Native and Hispanic populations. Many TUCE agents are office in the same facility as the county ACES agents. They work collaboratively on those Extension programs that are of mutual interest.

The world is facing major challenges with food, energy, environmental sustainability, natural resources, climate change, economic development in all sectors, as well as, human health and well-being and related issues. In order to address issues related to these major local, national and international challenges, integrative and collaborative research and Extension programs have been designed to address most of these challenges. The Alabama Land-Grant Institutions are cognizant of the necessity to continue to address the five NIFA Priorities. Indeed, those programs are priorities for Alabama residents as well. The FY2015 Combined Alabama A&M University, Auburn University, and Tuskegee University Research and Extension Plan of Work is founded on the following Planned programs:

Global Food Security and Hunger  
Food System and Food Safety  
Natural Resources Conservation and Management, Environmental Sustainability and Climate Change  
Human Nutrition, Well-being, Health and Obesity  
Community Development  
Family, Home and 4-H and Youth Development  
Sustainable Energy

Alabama through numerous avenues conducts extensive needs assessment through a grass tops - grass roots process. State-wide stakeholder leaders are engaged by all institutions across the disciplines along with county and community public policy makers to identify contemporary and emerging research/Extension issues. This process is complemented with grass roots stakeholder meetings held annually in each county and at each Research-Extension Center to determine local and regional issues and opportunities.

The three land-grant institutions fully integrate these statewide issues into the coordinated initiatives outlined in this POW. Statewide initiatives are interwoven with national USDA priorities in the document. Almost all research and Extension programming in Alabama involves more than one land-grant institution. Extension programming is an integral component of Alabama's research planning in that most of the research conducted by the three Agricultural Experiment Stations have a predetermined intended

use and planned Extension delivery phase.

Additionally, the land-grant universities of Alabama engage partner organizations and 1862/1890 universities in neighboring states to capitalize upon combined strengths and optimize impacts. Examples of multi-state cooperation are evident in most of the listed priorities and program initiatives in the 2015 POW.

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

Year: 2014	Extension		Research	
	1862	1890	1862	1890
Plan	329.2	52.7	0.0	0.0
Actual	352.0	38.0	0.0	0.0

**II. Merit Review Process**

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

- Combined External and Internal University External Non-University Panel

**2. Brief Explanation**

The Merit Review Process received minor modification for Fiscal Year 2014.

**PROGRAM REVIEW PROCESS**

The Plan of Work (POW) Review Process for the Alabama Cooperative Extension System's FY2013- 2017 plan is a five phase process. It is an inclusive process allowing input from all levels in the system. This process has proven to be effective in the system and will continue to be utilized for the duration of the Plan.

**Phase I** of the review process was conducted by the Priority Program Team (PPT) Co-Chairs with input from all team members. Each PPT Co-Chair is responsible for reviewing program data to ensure information provided for the POW is accurate and represents critical needs identified by Alabama residents.

**Phase II** of the POW process was conducted by the Assistant Directors. Assistant Directors representing all program areas reviewed POW data for: relevancy, competency of Extension to address identified issues, opportunities for inclusion of Multistate /Integrated Research and Extension Activities, and to ensure the existence of measurable impact and outcome indicators are in line with established national standards.

**Phase III** of the review process was conducted by the System Administrative Team. The Administrative team (Director / 1890 Administrator/ Associate Directors, Chief Financial Officer, Human Resources Officer) reviewed the POW for:

- Consistency with System / University missions
- The inclusion of approved PPAs (and related ETPs),
- The adequacy of fiscal / human resource allocations needed for successful implementation of included programs,
- The capacity to offer educational services to a broad spectrum of Alabama residents, rural / urban, and across diverse demographic parameters,
- The degree to which the Plan adequately reflected the consideration and inclusion of stakeholder and advisory inputs.

**Phase IV** of the POW review process included relevant University administrators such as Deans and

Department Heads (Alabama A&M and Auburn University). Many system specialists are housed in Academic Departments. Therefore, it was appropriate to include them in the review and to allow comments on the FY2013 - 2017 POW and expectations of the professionals in their respective departments.

**Phase V**, the final review process, solicited input from various state-wide Priority Program Team Advisory Councils. Advisory Councils assist Priority Program Teams with the identification of critical program issues and setting system priorities to address identified issues. Specific roles of the Priority Program Team Advisory Councils include: 1) assurance that programs included addressed needs of Alabama citizens; 2) Articulate System's programmatic efforts and accomplishments to key stakeholder / clientele groups / decision makers; 3) provide guidance and assistance in obtaining statewide support for included programs; 4) identify critical issues and problems which might be best addressed by System educational outreach; and 5) expand the collaboration and networking capabilities of the System in support of existing and proposed programs.

Results indicated that the review process provided positive opportunities for clarity and feedback at each phase. Feedback from Assistant Directors (some in academic and research departments) served as a mechanism to ensure that programs developed and implemented were relevant, measurable and were truly those identified as needs by Alabama residents and stakeholders. The review process also pinpointed opportunities for an integrative approach with research and other extension program areas. The merit review in Alabama will continue as a joint process with Extension and Research at Alabama A&M, Auburn University and Tuskegee University. Future efforts will make certain the review of extension and research programs are based on established national standards.

### **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.**

The Alabama Cooperative Extension System (ACES) utilizes a comprehensive grass-tops and grassroots needs assessment process. State-level constituent or consensus building groups, non-governmental agencies, community-based organizations, and governmental agencies are encouraged to participate in grass-tops needs assessment activities by inviting both traditional and non-traditional stakeholder groups. Individuals representing diverse socio-economic and racial groups, new client groups, networks, youth groups, and potential community partners are encouraged to participate in grassroots needs assessment activities by inviting both traditional and non-traditional stakeholder individuals. Media is used to announce and encourage individuals to participate in various activities.

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

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

- Use Advisory Committees
- Use Internal Focus Groups
- Use External Focus Groups
- Open Listening Sessions
- Needs Assessments
- Use Surveys

**Brief explanation.**

ACES program leaders lead respective program teams, consisting of Extension Specialists, Agents, Resource Specialists, and Farm Management Specialists to identify state-level constituent or consensus building groups, non-governmental agencies, community-based organizations, and governmental agencies. Methods for identifying these groups included existing advisory committees and interagency directories.

Grassroots stakeholders are identified by Extension Coordinators, Agents, and Resource Specialists who lead community conversations in the state's 67 counties. Methods included existing advisory committees, 4-H youth councils, contacts with other agency partners, and staff knowledge of individuals representing diverse socio-economic and racial groups, new client groups, networks, youth groups, and potential community partners. A grassroots web-based survey is marketed in all 67 counties through the media and directly via ACES webpages. Citizens are offered the opportunity to participate in the survey via public access computers at County Extension Offices. For the hard-to-reach communities in the Black Belt and with new immigrant populations, special county and state advisory councils have been established for engagement to secure a diversity of stakeholder input. County 4-H Youth Councils are asked for direct input and feedback and are asked to solicit input and feedback from other peer youth groups.

**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 with the general public (open meeting advertised to all)
- Meeting specifically with non-traditional groups
- Survey specifically with non-traditional groups

**Brief explanation.**

A comprehensive approach to needs identification is utilized given the complexity and scope of issues facing the citizens of Alabama. For ACES, the comprehensive needs assessment begins with the engagement of key external 'grass-tops' stakeholders to determine priority needs affecting Alabamians.

Program leaders and their respective program teams conduct the grass-tops needs assessment by engaging groups through direct telephone contacts, focus groups, advisory committees, networking, or short surveys. Each stakeholder group is asked 1) what priority initiatives are included in their strategic plan or plan-of-work, 2) what issues do they envision affecting the economic and physical wellbeing of Alabamians across the state, 3) what priority needs of their clientele connect with ACES' educational programming expertise, and 4) what linkages do they envision that would strengthen the working relationship with ACES' educational programming. Results gleaned from the grass-tops needs assessment activities are summarized to determine what major themes emerge.

The second major component of the comprehensive needs assessment involves engagement of 'grassroots' stakeholders. Extension Coordinators, Agents, and Resource Specialists organize grassroots community conversations to confirm, prioritize, or regionalize the grass-tops needs assessment results. Objectives are to engage a cross section of citizens, including youth, to 1) discuss and understand the facts regarding significant issues facing the state and the opportunities for positive change and 2) dialogue about significant issues and the potential for local programs that acknowledge and address the current changes in the way citizens think, live, and function in their daily lives, families, communities and businesses. A companion grassroots survey is administered via the ACES homepage.

For limited-resource and low-asset communities, their representation on the special county and state advisory councils in the Black Belt and adjacent service areas are invited and given the opportunity to use regularly scheduled conferences in order to collect input and feedback.

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

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

#### **Brief explanation.**

Strategic program initiatives are identified from the comprehensive grass-tops and grassroots needs assessment activities. Program leaders collaborate on the development of a logic model for each strategic program initiative focusing on specific objectives, outputs, and outcomes that allow for application across various program areas. Each logic model includes an evaluation plan.

Program leaders assist their respective program teams, consisting of Extension Specialists, Agents, Resource Specialists, and Farm Management Specialists, prepare a plan-of-work. Steps include: 1) to determine which strategic program initiatives fit with the team's capabilities and resources and to develop a programmatic response consistent with the objectives, outputs, and outcomes of the respective strategic program initiative logic model and 2) to complete the program team plan-of-work to include ongoing programs or special funded projects. A quarterly staff conference is used to process stakeholder input from the special and state advisory councils as a special effort on behalf of limited-resource and low-asset communities in the Black Belt.

Team plans-of-work are shared with Extension Coordinators, Agents, and Resource Specialists to align program alternatives and to make mutual decisions regarding programs, staff involved, dates, locations.

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

Strategic Program Initiatives:  
**Health and Wellness across the Lifespan**  
**Workforce Development**  
**Safe and Secure Food Supply**  
**Financial Literacy across the Lifespan**  
**Sustainable Agricultural and Forestry Systems**  
**Environmental Stewardship**

**IV. Expenditure Summary**

1. Total Actual Formula dollars Allocated (prepopulated from C-REEMS)			
Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
7093116	2165112	0	0

2. Totalled Actual dollars from Planned Programs Inputs				
	Extension		Research	
	Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
<b>Actual Formula</b>	5504187	1976749	0	0
<b>Actual Matching</b>	7093116	2165112	0	0
<b>Actual All Other</b>	35909987	4483133	0	0
<b>Total Actual Expended</b>	48507290	8624994	0	0

3. Amount of Above Actual Formula Dollars Expended which comes from Carryover funds from previous				
<b>Carryover</b>	5504187	73567	0	0

**V. Planned Program Table of Content**

S. No.	PROGRAM NAME
1	Childhood Obesity (Health and Wellness Across The Lifespan)
2	Climate Change
3	Food Safety (Safe and Secure Food Supply)
4	Global Food Security and Hunger (Sustainable Agricultural and Forestry Systems)
5	Sustainable Energy
6	Agriculture, Forestry, and Related Industries
7	Community, Family, Home and Youth Development
8	Economic and Community Development
9	Environmental Stewardship
10	Financial Literacy Across the Lifespan
11	Human Nutrition, Diet and Health
12	Workforce Development



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

**Program # 1**

**1. Name of the Planned Program**

Childhood Obesity (Health and Wellness Across The Lifespan)

Reporting on this Program

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

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
701	Nutrient Composition of Food	20%	20%		
702	Requirements and Function of Nutrients and Other Food Components	20%	20%		
703	Nutrition Education and Behavior	20%	20%		
704	Nutrition and Hunger in the Population	10%	10%		
723	Hazards to Human Health and Safety	10%	10%		
724	Healthy Lifestyle	10%	10%		
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: 2014	Extension		Research	
	1862	1890	1862	1890
<b>Plan</b>	24.6	6.0	0.0	0.0
<b>Actual Paid</b>	57.0	7.9	0.0	0.0
<b>Actual Volunteer</b>	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
764568	411832	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
1147730	451075	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
6440208	1036804	0	0

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

### 1. Brief description of the Activity

Expanded Food and Nutrition Education Program (EFNEP) assisted limited-resource audiences in acquiring knowledge, skills, and changed behavior necessary for nutritionally sound diets, and contribute to personal development and improvement of family diet and nutritional wellbeing. EFNEP provided audiences with opportunities for informed dietary choices, lifestyle changes, reduction in health care costs, and healthier lives. Youth engage in physical activity and also learn to prepare simple, healthy foods they can make for themselves and their family. The Coordinated Approach to Child Health (CATCH), an evidence-based, obesity prevention curriculum, is used by EFNEP educators to teach children and youth. EFNEP was leveraged by Smith-Lever and 1890 Extension funds.

Community Health Aerobic Motivational Program Initiating Optimal Nutrition (CHAMPION) curriculum is a series of 6 lessons- nutrition, health and physical activity.

Urban Expanded Food and Nutrition Education Program (UEFNEP) curriculum is a series of 10 lessons- nutrition, food safety, and physical activity.

Urban Supplemental Nutrition Assistance Program -Education (USNAP-Ed) curriculum is a series of 10 lessons- basic nutrition, physical activity, healthy snacks and beverages, emotional eating and food demonstrations.

SNAP-Ed - Body Quest: Food of the Warrior, childhood obesity prevention program. BQ empowers 3rd graders to increase fruit and vegetable (FV) consumption. During the 2013-2014 school year, 24 educators provided 17 weekly, 45-minute BQ classes to the treatment group. During intervention, six nutrition topics were sequentially taught: trying new foods, food groups, balanced meals, food nutrients, healthy snacks and extending FV message to others. At every intervention class, FV were emphasized. During the six traditional, educator-led lessons, instruction included lecture and interactive activities using a BQ card deck.. Treatment group: vegetable tastings at alternating classes and families received weekly take-home activities. Control group: pre/post assessments. 4-H BQ program also teaches components of Body Quest: Food of the Warrior program. SNAP-Ed was leveraged by Smith-Lever and 1890 Extension funds.

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

EFNEP's target audience is limited-resource children and youth in kindergarten and grades 4-8.

CHAMPION- Majority was females (50%), males (50%), ages 5-18 and African American (92%).

Urban Expanded Food and Nutrition Education Program (UEFNEP) - Majority was Hispanic (47%), females (60%) and in grades K-2 (65%).

Urban Supplemental Nutrition Assistance Program -Education (USNAP-Ed) - Majority was Non-Hispanic (87%), African American (63%), females (51%), ages 5-17 (98%).

SNAP-Ed - Body Quest: Food of the Warrior participants were third grade students in Alabama schools eligible for Supplemental Nutrition Assistance Program-Education (SNAP-Ed). This requires a school to have 50% or more students receiving free or reduced-price Lunch.

**3. How was eXtension used?**

CHAMPION curriculum contains research-based information from eXtension

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

**1. Standard output measures**

2014	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	0	0	94145	400635

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

**Patent Applications Submitted**

Year: 2014

Actual: 0

**Patents listed**

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

**Number of Peer Reviewed Publications**

2014	Extension	Research	Total
<b>Actual</b>	1	0	1

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

**Output Target**

**Output #1**

**Output Measure**

- This program area will include numerous output activities and methods as part of the SPIs and SPFs which are described/explained in the prior planned program; outcome activities and methods sections. The success of many of these outcomes will be formally evaluated/measured by using individual activity evaluation forms designed specifically for each activity, the success of other activities and methods will be measured by the level of participation in the activity. In the target boxes below for each year, we are indicating the number of individual activities within the SPIs and SPFs for this program area that will be formally evaluated using an evaluation instrument designed specifically for that activity. Publications  
Not reporting on this Output for this Annual Report

**Output #2**

**Output Measure**

- Number of EFNEP classes conducted

<b>Year</b>	<b>Actual</b>
2014	284

**Output #3**

**Output Measure**

- EFNEP: Number of participants

<b>Year</b>	<b>Actual</b>
2014	6587

**Output #4**

**Output Measure**

- EFNEP: Number of Curriculum

<b>Year</b>	<b>Actual</b>
2014	3

**Output #5**

**Output Measure**

- EFNEP: Number of 6-8 classes taught in series to youth

<b>Year</b>	<b>Actual</b>
2014	284

**Output #6**

**Output Measure**

- Urban EFNEP: Number of youth participated in program

<b>Year</b>	<b>Actual</b>
2014	142

**Output #7**

**Output Measure**

- The number of UEFNEP Presentations to Elementary Parent and Teacher Associations for Hispanic Parents

<b>Year</b>	<b>Actual</b>
2014	84

**Output #8**

**Output Measure**

- Urban EFNEP: Number of youth partnerships initiated or strengthened

<b>Year</b>	<b>Actual</b>
2014	18

**Output #9**

**Output Measure**

- Urban SNAP-Ed: Number of youth classes conducted

<b>Year</b>	<b>Actual</b>
2014	1640

**Output #10**

**Output Measure**

- UEFNEP Number of PTA presentations

<b>Year</b>	<b>Actual</b>
2014	2

**Output #11**

**Output Measure**

- Urban EFNEP: Number of in-service trainings

<b>Year</b>	<b>Actual</b>
-------------	---------------

2014 3

**Output #12**

**Output Measure**

- USNAP-Ed: Number of food demonstrations

<b>Year</b>	<b>Actual</b>
2014	178

**Output #13**

**Output Measure**

- USNAP-Ed: Number of marketing items distributed (water bottles and pencils, collectively)

<b>Year</b>	<b>Actual</b>
2014	1000

**Output #14**

**Output Measure**

- SNAP-Ed Body Quest: Number of Partnerships

<b>Year</b>	<b>Actual</b>
2014	27

**Output #15**

**Output Measure**

- SNAP-Ed Body Quest: Number of Grants submitted/awarded

<b>Year</b>	<b>Actual</b>
2014	1

**Output #16**

**Output Measure**

- SNAP-Ed Body Quest: Number of resources publications

<b>Year</b>	<b>Actual</b>
2014	8

**Output #17**

**Output Measure**

- SNAP-Ed Body Quest: Number of Curriculum

<b>Year</b>	<b>Actual</b>
2014	1

**Output #18**

**Output Measure**

- SNAP-Ed Body Quest: Number of research papers accepted for publication

<b>Year</b>	<b>Actual</b>
2014	1

**Output #19**

**Output Measure**

- SNAP-Ed Body Quest: Number of 6-8 classes taught in series to youth

<b>Year</b>	<b>Actual</b>
2014	274

**Output #20**

**Output Measure**

- SNAP-Ed Body Quest: Number of educational workshops conducted

<b>Year</b>	<b>Actual</b>
2014	4490

**Output #21**

**Output Measure**

- SNAP-Ed Body Quest: The number of students who completed the What?s for Lunch (W4L) checklist

<b>Year</b>	<b>Actual</b>
2014	3568

**Output #22**

**Output Measure**

- SNAP-Ed Body Quest: The number of assessments developed to assess FV knowledge

<b>Year</b>	<b>Actual</b>
2014	1

**Output #23**

**Output Measure**

- SNAP-Ed Body Quest: The number of student who completed the iChallenge assessment

<b>Year</b>	<b>Actual</b>
2014	3568

**Output #24**

**Output Measure**

- USNAP-Ed Number of Participants

<b>Year</b>	<b>Actual</b>
2014	3012

**Output #25**

**Output Measure**

- USNAP-Ed Number of Classes for Youth

<b>Year</b>	<b>Actual</b>
2014	1640

**Output #26**

**Output Measure**

- USNAP-Ed Number of Youth Sites for Programming

<b>Year</b>	<b>Actual</b>
2014	72

**Output #27**

**Output Measure**

- USNAP-Ed Number of Community Center sites for Programming

<b>Year</b>	<b>Actual</b>
2014	20

**Output #28**

**Output Measure**

- USNAP-Ed Number of Head Start Sites for Programming

<b>Year</b>	<b>Actual</b>
2014	6

**Output #29**

**Output Measure**

- USNAP-Ed Number of Park & Rec Sites for Programming



<b>Year</b>	<b>Actual</b>
2014	19

**Output #30**

**Output Measure**

- USNAP-Ed Number of Afterschool Programs

<b>Year</b>	<b>Actual</b>
2014	20

**Output #31**

**Output Measure**

- USNAP-Ed Number of Food Demonstrations

<b>Year</b>	<b>Actual</b>
2014	178

**Output #32**

**Output Measure**

- USNAP-Ed Number of nutrition education messages distributed

<b>Year</b>	<b>Actual</b>
2014	1000

**Output #33**

**Output Measure**

- CHAMPION: Number of youth participated

<b>Year</b>	<b>Actual</b>
2014	350

**Output #34**

**Output Measure**

- CHAMPION: Number of youth partnerships initiated or strengthened

<b>Year</b>	<b>Actual</b>
2014	26

**Output #35**

**Output Measure**

- CHAMPION: Number of in-service trainings

<b>Year</b>	<b>Actual</b>
2014	2

**Output #36**

**Output Measure**

- CHAMPION: Number of youth partnerships with Boys and Girls Clubs

<b>Year</b>	<b>Actual</b>
2014	3

**Output #37**

**Output Measure**

- Number of CHAMPION youth nutrition classes conducted

<b>Year</b>	<b>Actual</b>
2014	270

**Output #38**

**Output Measure**

- CHAMPION: Number of physical activity classes conducted

<b>Year</b>	<b>Actual</b>
2014	36

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

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

O. No.	OUTCOME NAME
1	Each ACES employee is required to provide a success story on the program activity which they felt best demonstrates the impacts of their work. These success stories contain the following elements: Why: Explain the reason the program was done, or the situation or problem that the program addressed What: Specifically what was done and how it was done. When: If this was a one-time event, the date it occurred. If it is was a series of events, or an on-going program, when it began. Where: Specific location-- the county or counties involved. Who and how many: The "who" includes both who did the program and who were the clients of the program, as well as how many people were served. So what: This is the part that gives the real meaning to "success". The basic question to be answered in this part is "what difference did this program make". The difference may be measured in terms of dollars, or in changes in habits, lifestyles or attitudes. Whenever possible use numbers to show the effect of the program. If it is not possible to use numbers, provide a qualitative measurement like client comments or another type of testimonial about the program. Since this program area is very broad in scope and contains multiple Extension Team Projects which have different outcomes measures, the impacts for this program area are best measured in the number and quality of the success stories generated by the individuals who work on these projects.
2	Summary of the data base questions for Human Nutrition Diet and Health and 4-H Youth Development;pre and post tests results;24 hour food recall and behavior check-list summary.
3	CHAMPION Pre and Post Tests and Weight Management Obeservation
4	EFNEP: The number of adults who Improved healthy behaviors
5	CHAMPION: Number of participants who increased knowledge of healthy behaviors
6	CHAMPION: The number of Youth with improved behavioral habits
7	SNAP-Ed Body Quest: The number of children who increased the consumption of fruits and vegetables
8	The number of children who replace sugar-sweetened beverages with water.
9	The number of children who increase physical activity
10	The number of children who increase physical activity with their family
11	The number of children who replace screen time with physical activity.
12	The number of children who increase breakfast consumption.

13	UEFNEP: The number of youth with increased knowledge on MyPlate
14	UEFNEP: The number of youth with increased request of healthier food options
15	UEFNEP: The number of children with Improved abilities to choose foods according to Federal Dietary Recommendations
16	UEFNEP: The number of children with Improved safe food handling practices
17	UEFNEP: The number of youth with Improved physical activity practices
18	UEFNEP: The number of participants with Improved physical activity practices
19	USNAP-Ed: the number participants with increase knowledge in basic nutrition concepts
20	USNAP-Ed: The number of participants that follow MyPlate recommendations
21	USNAP-Ed: The number of children who are physically active
22	USNAP-Ed: The number of children who prevent overeating by controlling emotions
23	USNAP-Ed: The number of youth who decreased the consumption of beverages that contain large amounts of sugar

## **Outcome #1**

### **1. Outcome Measures**

Each ACES employee is required to provide a success story on the program activity which they felt best demonstrates the impacts of their work. These success stories contain the following elements: Why: Explain the reason the program was done, or the situation or problem that the program addressed What: Specifically what was done and how it was done. When: If this was a one-time event, the date it occurred. If it is was a series of events, or an on-going program, when it began. Where: Specific location-- the county or counties involved. Who and how many: The "who" includes both who did the program and who were the clients of the program, as well as how many people were served. So what: This is the part that gives the real meaning to "success". The basic question to be answered in this part is "what difference did this program make". The difference may be measured in terms of dollars, or in changes in habits, lifestyles or attitudes. Whenever possible use numbers to show the effect of the program. If it is not possible to use numbers, provide a qualitative measurement like client comments or another type of testimonial about the program. Since this program area is very broad in scope and contains multiple Extension Team Projects which have different outcomes measures, the impacts for this program area are best measured in the number and quality of the success stories generated by the individuals who work on these projects.

Not Reporting on this Outcome Measure

**Outcome #2**

**1. Outcome Measures**

Summary of the data base questions for Human Nutrition Diet and Health and 4-H Youth Development;pre and post tests results;24 hour food recall and behavior check-list summary.

Not Reporting on this Outcome Measure

**Outcome #3**

**1. Outcome Measures**

CHAMPION Pre and Post Tests and Weight Management Obeservation

Not Reporting on this Outcome Measure

**Outcome #4**

**1. Outcome Measures**

EFNEP: The number of adults who Improved healthy behaviors

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	6587

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

**Issue (Who cares and Why)**

Childhood obesity is one of the greatest pressing child health issues in Alabama and children and youth of limited-resource families are at particular risk. Diet quality, physical activity, and food safety practices are healthy behaviors that Alabama's limited-resource children and youth should put into practice to help prevent obesity.

**What has been done**

To help EFNEP children and youth participants practice healthy behaviors, 41 EFNEP educators taught a series of six nutrition education lessons emphasizing diet quality, physical activity, and food safety practices to the target population in 38 Alabama counties. Goals were accomplished

through education, food demonstrations/tasting experiences, and hands-on activities.

**Results**

As a result of participating in EFNEP, children and youth showed improvement by cluster of behavior as noted. For children in kindergarten through grades 2, 90% improved in 1 or more skill necessary to choose foods consistent with Federal Dietary Guideline recommendations, 51% of children improved their physical activity practices, and 51% improved skills related to handling food safely. For children and youth in grades 3 through 5, 85% improved in 1 or more skill necessary to choose foods consistent with Federal Dietary Guideline recommendations, 38% of children improved their physical activity practices, and 38% improved skills related to handling food safely. For youth in grades 6 through 8, 91% youth adopt and practice in 1 or more food selection behavior(s) consistent with Federal Dietary Guideline recommendations, 75% youth adopt or improve 1 or more habit(s) or behaviors related to physical activity, 66% youth adopt and practice 1 or more behavior(s) necessary to handle food safely, and 59% youth adopt or improve 1 or more knowledge or skill(s) necessary to prepare simple, nutritious, affordable food.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

**Outcome #5**

**1. Outcome Measures**

CHAMPION: Number of participants who increased knowledge of healthy behaviors

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	350

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

**Issue (Who cares and Why)**

Alabamians' obesity rate is significantly high in youth 2-17 years old (28%). This rate has an effect on the increased incidents of obesity-related diseases (Diabetes-14.1%, Hypertension-40.0%, High Cholesterol-34.1 %, Coronary Heart Disease-7.4%). Contributing key factors are unhealthy eating habits- consume under the recommended servings of fruits and vegetables combined

(youth-165%) and physical inactivity (youth-22.4%).

**What has been done**

Nine (9) Urban Regional Extension Agents (UREAs) implemented a 10 week Community Health Aerobic Motivational Program Initiating Optimal Nutrition (CHAMPION) program in nine (9) metropolitan areas. Each agent conducted five (6) lessons and two (2) 60 minutes exercise classes using the iChoose CHAMPION curriculum for youth ages 5 and 17. Before and after lessons, the agents collected demographics, behavioral and knowledge data. Behavioral habits were reassessed three (3) months after program completion.

**Results**

An independent-samples t-test was conducted to compare before and after knowledge of each youth group (K-4th, 5th-8th and 9th-12th grades) on healthy behaviors (nutrition and physical activity). K-4th graders' pretests (N=243) and posttests (N=240), there was a significant difference (p<0.05) in the scores for pretests (M=1.76, SD=1.27) and posttests (M=3.24, SD=1.49), t= -11.78. The results suggested that K-4th graders' knowledge increased from pretests to posttests. 2) 5th-8th graders' pretests (N=50) and posttests (N=37), there was no significant difference (p>0.05) in the scores for pretests (M=5.08, SD=2.02) and posttests (M=5.73, SD=2.05), t= 1.47. The results suggested that 5th-8th graders' knowledge did not change from pretests to posttests. 3) 9th- 12th graders' pretests (N=57) and posttests (N=57), there was a significant difference (p<0.05) in the scores for pretests (M=5.60, SD=2.42) and posttests (M=8.49, SD=1.72), t= -7.36. The results suggested that 5th-8th graders' knowledge increased from pretests to posttests.

**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 #6**

**1. Outcome Measures**

CHAMPION: The number of Youth with improved behavioral habits

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
------	--------

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

**Issue (Who cares and Why)**

Alabamians' obesity rate is significantly high in youth 2-17 years old (28%). This rate has an effect on the increased incidents of obesity-related diseases (Diabetes-14.1%, Hypertension-40.0%, High Cholesterol-34.1 %, Coronary Heart Disease-7.4%). Contributing key factors are unhealthy eating habits- consume under the recommended servings of fruits and vegetables combined (youth-165%) and physical inactivity (youth-22.4%).

**What has been done**

Nine (9) Urban Regional Extension Agents (UREAs) implemented a 10 week Community Health Aerobic Motivational Program Initiating Optimal Nutrition (CHAMPION) program in nine (9) metropolitan areas. Each agent conducted five (6) lessons and two (2) 60 minutes exercise classes using the iChoose CHAMPION curriculum for youth ages 5 and 17. Before and after lessons, the agents collected demographics, behavioral and knowledge data. Behavioral habits were reassessed three (3) months after program completion.

**Results**

Youth before (N=346), after (N=344) and three (3) months post-delayed (N=149) behavioral habits were assessed for consumption of fruits and vegetables and time engaged in physical activity. The majority of responded:

- 1) Vegetables consumption for Pre- Sometime (52%), Post- All the time (56%); Post-delayed- All the time (50%).
- 2) Fruits consumption All the time for Pre- 83%; Post- 83% and Post-delayed- 73%.
- 3) Physical activity All the time for Pre- 72%; Post- 74% and Post-delayed- 59%.

**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
724	Healthy Lifestyle

**Outcome #7**

**1. Outcome Measures**

SNAP-Ed Body Quest: The number of children who increased the consumption of fruits and vegetables

**2. Associated Institution Types**



- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	3568

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

**Issue (Who cares and Why)**

In just nine years, 2000-2009, obesity prevalence in the 50 states of the U.S. has increased from no states to nine states with greater than or equal to 30% obesity. Alabama is included among these nine states with an adult obesity prevalence of 33%. Alabama is ranked the 4th most obese state in the country, and has the 6th highest overweight levels for children at 36%.

**What has been done**

The flagship nutrition program for Auburn University Supplemental Nutrition Assistance Program-Education (SNAP-Ed) was Body Quest: Food of the Warrior, a childhood obesity prevention program for elementary youth. BQ empowers 3rd graders in Alabama to increase fruit and vegetable (FV) consumption. During the 2013-2014 school year, 24 educators provided 17 weekly, 45-minute BQ classes to the treatment group. During intervention, six nutrition topics were sequentially taught: trying new foods, food groups, balanced meals, food nutrients, healthy snacks and extending FV message to others. At every intervention class, FV were emphasized. For the treatment group only, vegetable tastings were provided at alternating classes and family members received weekly take-home activities. Control groups were only given pre- and post-assessments, but no intervention, FV tastings or family take-home messages.

**Results**

Body Quest students eat more fruits and vegetables. There was a significant interaction between the treatment type and the six assessment time points ( $F(4.83, 9293.6) = 22.137, p < 0.001$ ). The control group had a higher percent consumption than the treatment group at pre-assessment ( $F(1, 198.216) = 5.904, p = 0.016; 2 = 0.029$ ); however at post-assessment the treatment group had a higher percent consumption than the control ( $F(1, 193.739) = 13.46, p < 0.001; 2 = 0.065$ ). In the treatment condition, there was a significant increase in the percent of fruits and vegetables consumed across the six time points and a medium effect size ( $F(4.769, 5398.172) = 76.354, p < 0.001; 2 = 0.063$ ).

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
703	Nutrition Education and Behavior

## **Outcome #8**

### **1. Outcome Measures**

The number of children who replace sugar-sweetened beverages with water.

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

- 1862 Extension

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

Change in Condition Outcome Measure

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

<b>Year</b>	<b>Actual</b>
2014	3567

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

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

In just nine years, 2000-2009, obesity prevalence in the 50 states of the U.S. has increased from no states to nine states with greater than or equal to 30% obesity. Alabama is included among these nine states with an adult obesity prevalence of 33%. Alabama is ranked the 4th most obese state in the country, and has the 6th highest overweight levels for children at 36%.

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

The flagship nutrition program for Auburn University Supplemental Nutrition Assistance Program-Education (SNAP-Ed) was Body Quest: Food of the Warrior, a childhood obesity prevention program for elementary youth. BQ empowers 3rd graders in Alabama to adopt healthy eating practices for body weight management. During the 2013-2014 school year, 24 educators provided 17 weekly, 45-minute BQ classes to the treatment group. During intervention, six nutrition topics were sequentially taught: trying new foods, food groups, balanced meals, food nutrients, healthy snacks physical activity and extending fruit and vegetable message to others. For the treatment group only, vegetable tastings were provided at alternating classes and family members received weekly take-home activities. Control groups were only given pre- and post-assessments, but no intervention, fruit and vegetable tastings or family take-home messages.

#### **Results**

Body Quest students drink water instead of soda. At pre-assessment, there was no statistical difference between control and treatment conditions (1, N = 3567) = 0.03; n.s.); however at post-assessment, the treatment condition demonstrated a higher percent of students planning to drink water in the future than the control condition (1, N = 3332) = 62.783; p < 0.001). In the treatment condition, a higher percentage of students reported that they will drink water instead of soda at the post-assessment than at the pre-assessment (1, N = 1809) = 69.197, p < 0.001).

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

**KA Code**    **Knowledge Area**  
703            Nutrition Education and Behavior

**Outcome #9**

**1. Outcome Measures**

The number of children who increase physical activity

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	3560

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

**Issue (Who cares and Why)**

In just nine years, 2000-2009, obesity prevalence in the 50 states of the U.S. has increased from no states to nine states with greater than or equal to 30% obesity. Alabama is included among these nine states with an adult obesity prevalence of 33%. Alabama is ranked the 4th most obese state in the country, and has the 6th highest overweight levels for children at 36%.

**What has been done**

The flagship nutrition program for Auburn University Supplemental Nutrition Assistance Program-Education (SNAP-Ed) was Body Quest: Food of the Warrior, a childhood obesity prevention program for elementary youth. BQ empowers 3rd graders in Alabama to adopt healthy eating practices for body weight management. During the 2013-2014 school year, 24 educators provided 17 weekly, 45-minute BQ classes to the treatment group. During intervention, six nutrition topics were sequentially taught: trying new foods, food groups, balanced meals, food nutrients, healthy snacks, physical activity and extending fruit and vegetable message to others. For the treatment group only, vegetable tastings were provided at alternating classes and family members received weekly take-home activities. Control groups were only given pre- and post-assessments, but no intervention, fruit and vegetable tastings or family take-home messages.

**Results**

Body Quest gets kids moving. At pre-assessment, there was no statistical difference between control and treatment conditions (1, N = 3560) = 0.023; n.s.); however at post-assessment, the treatment condition demonstrated a higher percent of students being physically active than the control condition (1, N = 3328) = 23.182; p < 0.001). In the treatment condition, a higher percentage of students reported being physically active at the post-assessment than at the pre-

assessment (1, N = 1801) = 34.665, p < 0.001).

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior

#### Outcome #10

##### 1. Outcome Measures

The number of children who increase physical activity with their family

##### 2. Associated Institution Types

- 1862 Extension

##### 3a. Outcome Type:

Change in Condition Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	3551

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

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

In just nine years, 2000-2009, obesity prevalence in the 50 states of the U.S. has increased from no states to nine states with greater than or equal to 30% obesity. Alabama is included among these nine states with an adult obesity prevalence of 33%. Alabama is ranked the 4th most obese state in the country, and has the 6th highest overweight levels for children at 36%.

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

The flagship nutrition program for Auburn University Supplemental Nutrition Assistance Program-Education (SNAP-Ed) was Body Quest: Food of the Warrior, a childhood obesity prevention program for elementary youth. BQ empowers 3rd graders in Alabama to adopt healthy eating practices for body weight management. During the 2013-2014 school year, 24 educators provided 17 weekly, 45-minute BQ classes to the treatment group. During intervention, six nutrition topics were sequentially taught: trying new foods, food groups, balanced meals, food nutrients, healthy snacks, physical activity and extending fruit and vegetable message to others. For the treatment group only, vegetable tastings were provided at alternating classes and family members received weekly take-home activities. Control groups were only given pre- and post-assessments, but no intervention, fruit and vegetable tastings or family take-home messages.

###### **Results**

Body Quest families are active families. At pre-assessment, there was no statistical difference

between control and treatment conditions (1, N = 3551) = 2.235; n.s.); however at post-assessment, the treatment condition demonstrated a higher percent of students indicating that their family was active than the control condition (1, N = 3300) = 17.394; p < 0.001). In the treatment condition, a higher percentage of students reported that their family was physically active at the post-assessment than at the pre-assessment (1, N = 1771) = 101.046, p < 0.001).

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior

#### Outcome #11

##### 1. Outcome Measures

The number of children who replace screen time with physical activity.

##### 2. Associated Institution Types

- 1862 Extension

##### 3a. Outcome Type:

Change in Condition Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	3557

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

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

In just nine years, 2000-2009, obesity prevalence in the 50 states of the U.S. has increased from no states to nine states with greater than or equal to 30% obesity. Alabama is included among these nine states with an adult obesity prevalence of 33%. Alabama is ranked the 4th most obese state in the country, and has the 6th highest overweight levels for children at 36%.

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

The flagship nutrition program for Auburn University Supplemental Nutrition Assistance Program-Education (SNAP-Ed) was Body Quest: Food of the Warrior, a childhood obesity prevention program for elementary youth. BQ empowers 3rd graders in Alabama to adopt healthy eating practices for body weight management. During the 2013-2014 school year, 24 educators provided 17 weekly, 45-minute BQ classes to the treatment group. During intervention, six nutrition topics were sequentially taught: trying new foods, food groups, balanced meals, food nutrients, healthy snacks, physical activity and extending fruit and vegetable message to others. For the treatment group only, vegetable tastings were provided at alternating classes and family members received weekly take-home activities. Control groups were only given pre- and post-assessments, but no intervention, fruit and vegetable tastings or family take-home messages.

### Results

Body Quest kids are watching less television after school. At pre-assessment, there was no statistical difference between control and treatment conditions (1, N = 3557) = 1.419; n.s.); however at post-assessment, the treatment condition demonstrated a lower percent of students watching TV than the control condition (1, N = 3323) = 99.068;  $p < 0.001$ ).

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior

#### Outcome #12

##### 1. Outcome Measures

The number of children who increase breakfast consumption.

##### 2. Associated Institution Types

- 1862 Extension

##### 3a. Outcome Type:

Change in Condition Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	3564

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

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

In just nine years, 2000-2009, obesity prevalence in the 50 states of the U.S. has increased from no states to nine states with greater than or equal to 30% obesity. Alabama is included among these nine states with an adult obesity prevalence of 33%. Alabama is ranked the 4th most obese state in the country, and has the 6th highest overweight levels for children at 36%.

###### What has been done

The flagship nutrition program for Auburn University Supplemental Nutrition Assistance Program-Education (SNAP-Ed) was Body Quest: Food of the Warrior, a childhood obesity prevention program for elementary youth. BQ empowers 3rd graders in Alabama to adopt healthy eating practices for body weight management. During the 2013-2014 school year, 24 educators provided 17 weekly, 45-minute BQ classes to the treatment group. During intervention, six nutrition topics were sequentially taught: trying new foods, food groups, balanced meals, food nutrients, healthy snacks, physical activity and extending fruit and vegetable message to others. For the treatment group only, vegetable tastings were provided at alternating classes and family members received weekly take-home activities. Control groups were only given pre- and post-assessments, but no

intervention, fruit and vegetable tastings or family take-home messages.

**Results**

Body Quest kids eat breakfast. At pre-assessment, there was no statistical difference between control and treatment conditions (1, N = 3564) = 0.033; n.s.); however at post-assessment, the treatment condition demonstrated a higher percent of students eating breakfast than the control condition (1, N = 3342) = 17.535; p < 0.001). In the treatment condition, a higher percentage of students reported that they eat breakfast at the post-assessment than at the pre-assessment (1, N = 1810) = 45.77, p < 0.001).

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
703	Nutrition Education and Behavior

**Outcome #13**

**1. Outcome Measures**

UEFNEP: The number of youth with increased knowledge on MyPlate

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	142

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

**Issue (Who cares and Why)**

Hispanics youth are at risk for obesity and other health-related diseases due to lack of knowledge on healthy eating patterns, proper physical activity, and available resources. This has an impact on shaping the health status, eating habits, and physical activity which will play a significant role on long-term health and health care cost for Hispanic and other disadvantaged populations.

**What has been done**

Three bi-lingual UEFNEP Agent Assistants delivered programming in four counties using the Power of Choice curriculum, which consists of 13 lessons on basic nutrition, physical activity, healthy snacks and beverages, and emotional eating. Nine food demonstrations were conducted.

**Results**

41% (38 of 92) improved responses to: Circle the Grains; 59% (54 of 92) improved responses to: Circle the Dairy (milk); 41% (37 of 90) improved responses to: Circle the Proteins (meats and beans); 35% (32 of 91) improved responses to: Circle the Vegetables; 32% (29 of 92) improved responses to: Circle the Fruits

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

#### Outcome #14

##### 1. Outcome Measures

UEFNEP: The number of youth with increased request of healthier food options

##### 2. Associated Institution Types

- 1890 Extension

##### 3a. Outcome Type:

Change in Condition Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	142

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

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

Hispanics youth are at risk for obesity and other health-related diseases due to lack of knowledge on healthy eating patterns, proper physical activity, and available resources. This has an impact on shaping the health status, eating habits, and physical activity which will play a significant role on long-term health and health care cost for Hispanic and other disadvantaged populations

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

Three bi-lingual UEFNEP Agent Assistants delivered programming in four counties using the Power of Choice curriculum, which consists of 13 lessons on basic nutrition, physical activity, healthy snacks and beverages, and emotional eating. Nine food demonstrations were conducted.

###### **Results**

74% (25 of 34) improved in their responses to: Ask someone to buy fruits/veg; 61% (20 of 33) improved in their responses to: Ask someone to buy low-fat milk; 79% (26 of 33) improved in their responses to: Ask to have vegetables within reach



#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

#### Outcome #15

##### 1. Outcome Measures

UEFNEP: The number of children with Improved abilities to choose foods according to Federal Dietary Recommendations

##### 2. Associated Institution Types

- 1890 Extension

##### 3a. Outcome Type:

Change in Condition Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	136

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

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

Hispanics youth are at risk for obesity and other health-related diseases due to lack of knowledge on healthy eating patterns, proper physical activity, and available resources. This has an impact on shaping the health status, eating habits, and physical activity which will play a significant role on long-term health and health care cost for Hispanic and other disadvantaged populations.

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

Three bi-lingual UEFNEP Agent Assistants delivered programming in four counties using the Power of Choice curriculum, which consists of 13 lessons on basic nutrition, physical activity, healthy snacks and beverages, and emotional eating. Nine food demonstrations were conducted.

###### **Results**

96% (136 of 142) youth improved their abilities to choose foods according to Federal Dietary Recommendations

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

**Outcome #16**

**1. Outcome Measures**

UEFNEP: The number of children with Improved safe food handling practices

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	94

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

**Issue (Who cares and Why)**

Hispanics youth are at risk for obesity and other health-related diseases due to lack of knowledge on healthy eating patterns, proper physical activity, and available resources. This has an impact on shaping the health status, eating habits, and physical activity which will play a significant role on long-term health and health care cost for Hispanic and other disadvantaged populations.

**What has been done**

Three bi-lingual UEFNEP Agent Assistants delivered programming in four counties using the Power of Choice curriculum, which consists of 13 lessons on basic nutrition, physical activity, healthy snacks and beverages, and emotional eating. Nine food demonstrations were conducted.

**Results**

67% (94 of 141) Youth use safe food handling practices more often

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

**Outcome #17**

**1. Outcome Measures**

UEFNEP: The number of youth with Improved physical activity practices

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	93

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

**Issue (Who cares and Why)**

Hispanics youth are at risk for obesity and other health-related diseases due to lack of knowledge on healthy eating patterns, proper physical activity, and available resources. This has an impact on shaping the health status, eating habits, and physical activity which will play a significant role on long-term health and health care cost for Hispanic and other disadvantaged populations.

**What has been done**

Three bi-lingual UEFNEP Agent Assistants delivered programming in four counties using the Power of Choice curriculum, which consists of 13 lessons on basic nutrition, physical activity, healthy snacks and beverages, and emotional eating. Nine food demonstrations were conducted.

**Results**

65% (93 of 142) Youth improve their physical activity practices.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
703	Nutrition Education and Behavior
724	Healthy Lifestyle

**Outcome #18**

**1. Outcome Measures**

UEFNEP: The number of participants with Improved physical activity practices

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	93

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

**Issue (Who cares and Why)**

Hispanics youth are at risk for obesity and other health-related diseases due to lack of knowledge on healthy eating patterns, proper physical activity, and available resources. This has an impact on shaping the health status, eating habits, and physical activity which will play a significant role on long-term health and health care cost for Hispanic and other disadvantaged populations

**What has been done**

Three bi-lingual UEFNEP Agent Assistants delivered programming in four counties using the Power of Choice curriculum, which consists of 13 lessons on basic nutrition, physical activity, healthy snacks and beverages, and emotional eating. Nine food demonstrations were conducted.

**Results**

65% (93 of 142) Youth improve their physical activity practices.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
703	Nutrition Education and Behavior
724	Healthy Lifestyle

## **Outcome #19**

### **1. Outcome Measures**

USNAP-Ed: the number participants with increase knowledge in basic nutrition concepts

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

- 1890 Extension

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

Change in Knowledge Outcome Measure

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

<b>Year</b>	<b>Actual</b>
2014	142

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

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

Today's youth are not meeting the requirements for fruits and vegetables, whole grains, and physical activity. They are consuming excessive amounts of sodium, sugar and fat. The results from these poor behavior habits are the increased risks of chronic diseases such as obesity, diabetes, heart disease and some forms of cancer. The benefits of consuming a healthy diet and exercising will improve health status, health cost, academic learning, and self-esteem.

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

12 USNAP-Ed Agent Assistants, delivered programming in 20 counties using the Power of Choice curriculum. Programming was conducted at 72 youth sites including, afterschool programs, boys and girls clubs, girls Inc., and community centers. Programming also included 178 food demonstrations. Approximately 1,000 water bottles and pencils with nutrition education messages were distributed for marketing purposes.

#### **Results**

The average score for youth participants that correctly answered the questions increased; 76% (pre), 89% (post), and 94% (delayed post).

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

<b>KA Code</b>	<b>Knowledge Area</b>
703	Nutrition Education and Behavior
724	Healthy Lifestyle

**Outcome #20**

**1. Outcome Measures**

USNAP-Ed: The number of participants that follow MyPlate recommendations

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	95

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

**Issue (Who cares and Why)**

Today's youth are not meeting the requirements for fruits and vegetables, whole grains, and physical activity. They are consuming excessive amounts of sodium, sugar and fat. The results from these poor behavior habits are the increased risks of chronic diseases such as obesity, diabetes, heart disease and some forms of cancer. The benefits of consuming a healthy diet and exercising will improve health status, health cost, academic learning, and self-esteem.

**What has been done**

12 USNAP-Ed Agent Assistants, delivered programming in 20 counties using the Power of Choice curriculum. Programming was conducted at 72 youth sites including, afterschool programs, boys and girls clubs, girls Inc., and community centers. Programming also included 178 food demonstrations. Approximately 1,000 water bottles and pencils with nutrition education messages were distributed for marketing purposes

**Results**

The percentage of youth participant responses always increased; 37% (pre), 48% (post), and 67% (delayed post) N= 142

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

**Outcome #21**

**1. Outcome Measures**

USNAP-Ed: The number of children who are physically active

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	89

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

**Issue (Who cares and Why)**

Today's youth are not meeting the requirements for fruits and vegetables, whole grains, and physical activity. They are consuming excessive amounts of sodium, sugar and fat. The results from these poor behavior habits are the increased risks of chronic diseases such as obesity, diabetes, heart disease and some forms of cancer. The benefits of consuming a healthy diet and exercising will improve health status, health cost, academic learning, and self-esteem.

**What has been done**

12 USNAP-Ed Agent Assistants, delivered programming in 20 counties using the Power of Choice curriculum. Programming was conducted at 72 youth sites including, afterschool programs, boys and girls clubs, girls Inc., and community centers. Programming also included 178 food demonstrations. Approximately 1,000 water bottles and pencils with nutrition education messages were distributed for marketing purposes

**Results**

The percentage of youth participant responses always increased; 54% (pre), 67% (post), and 63% (post).

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
703	Nutrition Education and Behavior
724	Healthy Lifestyle

**Outcome #22**

**1. Outcome Measures**

USNAP-Ed: The number of children who prevent overeating by controlling emotions

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	85

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

**Issue (Who cares and Why)**

Today's youth are not meeting the requirements for fruits and vegetables, whole grains, and physical activity. They are consuming excessive amounts of sodium, sugar and fat. The results from these poor behavior habits are the increased risks of chronic diseases such as obesity, diabetes, heart disease and some forms of cancer. The benefits of consuming a healthy diet and exercising will improve health status, health cost, academic learning, and self-esteem.

**What has been done**

12 USNAP-Ed Agent Assistants, delivered programming in 20 counties using the Power of Choice curriculum. Programming was conducted at 72 youth sites including, afterschool programs, boys and girls clubs, girls Inc., and community centers. Programming also included 178 food demonstrations. Approximately 1,000 water bottles and pencils with nutrition education messages were distributed for marketing purposes.

**Results**

The percentage of youth participant responses always increased from 29% (pre), 50% (post), and 60% (delayed post).

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
703	Nutrition Education and Behavior
724	Healthy Lifestyle



**Outcome #23**

**1. Outcome Measures**

USNAP-Ed: The number of youth who decreased the consumption of beverages that contain large amounts of sugar

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	12

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

**Issue (Who cares and Why)**

Today's youth are not meeting the requirements for fruits and vegetables, whole grains, and physical activity. They are consuming excessive amounts of sodium, sugar and fat. The results from these poor behavior habits are the increased risks of chronic diseases such as obesity, diabetes, heart disease and some forms of cancer. The benefits of consuming a healthy diet and exercising will improve health status, health cost, academic learning, and self-esteem.

**What has been done**

12 USNAP-Ed Agent Assistants, delivered programming in 20 counties using the Power of Choice curriculum. Programming was conducted at 72 youth sites including, afterschool programs, boys and girls clubs, girls Inc., and community centers. Programming also included 178 food demonstrations. Approximately 1,000 water bottles and pencils with nutrition education messages were distributed for marketing purposes

**Results**

The percentage of youth participant responses always decreased from 29% (pre), 16% (post), and 9% (delayed post).

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
703	Nutrition Education and Behavior
724	Healthy Lifestyle

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

### External factors which affected outcomes

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

### Brief Explanation

The range of ages in the youth groups can be an external factor that hinders the learning experience. Many instances the weather caused a decrease in participation or cancellation of the program. Transportation, illness and car accidents hindered some attendance. In the after-school program, children are picked up by parents at different times, so some of the children may miss a small portion of the lesson on some days. To help with this, the previous lessons are reviewed at the beginning of the next lesson.

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

### Evaluation Results

EFNEP: Core areas (diet quality, physical activity, food safety, and food resource management) are important to the prevention of childhood obesity according to the Federal Guideline recommendations to choose foods. Kindergarten through grades 2, 90% improved in 1 or more knowledge or skills, 51% of children improved their physical activity practices, and 51% improved knowledge or skill related to handling food safely. Grades 3 through 5, 85% improved in 1 or more knowledge or skills, 38% of children improved their physical activity practices, and 38% improved knowledge or skill related to handling food safely.

Body Quest resulted in six significant ( $p < .001$ ) findings that document success as a childhood obesity prevention initiative: (1) increased fruit and vegetable consumption, (2) increased water consumption with decreased soda consumption, (3) increased physical activity of children (4) increased physical activity of families, (5) decreased screen time and (6) increased breakfast consumption. These findings support current recommendations for preventing childhood obesity.

**UEFNEP:** Youth change in action: 74% (25 of 34) Asked someone to buy fruits/veg, 61% (20 of 33) Asked someone to buy low-fat milk? 79% (26 of 33) Asked to have vegetable within reach; 96% (136 of 142) improved abilities to choose foods according to Federal Dietary Recommendations, 67% (94 of 141) practiced safe food handling more often, 65% (93 of 142) improved physical activity practices.

**USNAP-Ed:** Change in Knowledge: Increased % youth that correctly answered the questions-76% (pre), 89% (post), and 94% (delayed post). Change in action: Increase in % of youth that follow MyPlate, who responded "always"- 37% (pre), 48% (post), and 67% (delayed post); Increase in % of youth who responded "always" for being physically active- 54% (pre), 67% (post), and 63% (post); Increase in % of youth who responded "always" for prevent overeating by controlling emotions- 29% (pre), 50% (post), and 60% (delayed post).

**CHAMPION:** Youth knowledge significantly increased ( $p < 0.05$ ) before and after education: K-4th graders (N=243) - pretests (M=1.76, SD=1.27) and posttests (M=3.24, SD=1.49),  $t = -11.78$ ; 9th- 12th graders' (N=57) - pretests (M=5.60, SD=2.42) and posttests (M=8.49, SD=1.72),  $t = -7.36$ . Three months post delayed 149 youth continued to consume

vegetables (50%), fruits (73%), and physical activity (59%).

### Key Items of Evaluation

**EFNEP:** Grades 6 - 8, 91% adopt and practice in 1 or more food selection behavior(s), 75% adopt or improved 1 or more habit(s) or behaviors related to physical activity. CATCH curriculum, participants improved the following: 100% of K-2 improved in one or more core areas, 100% in grades 3-5 improved in one or more core areas, 100% in grades 6-8 improved in one or more core areas.

**UEFNEP:** Youth change in action: 74% (25 of 34) Asked someone to buy fruits/veg, 61% (20 of 33) Asked someone to buy low-fat milk? 79% (26 of 33) Asked to have vegetable within reach; 96% (136 of 142) improved abilities to choose foods according to Federal Dietary Recommendations, 67% (94 of 141) practiced safe food handling more often, 65% (93 of 142) improved physical activity practices.

**USNAP-Ed:** Change in Knowledge: Increased % youth that correctly answered the questions-76% (pre), 89% (post), and 94% (delayed post). Change in action: Increase in % of youth that follow MyPlate, who responded "always"- 37% (pre), 48% (post), and 67% (delayed post); Increase in % of youth who responded "always" for being physically active- 54% (pre), 67% (post), and 63% (post); Increase in % of youth who responded "always" for prevent overeating by controlling emotions- 29% (pre), 50% (post), and 60% (delayed post).

**SNAP-Ed:** Body Quest students eat more fruits and vegetables. Significant interaction between treatment type and six assessment time points ( $F(4.83, 9293.6) = 22.137, p < 0.001$ ). Control group had a higher percent consumption than treatment group at pre-assessment ( $F(1, 198.216) = 5.904, p = 0.016; \eta^2 = 0.029$ ); however at post-assessment treatment group had a higher percent consumption than control ( $F(1, 193.739) = 13.46, p < 0.001; \eta^2 = 0.065$ ). Treatment condition, a significant increase in the percent of fruits and vegetables consumed across the six time points and medium effect size ( $F(4.769, 5398.172) = 76.354, p < 0.001; \eta^2 = 0.063$ ).

**CHAMPION:** Youth knowledge significantly increased ( $p < 0.05$ ) before and after education: K-4th graders ( $N=243$ ) - pretests ( $M=1.76, SD=1.27$ ) and posttests ( $M=3.24, SD=1.49$ ),  $t = -11.78$ ; 9th- 12th graders' ( $N=57$ ) - pretests ( $M=5.60, SD=2.42$ ) and posttests ( $M=8.49, SD=1.72$ ),  $t = -7.36$ . Three months post delayed 149 youth continued to consume vegetables (50%), fruits (73%), and physical activity (59%).

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

**Program # 2**

**1. Name of the Planned Program**

Climate Change

Reporting on this Program

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

**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships	20%	0%		
111	Conservation and Efficient Use of Water	10%	0%		
112	Watershed Protection and Management	5%	0%		
125	Agroforestry	5%	0%		
132	Weather and Climate	20%	0%		
205	Plant Management Systems	10%	0%		
211	Insects, Mites, and Other Arthropods Affecting Plants	15%	0%		
212	Pathogens and Nematodes Affecting Plants	15%	0%		
	<b>Total</b>	100%	0%		

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

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

Year: 2014	Extension		Research	
	1862	1890	1862	1890
<b>Plan</b>	0.4	0.0	0.0	0.0
<b>Actual Paid</b>	1.0	0.0	0.0	0.0
<b>Actual Volunteer</b>	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
10587	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
20151	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
108418	0	0	0

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

### 1. Brief description of the Activity

Two climate-related workshops were organized (ACES was part of the organizing committee) with the goals of increasing knowledge on climate science, potential adaptation strategies to cope with climate variability and change, and the use of web-based decision support tools. The first workshop and technical session was offered as part of the program of the 2014 National Agricultural County Agricultural Agents meeting (120 attendees to the climate session) and the second event was the 2014 Southern Region Extension Climate Academy (SRECA) with participation of 104 extension specialists and agents from 15 universities across the Southeast; Two multi-state meetings with the Tri-state row crops climate working group discussed "Sesame, a crop with high potential to Mitigate Climate Risk?", "the potential of drones for agriculture", "cover crop" and "the use of APPS to better manage irrigation". A two-day corn and wheat short course was organized and included almost 16 presentations by speakers from the Southeast and Mid-west universities. The presentations were focused on management strategies that can help farmers increasing resilience and the efficiency on the use of inputs. Climate education and information were transferred through the preparation of extension publications. Three extension publication were prepared and distributed through internet and during meetings ( Extension publication titles were: Adapting Corn Production to climate in the Southeast, Adapting Wheat Production to climate in the Southeast, El Niño-Southern Oscillation and its Impact on Alabama's Climate). Twelve climate related presentations and two posters were delivered/prepared at state, regional, and national meetings. A poster was prepared for the Third International Climate Change Adaptation Conference. Fortaleza, Brazil. 12-16 May, 2014.

### 2. Brief description of the target audience

The activities of the Climate Change Program Priority Team reached the following groups of stakeholders: 1) row crop and fruit-vegetable producers and their representatives groups that include, but are not limited to, the Alabama Cotton Commission, Alabama Peanut Commission, Alabama Soybean Producers, and Alabama Wheat and Feed Grains Committee; 2) row crop, forage, livestock, fruit vegetable advisors including ACES agents and specialists, ACES county coordinators, ACES risk preparedness specialists, public and private crops advisors; 3) governmental agency personnel including USDA, NRCS, and State of Alabama Soil and Water Conservation Committee; and 4) private citizens impacted by policies and practices used for the production of food, fuel, and fiber. All educational programming efforts targeted audiences without exclusion or discrimination, as specifically defined by ACES policy guidelines.

### 3. How was eXtension used?

eXtension was not used in this program

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

**1. Standard output measures**

2014	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	1130	17326	200	500

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

**Patent Applications Submitted**

Year: 2014  
 Actual: 0

**Patents listed**

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

**Number of Peer Reviewed Publications**

2014	Extension	Research	Total
<b>Actual</b>	4	2	6

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

**Output Target**

**Output #1**

**Output Measure**

- - Distribution of basic information about climate variability and climate change not only for Alabama but also for the Southeast. Most of the information will be related to differences between climate variability and change, maps of the average spatial variability of the most important climatic variables (e.g., rainfall and temperature), forecasts provided by US official weather service (NOAA). Several methods of notification (email-Timely Information Sheets, articles in popular press, climate variability/ climate change web site specifically designed for the program, etc) will be used to disseminate information. - Specific outputs include: 1) News and current information posted on the Climate web site as well as agronomic crops web site ([www.alabamacrops.com](http://www.alabamacrops.com)).  
 Not reporting on this Output for this Annual Report

**Output #2**

**Output Measure**

- - Meetings, in-service trainings, and workshops, will include information on the relationships between agriculture/natural resources and climate change as well as potential impacts, relationships between pest/diseases changes in relation to climate variability and climate change. - Specific outputs include: 1) Multi-state conferences on climate change and the

implications for agriculture and natural resources, 2) In-service training meetings for target audiences (e.g., row crops producers, fruit and vegetable producers, soils and water conservationists, etc).

Not reporting on this Output for this Annual Report

**Output #3**

**Output Measure**

- - Reports based on reviews of current knowledge about the relationships between agriculture and climate change and potential impacts.

Not reporting on this Output for this Annual Report

**Output #4**

**Output Measure**

- - Recommendations for adaptation strategies for row crops/fruit and vegetables will be development to reduce the risks of climate variability and climate change. - Specific outputs include: a) Guidelines for agronomic management under various climate variability and climate change scenarios and b) Hard copy publications for use in production meetings and trainings where deemed appropriated.

Not reporting on this Output for this Annual Report

**Output #5**

**Output Measure**

- Number of publications

<b>Year</b>	<b>Actual</b>
2014	7

**Output #6**

**Output Measure**

- Number of meetings, in-service trainings and workshops

<b>Year</b>	<b>Actual</b>
2014	13

**Output #7**

**Output Measure**

- Number of publications about the relationships between agriculture and climate change and potential impacts

<b>Year</b>	<b>Actual</b>
2014	1

**Output #8**

**Output Measure**

- Number of publications about adaptation strategies for row crops/fruit and vegetables

<b>Year</b>	<b>Actual</b>
2014	2



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

O. No.	OUTCOME NAME
1	Members of the ACES Climate Change team will be required to provide a success story on an annual basis describing the program activity which they felt best demonstrated the impacts of their work. These success stories contain the following elements: a) why the program was conducted or the situation/problem that was addressed; b) specifically what and how it was done; c) the time period involved; d) the specific locations involved; e) who was impacted; f) how many people were served; and g) the final impacts. Short-term outcome: The most immediate outcomes are: 1) Increased understanding of the potential impacts of climate variability and climate change on row crops, fruits and vegetables;
2	2) Increased information about the impact of ENSO phases on row crops, fruits and vegetables;
3	3) Alabama stakeholders trained/educated in climate variability and climate change topics;
4	4) Alabama growers, extension agents and extension specialists trained in using agroclimatic decision support tools
5	5) Capacities strengthened for integrating climate change risks and opportunities into state and regional development assistance
6	6) Capacities strengthened to access and use resources effectively to reduce risks associated with climate variability and climate change
7	7) Capacities strengthened to understand and manage water or natural resources in the context of climate vulnerability
8	8) Identification of the most profitable row crops management practices by ENSO phase
9	9) Identification of adaptation strategies to reduce climate change impacts.
10	10) increased awareness of the impacts of climate on agricultural Production.
11	Medium-term outcomes: The medium-term outcomes of the Climate Change Extension Program are: 1) implementation of a new system of management practices for row crops and vegetables according to ENSO phase
12	2) Improved agronomic management row crops and vegetables
13	Long-term outcomes: The long-term outcomes of the Climate Change Extension Program are: 1) increased profitability of Alabama growers
14	2) improved soil conditions
15	3) reduced environmental impacts

16	4) competitive Auburn and ACES Agronomic Research, Extension and Education system.
17	Dollar amount saved by a producer adopting recommendations from climate related support tools
18	Number of publications about the impact of ENSO phases on row crops, fruits and vegetables
19	Percent change in knowledge of attendees about cause of climate change
20	Percent Increased knowledge of management practices available to cope with climate-related changes
21	Capacities strengthened for integrating climate change risks and opportunities into state and regional development assistance
22	Number of individuals who increased knowledge of improved agronomic management of row crops and vegetables related to climate variability
23	Number of participants who adopted improved management practices to deal with climate variability

**Outcome #1**

**1. Outcome Measures**

Members of the ACES Climate Change team will be required to provide a success story on an annual basis describing the program activity which they felt best demonstrated the impacts of their work. These success stories contain the following elements: a) why the program was conducted or the situation/problem that was addressed; b) specifically what and how it was done; c) the time period involved; d) the specific locations involved; e) who was impacted; f) how many people were served; and g) the final impacts. Short-term outcome: The most immediate outcomes are: 1) Increased understanding of the potential impacts of climate variability and climate change on row crops, fruits and vegetables;

Not Reporting on this Outcome Measure

**Outcome #2**

**1. Outcome Measures**

2) Increased information about the impact of ENSO phases on row crops, fruits and vegetables;

Not Reporting on this Outcome Measure

**Outcome #3**

**1. Outcome Measures**

3) Alabama stakeholders trained/educated in climate variability and climate change topics;

Not Reporting on this Outcome Measure

**Outcome #4**

**1. Outcome Measures**

4) Alabama growers, extension agents and extension specialists trained in using agroclimatic decision support tools

Not Reporting on this Outcome Measure

**Outcome #5**

**1. Outcome Measures**

5) Capacities strengthened for integrating climate change risks and opportunities into state and regional development assistance

Not Reporting on this Outcome Measure

**Outcome #6**

**1. Outcome Measures**

6) Capacities strengthened to access and use resources effectively to reduce risks associated with climate variability and climate change

Not Reporting on this Outcome Measure

**Outcome #7**

**1. Outcome Measures**

7) Capacities strengthened to understand and manage water or natural resources in the context of climate vulnerability

Not Reporting on this Outcome Measure

**Outcome #8**

**1. Outcome Measures**

8) Identification of the most profitable row crops management practices by ENSO phase

Not Reporting on this Outcome Measure

**Outcome #9**

**1. Outcome Measures**

9) Identification of adaptation strategies to reduce climate change impacts.

Not Reporting on this Outcome Measure

**Outcome #10**

**1. Outcome Measures**

10) increased awareness of the impacts of climate on agricultural Production.

Not Reporting on this Outcome Measure

**Outcome #11**

**1. Outcome Measures**

Medium-term outcomes: The medium-term outcomes of the Climate Change Extension Program are: 1) implementation of a new system of management practices for row crops and vegetables according to ENSO phase

Not Reporting on this Outcome Measure

**Outcome #12**

**1. Outcome Measures**

2) Improved agronomic management row crops and vegetables

Not Reporting on this Outcome Measure

**Outcome #13**

**1. Outcome Measures**

Long-term outcomes: The long-term outcomes of the Climate Change Extension Program are: 1) increased profitability of Alabama growers

Not Reporting on this Outcome Measure

**Outcome #14**

**1. Outcome Measures**

2) improved soil conditions

Not Reporting on this Outcome Measure

**Outcome #15**

**1. Outcome Measures**

3) reduced environmental impacts

Not Reporting on this Outcome Measure

**Outcome #16**

**1. Outcome Measures**

4) competitive Auburn and ACES Agronomic Research, Extension and Education system.

Not Reporting on this Outcome Measure

**Outcome #17**

**1. Outcome Measures**

Dollar amount saved by a producer adopting recommendations from climate related support tools

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	210000

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

**Issue (Who cares and Why)**

Farmers that grow corn without irrigation perceive a very high risk of yield losses if drought conditions occur during the growing season. Adapting management strategies based on climate forecast has been proven useful risk management approaches. Because dryland corn relies on rainfall (amount and distribution), ambient temperature and solar radiation achieve high yields, extension agents are training farmers and crop consultants on how the climate forecast can be incorporated into their decision making process as well as training them on the use of climate-based decision support tools.

**What has been done**

Dryland corn farmers in Geneva County were informed of the climate forecast for the upcoming growing season. Some farmers were also introduced to the Planting Date Planner tool available in AgroClimate.com website. This tool combines crop growth modeling with the climate forecast and for the planting date options selected by the user, provides information on the probability of each planting date for achieving low, medium or high yields. The extension agronomist from ACES located in Geneva County, Brandon Dillard and William Birdsong, helped the farmers in the area, assess the risk associated with various planting date options under a specific climate forecast. These two agronomists have been training farmers and crop consultants on the use of this information as risk management tools.

**Results**

During this reporting year, farmers Scott and Jeff Gray from Samson, Alabama inquired about the Planting Date Planner tool available in AgroClimate.com website (Southeast Climate consortium site) and the forecast for when was the best time to plant corn. Since these two brother's farm was 100 percent dryland, they were especially concerned about growing corn without irrigation. Because of such risk they wanted all the risk mitigation information that they could learn about. That is when they learned about the Tri-State Row Crops leaning group and the work that was being done with crop modeling and yield forecasting, such as the Planting Date Planner tool in AgroClimate.org. The yield forecast is impacted by the different ENSO phases such as La Niña and El Niño. The tool in AgroClimate projected that the best time to plant corn with the highest probability for high yield was mid-April for Geneva County, Alabama. After learning this, the Gray brothers delayed planting until the middle of April just as AgroClimate suggested. As it turned out the forecast was very accurate and the rains came in June during the pollination and kernel filling development stages and the Gray's dry land corn yielded 150 bushels per acre. They had around 200 acres of corn and they had priced the corn at \$7.00 per bushel, therefore the corn crop was worth \$210,000.00. A difference situation occurred to a different farmer within the same. Another farmer who was told about the forecast to wait on planting did not give the forecast much credibility. He planted his 200 acres of corn in February around Valentine's day. This planting date was forecasted by the Planting Date Planner tool with the least probable chance of

a achieving high yield. Unfortunately for the farmer, the forecast was completely correct that year and his corn experienced a disastrously dry May during the pollination and kernal fill stages. The yields were disastrous and the corn was rejected by the buyers because of Aflatoxin, which most likely occurred because of the lack of rainfall and hot dry conditions during the Silking period. The yield was around 40 bushels per acre and the corn was not marketable due to Aflatoxin, which resulted in a crop value of zero. These two contrasting stories exemplify the important of using climate-based decision support tools, the engagement our extension agents educating farmers on the understanding of our climate and the importance of climate forecast use. These two corn farms were only were only around 15 miles, the final result was completely different.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
132	Weather and Climate
205	Plant Management Systems
212	Pathogens and Nematodes Affecting Plants

#### Outcome #18

##### 1. Outcome Measures

Number of publications about the impact of ENSO phases on row crops, fruits and vegetables

##### 2. Associated Institution Types

- 1862 Extension

##### 3a. Outcome Type:

Change in Knowledge Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	1

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

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

Some wheat farmers are aware of yield losses associate to Hessian Fly infestation. Even though entomologist knew the life cycle of Hessian Fly was altered by the weather and climatic conditions, that possible relation has not been addressed as well as the potential for using climate forecast to assess the risk for Hessian Fly and indirectly the risk for wheat yield losses.

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

A research study was conducted to evaluate the relationship between ENSO (La Nina/EI Nino phases) and Hessian Fly infestation as well as yield losses. The results of this study have been

presented at various farmers and professional meetings (state, regional, and national). A draft of an extension document summarizing the results from this study was prepared and expected publication of it will be in 2015.

### Results

The study showed strong relationship between high Hessian Fly infestation and warmer winter and spring season which are influenced by La Nina phase of ENSO. The study also identified the main weather parameters (and timing) driving this phenomenon.

## 4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants

### Outcome #19

#### 1. Outcome Measures

Percent change in knowledge of attendees about cause of climate change

#### 2. Associated Institution Types

- 1862 Extension

#### 3a. Outcome Type:

Change in Knowledge Outcome Measure

#### 3b. Quantitative Outcome

Year	Actual
2014	15

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

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

Development and implementation of extension programs focused on climate variability and climate change could increase if extension professionals have a better understanding of causes of climate change, people's perceptions towards climate change, barriers communicating climate change, and current weather changes associate to climate change.

##### What has been done

A regional training was developed by a group of extension faculty from Auburn University/ACES, UFL, and UGA, Southeast Regional Extension Academy, with the goal of training extension faculty and extension agents on climate change/climate variability topics. 104 participants from 15 states across the Southeast participated in a 2 ½ day training.

### Results



Pre and post workshop survey was conducted to assess change in perceptions and knowledge. Data from the survey showed that respondents who answered that climate change is occurring but we don't know its cause and that there is insufficient evidence to know with certainty whether climate change is occurring decreased from 22% to less than 7% of the group.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
132	Weather and Climate

#### Outcome #20

##### 1. Outcome Measures

Percent Increased knowledge of management practices available to cope with climate-related changes

##### 2. Associated Institution Types

- 1862 Extension

##### 3a. Outcome Type:

Change in Knowledge Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	13

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

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

Development and implementation of extension programs focused on climate variability and climate change could increase if extension professionals have a better understanding of causes of climate change, people's perceptions towards climate change, barriers communicating climate change, and current weather changes associate to climate change, and adaptation strategies.

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

A regional training was developed by a group of extension faculty from Auburn University/ACES, UFL, and UGA, Southeast Regional Extension Academy, with the goal of training extension faculty and extension agents on climate change/climate variability topics. 104 participants from 15 states across the Southeast participated in a 2 ½ day training.

###### **Results**

Pre and post workshop survey was conducted to assess change in perceptions and knowledge. Data from the survey showed that respondents who answered on their knowledge of specific management options to help clientele cope with climate-related changes increased from decreased from 29% to 42% of the group.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
132	Weather and Climate
205	Plant Management Systems

#### Outcome #21

##### 1. Outcome Measures

Capacities strengthened for integrating climate change risks and opportunities into state and regional development assistance

##### 2. Associated Institution Types

- 1862 Extension

##### 3a. Outcome Type:

Change in Knowledge Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	30

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

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

Extension personnel and crop consultants will be better prepared is they have supporting teaching materials, and they have also received training

###### What has been done

Presentations, in-service trainings, short courses, preparation of extension bulletins

###### Results

An Extension agent in South Alabama and a Cotton Extension agronomist in Southeast Alabama are now conducting climate-related presentations during farmers meetings. They are also conducting demonstrations on the use of the tools on Agroclimate.org. Extension specialists have included topics related to ENSO and it relation with pest, diseases, and yield during their meetings with farmers. The number of farmers, extension agents, and extension specialist

requesting information about the climate forecast for upcoming growing seasons and information on adaptation strategies is increasing every year.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
132	Weather and Climate
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants

#### Outcome #22

##### 1. Outcome Measures

Number of individuals who increased knowledge of improved agronomic management of row crops and vegetables related to climate variability

##### 2. Associated Institution Types

- 1862 Extension

##### 3a. Outcome Type:

Change in Knowledge Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	96

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

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

Row crops yield can be increased as well as input use efficiency by adopting the right management practices for the right place, right time, and using the right product. Awareness of the most effective management practices can be raised by providing farmers, crop consultants and extension agents with information on the most recent findings by extension specialists working at various universities across the Southeast and Midwest.

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

A corn and wheat management short course was organized. The 2 day short course had 15 speakers (specialists working at various universities across the Southeast and Midwest) addressing topics of nutrient management, pest and diseases management, grain marketing, increasing yield by changing planting density, irrigation management, conservation tillage.

###### **Results**

A survey was conducted at the end of the corn and wheat management short course. The survey revealed that 96% of the participants (n=33) increased knowledge in corn planting density and

planting date, prices and market, soil health, nitrogen management, nitrogen placement, irrigation. 25% of the people will adopt or use some of the management strategies discussed during the course.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants

#### Outcome #23

##### 1. Outcome Measures

Number of participants who adopted improved management practices to deal with climate variability

##### 2. Associated Institution Types

- 1862 Extension

##### 3a. Outcome Type:

Change in Action Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	25

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

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

Row crops yield can be increased as well as input use efficiency by adopting the right management practices for the right place, right time, and using the right product. Awareness of the most effective management practices can be raised by providing farmers, crop consultants and extension agents with information on the most recent findings by extension specialists working at various universities across the Southeast and Midwest.

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

A corn and wheat management short course was organized. The 2 day short course had 15 speakers (specialists working at various universities across the Southeast and Midwest) addressing topics of nutrient management, pest and diseases management, grain marketing, increasing yield by changing planting density, irrigation management, conservation tillage.

###### **Results**

The survey conducted at the end of the short course revealed that 96% From 33 people that reply that a survey conducted at the end of the event, 96% of respondents adopted improved management practices dealing with climate variability, corn planting density and planting date, prices and market, soil health, nitrogen management, nitrogen placement, irrigation.

#### 4. Associated Knowledge Areas

<b>KA Code</b>	<b>Knowledge Area</b>
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
132	Weather and Climate
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants

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

##### External factors which affected outcomes

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

##### Brief Explanation

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

##### Evaluation Results

- Most of the activities conducted in 2014 were focused on presentations and workshop. -A survey conducted at the end of a short course revealed that 96% of the participants increased knowledge in corn planting density and planting date, prices and market, soil health, nitrogen management, nitrogen placement, irrigation. 25% of the participants will adopt or use some of the management strategies discussed during the course. -Participants of the Southeast Regional Extension Academy indicated on a survey that respondents who answered that "climate change is occurring but we don't know its cause" and that there is "insufficient evidence to know with certainty whether climate change is occurring" decreased from 22% to less than 7% of the group. In addition, the same survey showed that respondents who answered on their knowledge of "specific management options to help clientele cope with climate-related changes increased from 29% to 42% of the group - The number of phone call with climate -related questions as well as the request for presentations with climate - related topics has increased a 30%. Requests for

information about current and expected climate forecast, interpretation of the forecast and potential implications on row crops have increased considerably. The number of visits to the Climate Extension website ([www.aces.edu/climate](http://www.aces.edu/climate)) increased from 5936 in 2013 to 13,000 in 2014.

### **Key Items of Evaluation**

The number of hits on the ACES climate extension website in 2014 was 3,219 and the number of page views increased 23% in respect to 2013. Farmers, crop consultants and extension personnel attending the 2014 corn and wheat short course gained knowledge (96%) on corn planting density and planting date, prices and market, soil health, nitrogen management, nitrogen placement, irrigation. The interest on climate information and climate education among farmers and extension personnel has increased by 40%. This is reflected in the number of phone calls, invitations to meetings, and requests for climate information. The interest for agronomic management strategies linked to climate forecast has increased 30% among farmers and extension personnel. Participants to the Southeast Regional Extension Academy who answered on their knowledge of "specific management options to help clientele cope with climate-related changes" increased from 29% to 42% at the end of the workshop. Their perception towards climate change also changed at the end of this workshop. Respondents of a survey who answered that "climate change is occurring but we don't know its cause" and that there is "insufficient evidence to know with certainty whether climate change is occurring" decreased from 22% to less than 7% of the group.

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

**Program # 3**

**1. Name of the Planned Program**

Food Safety (Safe and Secure Food Supply)

Reporting on this Program

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

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships	10%	0%		
205	Plant Management Systems	22%	0%		
216	Integrated Pest Management Systems	12%	0%		
501	New and Improved Food Processing Technologies	3%	10%		
503	Quality Maintenance in Storing and Marketing Food Products	7%	10%		
504	Home and Commercial Food Service	23%	10%		
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources	10%	35%		
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	13%	35%		
	<b>Total</b>	100%	100%		

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

1. Actual amount of FTE/SYs expended this Program

Year: 2014	Extension		Research	
	1862	1890	1862	1890
<b>Plan</b>	23.5	0.9	0.0	0.0
<b>Actual Paid</b>	17.0	0.9	0.0	0.0
<b>Actual Volunteer</b>	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
548951	46817	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
344442	51278	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
1526110	78093	0	0

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

**1. Brief description of the Activity**

Home Grown: Home Grown Projects highlighted water conservation, building raised garden beds, growing fruits and vegetables, using pesticides safely, composting, beneficial insects, and pruning fruit producing plants.

Food Safety Training for Food Service Workers: Food Service Workers learned food safety principles for all aspects of the food service industry. Food Safety Classes were taught in 64 of the 67 counties throughout the state of Alabama.

Good Agriculture Practices: Farmers learned how to write Standards of Operation (SOP's) for a Good Agriculture Practices (GAP) for Certification. Also GAP principles were taught to Farmers selling their produce at Farmers Markets. Programs for GAP were taught in 4 regionally located places with individual trained in writing their SOP's. There were 20 workshops taught for farmers selling their produce at Farmers Markets.

Food Safety Training for Food Processors: Processing safety standards were taught to 171 individuals for processing acidified food and seafood under Food and Drug Association (FDA) guidelines. A new Cottage food Law course was added for home food processors to allow individuals to sell to an end consumer. The Food Safety Team taught 419 courses for this group.

Master Food Preserver: Home food preservation principles were taught for water bath canning, pressure canning, freezing, drying and fermentation in 52 of the 67 counties throughout the state of Alabama. A team of Food Safety Regional Agents taught 142 classes in a one to four day sessions of classes.

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

Home Grown: Residential gardeners growing for their families or as small producers at local farmers'markets.

The target audience was any consumer in the state of Alabama. No individual was excluded or singled out for this training.

Food Safety Training for Food Service Workers: The audience that attended the Food Service



certification training course consisted of 1,352 individuals. Of the participants, 736 were (Caucasian) White, 401 were (African-American) Black, 22 were Asian, 21 were Hispanic, 20 were of other races and 8 did not report.

**Good Agriculture Practices:**

Good Agricultural Practices (GAP) Workshops were taught in counties 8 throughout the state in each geographical location giving the farmers a meeting place that was within a reasonable driving distance. 82 individuals participated, 53 whites, 28 blacks and one Asian attended the meetings.

Farmers Markets: A total of 287 individuals participated in the workshops, 162 were White, 115 were Black, 5 Hispanic, 4 were more than one race and 3 were American Indian.. The majority of the individuals were adults, with only 8 youth in attendance.

Food Safety Training for Food Processors: Three (3) Better Process Control Schools were taught to a total of 22 individuals, with each passing a total of 7 exams covering all aspects of food processing. Food products were tested for 47 individuals to certify that the products were acidified food products. Nutrition Facts Labels were completed for 102 different food products.

Master Food Preserver: Home food preservation principles were taught for water bath canning, pressure canning, freezing, drying and fermentation in 52 of the 67 counties throughout the state of Alabama. 2,431 individuals participated in various food preservation classes. Of the participants, 1645 were (Caucasian) White, 677 were (African-American) Black, 88were Hispanic, 4 were of other races and 10 were more than one race. Of the group, the majority were female (1720) with the remaining 711 being males. 1518 of the participants were adults and 914 were youth.

**3. How was eXtension used?**

The Alabama Cooperative Extension has been the lead state for the Food Safety Community of Practice (CoP). A core group from ACES started the Food Safety CoP program in 2009. Many publications and information has been posted to eXtension since the start of the CoP in Food Safety. Also, the ACES team has answered many question from "Ask the Expert" concerning all aspects of Food Safety but the majority of the questions answered were concerning Home Food Preservation.

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

**1. Standard output measures**

2014	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	60742	1569587	23403	0

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

**Patent Applications Submitted**

Year: 2014

Actual: 0

**Patents listed**

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

**Number of Peer Reviewed Publications**

2014	Extension	Research	Total
Actual	4	0	4

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

**Output Target**

**Output #1**

**Output Measure**

- This program area will include numerous output activities and methods as part of the evaluation which are described/explained in the prior activities and methods sections. The success of many of these outcomes will be formally evaluated/measured by using individual activity evaluation forms designed specifically for each activity, the success of other activities and methods will be measured by the level of participation in the activity. In the target boxes below for each year, we are indicating the number of individual activities within this program area that will be formally evaluated using an evaluation instrument designed specifically for that activity.  
Not reporting on this Output for this Annual Report

**Output #2**

**Output Measure**

- The number of Home Grown workshops/demonstrations offered

Year	Actual
2014	105

**Output #3**

**Output Measure**

- The number of Home Grown media stories: print, radio, Facebook, television

Year	Actual
2014	167

**Output #4**

**Output Measure**

- GAP Workshops Offered

Year	Actual
2014	8

**Output #5**

**Output Measure**

- Number of Participants in workshops

<b>Year</b>	<b>Actual</b>
2014	82

**Output #6**

**Output Measure**

- The number of Enhancing the Safety of Locally Grown Foods Workshops Presented

<b>Year</b>	<b>Actual</b>
2014	23

**Output #7**

**Output Measure**

- The number of Enhancing the safety of locally grown foods workshop attendees

<b>Year</b>	<b>Actual</b>
2014	287

**Output #8**

**Output Measure**

- The number of ServSafe Classes Taught

<b>Year</b>	<b>Actual</b>
2014	143

**Output #9**

**Output Measure**

- The number of ServSafe Classes Participants

<b>Year</b>	<b>Actual</b>
2014	1352

**Output #10**

**Output Measure**

- The number of products qualified as Acidified Foods

<b>Year</b>	<b>Actual</b>
2014	47

**Output #11**

**Output Measure**

- The number of Prepared Nutrition Facts Labels for Alabama Food Entrepreneurs

<b>Year</b>	<b>Actual</b>
2014	102

**Output #12**

**Output Measure**

- The number of Food Safety Training for Food Processors: Better Process Control Schools

<b>Year</b>	<b>Actual</b>
2014	3

**Output #13**

**Output Measure**

- The number of Food Safety Training for Food Processors: Better Process Control Schools Participants

<b>Year</b>	<b>Actual</b>
2014	22

**Output #14**

**Output Measure**

- The number of Master Food Preserver Workshops

<b>Year</b>	<b>Actual</b>
2014	142

**Output #15**

**Output Measure**

- The number of Master Food Preserver Workshop Participants

<b>Year</b>	<b>Actual</b>
2014	2978

**Output #16**

**Output Measure**

- Master Food Preserver Workshops: The number of Publications Prepared

<b>Year</b>	<b>Actual</b>
-------------	---------------

2014

2

**Output #17**

**Output Measure**

- Number of Downloads for Smartphone App (SOW)

**Year**

**Actual**

2014

2753

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

O. No.	OUTCOME NAME
1	A major outcome will be the number of food service workers who participate in Extension sponsored Food Safety Training.
2	Each ACES employee is required to provide a success story on the program activity which they felt best demonstrates the impacts of their work. These success stories contain the following elements: Why: Explain the reason the program was done, or the situation or problem that the program addressed What: Specifically what was done and how it was done. When: If this was a one-time event, the date it occurred. If it is was a series of events, or an on-going program, when it began. Where: Specific location-- the county or counties involved. Who and how many: The "who" includes both who did the program and who were the clients of the program, as well as how many people were served. So what: This is the part that gives the real meaning to "success". The basic question to be answered in this part is "what difference did this program make". The difference may be measured in terms of dollars, or in changes in habits, lifestyles or attitudes. Whenever possible use numbers to show the effect of the program. If it is not possible to use numbers, provide a qualitative measurement like client comments or another type of testimonial about the program. Since this program area is very broad in scope and contains multiple Extension Team Projects which have different outcome measures, the impacts for this program area are best measured in the number and quality of the success stories generated by the individuals who work on these projects. Therefore, one very significant outcome measure is the number of success stories generated.
3	Increase knowledge of alternate pest management strategies in home food gardens
4	Increase adoption of principles taught: IPM in home vegetable and fruit crops, #people who start/enhance their own food garden at home
5	# vol's who assist teaching workshops and demonstrations
6	Increase knowledge and adoption of Good Agricultural Practices (GAP)and Good Handling Practices (GHP) for commercial food producers.
7	Increase knowledge and adoption of Better Processing of acidified foods by completing the Better Process Control School.
8	Number of food service workers who increased knowledge in food safety practices
9	The number of participants who increase knowledge of selecting vegetable and fruit varieties for pest resistance.
10	Number of participants who changed their pruning techniques of muscadine grapes
11	Pounds of food produced from the Shoals Community Garden project from spring through fall

12	Increase knowledge and adoption of Good Agricultural Practices (GAP) and Good Handling Practices (GHP) for commercial food producers.
13	The number of participants who increase the practice of safe home food processing
14	The number of individuals who increased in knowledge of food that can be sold under the Cottage Food Law

**Outcome #1**

**1. Outcome Measures**

A major outcome will be the number of food service workers who participate in Extension sponsored Food Safety Training.

Not Reporting on this Outcome Measure

**Outcome #2**

**1. Outcome Measures**

Each ACES employee is required to provide a success story on the program activity which they felt best demonstrates the impacts of their work. These success stories contain the following elements: Why: Explain the reason the program was done, or the situation or problem that the program addressed What: Specifically what was done and how it was done. When: If this was a one-time event, the date it occurred. If it is was a series of events, or an on-going program, when it began. Where: Specific location-- the county or counties involved. Who and how many: The "who" includes both who did the program and who were the clients of the program, as well as how many people were served. So what: This is the part that gives the real meaning to "success". The basic question to be answered in this part is "what difference did this program make". The difference may be measured in terms of dollars, or in changes in habits, lifestyles or attitudes. Whenever possible use numbers to show the effect of the program. If it is not possible to use numbers, provide a qualitative measurement like client comments or another type of testimonial about the program. Since this program area is very broad in scope and contains multiple Extension Team Projects which have different outcome measures, the impacts for this program area are best measured in the number and quality of the success stories generated by the individuals who work on these projects. Therefore, one very significant outcome measure is the number of success stories generated.

Not Reporting on this Outcome Measure

**Outcome #3**

**1. Outcome Measures**

Increase knowledge of alternate pest management strategies in home food gardens

Not Reporting on this Outcome Measure

**Outcome #4**

**1. Outcome Measures**

Increase adoption of principles taught: IPM in home vegetable and fruit crops, #people who start/enhance their own food garden at home

Not Reporting on this Outcome Measure

**Outcome #5**

**1. Outcome Measures**

# vol's who assist teaching workshops and demonstrations

Not Reporting on this Outcome Measure

**Outcome #6**

**1. Outcome Measures**

Increase knowledge and adoption of Good Agricultural Practices (GAP)and Good Handling Practices (GHP) for commercial food producers.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	82

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

**Issue (Who cares and Why)**

In order for farmers to sell their produce to large retail establishments and the schools their farms must be GAP certified. The buyer of the produce from the retailers to the consumer are looking for safer food.

**What has been done**

A total of 8 GAP workshops were taught to n=82 participants .

**Results**



Of the n=82 participants n=21 became Gap certified

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
503	Quality Maintenance in Storing and Marketing Food Products
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

#### Outcome #7

##### 1. Outcome Measures

Increase knowledge and adoption of Better Processing of acidified foods by completing the Better Process Control School.

Not Reporting on this Outcome Measure

#### Outcome #8

##### 1. Outcome Measures

Number of food service workers who increased knowledge in food safety practices

##### 2. Associated Institution Types

- 1862 Extension

##### 3a. Outcome Type:

Change in Knowledge Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	1352

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

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

A food Safety Certification class is required of at least one food service worker in each food service establishment in Alabama. This course has increased the safety of the food served in all food establishments. Also the individual that is certified can increase their income after becoming certified.

**What has been done**

1352 individuals have completed the Food Managers certification. Only 273 did not pass the course but did receive a one year certificate of training to allow them time to complete the certification that will last for 5 years.

**Results**

Food Service Establishments remain open generating revenue and safer food is sold to consumers. The cost of food borne illness in the US as estimated by Scharff was \$152 billion dollars in 2010 but in 2012 the CDC reduced this estimate to \$77.7 billion. By following even one newly learned food safety practice from the Food Service Certification Course a food borne illness could be prevented therefore reducing the cost of illness on society.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
504	Home and Commercial Food Service

**Outcome #9**

**1. Outcome Measures**

The number of participants who increase knowledge of selecting vegetable and fruit varieties for pest resistance.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	470

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

**Issue (Who cares and Why)**

Extension professionals have noted a resurgent interest in vegetable gardens (Miller and Arnold, Journal of Extension, April 2012). Excluding the cost of garden labor, an average home garden produces \$508 worth of fruits and vegetables, after the average cost (\$209) of materials and irrigation. Local environmental conditions, gardening practices, and crop choices will influence the actual net value realized by individual gardeners. (Langellotto, Journal of Extension, April 2014)

**What has been done**

105 workshops, demonstrations and face-to-face interactions were conducted by 13 REAs, 6 CECs, and 3 Specialists

### Results

Of the 530 participants 89% ( N= 470) ( knowledge gain in selecting vegetable and fruit varieties for pest resistance. 95%( N= 503) learned more about trellising muscadines for increased production.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
216	Integrated Pest Management Systems

#### Outcome #10

##### 1. Outcome Measures

Number of participants who changed their pruning techniques of muscadine grapes

##### 2. Associated Institution Types

- 1862 Extension

##### 3a. Outcome Type:

Change in Action Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	331

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

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

Extension professionals have noted a resurgent interest in vegetable gardens (Miller and Arnold, Journal of Extension, April 2012). Excluding the cost of garden labor, an average home garden produces \$508 worth of fruits and vegetables, after the average cost (\$209) of materials and irrigation. Local environmental conditions, gardening practices, and crop choices will influence the actual net value realized by individual gardeners. (Langellotto, Journal of Extension, April 2014)

###### What has been done

105 workshops, demonstrations and face-to-face interactions were conducted by 13 REAs, 6 CECs, and 3 Specialists. Other projects highlighted seed starting, drip irrigation, "organic" principles, using pesticides safely, composting, and pollinator identification.

###### Results

Of the 530 participants 63% of participants (n=331) are now pruning their muscadine grapes for increased production.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
216	Integrated Pest Management Systems

#### Outcome #11

##### 1. Outcome Measures

Pounds of food produced from the Shoals Community Garden project from spring through fall

##### 2. Associated Institution Types

- 1862 Extension

##### 3a. Outcome Type:

Change in Action Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	2098

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

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

Extension professionals have noted a resurgent interest in vegetable gardens (Miller and Arnold, Journal of Extension, April 2012). Excluding the cost of garden labor, an average home garden produces \$508 worth of fruits and vegetables, after the average cost (\$209) of materials and irrigation. Local environmental conditions, gardening practices, and crop choices will influence the actual net value realized by individual gardeners. (Langellotto, Journal of Extension, April 2014)

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

A community garden was started in Florence, AL in spring of 2014.

###### **Results**

The 48 beds adopted by neighboring residents grew a total of 2,098 pounds of produce. This garden was created specifically for the neighborhood surrounding the Extension office: small urban lots, military veterans, low-income, and physically disabled citizens.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
216	Integrated Pest Management Systems

**Outcome #12**

**1. Outcome Measures**

Increase knowledge and adoption of Good Agricultural Practices (GAP) and Good Handling Practices (GHP) for commercial food producers.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	82

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

**Issue (Who cares and Why)**

In order for farmers to sell their produce to large retail establishments and the schools their farms must be GAP certified. The buyer of the produce from the retailers to the consumer are looking for safer food.

**What has been done**

A total of 8 GAP workshops were taught to n=82 participants .

**Results**

Of the n=82 participants n=21 became Gap certified

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
503	Quality Maintenance in Storing and Marketing Food Products
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

### **Outcome #13**

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

The number of participants who increase the practice of safe home food processing

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

- 1862 Extension

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

Change in Action Outcome Measure

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

<b>Year</b>	<b>Actual</b>
2014	2979

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

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

Home Food processing is on the increase with the new generation looking to eat less processed foods and to grow their own foods. This generation has never done this type of food processing before. Therefore, the Alabama Cooperative Extension System has taught for generation safe home food processing.

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

A team of Food Safety Regional Agents (9) have taught 142 classes in 52 of the 67 counties in Alabama. These classes include teaching principles of pressure canning, water bath canning, freezing and drying of foods.

##### **Results**

Of the n=2479 individuals completing the classes n=358 completed the pre and posttests. Of the group n=235 had done home food preservation before while n=110 had never done home food processing before. When asked how to properly process jams and jelly n=203 answered incorrectly. However in the post test n=320 stated they would water bath can their jams and jellies in the future. When asked in the pre test "Do you water bath can Green Beans" n=138 answered yes. In the post test n=353 stated they would pressure can their green beans in the future.

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

<b>KA Code</b>	<b>Knowledge Area</b>
504	Home and Commercial Food Service

**Outcome #14**

**1. Outcome Measures**

The number of individuals who increased in knowledge of food that can be sold under the Cottage Food Law

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	419

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

**Issue (Who cares and Why)**

New Cottage Food Law was passed in the state of Alabama. As part of the new law a food safety training course was required before the individuals could sell their products.

**What has been done**

N=64 certifying food safety classes were taught through out the state. A total of n=419 individuals completed the certification required to sell foods from their home.

**Results**

This certification and the ability to sell foods made in their will result in additional income for individuals. Under the law an individual can sell up to \$20,000 of non-hazardous foods from their home. If all 419 met this potential, 12 million dollars of revenue could be realized by the state.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
504	Home and Commercial Food Service
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

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

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

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

### **Brief Explanation**

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

### **Evaluation Results**

Food Service Establishments remain open generating revenue and safer food is sold to consumers. The cost of food borne illness in the US as estimated by Scharff was \$152 billion dollars in 2010 but in 2012 the CDC reduced this estimate to \$77.7 billion. By following even one newly learned food safety practice from the Food Service Certification Course a food borne illness could be prevented therefore reducing the cost of illness on society. Of the 530 participants 89% ( N= 470) ( knowledge gain in selecting vegetable and fruit varieties for pest resistance. 95%( N= 503) learned more about trellising muscadines for increased production. Of the 530 participants 63% of participants (n=331) are now pruning their muscadine grapes for increased production.

The 48 beds adopted by neighboring residents grew a total of 2,098 pounds of produce. This garden was created specifically for the neighborhood surrounding the Extension office: small urban lots, military veterans, low-income, and physically disabled citizens. Of the n=82 participants n=21 became Gap certified. A total of 22 individuals were certified through the Auburn University ACES Better Process Control School. Of the n=2479 individuals completing the classes n=358 completed the pre and posttests. Of the group n=235 had done home food preservation before while n=110 had never done home food processing before. When asked how to properly process jams and jelly n=203 answered incorrectly. However in the post test n=320 stated they would water bath can their jams and jellies in the future. When asked in the pre test "Do you water bath can Green Beans" n=138 answered yes. In the post test n=353 stated they would pressure can their green beans in the future. This certification and the ability to sell foods made in their will result in additional income for individuals. Under the law an individual can sell up to \$20,000 of non-hazardous foods from their home. If all 419 met this potential, 12 million dollars of revenue could be realized by the state.

### **Key Items of Evaluation**

Participants in the Home Grown project will have successful gardens by implementing the recommended techniques. Following these recommendations can also reduce unnecessary or wasteful pesticide usage and exposure; increased soil organic matter can increase soil water-holding capacity and soil structure, enhance fertility management, and enhance irrigation efficiency. A family garden can minimally add \$508 worth of fruits and vegetables to a family's resources (Gail Langelotto, JOE 4/14). Add to this a national need to increase



consumption of fruits/vegetables; the home garden is a prime opportunity for improving a family's diet. People who grow/tend a garden are more likely to eat greater quantities of fruits/vegetables.

Home Food Processors can now legally sell non-hazardous foods that they prepare in their home kitchens. As part of the new law a food safety course must be taken and an exam passed to sell their products. This will be a source of additional income for those struggling to make end meet. It will also give a spring board for individuals to see what it take to process food to sell. They may be able to start at this level and become a large processor.

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

**Program # 4**

**1. Name of the Planned Program**

Global Food Security and Hunger (Sustainable Agricultural and Forestry Systems)

Reporting on this Program

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

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
111	Conservation and Efficient Use of Water	5%	0%		
112	Watershed Protection and Management	5%	0%		
123	Management and Sustainability of Forest Resources	10%	0%		
124	Urban Forestry	5%	0%		
134	Outdoor Recreation	5%	0%		
135	Aquatic and Terrestrial Wildlife	5%	0%		
205	Plant Management Systems	13%	10%		
216	Integrated Pest Management Systems	10%	0%		
301	Reproductive Performance of Animals	5%	10%		
302	Nutrient Utilization in Animals	5%	20%		
303	Genetic Improvement of Animals	5%	10%		
307	Animal Management Systems	10%	20%		
311	Animal Diseases	5%	20%		
315	Animal Welfare/Well-Being and Protection	5%	10%		
601	Economics of Agricultural Production and Farm Management	5%	0%		
806	Youth Development	2%	0%		
	<b>Total</b>	100%	100%		

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

1. Actual amount of FTE/SYs expended this Program

Year: 2014	Extension		Research	
	1862	1890	1862	1890
<b>Plan</b>	43.8	3.3	0.0	0.0
<b>Actual Paid</b>	24.0	1.8	0.0	0.0
<b>Actual Volunteer</b>	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
1070139	93635	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
482800	102557	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
3359097	156187	0	0

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

**Forage Focus Program:** A total of 56 forage related activities were developed and conducted. The Fall Armyworm on-farm surveillance program continued to assist farmers in monitoring for this forage destroying pest. **Beef Cattle Performance and Marketing Programs:** Three breeding bull, 4 replacement heifer sales and 3 feeder calf sales held. In total, 37 activities of educational trainings, planning meetings and marketing events were conducted. Continued emphasis is placed on beef cattle farmers to collect and utilize financial and performance data. Thirty-three herds have submitted weaning weight records for analysis.

**Commercial Horticulture Program:** The specialty crop industry is on the rise in Alabama with significant number of new and beginning farmers. This training program provided hands-on training to producers, crop consultants, and input retailers about crop production, crop protection/IPM, food storage/food safety, and marketing. The Annual Fruit and Vegetable Conference grew in participation by 35% over the past three years and is now the premier networking event for this industry in Alabama. The statewide vegetable IPM project has received numerous national and regional awards for its high quality and impactful program to the growing industry.

**Agronomic Crops Program:** Extension specialists, regional agents, and county coordinators participated in over 419 activities. On-farm demonstrations included: corn seeding rate; corn hybrid evaluation; cotton variety evaluation; and wheat cultivar evaluation. Activities also included development of IPM Guides, disease diagnosis, entomology webinar, and stored grain workshops. Alabama Ethnic Food Security Network In 2014, ACES specialists and agents associated with the Alabama Ethnic Food Security Network (AEFSN) conducted and/or participated in twenty-two (22) workshops, three (3) field days and two (2) multistate conferences held in Alabama, Tennessee, Mississippi, and the Republic of the Union of Myanmar. These outreach activities placed emphasis on meat goat and hair sheep production systems and focused on areas such as reproductive and genetic evaluations, feeding and nutrition, forage management, silvopasture systems, fence products and utilization, use of FAMACHA© chart, fecal-egg counts, integrated gastrointestinal parasite management, and biosecurity measures to enhance animal health. Other topics of focus included small-scale meat rabbit production, backyard poultry production and ethnic vegetable production. The programs included presentations and demonstrations by in- and out-of-state experts from academia and government while sponsors included ALFA, Alabama Mountains, Rivers and Valleys RC&D Council, Alabama Agricultural A+ Marketing Association, Federation of Southern Cooperatives/Land Assistance Fund, Winrock International Farmer to Farmer Program, Tennessee State University and Alcorn University. Additionally, specialist and faculty associated with the AEFSN provided practical and easy to understand publications about goats, sheep, rabbits, backyard poultry and, to some extent, specialty vegetables and their impact on Alabama's economy and natural resources.

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

**Forage Focus Program:** The primary target audience was cattle, equine and hay producers interested in developing improved production of their forages to decrease dependence on stored feed .Beef Cattle Performance and Marketing Programs: The primary target audience was beef cattle producers interested in sustainable and profitable operations.

**Commercial Horticulture Program (AU):** New beginning farmers, experienced established producers, crop advisors, industry representatives, nonprofit agencies, food banks, and gardeners, retailers, and educators

**Alabama Ethnic Food Security Network:** The primary target audience was meat goat and sheep producers developing profitable, sustainable animal production systems. Secondary target audience was small-scale and limited-resource producers of meat rabbits, all natural chickens, and specialty vegetables interested in supplying quality food products. Tertiary target audience was consumers of meat and vegetable products concerned with dietary cholesterol and other health issues.

**3. How was eXtension used?**

The Alabama Vegetable IPM project used eOrganic for delivering a webinar related to crucifer pest management for open field and protected agriculture systems. The abstract and video recording has been promoted to about 6,000 subscribers nationally.

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

**1. Standard output measures**

2014	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	102711	53809378	205	15863858

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

**Patent Applications Submitted**

Year: 2014  
 Actual: 0

**Patents listed**

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

**Number of Peer Reviewed Publications**

2014	Extension	Research	Total
<b>Actual</b>	15	3	17

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

**Output Target**

**Output #1**

**Output Measure**

- This program area will include numerous output activities and methods as part of the Strategic Program Initiatives (SPIs) and Special Funded Projects (SFPs) which are mentioned/listed in the prior "outcome activities and methods sections." The success of many of these outcomes will be formally evaluated/measured by using individual activity evaluation forms designed specifically for each activity. The success of other activities and methods will be measured by the level of participation in the activity. In the target boxes below for each year, we are indicating the number of individual activities within the SPIs and SFPs for this program area that will be formally evaluated using an evaluation instrument designed specifically for that activity. Not reporting on this Output for this Annual Report

**Output #2**

**Output Measure**

- Number of Field Days Conducted

<b>Year</b>	<b>Actual</b>
2014	3

**Output #3**

**Output Measure**

- Total Number of training Participants

<b>Year</b>	<b>Actual</b>
2014	834

**Output #4**

**Output Measure**

- Number of Workshops Conducted

<b>Year</b>	<b>Actual</b>
2014	22

**Output #5**

**Output Measure**

- Number of programs about improving bird health and productivity through improved litter management.

<b>Year</b>	<b>Actual</b>
2014	5

**Output #6**

**Output Measure**

- Number of Regional Field Days and Workshops to Increase Knowledge of Horticulture Production

<b>Year</b>	<b>Actual</b>
2014	19

**Output #7**

**Output Measure**

- Number of Workshops and Field Days to Encourage Adoption of Row Crop Practices that are Sustainable and Profitable

<b>Year</b>	<b>Actual</b>
2014	137

**Output #8**

**Output Measure**

- Number of Publications for Integrated Pest Management Adoption

<b>Year</b>	<b>Actual</b>
2014	7

**Output #9**

**Output Measure**

- Number of Industry Wide Workshops to Increase Knowledge of Catfish Producers

<b>Year</b>	<b>Actual</b>
2014	8

**Output #10**

**Output Measure**

- Number of Workshops to Increase Understanding of Pond Function and Management by Owners

<b>Year</b>	<b>Actual</b>
2014	10

**Output #11**

**Output Measure**

- Number of 5 Day Teacher Workshops to Increase Appreciation of Aquaculture and Aquatic Natural Resources by Students and Teachers

<b>Year</b>	<b>Actual</b>
2014	1

**Output #12**

**Output Measure**

- Number of new commercial oyster farms established in 2014

<b>Year</b>	<b>Actual</b>
2014	4

**Output #13**

**Output Measure**

- Number of Regional Meetings to Increase Knowledge and Awareness of Methodologies and Practices used in Establishing and Sustaining a Viable Forage Base on Alabama Livestock and Equine Farms

<b>Year</b>	<b>Actual</b>
2014	44

**Output #14**

**Output Measure**

- Number of Value Added Marketing Events to Increase Producer Knowledge Through Comprehensive Programming for Livestock and Equine Owners

<b>Year</b>	<b>Actual</b>
2014	11

**Output #15**

**Output Measure**

- Number of fruit production regional meetings, field days, and workshops

<b>Year</b>	<b>Actual</b>
2014	68

**Output #16**

**Output Measure**

- Number of participants in fruit production regional meetings, field days, and workshops

<b>Year</b>	<b>Actual</b>
2014	2660

**Output #17**

**Output Measure**

- Number of conventional vegetable production regional meetings, field days, and workshops

<b>Year</b>	<b>Actual</b>
2014	38

**Output #18**

**Output Measure**

- Number of participants in conventional vegetable production regional meetings, field days, and workshops

<b>Year</b>	<b>Actual</b>
2014	1591

**Output #19**

**Output Measure**

- Number of organic vegetable production and high tunnel regional meetings, field days, and workshops

<b>Year</b>	<b>Actual</b>
2014	23

**Output #20**

**Output Measure**

- Number of participants in organic vegetable and high tunnel production regional meetings, field days, and workshops

<b>Year</b>	<b>Actual</b>
2014	664

**Output #21**

**Output Measure**

- Number of turf and landscape regional meetings, field days, and workshops

<b>Year</b>	<b>Actual</b>
2014	9

**Output #22**

**Output Measure**

- Number of participants in turf and landscape regional meetings, field days, and workshops



<b>Year</b>	<b>Actual</b>
2014	217

**Output #23**

**Output Measure**

- Number of reactive phone calls and emails

<b>Year</b>	<b>Actual</b>
2014	27103

**Output #24**

**Output Measure**

- Number of reactive field visits

<b>Year</b>	<b>Actual</b>
2014	385

**Output #25**

**Output Measure**

- Number of handbooks and special publications completed

<b>Year</b>	<b>Actual</b>
2014	5

**Output #26**

**Output Measure**

- Number of extension bulletins and factsheets published

<b>Year</b>	<b>Actual</b>
2014	5

**Output #27**

**Output Measure**

- Number of statewide IPM newsletters published

<b>Year</b>	<b>Actual</b>
2014	19

**Output #28**

**Output Measure**

- Number of newsletters and articles published by Regional Extension Agents

<b>Year</b>	<b>Actual</b>
2014	85

**Output #29**

**Output Measure**

- Number of online training videos completed for producers

<b>Year</b>	<b>Actual</b>
2014	9

**Output #30**

**Output Measure**

- Number of field demonstrations completed (planned activities)

<b>Year</b>	<b>Actual</b>
2014	36

**Output #31**

**Output Measure**

- Number of websites and social media channels developed or maintained for sharing information

<b>Year</b>	<b>Actual</b>
2014	3

**Output #32**

**Output Measure**

- Number of online IPM training modules (self-paced learning system) for producers

<b>Year</b>	<b>Actual</b>
2014	4

**Output #33**

**Output Measure**

- Number of IPM newspaper and magazine publications

<b>Year</b>	<b>Actual</b>
2014	13

**Output #34**

**Output Measure**

- Number of horticultural promotional items for raising awareness about new educational resources

<b>Year</b>	<b>Actual</b>
2014	2

**Output #35**

**Output Measure**

- Number of horticultural podcasts/radio/TV spots

<b>Year</b>	<b>Actual</b>
2014	13

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

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

O. No.	OUTCOME NAME
1	Each ACES employee is required to provide a success story on the program activity which they felt best demonstrates the impacts of their work. These success stories contain the following elements: Why: Explain the reason the program was done, or the situation or problem that the program addressed What: Specifically what was done and how it was done. When: If this was a one-time event, the date it occurred. If it is was a series of events, or an on-going program, when it began. Where: Specific location-- the county or counties involved. Who and how many: The "who" includes both who did the program and who were the clients of the program, as well as how many people were served. So what: This is the part that gives the real meaning to "success". The basic question to be answered in this part is "what difference did this program make". The difference may be measured in terms of dollars, or in changes in habits, lifestyles or attitudes. Whenever possible use numbers to show the effect of the program. If it is not possible to use numbers, provide a qualitative measurement like client comments or another type of testimonial about the program. Since this program area is very broad in scope and contains multiple Strategic Program Initiatives and Special Funded Projects which have different outcomes measures, the impacts for this program area are best measured in the number and quality of the success stories generated by the individuals who work on these projects. Therefore, one very significant outcome measure is the number of success stories generated.
2	Increase farmers' knowledge in efficient and profitable methods of goat, sheep, and specialty vegetable production
3	Increase broiler producer awareness of methods to reduce waste management issues on farms; Increase poultry producer confidence in litter management techniques; and Train poultry industry personnel in poultry house technology and management
4	Increase knowledge of horticultural production methods and marketing
5	Adoption of row crop production practices that are sustainable and profitable
6	Integrated pest management adoption
7	Increase in active, viable forestry and wildlife county committees
8	Increase the knowledge of catfish producers in more efficient practices; Expand the use of hybrid catfish in production; and Incorporate management that optimizes quality and profitability at all stages of production to marketing
9	Increase understanding of pond function and management by owners; Reduce improper management by consultants; and Increase satisfaction and enjoyment of ponds by owners
10	Increase public understanding of water conservation; Improve angler education to increase understanding of fisheries management; and Increase enjoyment of angling
11	Increase appreciation of aquaculture and aquatic natural resources by students and teachers

12	Increase public awareness of costal environmental issues; Increase public awareness of loss of working waterfront; and Increase community resilience to natural and manmade disasters
13	Increase knowledge and awareness of methodologies and practices used in establishing and sustaining a viable forage base on Alabama livestock and equine farms
14	Increase producer knowledge through comprehensive programming for livestock and equine owners on sustainability of production, proper care and appropriate marketing options
15	The number of poultry producers who Increase broiler producer of methods to reduce waste management
16	Dollar increase in farm gate income from the adoption of row crop practices that are sustainable and profitable
17	Number of catfish producers establishing advanced raceway production systems.
18	Percent increase understanding of pond function and management by owners
19	The number of youth who learned angling
20	Percent increased appreciation of aquaculture and aquatic natural resources by students and teachers
21	Number of communities developing Working Waterfront Plans.
22	Percentage Increase in knowledge gained of methodologies and practices used in establishing and sustaining a viable forage base on Alabama livestock and equine farms
23	Increased economic impact ( dollar) through comprehensive programming for livestock and equine owners on sustainability of production, proper care and appropriate marketing options
24	Number of fruit and vegetable producer who increase in knowledge of horticultural crop production practices
25	The number of participants who increased knowledge about vegetable Integrated Pest Management (IPM) tactics among conventional producers/large farms
26	Percent change in Knowledge of Integrated Pest Management (IPM) tactics among organic/naturally grown vegetable producers, small and low resource farmers
27	The number of small farms that adopted IPM practices
28	Percent reduction in barriers to the adoption of IPM and production information
29	Percent crop saved and dollar impacts by vegetable IPM project implementation
30	Dollar impact of Extension programs on peach producers in central Alabama
31	The number of two-generation farm families who learned active farm business transitions

32	The number of participants who increased knowledge in forage management, artificial insemination, water quality, and wildlife education
33	Alabama Ethnic Food Security Network-Number of goat and sheep producers that gained knowledge of key production management practices-
34	Alabama Ethnic Food Security Network-Number of goat and sheep producers that observed improved production efficiency
35	Alabama Ethnic Food Security Network-Number of goat and sheep producers that observed improved animal health and well-being
36	Alabama Ethnic Food Security Network-Number of goat and sheep producers that reported increased profitability rates ranging from 5 to 20%

**Outcome #1**

**1. Outcome Measures**

Each ACES employee is required to provide a success story on the program activity which they felt best demonstrates the impacts of their work. These success stories contain the following elements: Why: Explain the reason the program was done, or the situation or problem that the program addressed What: Specifically what was done and how it was done. When: If this was a one-time event, the date it occurred. If it is was a series of events, or an on-going program, when it began. Where: Specific location-- the county or counties involved. Who and how many: The "who" includes both who did the program and who were the clients of the program, as well as how many people were served. So what: This is the part that gives the real meaning to "success". The basic question to be answered in this part is "what difference did this program make". The difference may be measured in terms of dollars, or in changes in habits, lifestyles or attitudes. Whenever possible use numbers to show the effect of the program. If it is not possible to use numbers, provide a qualitative measurement like client comments or another type of testimonial about the program. Since this program area is very broad in scope and contains multiple Strategic Program Initiatives and Special Funded Projects which have different outcomes measures, the impacts for this program area are best measured in the number and quality of the success stories generated by the individuals who work on these projects. Therefore, one very significant outcome measure is the number of success stories generated.

Not Reporting on this Outcome Measure

**Outcome #2**

**1. Outcome Measures**

Increase farmers' knowledge in efficient and profitable methods of goat, sheep, and specialty vegetable production

Not Reporting on this Outcome Measure

**Outcome #3**

**1. Outcome Measures**

Increase broiler producer awareness of methods to reduce waste management issues on farms; Increase poultry producer confidence in litter management techniques; and Train poultry industry personnel in poultry house technology and management

Not Reporting on this Outcome Measure

**Outcome #4**

**1. Outcome Measures**

Increase knowledge of horticultural production methods and marketing

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	0

**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>
111	Conservation and Efficient Use of Water
205	Plant Management Systems
216	Integrated Pest Management Systems
601	Economics of Agricultural Production and Farm Management

**Outcome #5**

**1. Outcome Measures**

Adoption of row crop production practices that are sustainable and profitable

Not Reporting on this Outcome Measure

**Outcome #6**

**1. Outcome Measures**

Integrated pest management adoption

Not Reporting on this Outcome Measure

**Outcome #7**

**1. Outcome Measures**

Increase in active, viable forestry and wildlife county committees

Not Reporting on this Outcome Measure

**Outcome #8**

**1. Outcome Measures**

Increase the knowledge of catfish producers in more efficient practices; Expand the use of hybrid catfish in production; and Incorporate management that optimizes quality and profitability at all stages of production to marketing

Not Reporting on this Outcome Measure

**Outcome #9**

**1. Outcome Measures**

Increase understanding of pond function and management by owners; Reduce improper management by consultants; and Increase satisfaction and enjoyment of ponds by owners

Not Reporting on this Outcome Measure



**Outcome #10**

**1. Outcome Measures**

Increase public understanding of water conservation; Improve angler education to increase understanding of fisheries management; and Increase enjoyment of angling

Not Reporting on this Outcome Measure

**Outcome #11**

**1. Outcome Measures**

Increase appreciation of aquaculture and aquatic natural resources by students and teachers

Not Reporting on this Outcome Measure

**Outcome #12**

**1. Outcome Measures**

Increase public awareness of costal environmental issues; Increase public awareness of loss of working waterfront; and Increase community resilience to natural and manmade disasters

Not Reporting on this Outcome Measure

**Outcome #13**

**1. Outcome Measures**

Increase knowledge and awareness of methodologies and practices used in establishing and sustaining a viable forage base on Alabama livestock and equine farms

Not Reporting on this Outcome Measure

**Outcome #14**

**1. Outcome Measures**

Increase producer knowledge through comprehensive programming for livestock and equine owners on sustainability of production, proper care and appropriate marketing options

Not Reporting on this Outcome Measure

**Outcome #15**

**1. Outcome Measures**

The number of poultry producers who Increase broiler producer of methods to reduce waste management

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	5

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

**Issue (Who cares and Why)**

Waste and litter management are important considerations in broiler health and productivity in Alabama. Broiler growers and poultry companies are interested in techniques to better manage litter in and out of poultry houses.

**What has been done**

Broiler litter management was discussed at five poultry industry meetings and two popular press articles discussed improved litter management techniques.

**Results**

Broiler growers gained knowledge of techniques to improve litter conditions and avoid waste issues through misuse of litter as a fertilizer. Efforts have supported increased use of in-house composting of litter and litter acidification products statewide.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
307	Animal Management Systems

## **Outcome #16**

### **1. Outcome Measures**

Dollar increase in farm gate income from the adoption of row crop practices that are sustainable and profitable

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

- 1862 Extension

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

Change in Condition Outcome Measure

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

<b>Year</b>	<b>Actual</b>
2014	36000000

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

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

Row crop producers are constantly challenged with in-season issues but also managing their profit margins from year-to-year. The agronomic crops team focused on these challenges to help farmers remain profitable but also sustainable.

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

Workshops, field days and training sessions are conducted throughout the year focused on helping farmers obtain timely information related to crop production. Social media, websites, email, phone and farm press are also used to disseminate timely news to farmers and crop consultants

#### **Results**

Weather patterns favored the development of frogeye leaf spot in soybean. Growers were advised to spray a fungicide to 100,000 at-risk acres for a 20% yield gain for a potential increase in farm gate income of \$ 12.1 million. Workshops and advice on stored grain IPM tactics for insect control resulted in an improvement in on-farm stored grain quality through enhanced insect pest control, which increased the value of stored cereal crops by \$1 per bushel. Extension specialists worked directly with farmer possessing a total on-farm storage capacity exceeding 300,000 bushels for an increase in farm income of \$300,000. Electronic media used to alert corn producers across south AL of an outbreak of southern rust and to apply a recommended fungicide for a potential yield gains of 80 bu/ac valued at \$300/ac on 29,000 ac for an increase in farm gate income of \$8.7 million. Enhanced recognition of herbicide resistant weeds in North Alabama has resulted in improved weed control in cotton and corn at savings of \$50 to \$75 over 200,000 ac for a total savings of \$10 to \$15 million to Alabama producers.

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

<b>KA Code</b>	<b>Knowledge Area</b>
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
205	Plant Management Systems
216	Integrated Pest Management Systems
601	Economics of Agricultural Production and Farm Management

**Outcome #17**

**1. Outcome Measures**

Number of catfish producers establishing advanced raceway production systems.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	4

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

**Issue (Who cares and Why)**

The aquaculture industry and specifically commercial catfish production has experienced significant declines in profitability over the past several years. Competition from seafood produced from outside the United States, other proteins, and increased cost of production have contributed to this downturn in the industry here in the Southeast. Our Pond-to-Plate extension project is leading the industry through a process of evaluating the entire production, processing, and marketing system to determine what aspects can be optimized to increase efficiency and ultimately profitability of the catfish production industry and eventually aquaculture in the southeast as a whole. The project's target audience is primarily catfish producers, processors, and marketers centered mostly in west central Alabama.

**What has been done**

The project conducted a review of the US catfish industry. Two industry wide workshops with over 250 participants were held to address industry needs and issues. ACES Specialists and researchers introduced new technology and research in a series of informational meetings. Conducted Yield verification and product quality studies were conducted with catfish producers in West Alabama. The project produced the booklet "Best Management Practices for the Commercial Production of Catfish in Alabama" prepared from results of several studies completed during 2013. A DVD entitled "Advances in Aquaculture" including catfish fillet color standards,

harvesting fish with a fish pump, hybrid catfish grading seine, and advanced aquaculture systems was completed and distributed.

**Results**

Pond to Plate program increased catfish industry participants understanding of the industry and established four potential solutions that would help increase production and profitability of producers and processors. Findings included: 1) industry improvement will require increased production efficiency, raising quality standards (workmanship, flavor, consistency) and improved product marketing; 2) despite declines in the industry, workshop attendees expressed strong belief that they would still be involved in catfish production five years from now, and that the market for U.S. farm-raised catfish could be increased by 65% in the next 20 years; 3) renewed farmer/processor dialogue showed that value-chain linkages need to be improved. 4) Participants agreed that U.S. farm-raised catfish should be marketed as an environmentally-friendly, locally grown, nutritious and sustainable protein. Workshop attendees gained specific knowledge on current practices technologies they can adopt to improve industry sales and competitiveness. The Pond-to-Plate project helped develop new catfish products to be used by west Alabama school lunch programs.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
135	Aquatic and Terrestrial Wildlife
302	Nutrient Utilization in Animals
307	Animal Management Systems
311	Animal Diseases
601	Economics of Agricultural Production and Farm Management

**Outcome #18**

**1. Outcome Measures**

Percent increase understanding of pond function and management by owners

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	83

### 3c. Qualitative Outcome or Impact Statement

#### Issue (Who cares and Why)

With approximately 250,000 ponds in Alabama, management of these aquatic systems is an important activity that impacts quality of life through recreation and aesthetics. Fishing is the most common use of ponds in Alabama but they are also used for stock watering, irrigation, drinking water supplies, aquatic gardening, aquaculture and other uses. While the basic principles of pond management are well established, it is valuable to educate pond owners and managers in proper strategies to meet their management goals and to provide reactive services to help them address problems as they arise.

#### What has been done

Our efforts included workshops, digital information and tools, routine services, and mass media delivery. We conducted 10 workshops ranging from a simple presentation to demonstrations and services provided. Maintained the recreational fishing portion of our website, where all our Extension literature, video, supplier lists, and slide presentations for pond management and fisheries is available to the public. A new publication "Freshwater Clams and Mussels: filter feeders that can cause problems in your pond" was produced. We maintained the Alabama Extension Fisheries and Pond Management Facebook Page by creating more than 220 posts of original and shared material. Extension personnel provided routine services and consultation to solve pond problems.

#### Results

Evaluation of the program was limited to change in knowledge associated with individual workshops and satisfaction with the information presented. In the workshops where pre-post testing occurred participants on average more than doubled the percentage of correct answers after attending the workshop.

### 4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
134	Outdoor Recreation
135	Aquatic and Terrestrial Wildlife
205	Plant Management Systems
216	Integrated Pest Management Systems
307	Animal Management Systems

### Outcome #19

#### 1. Outcome Measures

The number of youth who learned angling

#### 2. Associated Institution Types

- 1890 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	145

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

**Issue (Who cares and Why)**

Angling is an activity with millions of participants across the United States. In Alabama direct expenditures on angling exceed \$600,000,000 annually. Interest in aquatic environments stimulated from an interest in fishing can be used to educate and inculcate an appreciation in aquatic stewardship

**What has been done**

Eleven youth angler education events were held in 2013 including a 4H Family Fun Fishing Day, participation in the Ag Discovery Day at EV Smith Experiment Station and Ag Roundup providing a casting activity and fish prints, and other fishing events.

**Results**

More than 850 youths participated in angler education events. Approximately 30% had no previous experience fishing. All of the participants were able to cast after the workshops. Basic angling skills, ethics, and water conservation were covered in the workshop.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
134	Outdoor Recreation

**Outcome #20**

**1. Outcome Measures**

Percent increased appreciation of aquaculture and aquatic natural resources by students and teachers

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	26

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

**Issue (Who cares and Why)**

Aquaculture programs have been established in several high schools and middle schools in Alabama. Aquaculture provides applications of science, mathematics, and even social science such as economics and marketing that support the middle school and high school teaching objectives. Training and curricula developed by Specialists in this project are used by teachers, extension personnel, and students in several states.

**What has been done**

This project included a 5 day teacher workshop in with another state specialist and outside cooperators for 23 participants from multiple states and a multicounty aquaponics workshop for 24 people. Three state specialists conducted 30 school visits to provide technical support and instruction. Four thousand tilapia fingerlings were supplied to schools for aquaculture projects. Ten aquaculture videos were produced and placed on YouTube where they received 31,000 views.. Specialists provided input and updates for the education section of our web site which received 635,669 page views

**Results**

Teacher workshop pre/post testing indicated that teachers increased their aquaculture knowledge by 26%. Participants learned the basics of effective pond management including proper pond construction, fertility management, weed control, stocking and harvest rates of fishes. More advanced techniques including the fish enhancement approaches and involving ponds in total land management were also included in the workshops and in individual consultations with pond owners. Teacher remarks in the workshop evaluation indicated universal satisfaction with the training and excitement in implementing the programs in their classrooms. Providing aquaculture education information online provides access to teacher, students, and the public worldwide. This enhances their understanding and appreciation for aquaculture. Teachers report that aquaculture material increase student engagement in learning math and science. The Introduction to aquaculture video on you tube was viewed 3299 by people in 136 countries providing broad reach of our expertise

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water



112	Watershed Protection and Management
134	Outdoor Recreation
135	Aquatic and Terrestrial Wildlife
205	Plant Management Systems
216	Integrated Pest Management Systems
301	Reproductive Performance of Animals
302	Nutrient Utilization in Animals
806	Youth Development

**Outcome #21**

**1. Outcome Measures**

Number of communities developing Working Waterfront Plans.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	1

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

**Issue (Who cares and Why)**

Working waterfronts are critical to the economic vitality of coastal communities. Working waterfronts provide the infrastructure needed by fishing (both commercial and recreational) and other water-based industries. The gentrification of docks has led to less and greatly more expensive service areas pushing the working boats further away from traditional areas or placing businesses in peril.

**What has been done**

Participated in the founding steering committee of the National Working Waterfront Network Presented the Alabama Working Waterfront project at the National Working Waterfront conference.

Assisted in Fourth National Working Waterfront Conference planning Specialists facilitated the efforts of the Alabama Working Waterfront Coalition.

Ensured the Gulf Shores Working Waterway District is a case study on the National Working Waterfront Network Toolkit. The project produced the Working Waterfront display at the Bayou La Batre Blessing of the Fleet.

**Results**

The Alabama Working Waterfront Coalition has formed a board and elected a chairman, and is becoming an independent organization apart from Extension. This will allow greater ability for the group to lobby for the working waterfront issues. This group incorporated this year as an official stakeholder group. By hosting the National Working Waterfront conference, the northern Gulf will showcase its working waterfront, calling state and national attention to the assets and needs there. Inclusion of the Gulf Shores project case study enhances the knowledge of communities who use the case studies, and can serve as a model.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
112	Watershed Protection and Management
134	Outdoor Recreation
601	Economics of Agricultural Production and Farm Management

**Outcome #22**

**1. Outcome Measures**

Percentage Increase in knowledge gained of methodologies and practices used in establishing and sustaining a viable forage base on Alabama livestock and equine farms

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	25

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

**Issue (Who cares and Why)**

For livestock enterprises in Alabama, quality forage production is key to profitability and sustainability. Research shows over 70% of any livestock budget is spent on feedstuffs to maintain the individual animal throughout the year. Minimizing grain use for ruminant livestock species and equine and maximizing the use of high quality forages not only meets nutritional requirements, but also decreases feedstuff costs. The goal for Alabama livestock farmers is to have 300 days of quality forage available each year.

**What has been done**

A comprehensive set of programs for livestock, equine and forage producers have been

developed and implemented. These programs were all designed to increase farmers abilities in establishing and sustaining a viable forage base for their operation. Programs are varied in terms of delivery, length and depth of subject matter. Six demonstration/research forage plots were utilized as well as 56 regional/county meeting conducted. Additionally, a webinar series (n=7) was conducted concentrating on current forage topics and forage pests as well as publications (n=5), you-tube videos (n=1), magazine articles (n=17 and timely information sheets (n=26).

**Results**

Twenty meetings were held with area cattle producers on forage management, 10 meetings focused on weeds/pest management and 10 meetings focused on haylage/balage/silage. Participants (n=67) in a regional Weeds and Pest Workshop indicated a 25% increase in knowledge gained in the areas of forage management, beef cattle production and pest management in forages. Participating producers from 7 counties suggested they would utilize knowledge gain to better manage 6,310 acres resulting in a \$46,720 impact. Additionally, a fencing school protocol was developed and implemented by extension professionals. One fencing school was conducted for 20 equine producers with emphasis on building fences for proper forage management, In 2014, 7 forage focus webinars were conducted. Utilizing webtrend data, the 2014Webinars page on www.alabamaforages.com is the second ranked page with 565 total visits and 631 views.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
205	Plant Management Systems
216	Integrated Pest Management Systems
302	Nutrient Utilization in Animals
307	Animal Management Systems
315	Animal Welfare/Well-Being and Protection

**Outcome #23**

**1. Outcome Measures**

Increased economic impact ( dollar) through comprehensive programming for livestock and equine owners on sustainability of production, proper care and appropriate marketing options

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	10121050

### 3c. Qualitative Outcome or Impact Statement

#### Issue (Who cares and Why)

Cattle farmers who have implemented science-based management techniques generally are not economically rewarded through weekly livestock sales. This program allows producers to learn about, participate in and take leadership in alternative marketing opportunities. These marketing opportunities allow producers the opportunity to see increased market prices over weekly livestock auction prices. These marketing opportunities also allow producers to pool cattle together which, because of volume and quality, attract a large number of potential buyers from across the United States. Additional dollars to cattle farmers benefit local communities since research indicates 75 to 85% of income is spent locally.

#### What has been done

Education and guidance were provided to beef cattle farmers to assist in adding value and options to market feeder calves in economic units and breeding animals, such as bulls and replacement heifers, by Regional Extension Agents and Specialists in 2014. Three value-added feeder calf marketing events were held with educational assistance by ACES personnel. Five marketing events within Beef Cattle Improvement Association (BCIA) were also held to market bulls, bred and open heifers. For each marketing event, producers provided verifiable production and health information that was transformed into catalog form to help guide buyers in purchase selection

#### Results

Value-added feeder calf marketing opportunities (n=3) represented 5,516 head of Alabama bred and raised feeder calves weighing over 4.4 million pounds worth over \$8.4 million. Producers utilizing proper management and health protocols realized on average \$162.12/head more in marketing in these sales over weekly auction sales. This amounts to \$860,000 additional revenue in producers pockets. Bulls marketed via BCIA marketing events had an overall gross of \$840,350 with an average price per bull of \$4,932. Bred heifers (n=338) were marketed for an overall gross of \$816,950 with an average price per bred heifer of \$2,417. Open heifers (n=40) were marketed for an overall gross of \$60,750 with an average price per open heifer of \$1,519. Overall economic impact of \$1,721,050 from 549 head of breeding animals marketed. Producers marketing bred replacement females through these marketing opportunities have indicated an estimated \$475 per head net gain over expenses and opportunity costs. Buyers of breeding animals are likely purchasing genetically superior individuals to those already on the farm. This should translate into increased potential farm income as long as proper management practices are followed.

### 4. Associated Knowledge Areas

KA Code	Knowledge Area
301	Reproductive Performance of Animals
307	Animal Management Systems
315	Animal Welfare/Well-Being and Protection
601	Economics of Agricultural Production and Farm Management

## **Outcome #24**

### **1. Outcome Measures**

Number of fruit and vegetable producer who increase in knowledge of horticultural crop production practices

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

- 1862 Extension

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

Change in Knowledge Outcome Measure

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

<b>Year</b>	<b>Actual</b>
2014	4251

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

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

Fruit and vegetable producers (n=4,251) need continuous training on crop production (variety selection, irrigation, and nutrition emphasis) and pest management tactics (organic and conventional systems) to avoid 50 to 80% crop loss due to high heat and humidity conditions in the south.

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

Fruit production meetings = 68; Vegetable production meetings = 61 (conventional + small farms programs); Nursery and landscape = 9; Pesticide safety = 18; GAP/Food safety = 8; Gardening = 27; field visits by REAs = 385 (reactive consultations); planned demonstrations = 36  
Special emphasis on peach production and pest management training via regional meetings, hands-on workshops, and reactive consultation throughout the year (critical to the industry).

#### **Results**

REAs and Specialists provided comprehensive training to fruit producers across Alabama via 68 regional meetings and ~385 reactive consultation visits resulting in a highly sustainable and growing fruit industry. REAs also conducted 61 vegetable production meetings statewide for large and small farms. Surveys indicate that 4,251 producers increased knowledge by over 50% and also changed production practices on their farms.

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

<b>KA Code</b>	<b>Knowledge Area</b>
205	Plant Management Systems
216	Integrated Pest Management Systems

601 Economics of Agricultural Production and Farm Management

**Outcome #25**

**1. Outcome Measures**

The number of participants who increased knowledge about vegetable Integrated Pest Management (IPM) tactics among conventional producers/large farms

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	145

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

**Issue (Who cares and Why)**

Alabama has a hot and humid environment that is very conducive for insect pests and diseases. The Commercial Horticulture REAs and Specialists provide planned and reactive programs throughout the year to sustain the growing industry.

**What has been done**

Number of meetings = 5; number of producers = 145; number of hours of IPM training = 108  
 The Extension Commercial Horticulture Team is the backbone of the specialty crop industry with REAs and Specialists functioning together to deliver complex programming via needed publications (traditional and electronic), newsletters (, magazine/newspaper articles, iBook etc. The Vegetable IPM project provides critical support to producers who can potentially lose 50% or more of their crop without IPM information (based on feedback from participants).

**Results**

Producers are demanding the educational publication and activities, instead of educators pushing the information. This indicates the high relevance of IPM program statewide. IPM adoption rate for experienced producers is about 70 to 80% and producers and some publications are KEY RESOURCES for producers.. The Vegetable IPM program has received two national awards from the National Association of County Agricultural Agents (NACAA), two regional programming awards from the Southern Region IPM Center, one Communications Blue Ribbon Award from the American Society of Horticultural Science, and six other communication awards

**4. Associated Knowledge Areas**

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

216 Integrated Pest Management Systems  
601 Economics of Agricultural Production and Farm Management

### **Outcome #26**

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

Percent change in Knowledge of Integrated Pest Management (IPM) tactics among organic/naturally grown vegetable producers, small and low resource farmers

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

- 1862 Extension

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

Change in Knowledge Outcome Measure

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

<b>Year</b>	<b>Actual</b>
2014	40

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

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

Small farms are the backbone of the local food systems in Alabama and this organic/small farms IPM program supports nearly 1000 producers with critical information. This project also directly assists NRCS and FSA who needed broader support for their farm loan programs.

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

Number of meetings = 30; number of participants = 904; number of IPM training hours = 1379  
Over 900 open field crops and high tunnel crop producers have been trained via regional meetings, workshops, and field demonstrations. We have also published a High Tunnel Crop Production Handbook in print and as an iBook, several bookmarks, and an Alternative Vegetable IPM Slide Chart that have an overall circulation of 6000+.

##### **Results**

The organic and small farm vegetable IPM program was launched as a separate program based on high demand statewide. Due to an unprecedented demand from producers and focused effort from Regional Extension Agents on the Commercial Horticulture Team, the small farm IPM program has reached every corner of the state and continues to grow. A combination of planned and reactive activities has resulted in a high quality program. Average change in knowledge is over 40% for new producers with very high IPM adoption rates.

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

<b>KA Code</b>	<b>Knowledge Area</b>
----------------	-----------------------

**Outcome #27**

**1. Outcome Measures**

The number of small farms that adopted IPM practices

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	904

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

**Issue (Who cares and Why)**

Insect pests in vegetables can cause direct crop loss and contamination of nearly 100% of produce if not managed in a timely manner. Established small farms (5-10 acres) and beginning farms (2 acres ave.) usually do not use expensive insecticides due to diversified operation and for worker protection near peri-urban areas. For them, alternative pest management strategies are extremely useful for increasing crop production and quality of produce.

**What has been done**

Number of meetings = 30; number of participants = 904; number of IPM training hours = 1379  
The Alabama Vegetable IPM program reaches to conventional large operations and small farmers across the state through complex programming involving regional Extension Agents, county Extension coordinators, and a number of producer organizations and nonprofit agencies

**Results**

The Alabama small farm IPM program is one of the fastest growing educational initiatives in the state since many small farmers and state/federal agencies are supporting this initiative. . Due to this relatively new initiative, 904 farms have adopted alternative IPM strategies. The adoption rate at present varies from 26 to 46% among small farms and new producers. Direct impact of the small farm program may amount to nearly \$2 to 3 million dollars based on current IPM adoption rates. The conventional IPM program adds more impact to those numbers.  
rates

**4. Associated Knowledge Areas**



<b>KA Code</b>	<b>Knowledge Area</b>
216	Integrated Pest Management Systems
601	Economics of Agricultural Production and Farm Management

### **Outcome #28**

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

Percent reduction in barriers to the adoption of IPM and production information

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

- 1862 Extension

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

Change in Knowledge Outcome Measure

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

<b>Year</b>	<b>Actual</b>
2014	1049

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

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

One of the major issues with vegetable producers was the lack of rapid information transfer system for pest alerts and access to publications in variety of formats that was affecting the adoption of IPM among producers. The situation was worse for new beginning farmers, urban farms, and low resource farmers. Hence corrective actions were initiated in 2010 to great impact over the past four years.

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

Number of regional vegetable IPM meetings, workshops, and field days = 35; Number of participants = 1049; Number of IPM training hours provided = 1487 hours or 185 days of intense training; Number of IPM newsletters = 19; Number of email alerts to all newsletter subscribers = 26,600; Number of emails and phone calls by regional Extension agents (30-40% vegetable calls) = 27,103; number of magazine/newspaper articles = 43; number of reactive farm visits by regional Extension agents (30% vegetable related) = 385. From these number it is clear that the commercial horticulture Extension team has reached out to producers throughout the state increasing the overall "Pull" on educational programs

##### **Results**

Alabama Extension Commercial Horticulture Team is recognized for its high outputs, relevant outcomes and evaluation system, high quality of training, and impactful resources. For example, in the past five years, IPM program awareness has risen from 35% to 63% after intensive educational campaigns. This continues to increase as new producers and experienced farmers continue to utilize educational resources and receive timely recommendations from team

members. The Alabama Fruit and Vegetable Annual Conference, another major communication initiative, has grown by over 30% and is attended by nearly 250 producers and industry personnel (details at [www.afvga.aces.edu](http://www.afvga.aces.edu)). We are constantly monitoring and evaluating program outcomes for detecting any problems with clientele and take timely action.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
216	Integrated Pest Management Systems
601	Economics of Agricultural Production and Farm Management

#### Outcome #29

##### 1. Outcome Measures

Percent crop saved and dollar impacts by vegetable IPM project implementation

##### 2. Associated Institution Types

- 1862 Extension

##### 3a. Outcome Type:

Change in Knowledge Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	1049

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

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

Based on evaluation surveys (electronic and print formats), the average crop loss prevented by the vegetable IPM project is 50%. However, there are certain areas of Alabama (such as the Gulf Coast Region) where insect pest pressure can cause over 90% crop losses. Overall impact of the vegetable IPM project is over \$5 million based on reactive activities alone. Alabama produces nearly \$70 million worth of specialty crops/local foods- half of it is from a rapidly growing vegetable crops. Tomato production jumped 26% in one year due to crop failure in California which increase demand for IPM recommendations in a variety of growing conditions. So producers need continuous access to information and consultation services provided by regional Extension agents, County Extension coordinators, and Extension Specialists.

###### What has been done

Number of regional vegetable IPM meetings, workshops, and field days = 35; Number of participants = 1049; Number of IPM training hours provided = 1487 hours or 185 days of intense training; Number of IPM newsletters = 19; Number of email alerts to all newsletter subscribers = 26,600; Number of emails and phone calls by regional Extension agents (30-40% vegetable calls) = 27,103; number of magazine/newspaper articles = 43; number of reactive farm visits by regional

Extension agents (30% vegetable related) = 385.

**Results**

The vegetable IPM project is in very high demand from small and large, organic and conventional producers statewide; website gets about 120 hits per day during production season and we have over 423 subscribers on IPM Facebook page (besides 1600 on our email list). Extension Specialists and REAs regularly participate in events organized by Alabama A&M and Tuskegee University with hands-on teaching materials. Currently we are developing interactive e-curriculum and phone apps to reach audience in remote areas and nontraditional audience. The IPM training modules on vegetable IPM website are extremely popular and are being used by collaborators in Florida, Georgia, Mississippi, Tennessee, Oklahoma and Arkansas. We also continue to focus on IPM in-service training events for Extension personnel across all three land-grant institutions in order to strengthen the industry statewide

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
216	Integrated Pest Management Systems
601	Economics of Agricultural Production and Farm Management

**Outcome #30**

**1. Outcome Measures**

Dollar impact of Extension programs on peach producers in central Alabama

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	5400000

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

**Issue (Who cares and Why)**

Peach crop is valued over \$10 million in north Alabama and producers need constant information for increasing production and pest management in orchards. In recent years, due to the old age of many orchards, producers have received a lot of information about new varieties along with updates about pest management. So we see a rising demand for information from stakeholders

**What has been done**

A total of 68 fruit production meetings were conducted statewide by Extension agents and peach production was the focus of about 16 meetings. Other meetings included peaches as updates but not exclusively. Regional Extension agent in Chilton County has many large peach producers in his area and he has been leading the peach production sessions in the region with great impact. The peach meeting done in January of every year is a popular event that is evaluated for quality and impacts. The peach meeting is followed up by many on-farm visits by the Extension agents to commercial orchards that amplifies the impact of this project.

**Results**

Feedback from peach producers collectively indicated crop yield improvement of 117% by implementing improved peach production practices focused on new varieties, nutrition, and pest management. This suggests a crop value exceeding \$5.4 million.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
216	Integrated Pest Management Systems
601	Economics of Agricultural Production and Farm Management

**Outcome #31**

**1. Outcome Measures**

The number of two-generation farm families who learned active farm business transitions

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	70

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

**Issue (Who cares and Why)**

For many families working to transfer a farming operation from one generation to the next, it's not the legal, financial and technical issues that prove most challenging. As many families have learned from experience, "often bitter experience" the biggest challenge often involves ensuring that this transition occurs on the basis of open communication and trusting relationships among families members. Effective relationship building and overcoming barriers to effective communication often prove to be the critical measure of success in the course of transferring a farming operation from one generation to the next.

### What has been done

Three workshops were conducted for farm families interested in the early stages of two-generation farm business transition. The workshop focused on helping two-generation parties begin to develop the skills outlined in the following objectives: 1) to assess the feasibility of two-generation farming 2) to develop communication and human relationship skills essential for success 3) to transfer ownership and management and the division of business income 4) to evaluate factors in selecting and developing a business arrangement. Participants were expected to bridge awareness and behavior change after the workshop session by applying new skills learned.

### Results

Surveys were collected from 70 two-generation farm families, representing 126 participants, to determine knowledge or commitment before and after the workshop. Data were analyzed using a paired sample T-test for mean change over time. Cohen's d (Abs. Value), the effect size of the mean level changes, is reported as follows for each skill or function item. Standard guideline for interpretation, .20 is a small effect size; .50 is a moderate effect size; .80 is a large effect size. For this workshop, the effect size range on the items was .91-1.92, so these would be considered very large shifts in knowledge or commitment. Farm Business Transition Skills: Knowledge of Successful Two Generation Farming Strategies = 1.97, Commitment to Use Successful Two Generation Farming Strategies = 1.02, Knowledge of Successful Transferring Ownership, Management, and Income Strategies = 1.87, Commitment to Use Successful Transferring Ownership, Management, and Income Strategies = 1.34, Knowledge of Structures for Succession Planning = 1.33, Ability to Identify the Best Structure for Succession Planning = 1.40, Commitment to Use the Best Structure for Succession Planning = 0.92. Family Functioning: Knowledge of Healthy Family Relationship Skills = 1.10, Commitment to Use Positive Communication Skills = 1.02, Knowledge of Healthy Conflict Management Skills = 1.04, Commitment to Use Healthy Conflict Management Skills = 0.91.

## 4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources
601	Economics of Agricultural Production and Farm Management

### Outcome #32

#### 1. Outcome Measures

The number of participants who increased knowledge in forage management, artificial insemination, water quality, and wildlife education

#### 2. Associated Institution Types

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	143

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

**Issue (Who cares and Why)**

Environmental and natural resource outreach education for youth provides a framework for citizens to avoid the long-term consequences associated with poor environmental stewardship and management of natural resources.

**What has been done**

150 youth and adults attended the Farm Day held at the new ACES Graham Farm & Nature Center in Jackson County, Alabama. This event consisted of eight (8) educational programs which included forage management, artificial insemination, water quality, and wildlife education.

**Results**

According to follow-up evaluations, over 95% of the attendees stated the programs made significant financial impact related to their farm/ranch practices and youth career choices. This opportunity served as a benchmark for future programming at the GFNC.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
111	Conservation and Efficient Use of Water
123	Management and Sustainability of Forest Resources
124	Urban Forestry
134	Outdoor Recreation
806	Youth Development

**Outcome #33**

**1. Outcome Measures**

Alabama Ethnic Food Security Network-Number of goat and sheep producers that gained knowledge of key production management practices-

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	309

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

**Issue (Who cares and Why)**

The dynamic population change that has taken place in Alabama represents new opportunities for food producers and marketers. Because consumer demand for ethnic foods is rising, farmers in Alabama, particularly small-scale and limited-resource farmers have tremendous opportunities to diversify, expand, and supply the growing demand for a number of multicultural foods such as goat and lamb. Therefore, to ensure that farmers improve goat and sheep production in Alabama, comprehensive educational products regarding small ruminant management and technological advances were needed.

**What has been done**

In an effort to help Alabama farmers increase production of goat and lamb meat, Animal Science specialists and agents from the Urban Affairs and New Nontraditional Program (UANNP) Unit of ACES carried out an array of outreach activities (See Planned Program (Activity)) and provided broadly-based and objective information in areas such as feeds and feeding, animal genetics, reproductive management, and health of small ruminants.

**Results**

Goat and sheep producers from Alabama and neighboring states became more knowledgeable and stayed open to new and different management practices. Three-hundred and twenty-nine (329) post surveys indicated that 94% (309) of the respondents gained knowledge about goat and sheep nutrition, genetics, reproduction, and health management practices as a result of the educational activities and the information provided.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
301	Reproductive Performance of Animals
302	Nutrient Utilization in Animals
303	Genetic Improvement of Animals
307	Animal Management Systems
311	Animal Diseases
315	Animal Welfare/Well-Being and Protection

## **Outcome #34**

### **1. Outcome Measures**

Alabama Ethnic Food Security Network-Number of goat and sheep producers that observed improved production efficiency

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

- 1890 Extension

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

Change in Condition Outcome Measure

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

<b>Year</b>	<b>Actual</b>
2014	217

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

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

The dynamic population change that has taken place in Alabama represents new opportunities for food producers and marketers. Because consumer demand for ethnic foods is rising, farmers in Alabama, particularly small-scale and limited-resource farmers have tremendous opportunities to diversify, expand, and supply the growing demand for a number of multicultural foods such as goat and lamb. Therefore, to ensure that farmers own and operate efficient goat and sheep production enterprises, comprehensive educational products regarding forage resource management, identification of appropriate breeds, parasite control, record keeping, and performance evaluation and genetic improvement were needed.

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

In an effort to help Alabama farmers to successfully own, operate and support goat and sheep farms and associated businesses, Animal Science specialists and agents from the UANNP Unit of ACES carried out an array of outreach activities (See Planned Program (Activity)) and provided broadly-based and objective information that emphasized basic goat and sheep management, forage-based feeding system for year-round grazing, breed types best suited for the environmental and management conditions in Alabama, keeping records of individual performance of animals to rank animals with superior genetics, and parasite control strategies.

#### **Results**

Goat and sheep producers from Alabama and neighboring states owned and operated successful farms by improving their efficiency of goat and lamb production. Three-hundred and twenty-nine (329) post surveys indicated that 66% (217) of the respondents reported increases in production efficiency as a result of the educational activities and the information provided.



#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
301	Reproductive Performance of Animals
302	Nutrient Utilization in Animals
303	Genetic Improvement of Animals
307	Animal Management Systems
311	Animal Diseases
315	Animal Welfare/Well-Being and Protection

#### Outcome #35

##### 1. Outcome Measures

Alabama Ethnic Food Security Network-Number of goat and sheep producers that observed improved animal health and well-being

##### 2. Associated Institution Types

- 1890 Extension

##### 3a. Outcome Type:

Change in Condition Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	72

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

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

Because consumer demand for ethnic foods is rising, farmers in Alabama, particularly small-scale and limited-resource farmers have tremendous opportunities to diversify, expand, and supply the growing demand for a number of multicultural foods such as goat and lamb. However, since goat and sheep are more susceptible to internal parasites than other livestock, and are the #1 health problem affecting small ruminants, integrated parasite control methods that decrease reliance on chemical dewormers have to be an important educational focus in Alabama. Therefore, to ensure that farmers use selective deworming to decrease reliance on chemical dewormers, comprehensive educational products that focus on the use of FAMACHA, fecal egg counts, and other integrated parasite control strategies were needed.

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

In an effort to help Alabama farmers to combat the prevalence of gastrointestinal nematodes while decreasing reliance on chemical dewormers, Animal Science specialists and agents from the UANNP Unit of ACES carried out an array of outreach activities (See Planned Program

(Activity)) and provided broadly-based and objective information that emphasized the use of FAMACHA charts, fecal egg counts, other integrated parasite control strategies, and goat and sheep breed types and crosses that are resistant or resilient to gastrointestinal nematodes.

**Results**

Goat and sheep producers from Alabama and neighboring states fought internal parasites in their animals by using several tools that mitigated the effects of these parasites and enabled farmers to maintain the productivity and health of their livestock. Three-hundred and twenty-nine (329) post surveys indicated that 22% (72) of the respondents reported improvements in herd health and well-being as a result of the educational activities and the information provided

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
301	Reproductive Performance of Animals
302	Nutrient Utilization in Animals
303	Genetic Improvement of Animals
307	Animal Management Systems
311	Animal Diseases
315	Animal Welfare/Well-Being and Protection

**Outcome #36**

**1. Outcome Measures**

Alabama Ethnic Food Security Network-Number of goat and sheep producers that reported increased profitability rates ranging from 5 to 20%

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	60

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

**Issue (Who cares and Why)**

The dynamic population change that has taken place in Alabama represents new opportunities for food producers and marketers. Because consumer demand for ethnic foods is rising, farmers in Alabama, particularly small-scale and limited-resource farmers have tremendous opportunities to diversify, expand, and supply the growing demand for a number of multicultural foods such as

goat and lamb. Therefore, to ensure that farmers own and operate profitable goat and sheep production enterprises, comprehensive educational products regarding forage resource management, identification of appropriate breeds, parasite control, record keeping, and performance evaluation and genetic improvement were needed.

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

The dynamic population change that has taken place in Alabama represents new opportunities for food producers and marketers. Because consumer demand for ethnic foods is rising, farmers in Alabama, particularly small-scale and limited-resource farmers have tremendous opportunities to diversify, expand, and supply the growing demand for a number of multicultural foods such as goat and lamb. Therefore, to ensure that farmers own and operate profitable goat and sheep production enterprises, comprehensive educational products regarding forage resource management, identification of appropriate breeds, parasite control, record keeping, and performance evaluation and genetic improvement were needed.

#### **Results**

Goat and sheep producers from Alabama and neighboring states owned and operated profitable farms by improving efficiency of production and herd health management. Three-hundred and twenty-nine (329) post surveys indicated that 18.2% (60) of the respondents reported increases in profitability ranging from 5 to 20% as a result of the educational activities and the information provided.

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

<b>KA Code</b>	<b>Knowledge Area</b>
301	Reproductive Performance of Animals
302	Nutrient Utilization in Animals
303	Genetic Improvement of Animals
307	Animal Management Systems
311	Animal Diseases
315	Animal Welfare/Well-Being and Protection

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

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

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

##### **Brief Explanation**

The Extension Commercial Horticulture Team have achieved a high degree of success in planned programs and developed statewide resources. However, rapid onset of invasive insect pests (such as the brown marmorated stink bugs and spotted wing drosophila) bring

unique challenges to program development and delivery to needy producers. Growing vegetable industry in Alabama is also resulting in stretching of statewide resources and horticultural programs are increasingly becoming collaborative in nature.

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

### **Evaluation Results**

Extension Commercial Horticulture Projects are evaluated routinely through online and printed evaluations (reactive type), case studies (outcomes), testimonials (qualitative input), comparison groups, and on-farm interviews (please refer to video posted on [www.aces.edu/vegetableipm](http://www.aces.edu/vegetableipm) for some aggregated information). Alabama Vegetable IPM and Commercial Horticulture Team has also developed an evaluation toolkit that is used as a resource by educators within or outside the organization for developing surveys. Horticulture Team leader provides evaluation templates to Extension Team members as requested and assists in data entry and analysis. Evaluations are also used as monitoring tools to document new needs; this complements feedback from county advisory panels and producer organizations. Alabama Ethnic Food Security Network\* Increased knowledge of key production management practices.\* Improved efficiency of production.\* Improved animal health and well-being.\* Increased marketing and profitability.

### **Key Items of Evaluation**

Commercial Horticulture evaluation results are as follows (two major programs evaluated in 2014): 1. Alabama Vegetable IPM program with its two major sub-projects (conventional and organic/small farm) and multi-level training system, reaches to over 1,000 producers statewide with direct program impacts exceeding \$5 million per year (conservative estimate). Nearly 1500 hours of IPM training was provided to producers in 2014 with estimated 50% reduction in crop losses; 2. The Alabama Peach Program with focus in Central Alabama reaches to over 150 producers statewide (producers attend meeting from many parts of the state) with crop improvement of 117% from use of new production practices equivalent to over \$5.4 million in impact (conservative estimate). B. Regional Extension Agents completed nearly 68 fruit production, 61 vegetable production, 9 nursery and landscape, 18 pesticide safety, 8 food safety/GAP, and 36 on-farm training events which indicates rapid growth in demand for such programs. 3. Regional Extension Agents and Specialists also completed over 385 reactive field visits, answered 7257 phone calls and 19,846 emails. C. The urban farms project is also assisting producers in city limits and special collaborative projects at Alabama A&M University. Extension agents also provided support to community gardens, including one new project in Florence (AL) that produced nearly 2000 pounds of produce. That site was also used for the organic/small farm training events reaching over 120 educators, city leaders, and gardeners. D. Commercial Horticulture Team has also completed several collaborative projects with Extension Teams in adjoining states, especially Florida, Tennessee, and Georgia. The efforts resulted in cross-programming, sharing of experiences, and several new publications that are extremely popular. Overall, there is plenty of evidence for the need of the commercial horticulture educational programs and rapidly increasing activity of the Extension Team to support experienced and new producers statewide. Value-added feeder calf marketing opportunities (n=3) represented 5,516 head of Alabama bred and raised feeder calves weighing over 4.4 million pounds with over \$8.4 million. Producers utilizing proper management and health protocols realized on average \$162. 12/head more in marketing in these sales over weekly auction sales. This amounts to \$860,000 additional revenue in producers pockets. Bulls marketed via BCIA marketing events had an overall gross of

\$840,350 with an average price per bull of \$4,932. Bred heifers (n=338) were marketed for an overall gross of \$816,950 with an average price per bred heifer of \$2,417. Open heifers (n=40) were marketed for an overall gross of \$60,750 with an average price per open heifer of \$1,519. Overall economic impact of \$1,721,050 from 549 head of breeding animals marketed. Electronic media used to alert corn producers across south AL of an outbreak of southern rust and to apply a recommended fungicide for a potential yield gains of 80 bu/ac valued at \$300/ac on 29,000 ac for an increase in farm gate income of \$8.7 million. Enhanced recognition of herbicide resistant weeds in north Alabama has resulted in improved weed control in cotton and corn at savings of \$50 to \$75 over 200,000 ac for a total savings of \$10 to \$15 million to Alabama producers. Alabama Ethnic Food Security NetworkAs a result of the educational activities, the following quantitative outcomes (based on 329 post surveys) were achieved: •309 goat and sheep producers gained knowledge of key production management practices. • 217 goat and sheep producers observed improved production efficiency. • 72 goat and sheep producers observed improved animal health and well-being. • 60 goat and sheep producers reported increased profitability rates ranging from 5 to 20 percent. Alabama Ethnic Food Security NetworkAs a result of other educational activities, the following quantitative outcomes (based on 225 post surveys) were achieved: • 80 small-scale farmers gained knowledge about silvopasture systems for meat goat and timber production. • 7 small-scale farmers gained knowledge about proper use, storage, and disposal of livestock medicines. • 111 farmers from the Republic of the Union of Myanmar gained knowledge of key production management practices for meat goat and sheep. • 20 animal industry professionals from the Republic of the Union of Myanmar gained knowledge of key production management practices for meat goat and sheep.

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

**Program # 5**

**1. Name of the Planned Program**

Sustainable Energy

Reporting on this Program

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

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
101	Appraisal of Soil Resources	10%	0%		
102	Soil, Plant, Water, Nutrient Relationships	20%	0%		
216	Integrated Pest Management Systems	20%	0%		
402	Engineering Systems and Equipment	20%	0%		
403	Waste Disposal, Recycling, and Reuse	20%	0%		
603	Market Economics	10%	0%		
	<b>Total</b>	100%	0%		

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

1. Actual amount of FTE/SYs expended this Program

Year: 2014	Extension		Research	
	1862	1890	1862	1890
<b>Plan</b>	1.0	0.0	0.0	0.0
<b>Actual Paid</b>	1.0	0.0	0.0	0.0
<b>Actual Volunteer</b>	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
10587	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
20152	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
108418	0	0	0

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

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

The project consisted of programs and demonstrations that 1) increased production of energy feedstocks (corn, soybeans, rapeseed, cottonseed, wheat and biomass); 2) worked with local governments to produce biodiesel from used cooking oil; 3) worked with entrepreneurs to develop renewable energy manufacturing plants; 4) worked with, farmers and the general public to increase usage of renewable fuels; 5) worked on renewable energy opportunities and 6) increased crop production fuel efficiency.

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

The activities of the sustainable Energy Program target the following groups of stakeholders 1) feedstock producers and their representative groups that include, but are not limited to, the Alabama Soybean Producers, the Alabama Wheat and Feed Grains Producers, the Alabama Soybean and Corn Association and the Alabama Forestry Association; 2) fleet managers; 3) energy entrepreneurs; 4) municipalities, county governments and other public organizations; 5) feedstock production advisors including ACES agents and specialist, public and private agronomy advisors; 6) public policy makers requesting energy information; 7) governmental agency personnel including ADECA, DOE, USDA and NRCS; and 8) homeowners and others interested in energy conservation. All educational programming efforts target audiences without exclusion or discrimination, as specifically defined by ACES policy guidelines.

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

Certified Biomass Procurement Specialist/Switchgrass and Certified Biomass Procurement Specialist/ Short Rotation Woody Crops. These free eXtension online courses are funded by a grant from the United States Department of Agriculture's National Institute of Food and Agriculture. The courses are part of the Southeastern Partnership for integrated Biomass Supply Systems. These courses are designed to train students to work with farmers and landowners to produce switchgrass or short rotation woody crops that will be used as the feedstock for a biorefinery. The idea for this program came from observing the poultry industry. In the poultry industry, poultry companies contract with growers to grow the chickens they need. Farmers cannot show up at the processing plant any time they want with whatever kind and size of chicken they happen to have. The poultry companies hire specialists that work with the growers. These specialists make sure that they have the exact type and the exact size of chicken the processor needs at the time they need it. As a certified biomass procurement specialist, graduates will work for a biorefinery that's making fuel or other bio-products. Like the poultry field specialist, graduates insure that their employer has the inputs it needs to keep the plant running. Graduates will work with the farmers and landowners to produce switchgrass or short rotation woody crops in an environmental and socially accountable way that meets the specifications of the biorefinery. These specifications are sure to include size, amount and delivery time. The course consists of four separate two hour units with the objective of giving students a working understanding of the fundamentals of sustainable feedstock production practices. There is a test on each unit and students that make 80 or above on the test receive a certificate.

Precision Agriculture eXtension Course: With crop production costs at record highs, farmers must get the most out of every bag of seed, every jug of crop protection products, and every tank of fuel. It is essential that farmers adopt Precision Agriculture technology to get the highest return out of the money spent to make a crop. Precision Agriculture of the Southeast: This nine lesson online course is funded by the Alabama Soybean Producers and the Alabama Wheat and Feed Grain Producers. This nine unit course is designed for farmers and farm service industry professionals.

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

### **1. Standard output measures**

2014	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	1201	37000	0	0

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

Year: 2014  
 Actual: 0

**Patents listed**

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

**Number of Peer Reviewed Publications**

2014	Extension	Research	Total
Actual	12	0	12

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

**Output Target**

**Output #1**

**Output Measure**

- Participants reached  
 Not reporting on this Output for this Annual Report

**Output #2**

**Output Measure**

- videos produced  
 Not reporting on this Output for this Annual Report

**Output #3**

**Output Measure**

- web pages developed  
 Not reporting on this Output for this Annual Report

**Output #4**

**Output Measure**

- Number of Participants reached



<b>Year</b>	<b>Actual</b>
2014	1980

**Output #5**

**Output Measure**

- Number of Videos produced

<b>Year</b>	<b>Actual</b>
2014	10

**Output #6**

**Output Measure**

- Number of web sites developed and maintained

<b>Year</b>	<b>Actual</b>
2014	2

**Output #7**

**Output Measure**

- Number of Energy Tree Production Sites

<b>Year</b>	<b>Actual</b>
2014	2

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

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

O. No.	OUTCOME NAME
1	Knowledge gained
2	recomendations addopted
3	Energy saved and produced
4	Potential increase in \$/acre soybean production income
5	Potential increase in \$/acre soybean production income due to adoption of recommended planting practices.
6	% Increase in Biomass Produced by Identified New Clones

**Outcome #1**

**1. Outcome Measures**

Knowledge gained

Not Reporting on this Outcome Measure

**Outcome #2**

**1. Outcome Measures**

recomendations addopted

Not Reporting on this Outcome Measure

**Outcome #3**

**1. Outcome Measures**

Energy saved and produced

Not Reporting on this Outcome Measure

**Outcome #4**

**1. Outcome Measures**

Potential increase in \$/acre soybean production income

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	14

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

**Issue (Who cares and Why)**

The high cost of seed, fertilizer and crop protection chemicals has increased the need for farmers to know all the agronomic and economic benefits associated with each input decision they make. Soybeans are the dominate feedstock for biodiesel production. The more soybeans that are produced the more soybean oil will be available for biodiesel.

**What has been done**

An educational program was conducted to inform soybean producers of what was discovered with the soybean production test on fertilization.

**Results**

\$14 per acre added profit due to using the data from these test.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
101	Appraisal of Soil Resources
102	Soil, Plant, Water, Nutrient Relationships
216	Integrated Pest Management Systems
402	Engineering Systems and Equipment
403	Waste Disposal, Recycling, and Reuse
603	Market Economics

**Outcome #5**

**1. Outcome Measures**

Potential increase in \$/acre soybean production income due to adoption of recommended planting practices.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	2

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

**Issue (Who cares and Why)**

Soybean seeding rates. Producers want to cut production cost and maximize yield by adopting correct seeding rate.

**What has been done**

An educational program was conducted to inform soybean producers of what was discovered with the seeding rate and row spacing field test.

**Results**

Almost a two bushel per acre increase in yield. That is an additional three gallons of biodiesel capacity.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
102	Soil, Plant, Water, Nutrient Relationships

**Outcome #6**

**1. Outcome Measures**

% Increase in Biomass Produced by Identified New Clones

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	20

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

**Issue (Who cares and Why)**

The nation has a mandate that requires significant quantities of advanced biofuels. Based on USDA analysis, 10.5 billion gallons will come from the South. Grains and grasses are being used for the production of fuels and chemicals and hybrid poplar is emerging as a feedstock candidate due to its fast growth and short rotation traits.

**What has been done**

To assess biomass yield of new clones for commercial plantation development hybrid poplar

cloning screening trial with four replications of eleven clones is being conducted in two sites in Alabama.

#### **Results**

The clones are measured for height and diameter and each clone is analyzed for their chemical composition showing significant difference between clones. A clone was identified that yielded 20% more biomass than current genetic material. This will be critical information in choosing clones for biorefinery feedstock plantations.

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

<b>KA Code</b>	<b>Knowledge Area</b>
101	Appraisal of Soil Resources
102	Soil, Plant, Water, Nutrient Relationships
216	Integrated Pest Management Systems
402	Engineering Systems and Equipment

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

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

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Other (Natural gas and oil discoveries.)

##### **Brief Explanation**

Discovery of abundant natural gas and oil has decreased the demand for renewable fuels.

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

##### **Evaluation Results**

Certified Biomass Procurement and Precision Agriculture eXtension Courses - Five test students took the courses and found several glitches. These glitches were corrected.

##### **Key Items of Evaluation**

To assess biomass yield of new clones for commercial plantation development hybrid popular cloning screening trial with four replications of eleven clones is being conducted in two sites in Alabama. The clones are measured for height and diameter and each clone is analyzed for their chemical composition showing significant difference between clones. A clone was identified that yielded 20% more biomass than current genetic material. This will be critical information in choosing clones for biorefinery feedstock plantations.

**V(A). Planned Program (Summary)****Program # 6****1. Name of the Planned Program**

Agriculture, Forestry, and Related Industries

 Reporting on this Program**V(B). Program Knowledge Area(s)**

## 1. Program Knowledge Areas and Percentage

<b>KA Code</b>	<b>Knowledge Area</b>	<b>%1862 Extension</b>	<b>%1890 Extension</b>	<b>%1862 Research</b>	<b>%1890 Research</b>
111	Conservation and Efficient Use of Water	5%	10%		
112	Watershed Protection and Management	5%	10%		
123	Management and Sustainability of Forest Resources	5%	10%		
124	Urban Forestry	5%	5%		
125	Agroforestry	5%	0%		
133	Pollution Prevention and Mitigation	0%	5%		
134	Outdoor Recreation	5%	5%		
135	Aquatic and Terrestrial Wildlife	5%	5%		
136	Conservation of Biological Diversity	5%	5%		
205	Plant Management Systems	13%	5%		
216	Integrated Pest Management Systems	5%	5%		
301	Reproductive Performance of Animals	5%	5%		
302	Nutrient Utilization in Animals	5%	5%		
303	Genetic Improvement of Animals	5%	5%		
307	Animal Management Systems	10%	5%		
311	Animal Diseases	5%	5%		
315	Animal Welfare/Well-Being and Protection	5%	5%		
601	Economics of Agricultural Production and Farm Management	3%	0%		
605	Natural Resource and Environmental Economics	2%	0%		
806	Youth Development	2%	5%		
	<b>Total</b>	<b>100%</b>	<b>100%</b>		

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

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

Year: 2014	Extension		Research	
	1862	1890	1862	1890
<b>Plan</b>	35.2	0.3	0.0	0.0
<b>Actual Paid</b>	62.0	3.8	0.0	0.0
<b>Actual Volunteer</b>	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
757490	197681	0	0
<b>1862 Matching</b>	<b>1890 Matching</b>	<b>1862 Matching</b>	<b>1890 Matching</b>
1250084	216518	0	0
<b>1862 All Other</b>	<b>1890 All Other</b>	<b>1862 All Other</b>	<b>1890 All Other</b>
6726430	329740	0	0

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

**1. Brief description of the Activity**

• Ag Crops Extension specialists, regional agents, and county coordinators participated in activities related to this project which included but not all inclusive; peanut pod blasting (5); field crops tours (11);cotton production meetings (6); entomology in--field training (3); wheat meetings (1); stink bug in--field monitoring (2); sprayer clinic (4);pesticide/applicator training (15); farm bill training (1); Pesticide dealer mtg (1) Activities also included development of IPM Guides, disease diagnosis, entomology webinar, and stored grain workshops (2).• Master Gardener training series (10-14 classes each) were offered in 22 locations and trained 431 interested participants from 33 counties. Classes include soils and plant nutrition, plant physiology, pest ID and management, water conservation, fruits and vegetables, composting, beneficial insects, and others. Classes were coordinated by 12 REAs partnering with 9 CECs, and 8 Specialists. • Poultry knowledge was transferred through short courses, training sessions, newsletters and thePoultryhouse.com website. Field studies were conducted on poultry house design. Organic/small farm IPM campaign (Auburn Univ.) is one of the most recent campaigns in ACES. Participation of producers in 2013 Alabama IPM meetings (869) has increased by about 40% since 2011.Overall satisfaction rating from training is 97% and the average crop loss prevented range from 40 to 60%among adoptive farmers. The Alabama Vegetable IPM program overall has received many major regional and national awards for a high quality program (details provided later). Efforts were also directed toward educational events and publications for forest landowners, professionals, and practitioners, enhancing their ability to identify and control invasive plants and wild pigs. Eighteen conferences and/or workshops were organized by the team, and 27 additional talks and 2 webinars were given for other groups statewide. Four regional talks and one national webinar were also given. A total of 605 attendees were present at these meetings and represented forage producers, crop advisors, green industry personnel, cattlemen, foresters, land managers, and Master Gardeners. Survey data from four of the ten meetings indicated landowners and land managers in attendance were responsible for approximately 238,000 acres. Eight Extension publications and six videos were produced. Seven peer-reviewed articles including work on cogongrass, Chinese tallowtree, and wild pigs were published or accepted for publication. Six articles were published in popular press outlets (circulation >200,000) and



in four national and one international media outlet. The ACES invasive plant web page was completely revised, and now contains primarily on-site material. Our Facebook page (Alabama Extension Invasive Plant Page) nearly doubled in number of followers, reaching 400 'likes'. Typically two to six posts are made per month.

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

• The activities of the Agronomic Crops Program Priority Team reached the following groups of stakeholders: 1) row crop and fruit-vegetable producers and their representatives groups that include, but are not limited to, the Alabama Cotton Commission, Alabama Peanut Commission, Alabama Soybean Producers, and Alabama Wheat and Feed Grains Committee; 2) row crop, timber, forage, fruit-vegetable advisors including ACES agents and specialists, ACES county coordinators, ACES risk preparedness specialists, public and private crops advisors; 3) agriculture and forestry equipment dealers and input supplier organizations; 4) governmental agency personnel including USDA, NRCS, and State of Alabama Soil and Water Conservation Committee; and 5) private citizens impacted by policies and practices used for the production of food, fuel, and fiber. The Master Gardener project is designed to recruit, train and retain participants interested in community volunteer service in partnership with the mission of ACES. REAs and CECs maintained partnerships with 33 local MG groups who reported contacts 12x greater than our MG membership of 1824 volunteers. • Poultry Industry professionals, poultry farmers, small flock owners were targeted with programs. • Small producers (organic, transitioning, and certified naturally grown), crop consultants, nonprofit agencies (e.g., food banks), small retailers, and state conservation agency, educators and county Extension coordinators. • Target audience for the invasive species program was the landowners, and natural resource professionals of Alabama. The Urban Gardens and Sustainable Landscapes (USGL) Program is supported by 6 Urban Regional Extension Agents (UREAs), cover 9 urban centers which encompass 21 counties and span the whole state of Alabama. During the course of 2013 six UREAs conducted workshops, seminars and attended various conferences to educate Alabama urban clientele on the benefits of gardening in limited urban spaces, and the options and opportunities available for gardening with limited resources.

**3. How was eXtension used?**

The Alabama Organic Vegetable/Small Farm IPM program used eOrganic (part of eXtension) webinar technology to share research-based crucifer insect pest management information to producers and educators across Alabama and the nation. A summary of this activity was emailed to 6,000 members of eOrganic and also archived online for viewing.

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

**1. Standard output measures**

2014	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	259627	6247813	0	0

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

**Patent Applications Submitted**

Year: 2014

Actual: 0

**Patents listed**

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

**Number of Peer Reviewed Publications**

2014	Extension	Research	Total
Actual	20	7	27

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

**Output Target**

**Output #1**

**Output Measure**

- This program area will include numerous output activities and methods as part of the Extension Team Projects, Special Funded Projects, and Ongoing Projects which are described/explained in the prior outcome activities and methods sections. The success of many of these outcomes will be formally evaluated/measured by using individual activity evaluation forms designed specifically for each activity, The success of other activities and methods will be measured by the level of participation in the activity. In the target boxes below for each year, we are indicating the number of individual activities within the these program areas that will be formally evaluated using an evaluation instrument designed specifically for that activity.  
Not reporting on this Output for this Annual Report

**Output #2**

**Output Measure**

- Number of workshops, webinars, and presentations to increase knowledge of cogongrass ecology and control

Year	Actual
2014	51

**Output #3**

**Output Measure**

- Number of organic/natural grown fruit and vegetable production practices workshops

Year	Actual
2014	30

**Output #4**

**Output Measure**

- Number of new housing and equipment changes workshops and presentations for poultry farmers

<b>Year</b>	<b>Actual</b>
2014	75

**Output #5**

**Output Measure**

- Number of soybean rust monitoring sites

<b>Year</b>	<b>Actual</b>
2014	15

**Output #6**

**Output Measure**

- Number of active reporting MG volunteers offering Extension support and educational outreach

<b>Year</b>	<b>Actual</b>
2014	1824

**Output #7**

**Output Measure**

- Number of small flock support and training workshops

<b>Year</b>	<b>Actual</b>
2014	5

**Output #8**

**Output Measure**

- Number of on-farm demonstrations for target spot on cotton

<b>Year</b>	<b>Actual</b>
2014	7

**Output #9**

**Output Measure**

- Number of peanut production and pest management training meetings completed

<b>Year</b>	<b>Actual</b>
2014	8

**Output #10**

**Output Measure**

- Number of participants at peanut production and pest management training meetings

<b>Year</b>	<b>Actual</b>
2014	347

**Output #11**

**Output Measure**

- Number of workshops to encourage adoption of rainwater collection system

<b>Year</b>	<b>Actual</b>
2014	50

**Output #12**

**Output Measure**

- Number of acres of rainwater irrigated fruits and vegetables

<b>Year</b>	<b>Actual</b>
2014	3

**Output #13**

**Output Measure**

- Number of workshops to enhance environmental knowledge among urban, nontraditional, and underrepresented audiences in the areas of forestry, wildlife, and natural resource management

<b>Year</b>	<b>Actual</b>
2014	106

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

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

O. No.	OUTCOME NAME
1	Increase profitability of pay-to-fish operations
2	Increase knowledge and awareness of cogongrass ecology and control
3	Increase knowledge and adoption of organic/naturally grown fruit and vegetable production practices
4	Increase poultry farmer knowledge of new housing and equipment changes and techniques
5	Increase awareness of spread of soybean rust and control measures
6	Increase knowledge of ways to successfully provide for farm succession methods
7	Increase knowledge of importance of forages in animal production systems and adoption of profitable forage production systems
8	Increase knowledge of horticultural practices for Master Gardener Interns
9	Sustain volunteer support from Master Gardeners
10	Adoption of rainwater collection systems for urban noncommercial garden
11	Increase awareness of water conservation
12	Increase number of acres of rainwater irrigated fruits and vegetables
13	Increase knowledge and understanding of environmental issues related to electronic waste management, storage and disposal
14	Enhance environmental awareness among urban, nontraditional, and underrepresented audiences in the areas of forestry, wildlife, and natural resource management
15	Number of attendees who learned about invasive species (animal and/or plant) control measures
16	Percent increase in knowledge of organic/natural grown vegetable production and pest management practices
17	Amount saved by adopting poultry house technology and energy efficient practices

18	Increased income due to following soybean rust monitoring recommendations
19	Number of Master Gardener Interns who changed their behavior as result of our training
20	Number of sustained these volunteers in 33 counties
21	Amount of dollars saved by decreasing fungicide applications on cotton crops
22	Dollar amount saved by adopting peanut production and IPM recommendations
23	Number of adults who adopted rainwater collection systems for urban noncommercial garden
24	Number of participants who increased knowledge of water conservation
25	Increase in the number of acres of rainwater irrigated fruits and vegetables
26	Number of gallons of rain barrels conserved and distributed for domestic use

**Outcome #1**

**1. Outcome Measures**

Increase profitability of pay-to-fish operations

Not Reporting on this Outcome Measure

**Outcome #2**

**1. Outcome Measures**

Increase knowledge and awareness of cogongrass ecology and control

Not Reporting on this Outcome Measure

**Outcome #3**

**1. Outcome Measures**

Increase knowledge and adoption of organic/naturally grown fruit and vegetable production practices

Not Reporting on this Outcome Measure

**Outcome #4**

**1. Outcome Measures**

Increase poultry farmer knowledge of new housing and equipment changes and techniques

Not Reporting on this Outcome Measure

**Outcome #5**

**1. Outcome Measures**

Increase awareness of spread of soybean rust and control measures

Not Reporting on this Outcome Measure

**Outcome #6**

**1. Outcome Measures**

Increase knowledge of ways to successfully provide for farm succession methods

Not Reporting on this Outcome Measure

**Outcome #7**

**1. Outcome Measures**

Increase knowledge of importance of forages in animal production systems and adoption of profitable forage production systems

Not Reporting on this Outcome Measure

**Outcome #8**

**1. Outcome Measures**

Increase knowledge of horticultural practices for Master Gardener Interns

Not Reporting on this Outcome Measure

**Outcome #9**

**1. Outcome Measures**

Sustain volunteer support from Master Gardeners

Not Reporting on this Outcome Measure

**Outcome #10**

**1. Outcome Measures**

Adoption of rainwater collection systems for urban noncommercial garden

Not Reporting on this Outcome Measure

**Outcome #11**

**1. Outcome Measures**

Increase awareness of water conservation

Not Reporting on this Outcome Measure

**Outcome #12**

**1. Outcome Measures**

Increase number of acres of rainwater irrigated fruits and vegetables

Not Reporting on this Outcome Measure

**Outcome #13**

**1. Outcome Measures**

Increase knowledge and understanding of environmental issues related to electronic waste management, storage and disposal

Not Reporting on this Outcome Measure



**Outcome #14**

**1. Outcome Measures**

Enhance environmental awareness among urban, nontraditional, and underrepresented audiences in the areas of forestry, wildlife, and natural resource management

Not Reporting on this Outcome Measure

**Outcome #15**

**1. Outcome Measures**

Number of attendees who learned about invasive species (animal and/or plant) control measures

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	3126

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

**Issue (Who cares and Why)**

Invasive species threaten natural areas as well as forest and pasture productivity across Alabama and the southeastern United States. Despite being present in Alabama since the early 1900's, species such as cogongrass and Chinese tallowtree have exploded in the last 20 years causing significant damage. In addition to these and other invasive plant species, non-native feral hogs are responsible for economic and environmental damage to forests, pastures, agricultural land and natural areas across the state. There is great need for landowner and land manager education on the ecology and control of invasive plants and feral hogs, as many have failed in their control attempts or have completely neglected the problem.

**What has been done**

18 conferences and/or workshops were organized by the team, and 27 additional talks and 2 webinars were given for other groups statewide. Other programs and materials: 4 regional talks, 1 national webinar, 8 Extension publications, 6 videos produced, and 7 peer-reviewed articles were published or accepted for publication. Six articles were published in popular press (circulation >200,000) and specialists were interviewed for four national and one international media outlet. The new ACES invasive plant web page now contains primarily on-site material. Our Facebook page (Alabama Extension Invasive Plant Page) doubled its followers, reaching 400

"likes". Typically 2 to 6 posts are made per month

**Results**

Our educational events reached landowners and natural resource professionals who manage >3.5 million of acres of Alabama forest and agricultural land. All totaled, 3,126 participants attended statewide events. 80% of the participants learned about control and removal strategies to manage the destruction and disruption these species cause. Surveys indicate that many adopted new invasive plant (and wild hog) strategies based on information learned from our programs. Surveys also indicate that the greatest impediment to follow through on invasive species control is adequate funding, labor and time. With approximately 300,000 views of on-line material and 360,000 views of team videos, it is evident that many landowners, forest professionals and other interested parties are looking for solutions and availing themselves to the up-to-date, practical information we provided.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
123	Management and Sustainability of Forest Resources
135	Aquatic and Terrestrial Wildlife
136	Conservation of Biological Diversity
205	Plant Management Systems
216	Integrated Pest Management Systems

**Outcome #16**

**1. Outcome Measures**

Percent increase in knowledge of organic/natural grown vegetable production and pest management practices

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	42

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

**Issue (Who cares and Why)**

Organic vegetable production is challenged by a plethora of insect pest issues which limit its acreage in the south. Organic/small farm vegetable producers produce crops in open field or in high tunnels all the production systems suffer greatly from multiple generations of insect pests and the general lack of knowledge about sustainable pest management options. Many new producers are also small farmers' this has created further demand for training programs.

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

The Alabama Extension Commercial Horticulture Team, along with the Home Grounds REAs, has developed an organic/small farm educational campaign since 2010 that has grown in demand every year. We have developed multi-track training program through regional meetings, workshops and field demonstrations. Along with about 30 total events, Extension partners with state agencies and nonprofits for information delivery that has resulted in direct contact with 900+ small producers. In 2014, we developed new training handbook for high tunnel crop producers, an iBook and Alternative Vegetable IPM slide chart that can be seen at [www.aces.edu/vegetableipm](http://www.aces.edu/vegetableipm). The High Tunnel handbook is also available as an iBook containing new IPM materials and YouTube videos integrated on one platform.

#### **Results**

The small farm campaign has dramatically increased the knowledge of small producers statewide. Evaluation surveys from high tunnel events suggest 42% increase in knowledge and awareness of commercial horticulture resources among respondents, majority of who are new to Extension. NRCS and FSA state offices have aggressively supported the small farm training events and are very pleased with educational outputs and outcomes. Producers have also been added to the Alabama IPM Communicator newsletter that now has a total of 1600 subscribers and has become a major avenue to information delivery. It is also linked with two very busy social media pages on Facebook that gives direct access to nearly 700 followers. 97% respondents were satisfied from the training events and nearly 100% suggest continuation of the organic/small farm program statewide. Two outside entities (the National Association of County Agricultural Agents and the Southern Region IPM Center) have awarded major honors to this campaign.

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

<b>KA Code</b>	<b>Knowledge Area</b>
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
205	Plant Management Systems
216	Integrated Pest Management Systems
601	Economics of Agricultural Production and Farm Management

#### **Outcome #17**

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

Amount saved by adopting poultry house technology and energy efficient practices

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

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	12600000

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

**Issue (Who cares and Why)**

Amount saved by adopting poultry house technology and energy efficient practices

**What has been done**

12 Trade magazine articles were published. 75 presentations were delivered to poultry groups. National Poultry Technology Center staff maintained the Poultryhouse.com website. 200 farm visits were completed. 2,500 phone conversations were handled and 12 farm energy audits were completed.

**Results**

These efforts increased poultry farmer knowledge of poultry house technology and energy efficiency. Farm energy audits helped poultry growers qualify for USDA cost share monies for energy improvements. Economic Impact in State of Alabama through Energy Conservation Practices = \$12.6 million

Savings to Poultry Growers

Gas (heating) fuel saved on the average poultry house with estimated \$1.75/gal = \$2,600.00

Electricity (lighting) saved on the average poultry house with estimated \$0.11/Kwhr = \$900.00

Total Utility Savings for Average 40' X 500' (20,000 ft') Poultry House = \$3,500.00

Assume 30% (of 12,000 houses in AL) adoption rate = \$12,600,000 savings per year

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
307	Animal Management Systems

**Outcome #18**

**1. Outcome Measures**

Increased income due to following soybean rust monitoring recommendations

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	3000000

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

**Issue (Who cares and Why)**

Farmers growing soybeans remained concerned about the presence and impact of soybean rust to yield. In 2013 Alabama farmers harvested over 425,000 acres of soybeans with an average yield of 43 bushels/acre. Relatively cool, wet growing conditions during the season provided an environment that was optimal for SBR development and spread.

**What has been done**

Observations provided by the SBR monitoring program indicate the disease spread across the state. In-season monitoring of SBR allowed team members to advise growers about the spread of the disease. Growers are alerted of the risk of SBR via email, twitter and electronic newsletters, as well as through a telephone hotline. These alerts allowed farmers to make timely decisions of whether or not to spray fungicides to protect their crop and avoid yield losses that could range from 25-50%.

**Results**

Soybean rust (SBR) was only detected in eight counties in the state in 2014. The disease was not a significant threat to soybean farmers in Alabama for the first time in three years. The soybean disease monitoring program allowed us to advise growers to hold back on fungicide application in 2014, limiting fungicide use in the state and reducing production costs. The soybean disease monitoring program did detect fungicide-resistant isolates of frogeye leaf spot in seven counties in Alabama. Growers were advised to apply fungicide tank-mixes where the disease was observed to limit the damage from this foliar pathogen. Yield losses of up to 40% have been reported from other states when this disease was present at high levels as we observed in Alabama in 2014. Soybean Vein Necrosis Virus (SVNV) appears to be a growing problem in Alabama. A statewide survey found the disease in a 27 counties over the last two years, and reported that the disease has spread into the southern-most region of the state.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water
205	Plant Management Systems
216	Integrated Pest Management Systems
601	Economics of Agricultural Production and Farm Management

## **Outcome #19**

### **1. Outcome Measures**

Number of Master Gardener Interns who changed their behavior as result of our training

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

- 1862 Extension

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

Change in Action Outcome Measure

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

<b>Year</b>	<b>Actual</b>
2014	323

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

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

Home Grounds calls still dominate the local offices call volume. Training volunteers to help our Agents gives staff more time for other programming. Our staff of 12 Regional Agents, 9 CECs, and 6 Specialists supported training of 431 new volunteers from 33 counties in 2015.

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

Training topics include soils and plant nutrition, insect and disease pests, plant ID, water conservation and more. 431 interns were surveyed to see what they are doing at home.

#### **Results**

Of the 431 MG interns, 75% (323) are promoting gardening to increase their own or a neighbor's physical activity level. Other important results: 61% are using their knowledge of pest life cycles to optimize pest management. 66% are sharing their knowledge they learned from the training about food plants with others.

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

<b>KA Code</b>	<b>Knowledge Area</b>
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
136	Conservation of Biological Diversity
205	Plant Management Systems
216	Integrated Pest Management Systems

**Outcome #20**

**1. Outcome Measures**

Number of sustained these volunteers in 33 counties

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	33

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

**Issue (Who cares and Why)**

MG volunteers are invaluable partners in educating their local communities. We support as many training events as possible to sustain the local effort.

**What has been done**

MGs volunteer as a result of our training. 12 Regional Agents, 9 County Extension Coord, and 6 Specialists supported the training classes in 22 locations. This contributed to volunteer activities in a total of 33 counties where the MG program exists. Some of their local activities included: Lunch and Learn educational programs (7 counties), demonstration gardens (30 counties), info booths at public outlets and County Fair booths (31 counties), charitable food gardens grew 14+ tons of produce (27 counties), partner with historic properties, botanical gardens and local charities (33 counties), financial support to 4 year and 2 year colleges in the form of scholarships (33 counties), 11 Helpline offices that serve 48 counties with 6,258 home garden/landscape answers.

**Results**

MG volunteers are active with community outreach in 33 counties. They promote and demonstrate best management practices for home landscapes, multiplying the effect of ACES outreach. Our ACES staff led trainings in 22 counties, but ultimately served the citizens of 33 counties through this volunteer staff. Their total volunteer time given in 2014 equaled 65 full time staff equivalents.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water
136	Conservation of Biological Diversity

205	Plant Management Systems
216	Integrated Pest Management Systems

**Outcome #21**

**1. Outcome Measures**

Amount of dollars saved by decreasing fungicide applications on cotton crops

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	6000000

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

**Issue (Who cares and Why)**

Target spot has emerged as a new yield limiting disease of cotton. It has the potential to reduce cotton yields by 25-30 %. Cotton producers were unfamiliar with this disease and unprepared to make fungicide application decisions.

**What has been done**

On-farm demonstrations were established to monitor disease development and yield loss. Fungicide recommendations were developed to minimize losses to this disease.

**Results**

Elimination of unnecessary fungicide applications resulted in a savings of \$6,000,000

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
205	Plant Management Systems
216	Integrated Pest Management Systems
307	Animal Management Systems
311	Animal Diseases



315 Animal Welfare/Well-Being and Protection  
601 Economics of Agricultural Production and Farm Management

## **Outcome #22**

### **1. Outcome Measures**

Dollar amount saved by adopting peanut production and IPM recommendations

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

- 1862 Extension

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

Change in Condition Outcome Measure

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

<b>Year</b>	<b>Actual</b>
2014	6000000

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

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

Peanuts are extremely susceptible to about a dozen insect pests and about half a dozen major diseases that can cause 90% crop loss if not managed in a timely manner. Peanut producers are very dependent on Alabama Extension Peanut IPM team for unbiased pest management information through direct training and publications that result in rapid adoption of IPM recommendations

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

Regional IPM meetings completed = 5 (247 direct contacts); number of scouting schools for hands-on training = 2 (100 direct contacts); information sharing through multi-state meetings and exhibitions = 1 (600 indirect contacts). IPM newsletter issues with peanut pest alerts = 6, Extension Timely Information fact sheets = 2, redesigned IPM website = 1, social media page = 1.

#### **Results**

Survey conducted (N=31) at regional peanut production meetings included 78% producers, 12% industry representatives, 4% crop advisors, and 3% pesticide distributors. Survey return rate was 15% with nearly 5175 reported acres (about 200 peanut acres per producer). 61% producers scouted their peanut crop by themselves while 26% producers also sought advice from crop advisors for making IPM decisions involving insecticide or fungicide usage. 45% respondents used information published in the IPM newsletter and 74% referred to the Peanut IPM Guide which is updated online and is the major source of pest management recommendations. 80% producer respondents also consulted the regional agents as needed within the season while 40% used the recommended scouting practices. Overall, 83% or more respondents were highly satisfied with peanut IPM team's educational efforts. Based on number of direct contacts via regional training meetings (n=198 unduplicated number of producers, excluding crop advisors and

industry representatives) and 70% short-term IPM adoption rate, economic impact of IPM training is about \$6 million.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
216	Integrated Pest Management Systems

#### Outcome #23

##### 1. Outcome Measures

Number of adults who adopted rainwater collection systems for urban noncommercial garden

##### 2. Associated Institution Types

- 1890 Extension

##### 3a. Outcome Type:

Change in Condition Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	325

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

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

Water is actually a limited resource when considered to be used in growing produce and home use. The adoption of rainwater collection systems for urban community use is an economical, easy, and sustainable way to conserve one of our natural resources.

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

The Water Wheels 2014 FY reached 2,629 (face to face) individuals through 50 scheduled activities. Some of these activities also have the potential to reach other (non-face to face) individuals through distributed educational resource materials, internet, radio and T.V. interviews, social media (Website visited for FY2014, 7,142 visits, with 13,658 website hits, 19 average visits per day, and August with the highest traffic month: 56% visits from the U.S.), and newspapers. The non-traceable clientele are estimated to be 7,626. Total number reached by the Water Wheels FY2014 is 10,255. The face to face clientele (2,629) were 37% adults, 61% youth, 20% black, 78% white, 50% male, and 50% female.

###### **Results**

32% (325) of adults surveyed (1014) indicated that they had adopted rainwater collection systems for their urban gardens

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water
205	Plant Management Systems

#### Outcome #24

##### 1. Outcome Measures

Number of participants who increased knowledge of water conservation

##### 2. Associated Institution Types

- 1890 Extension

##### 3a. Outcome Type:

Change in Knowledge Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	861

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

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

The amount of water wasted in urban areas per year is increasing and considering that clean water is a limited natural resource, educational programs for urban clientele is necessary.

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

The Water Wheels 2014 FY reached 2,629 (face to face) individuals through 50 scheduled activities. Some of these activities also have the potential to reach other (non-face to face) individuals through distributed educational resource materials, internet, radio and T.V. interviews, social media (Website visited for FY2014, 7,142 visits, with 13,658 website hits, 19 average visits per day, and August with the highest traffic month: 56% visits from the U.S.), and newspapers. The non-traceable clientele are estimated to be 7,626. Total number reached by the Water Wheels FY2014 is 10,255. The face to face clientele (2,629) were 37% adults, 61% youth, 20% black, 78% white, 50% male, and 50% female.

###### **Results**

85% (861) of adults surveyed indicated that they increased knowledge of water conservation techniques of the water wheels programs

The surveys also indicated that of those 85% not aware of the conservation techniques, 72% indicated that this was new knowledge gained as a result of participating in the workshop. The resulting rain barrels sold and installed to the adult participants was 284. This is a 14% increase in rain barrel adoption from last year's number (249 barrels).

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water

#### Outcome #25

##### 1. Outcome Measures

Increase in the number of acres of rainwater irrigated fruits and vegetables

##### 2. Associated Institution Types

- 1890 Extension

##### 3a. Outcome Type:

Change in Condition Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	3

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

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

High tunnel houses and raised bed gardens are an external source of irrigation for successful crop production. The utilization of rainwater collection systems with these types of production systems provide an easy cost effective means of irrigating crops.

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

The USGL 2014 FY reached 3,710 (face to face) individuals through 66 scheduled activities. Some of these activities also have the potential to reach other (non-face to face) individuals through distributed educational resource materials, internet, radio and T.V. interviews, social media, and newspapers. The non-traceable clientele are estimated to be 5,906. Total number reached by the USGL FY2014 is 9,616. The face to face clientele (3,710) were 63% adults, 37% youth, 24% black, 72% white, 30% male, and 70% female. Total number of clientele completed surveys, 840 (23% completion rate)

###### **Results**

The combined total of acreage from 2 locations, one raised bed community garden and high tunnel production house is approximately 3 acres.

#### 4. Associated Knowledge Areas

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

111 Conservation and Efficient Use of Water  
205 Plant Management Systems

**Outcome #26**

**1. Outcome Measures**

Number of gallons of rain barrels conserved and distributed for domestic use

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	17040

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

**Issue (Who cares and Why)**

While worldwide water consumption is rising at double the rate of the population. Rainfall replenishes much of the water we use; however, it is predicted that by 2025, eighteen countries will use more water than can be replenished. Climate changes occur annually and often with various regions experiences floods, droughts, earth-quakes, or tornadoes at any one time. We can reduce their impact through planning and preparedness. Rainwater harvesting, whether it is from parking lots or rooftops, is the collection and storage of rainwater. Collected rainwater is used for domestic purposes and irrigation. Rainwater is usually collected from rooftops, greenhouses, pool covers and other relatively clean surfaces and distributed for domestic use such as irrigation, flushing toilets, or washing cars.

**What has been done**

UGSL FY2014 programming successfully accomplished education programming events throughout the 9 urban centers of Alabama. A total of 106 educational programs were conducted for FY2014. (Website visited for FY2014, 7,142 visits, with 13,658 website hits, 19 average visits per day, and August with the highest traffic month: 56% visits from the U.S.) The traceable clientele reached is 6,338. Total number reached by the UGSL FY2014 is 19,871. The face to face clientele (6,338) were 52% adults, 47% youth, 23% black, 74% white, 39% male, and 62% female (n=6338). Total of 284 rain barrels were distributed and installed as a result of the 42 rain barrel workshops.

**Results**

Through the entire 3 year span of the Water Wheels project a total of 1,500 rain barrels have been distributed to clientele. As a result, for FY2014 the potential water conserved with one inch of rainfall and 284, 60 gal rain barrels distributed is approximately 17,040 gallons.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
136	Conservation of Biological Diversity
205	Plant Management Systems
216	Integrated Pest Management Systems

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

##### External factors which affected outcomes

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

##### Brief Explanation

Peanut IPM project: Year 2014 was a wet year in the beginning but turned to dry weather during pod filling stage of peanuts (July-Sept) resulting in high insect pressure from thrips, lesser cornstalk borers, and other pests. Failure to detect these insects in a timely manner reduces pest management choices late in season which artificially reduces IPM adoption rates. Economic means and availability of new insecticides and fungicides also affects adoption of selective reduced-risk insecticides among producers. Short supply of disease tolerant peanut varieties and fungicides also increases risk of crop loss due to disease outbreak.

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

##### Evaluation Results

MG Interns gained new knowledge - 31% overall- MG Interns adopted techniques taught about residential landscapes - 61% to 75%- 1824 MG volunteers remained, or newly became involved, with numerous civic, municipal, ACES and other partners. These volunteers gave volunteer time equal to 108 FTEs in 33 counties. Organic/Small Farm IPM program, one of the most peer-reviewed and impactful horticultural education campaign the state, utilizes paper-based and electronic surveys, on-farm evaluations and case studies to monitor quality and impact of commercial horticulture programs. With a rapidly rising number of small producers in Alabama, vegetable IPM training has resulted in 40% increase in knowledge of pest issues among new producers with 90+ percent satisfaction of producers attending hands-on pest management workshops. Overall, the Alabama Vegetable IPM program has received one national sustainable agriculture award from the National Association of County Agricultural Agents, two awards from the Southern Region IPM Center, and a Blue Ribbon Extension Communication Award from the American Society of Horticultural Science, besides numerous other communications award. Vegetable IPM program impact videos for 2013 and 2014 are available at [www.aces.edu/vegetableipm](http://www.aces.edu/vegetableipm). Commercial horticulture impacts is also available as a publication, visit <http://www.aces.edu/pubs/docs/A/ANR-2185/ANR-2185.pdf>

Peanut IPM program has been monitoring quality and impact of training programs via paper-based surveys, newsletter electronic surveys, and case studies. 70% producers attending the peanut meetings adopt IPM recommendations in the short-run which results in economic impact exceeding \$6 million (conservative estimate). This estimate excludes crops scouted by crop advisors and industry personnel who also heavily utilize extension IPM recommendations for insect pest and disease control.

### **Key Items of Evaluation**

Master Gardeners support ACES Agents by sharing their expertise and knowledge in program delivery, offering their own program outreach, implementing demonstration gardens, and volunteering with many community partners. They support their communities through food gardens and food donations, local charities, in numerous beautification projects, collegiate scholarship donations and more. The MG Helpline (877-252-4769) answers non-commercial questions related to residential landscapes. The 8 agents who support the 11 MG offices say that this volunteer activity greatly reduces their call volume. Volunteers are not expected to know all the answers, but instead where to find the answer in approved references and to offer friendly support to the caller in need of answers.

The Extension Commercial Horticulture Team has a very consistent evaluation approach and utilizes feedback for improving current projects (utilization-focused evaluation approach). Based on feedback gathered at third party educational event (n=24), an average small producer has under 5 acres in specialty crops with 6 years of production experience. About 42% producers have been to at least one Extension meeting (increased from 27% in 2012) and 46% are directly using Extension recommendations (increased from 30% in 2012). Overall, crop loss prevented by IPM training was 44 to 50%; direct short-term impact of horticulture programs is estimated to be over \$10 million. With several hundred new vegetable producers and growth of farmer markets across the state, there is heavy demand for commercial fruit and vegetable crop production information.

Soybean rust (SBR) was only detected in eight counties in the state in 2014. The disease was not a significant threat to soybean farmers in Alabama for the first time in three years. The soybean disease monitoring program allowed us to advise growers to hold back on fungicide application in 2014, limiting fungicide use in the state and reducing production costs. The soybean disease monitoring program did detect fungicide-resistant isolates of frogeye leaf spot in seven counties in Alabama. Growers were advised to apply fungicide tank-mixes where the disease was observed to limit the damage from this foliar pathogen. Yield losses of up to 40% have been reported from other states when this disease was present at high levels as we observed in Alabama in 2014.

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

**Program # 7**

**1. Name of the Planned Program**

Community, Family, Home and Youth Development

Reporting on this Program

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

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
602	Business Management, Finance, and Taxation	10%	10%		
607	Consumer Economics	10%	10%		
801	Individual and Family Resource Management	20%	20%		
802	Human Development and Family Well-Being	20%	20%		
806	Youth Development	40%	40%		
	<b>Total</b>	100%	100%		

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

1. Actual amount of FTE/SYs expended this Program

Year: 2014	Extension		Research	
	1862	1890	1862	1890
<b>Plan</b>	81.0	12.8	0.0	0.0
<b>Actual Paid</b>	55.2	7.2	0.0	0.0
<b>Actual Volunteer</b>	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
689038	371941	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
1112867	407383	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
5525913	679366	0	0



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

### 1. Brief description of the Activity

**Alabama 4-H** programming represents the broad scope of Extension work and uses youth development principles to deliver research based information to young people using hands on minds on strategies.

**AU Sustainable Community Project** is using the PROSPER model to build youth internal and external assets to reduce behavior problems among middle school students.

**Be Safe** a 7 week program promoting social and emotional learning, bullying and positive peer relationships, reached 2301 youth across the state.

**Caregiving Across the Life Span** is group based education to strengthen family health and well-being through an emphasis on healthy caregiving behaviors and caregiving relationships across the lifespan.

**Relationship and Marriage Education (RME)** is a six session program to raise awareness and provide coping skills for individuals and couples who are married, dating or considering marriage.

**Family Advocacy through Caring Engagement Strategies (FACES)**, a family strengthening curriculum, was implemented as a series of five lessons or as stand-alone programs in various settings throughout the state.

**The Grand RAPP** program focuses on helping parenting grandparents/relatives identify and understand possible ambivalent feelings in their new role, individual differences and temperament, approaches to communicating with adult children/relatives and discipline strategies.

**The Successful Aging Initiative** utilized the Seniors Can curriculum which is a wellness program for older adults developed by the University of Nevada Cooperative Extension System.

**Volunteer in Urban Programs (VIP)** a structured volunteer program that captures the quantitative and qualitative value of volunteer services provided to the Urban Program Unit of the ACES.

**TMI (Teens Making Impact)** a series of five interactive lessons that prepares teens with information to support the development of skills for making sound career decisions, engaging in effective communication, pursuing healthier lifestyles, and to better understand government issues and their role as productive citizens.

**CYFAR Teens Making Impact (TMI)**, is a 12-week youth leadership program focused on decisions relative to careers, healthy lifestyles, civic engagement, and community service.

**The Urban SET (Science, Engineering and Technology)** program is designed to offer educational opportunities for urban youth ages 9 to 18 and adults (as partners) to engage in science, engineering and technology programs.

**Urban-Alabama Health Rocks!** 4-H Health Rocks! is a healthy living program designed for youth 10 -15 years. The program serves to engage youth, families, and communities in an effort to reduce tobacco, alcohol, and drug use by youth.

### 2. Brief description of the target audience

**4-H Youth** age 9 to 18, and Cloverbuds ages 5 to 8. 114,502 4-H members and participants reached by 67 staff and 2,798 Volunteers. Demographics: 66% youth White; 28% Black; 1.1% American Indian; 59% from towns under 10,000 and rural non-farm. **Be Safe** reached 2183 youth, 54% were female, 93.7% rural, 29% white and 64% Black. **Care Giving Across the Life Span** reached 1357 parents, home caregivers and child care providers. 73% were female, 48% Black and 3% other minorities.

**RME** reached 3433 adults: 43% Black, 50% white, 3% Hispanic or Latino. 66% female the program had approximately 82,956 participants. Of the 1,546 traceable participants, 90% were from urban areas and only 10% were from rural areas. More than two-third (69%) of the participants were adults. The majority of traceable participants were female (81%) and black (75%). White participants made up 21% of the group while Hispanic, Biracial, Indian, and Asian made up approximately 4% of the program participants.

**Grand RAPP:** the program had approximately 83,368 participants. Of the 413 traceable participants, 100% were from urban areas. Ninety-five percent of the participants were adults. The majority of

traceable participants were female (90%) and black (83%). White participants made up 12% of the group while Hispanic, Biracial, Indian and Asian/Pacific Islander made up less than 5% of the program participants.

**Successful Aging Initiative:** the program had approximately 64,082 participants. Of the 5805 traceable participants, 99% were from urban areas. Ninety-nine percent of the participants were adults. The majority of traceable participants were female (72%) and black (61%). White participants made up more than one-third (38%) of the group while Hispanic, Biracial, and Asian/Pacific Islander made up less than 1% of the program participants.

**Be Safe** reached 2301 youth across the state. 54% were female and 46% were male. 6.3% lived in urban communities, while 93.7% lived in rural communities. The racial breakdown of youth participants were as follows: White 29%, Black or African American 64%, Hispanic 1%, American Indian/Alaskan Native 1%, Asian 0.3%, more than one race 1%. When asked about bullying experiences in the past 12 months 27% said that they had been bullied on school property and 10.3% said that they had been cyberbullied.

**3. How was eXtension used?**

eXtension has been used to house 4-Hinnovators a STEM education program. It is a part of the For Youth for Life Link.

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

**1. Standard output measures**

2014	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	48112	246587	152934	220320

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

**Patent Applications Submitted**

Year: 2014  
 Actual: 0

**Patents listed**

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

**Number of Peer Reviewed Publications**

2014	Extension	Research	Total
<b>Actual</b>	0	1	1

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

**Output Target**

**Output #1**

**Output Measure**

- Number of partnerships, publications, newsletters, articles, business plans, volunteers, success stories, testimonies, grants and contracts submitted and/or awarded, support groups, technology-based resources, research-based professional expertise, and curriculum.  
Not reporting on this Output for this Annual Report

**Output #2**

**Output Measure**

- Number of 4-H Clubs

<b>Year</b>	<b>Actual</b>
2014	1380

**Output #3**

**Output Measure**

- Number of relationship classes taught

<b>Year</b>	<b>Actual</b>
2014	594

**Output #4**

**Output Measure**

- Number of dollars resulting from volunteer service hours

<b>Year</b>	<b>Actual</b>
2014	1900000

**Output #5**

**Output Measure**

- Number of 4-H Club Members

<b>Year</b>	<b>Actual</b>
2014	31917

**Output #6**

**Output Measure**

- Number of First Time 4-H Volunteers who completed the New Volunteer Training

<b>Year</b>	<b>Actual</b>
2014	347

**Output #7**

**Output Measure**

- Number of 4H Participants

<b>Year</b>	<b>Actual</b>
2014	82585

**Output #8**

**Output Measure**

- Number of 4H volunteers

<b>Year</b>	<b>Actual</b>
2014	2798

**Output #9**

**Output Measure**

- Number of 4-H Training Modules

<b>Year</b>	<b>Actual</b>
2014	7

**Output #10**

**Output Measure**

- Number of 4-H Military Clubs

<b>Year</b>	<b>Actual</b>
2014	10

**Output #11**

**Output Measure**

- Number of Families Participating in Auburn University Sustainable Community Project

<b>Year</b>	<b>Actual</b>
2014	47

**Output #12**

**Output Measure**

- Number of hours of program Engagement for Auburn University Sustainable Community Project

<b>Year</b>	<b>Actual</b>
2014	4672

**Output #13**

**Output Measure**

- Number of youth serving in a leadership role

<b>Year</b>	<b>Actual</b>
2014	4140

**Output #14**

**Output Measure**

- Number of positive aging initiatives activities implemented

<b>Year</b>	<b>Actual</b>
2014	119

**Output #15**

**Output Measure**

- Number of support activities conducted for grandparents raising grandchildren.

<b>Year</b>	<b>Actual</b>
2014	29

**Output #16**

**Output Measure**

- Number of Successful Aging Conferences held.

<b>Year</b>	<b>Actual</b>
2014	9

**Output #17**

**Output Measure**

- Number of Urban relationship classes taught

<b>Year</b>	<b>Actual</b>
2014	157

**Output #18**

**Output Measure**

- Number of older adults participating in Successful Aging Activities

<b>Year</b>	<b>Actual</b>
2014	5805

**Output #19**

**Output Measure**

- Number of Estate Planning Basics workbooks completed.

<b>Year</b>	<b>Actual</b>
2014	136

**Output #20**

**Output Measure**

- Number of volunteer hours provided by VIPs and Student volunteers (college, middle and high school)

<b>Year</b>	<b>Actual</b>
2014	4032

**Output #21**

**Output Measure**

- Number of Urban SET participants

<b>Year</b>	<b>Actual</b>
2014	188

**Output #22**

**Output Measure**

- Number of Urban Health Rocks participants

<b>Year</b>	<b>Actual</b>
2014	3915

**Output #23**

**Output Measure**

- Number of urban TMI/CYFAR TMI participants

<b>Year</b>	<b>Actual</b>
2014	1587

**Output #24**

**Output Measure**

- Number of youth participating in Be SAFE

<b>Year</b>	<b>Actual</b>
-------------	---------------

2014 2302

**Output #25**

**Output Measure**

- Number of Be SAFE activities conducted

<b>Year</b>	<b>Actual</b>
2014	60

**Output #26**

**Output Measure**

- Number of hours of engagement for Be SAFE

<b>Year</b>	<b>Actual</b>
2014	16114

**Output #27**

**Output Measure**

- Number of Be SAFE curricula developed

<b>Year</b>	<b>Actual</b>
2014	1

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

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

O. No.	OUTCOME NAME
1	4-H volunteers recruited, screened, trained, and retained.
2	Life-skills gained
3	Knowledge gains
4	Business Plans Developed
5	Number of people adopting credit, saving, asset management, and career development practices.
6	Dollars saved as a result of counseling and referrals.
7	The number of new direct volunteers who completed seven online training modules
8	The number of youth who gained Life-skills
9	The number of child care providers who improved child care provider practices
10	Number of students who improved their relationship with teachers and parents.
11	The number of individuals in romantic relationships with Improved coping skills
12	Number of grandparents and other relative caregivers who are better prepared for assuming the role as primary caregiver of children.
13	Number of adults implementing positive relationship skills.
14	Number of adults with increased positive relationship skills.
15	Number of older adults who increased knowledge of independent living.
16	Number of older adults who are better prepared for independent living.
17	Number of youth with increased interest in science, engineering, and technology careers



18	Number of youth who increased interest in science, engineering, and technology careers
19	The number of urban youth who increased knowledge of life skills
20	The number of urban youth who increased life skills
21	The number of youth who increased in knowledge the negative effects of drug use.
22	The number of youth who learned how to handle stress
23	The number of VIP Leaders with increased knowledge of leadership and community service opportunities
24	Number of youth who increased knowledge in Relationship Smarts Plus
25	Number of Children who increase interpersonal skills

**Outcome #1**

**1. Outcome Measures**

4-H volunteers recruited, screened, trained, and retained.

Not Reporting on this Outcome Measure

**Outcome #2**

**1. Outcome Measures**

Life-skills gained

Not Reporting on this Outcome Measure

**Outcome #3**

**1. Outcome Measures**

Knowledge gains

Not Reporting on this Outcome Measure

**Outcome #4**

**1. Outcome Measures**

Business Plans Developed

Not Reporting on this Outcome Measure

**Outcome #5**

**1. Outcome Measures**

Number of people adopting credit, saving, asset management, and career development practices.

Not Reporting on this Outcome Measure

**Outcome #6**

**1. Outcome Measures**

Dollars saved as a result of counseling and referrals.

Not Reporting on this Outcome Measure

**Outcome #7**

**1. Outcome Measures**

The number of new direct volunteers who completed seven online training modules

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	454

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

**Issue (Who cares and Why)**

Opportunities for 4-H programmatic growth and sustainability are strengthened by 4-H volunteers. Two-thousand seven hundred and ninety-eight (2798) 4-H volunteers logged 83,925.65 hours valued at 1.9 million dollars to further the programmatic outcomes of Alabama 4-H. These services would not have been possible if County 4-H Teams had not thought out of the box and sought new and innovative ways to reach more youth and make a greater impact. Four-hundred fifty-four(454) new 4-H volunteers were recruited in 2014. These new volunteers were screened using Auburn University Human Resources standards and completed seven (7) training

**What has been done**

2798 Volunteers Enrolled; 454 volunteer screened and received initial training; Annual 4-H Volunteer Update for continuing education; 7 4-H Volunteer training modules produced in on-line training format. New module ACES 4-H Is For Everyone diversity training for 4-H volunteers introduced; 67 county 4-H volunteer awards and recognition programs; 287 Auburn University background investigations processed; 5 Volunteer management publications produced; 12 4-H Volunteer Spotlight posts; New 4-H Volunteer enrollment database introduced 4HONLINE

**Results**

Caring relationships with adults is critical for positive youth development. Alabama 4-H volunteers help us expand our care, our reach to youth that need care the most. Mandatory training for all new direct volunteers encompasses information on Adult Behavioral Guidelines, Ages and Stages of Youth Development, Disciplines Planning, Health and Safety, Risk Management, Diversity. To be granted certification, the online learning modules must be completed and they are constructed to not allow individuals to skip steps of instruction.

**4. Associated Knowledge Areas**

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

**Outcome #8**

**1. Outcome Measures**

The number of youth who gained Life-skills

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
-------------	---------------

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

**Issue (Who cares and Why)**

The increasingly complex and diverse world community requires youth have the ability to work with youth and adults that are not like them. This requires soft skill development.

**What has been done**

Over 4,000 youth serve in a 4-H leadership capacity in Alabama. They are trained in life and soft skill development to make them better leaders, friends, students, family, and community members. Skills developed: listen to different ideas, works with others, plan, solve problems, cooperate, value multiple opinions, and speak in front of others.

**Results**

Life skill development helps individual youth to be successful in living a productive and satisfying life. Successful, productive, and satisfied youth are more likely to become successful, satisfied, and productive adults. Successful, satisfied and productive adults are better family and community members and contribute to the economic well-being of local, state and national economies. 84% (n=219) youth ability to listen to different ideas increased or increased greatly; 88% (n=219) youth ability to work with others increased or increased greatly; 78% (n=219) youth ability to plan how to do things increased or increased greatly; 82% (n=219) youth ability to solve problems increased or increased greatly; 80% (n=219) youth ability to cooperate with others increased or increased greatly; 79% (n=219) youth ability to value the opinions of others increased or increased greatly; 80% (n=219) youth ability to speak in front of others increased or increased greatly; 81% (n=219) youth ability to perform the duties of 4-H office increased or increased greatly; 86% (n=219) youth dedication to club increased or increased greatly; 89% (n=219) youth willingness to serve again increased or increased greatly

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
602	Business Management, Finance, and Taxation
607	Consumer Economics
801	Individual and Family Resource Management
802	Human Development and Family Well-Being
806	Youth Development

**Outcome #9**

**1. Outcome Measures**

The number of child care providers who improved child care provider practices

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	123

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

**Issue (Who cares and Why)**

With the growing number of single parent families and two parent households where both parents work, finding child care providers that can provide families with the security of knowing that their children are thriving and safe and enriching environment is a growing concern

**What has been done**

To strengthen family health and well-being through an emphasis on healthy caregiving behaviors and caregiving relationships across the lifespan, 100 group-based educational sessions were delivered statewide to 1357 participants by Alabama Extension educators.

**Results**

Paired samples t-tests for 123 providers who had data measuring change from 2013 to 2014 indicated statistically significant ( $p < .00$ ) improvements in overall quality and the following 5 sub-categories of child care practices: (a) learning activities; (b) provider-child interaction; (c) program structure; (d) personal care routines; and (e) listening/talking. In addition, a total of 12,443 training hours were awarded to providers participating in mentored training sessions. These training hours contribute to providers' ability to meet State re-licensure requirements. Currently, 55 of 170 FCCP providers actively pursuing accreditation are accredited.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
802	Human Development and Family Well-Being

**Outcome #10**

**1. Outcome Measures**

Number of students who improved their relationship with teachers and parents.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	160

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

**Issue (Who cares and Why)**

Youth without strong internal and external assets like problem-solving and decision-making skills, school liking and engagement, and positive parent-adolescent relationships are unable to negotiate the complex nature of the world in which they live and have a higher likelihood of having problem behaviors like alcohol abuse, drug use, and delinquency and poor relationships.

**What has been done**

7th grade students from three counties in collaboration with community teams engaged in one of two evidence-based programs: All Stars (149 students) and Life Skills Training (57). These programs provided from eleven to twenty-one 50-minute sessions and included role playing, experiential learning, and discussion. The three communities also offered a 7-week Strengthening Families Program from January through March. The SFP program is held for seven consecutive weeks (2 hours per session) with a required minimum attendance of four sessions to graduate. A total of 47 families participated

**Results**

Youth reported improved relationships with teachers, (n+157); Youth (n=158) 32% reported liking school sometimes; and there was an increase in the percentage of youth 35%(N=160) that tell their parents what happens at school. Youth that have better relationships with teachers and parents are two positive assets that build young peoples' capacity to manage their world and reduce risk behaviors.

**4. Associated Knowledge Areas**

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

**Outcome #11**

**1. Outcome Measures**

The number of individuals in romantic relationships with Improved coping skills

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	3433

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

**Issue (Who cares and Why)**

Healthy relationships are critical for individual health and wellbeing. Healthy couples live longer, manage stress and the effects of stress better, feel healthier and are less likely to suffer from depression, decreased immune function, and high blood pressure.

**What has been done**

3,433 adults participated in 1 of 5 evidence based relationship and marriage curricula across the state. These target skills for healthy marriages and relationships. Each of the 5 curricula (i.e., Together We Can, How to Avoid Marrying a Jerk, Mastering the Mysteries of Love, Basic Training for Couples, and Bridging the Great Divide) utilize the framework of the seven core skills for healthy marriages and relationships developed by the National Extension Relationship and Marriage Education Network.

**Results**

Based on paired-sample t-tests conducted on multi-item indicators, statistically significant ( $p < .05$ ) improvement was documented for the following outcome measures: 1. Individual functioning: self-care, financial management skills, depression, conflict management skills, and connections to social support; 2. Couple/marital relationship functioning: domestic violence awareness, connection, understanding of significant other, caring toward significant other, couple quality; 3. Parenting: child maltreatment awareness; 4. Co-parenting relationship functioning: understanding of co-parent, caring toward co-parent.

Happy couples are better couples, better workers and better community members which impacts the economic well-being of communities.

**4. Associated Knowledge Areas**

**KA Code**    **Knowledge Area**  
802            Human Development and Family Well-Being

**Outcome #12**

**1. Outcome Measures**

Number of grandparents and other relative caregivers who are better prepared for assuming the role as primary caregiver of children.

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	55

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

**Issue (Who cares and Why)**

For the past few decades, the number of grandparents and relatives having to once again raise a child has been increasing throughout the United States of America. In the State of Alabama, more than 148,000 children under the age of 18 are now living with grandparents or other relatives (Grandfacts, 2012). Forty-five percent (45%) of the 63,529 grandparent householders responsible for their grandchildren are raising their grandchildren without the presence of the parents in the household.

**What has been done**

Seven Urban Regional Agents utilized workshops, conferences, family celebrations, and support groups to increase parenting grandparents/relatives identify and understand possible ambivalent feelings in their new role, individual differences and temperament, approaches to communicating with adult children/relatives and discipline strategies. The Grandparents and Relatives as Parents Program (Grand RAPP) was implemented as a series of four lessons or as a stand-alone program in urban areas of 15 counties.

**Results**

Based on pretest and posttest results, the knowledge of 55 participants increased significantly relative to:

- a)ways to acknowledge feelings (t=2.13, p=.04)
- b)how to openly and honestly discuss their feelings with others (t=3.66, p=.00)
- c)how to become involved in various activities that assist in reducing stress (t=2.64, p=.01)
- d)the ineffectiveness of spanking as a form of discipline (t=1.98, p=.05)
- e)how to seek professional help with dealing with grandchild/children (t=2.46, p=.02)



#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being

#### Outcome #13

##### 1. Outcome Measures

Number of adults implementing positive relationship skills.

##### 2. Associated Institution Types

- 1890 Extension

##### 3a. Outcome Type:

Change in Knowledge Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	391

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

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

A direct relationship between the well-being of children, families and communities has been cited by various professionals and organizations. When families are strong and do well, children do well. Likewise, when communities are strong, families are strong. Critical for all families are those attributes that strengthen individuals as well as the family itself.

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

Six Urban Regional Agents and two Regional Agents utilized workshops, conferences, fairs and family day celebrations to increase individuals and families' understanding of how to effectively communicate, resolve conflict, manage stress and identify spending habits. The Family Advocacy through Caring Engagement Strategies, a family strengthening curriculum, was implemented as a series of five lessons or as a stand-alone program in urban areas of 12 counties.

###### **Results**

Based on pretest and posttest results, 391 participants skill level increased significantly regarding:

- a) their family's strengths (t = 6.36 , p = .00)
- b) ways to strengthen their family (t = 8.16, p = .00)
- c) the effects of stress on the body (t =9.03 , p = .00 )
- d) the ripple effect of stress on the family (t =8.62 , p = .00)
- e) appropriate methods for handling conflict (t =9.85 , p =.00)
- f) how to reach agreements in which everyone wins or feels okay about the decision made (t =9.34, p =.00)
- g) how verbal and nonverbal communication affect family relationships (t =7.20, p =.00)

- h)the importance of self-disclosure within a family (t = 9.88, p =.00)
- i)the importance of active listening within a family (t =7.99 , p =.00)
- j)techniques for managing stress (t =9.46 , p =.00)
- k)signs and symptoms of stress (t = 7.56 , p = .00)

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being

#### Outcome #14

##### 1. Outcome Measures

Number of adults with increased positive relationship skills.

##### 2. Associated Institution Types

- 1890 Extension

##### 3a. Outcome Type:

Change in Action Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	109

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

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

A direct relationship between the well-being of children, families and communities has been cited by various professionals and organizations. When families are strong and do well, children do well. Likewise, when communities are strong, families are strong. Critical for all families are those attributes that strengthen individuals as well as the family itself.

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

Six Urban Regional Agents and two Regional Agents utilized workshops, conferences, fairs and family day celebrations to increase individuals and families' understanding of how to effectively communicate, resolve conflict, manage stress and identify spending habits. The Family Advocacy through Caring Engagement Strategies, a family strengthening curriculum, was implemented as a series of five lessons or as a stand-alone program in urban areas of 12 counties.

#### **Results**

On average of more than 30 to 60 days after participation in the program, the frequency of the following actions of 109 participants increased significantly:

- l)deliberately created chances for family to spend more time together (t=2.73, p=.01).
- m)had open discussions with family members to share personal feelings, thoughts, weaknesses, strengths and dreams (t=2.30, p=.02).
- n)used negotiation skills when dealing with conflicts (t=6.06, p=.00).
- o)included children in financial decisions (t=2.14, p=.03).
- p)developed a written spending plan/budget and paid close attention to it (t=2.80, p=.01).
- q)practiced stress management techniques (t=6.47, p=.00).
- r)identified things that stressed them (t=3.22, p=.01).
- s)looked for signs of stress in family members (t=4.17, p=.01).

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being

#### Outcome #15

##### 1. Outcome Measures

Number of older adults who increased knowledge of independent living.

##### 2. Associated Institution Types

- 1890 Extension

##### 3a. Outcome Type:

Change in Knowledge Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	80

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

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

The elderly population in the United States is rapidly expanding. One out of every seven Americans (35 million) is over the age of 65. With the aging of the baby boomers, America's older population will double by 2030 (71.5 million), and will account for 19.6 percent (about 1 in 5) of the population. It is not uncommon for people, as they age, to be concerned about what the future will bring and whether they will be equipped to meet the challenges that lie ahead.

###### What has been done

The Seniors Can curriculum, a wellness program for older adults developed by the University of Nevada Cooperative Extension System, was used as an educational resource and guide. Additionally, An Overview of Elder Law, A Gift for Your Family, and LegalEASE publications, and

Estate Planning Basics, A Guide to Life Organization were used. The program was implemented by use of classes, workshops, seminars, family day programs, conferences, support groups, etc.

**Results**

Based on the pretest and posttest results, the knowledge of 45 to 80 participants increased significantly relative to:

- a) distinguishing at least five agencies/organization that could help them with obtaining food when needed (t = 1.95, p = .01)
- b) knowing at least five local resources for obtaining paid work for older adults (t = 3.50, p = .01)
- c) knowing at least five local resources that provide educational opportunities for older adults (t = 3.62, p = .00)
- d) knowing at least five organizations that are of interest to older adults (t = 3.09, p = .01)
- e) knowing at least five ways to cut cost on prescription medication (t = 2.13, p = .04)
- f) knowing at least five ways to cut cost on cleaning products (t = 2.02, p = .04)
- g) knowing the correct temperature for protecting foods until they are eaten (t = 2.87, p = .01)

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
802	Human Development and Family Well-Being

**Outcome #16**

**1. Outcome Measures**

Number of older adults who are better prepared for independent living.

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	136

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

**Issue (Who cares and Why)**

The elderly population in the United States is rapidly expanding. One out of every seven Americans (35 million) is over the age of 65. With the aging of the baby boomers, America's older population will double by 2030 (71.5 million), and will account for 19.6 percent (about 1 in 5) of

the population. It is not uncommon for people, as they age, to be concerned about what the future will bring and whether they will be equipped to meet the challenges that lie ahead.

**What has been done**

The Seniors Can curriculum, a wellness program for older adults developed by the University of Nevada Cooperative Extension System, was used as an educational resource and guide. Additionally, An Overview of Elder Law, A Gift for Your Family, and LegalEASE publications, and Estate Planning Basics, A Guide to Life Organization were used. The program was implemented by use of classes, workshops, seminars, family day programs, conferences, support groups, etc.

**Results**

The following actions occurred because of participation in the Successful Aging:  
One hundred and thirty six participants developed a Will  
One hundred and thirty six participants developed a Power of Attorney  
One hundred and thirty six participants developed a Health Care Proxies

**4. Associated Knowledge Areas**

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

**Outcome #17**

**1. Outcome Measures**

Number of youth with increased interest in science, engineering, and technology careers

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	90

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

**Issue (Who cares and Why)**

It is becoming increasingly important that we ensure that our youth develop the skills and abilities needed to remain competitive in the 21st century in the areas of STEM. The most successful next age leaders and professionals will be those who possess the prerequisite critical thinking and problem solving skills that prepare them to respond to challenges at home, on the job and in their

communities.

**What has been done**

188 urban youth participated in hands-on science, engineering, technology, and mathematics workshops and activities conducted by extension agents, faculty and staff and community volunteers

**Results**

Increased skills and knowledge in science, engineering and technology concepts, applications and transfers. Evaluation results of TNT Conference: 63% of participants improved knowledge in selecting a college to attend, 58% of participants improved knowledge in choosing a career in science; 39% of the participants improved knowledge about solar cars; 63% improved knowledge in setting personal goals(N=90)

STEM Day Evaluation: 73% of participants improved knowledge in forensic science; 61% of participants improved knowledge in careers in science; 56% of participants improved knowledge in water conservation(N=65)

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
806	Youth Development

**Outcome #18**

**1. Outcome Measures**

Number of youth who increased interest in science, engineering, and technology careers

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	65

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

**Issue (Who cares and Why)**

It is becoming increasingly important that we ensure that our youth develop the skills and abilities needed to remain competitive in the 21st century in the areas of STEM The most successful next

age leaders and professionals will be those who possess the prerequisite critical thinking and problem solving skills that prepare them to respond to challenges at home, on the job and in their communities.

**What has been done**

65 urban youth participated in hands-on science, engineering, technology, and mathematics workshops and activities conducted by extension agents, faculty and staff and community volunteers (AAMU STEM Day).

**Results**

Increased skills and knowledge and behavior in science, engineering and technology concepts, applications and transfers. STEM Day Evaluation: 34% of participants said yes to pursuing a career in science while 47% indicated maybe. 17% indicated already taking advanced science or math courses while 38% said maybe and 24% indicated they would. 5% of participants indicated they already enrolled in a pre-college science or math course while 46% said maybe and 37% said yes. 6% indicated they already participating in a summer STEM or internship program while 25% said yes they would and 46% maybe(N=65).

**4. Associated Knowledge Areas**

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

**Outcome #19**

**1. Outcome Measures**

The number of urban youth who increased knowledge of life skills

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	1587

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

**Issue (Who cares and Why)**

TMI/CYFAR TMI-An increasing number of youth are lacking the ability and life skills to make healthy and informed choices on matters that may impact their lives in a negative way.

**What has been done**

TMI-A series of five interactive life skills classes has been provided throughout the state addressing areas that include life choices, health/physical fitness, etiquette, career focus and civic education. CYFAR TMI-The program operated concurrently for a twelve-week period focusing on life skills, character education, civic education, career focus and leadership topics., the first curriculum series consisted of five-one hour lessons and a culminating community service project. The second curriculum series consisted of six one hour leadership lessons and educational workshops.

**Results**

1176 youth completed the TMI program. Evaluation data indicated an increased knowledge in decision making skills (73%); increased knowledge in health and physical fitness(73.%); increased knowledge in choosing a career(78%.)(N=712).

**4. Associated Knowledge Areas**

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

**Outcome #20**

**1. Outcome Measures**

The number of urban youth who increased life skills

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	411

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

**Issue (Who cares and Why)**

TMI/CYFAR TMI-An increasing number of youth are lacking the ability and life skills to make healthy and informed choices on matters that may impact their lives in a negative way.

**What has been done**



CYFAR TMI-The program operated concurrently for a twelve-week period focusing on life skills, character education, civic education, career focus and leadership topics., the first curriculum series consisted of five-one hour lessons and a culminating community service project. The second curriculum series consisted of six one hour leadership lessons and educational workshops.

**Results**

411 students combined from each of the three sites, Mobile, Morgan, & Colbert Participated in the post assessment:\*49% of teens reported that they make healthy eating choices to reduce health risks. 83% of the 411 teens reported that they are physically active 70% of teens reported that they felt as smart as others; 82% of teens reported that their appearance mattered to them; 81% of teens reported that they believed that managing stress in an important way; 91% of teens reported that before making a decision, they would think about how their choices would affect their future.; 82% of teens who participated in the CYFAR TMI program reported that they knew which career they would like to pursue and 94% of CYFAR TMI teens reported that they had set goals for themselves.

**4. Associated Knowledge Areas**

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

**Outcome #21**

**1. Outcome Measures**

The number of youth who increased in knowledge the negative effects of drug use.

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	3915

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

**Issue (Who cares and Why)**

Middle school age youth are continuing to be involved with illicit drugs, alcohol, and tobacco usage.

**What has been done**

Seven Urban regional extension agents reached 3915 program participants with each youth having completed a minimum of 10 hours of educational training on the 4-H Health Rocks curricula. Fifty-one (51) sites were organized across the state for program implementation including, local school systems, afterschool care and summer programs, Boys and Girls Clubs, and faith-based institutions. Additionally, 95 youth and adult volunteers provided instructional and leadership support for the 4-H Health Rocks! Program.

**Results**

Evaluative data indicate an increased knowledge of the negative effects of drug usage. After training 96% (N=2042) youth showed an increased in knowledge about health effects of smoking compared to 91.2% (N=1941) before training t-test 14.95\*\*\* p<.001 ( N= 2128)

**4. Associated Knowledge Areas**

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

**Outcome #22**

**1. Outcome Measures**

The number of youth who learned how to handle stress

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	2102

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

**Issue (Who cares and Why)**

Middle school age youth are continuing to be involved with illicit drugs, alcohol, and tobacco usage.

**What has been done**

Seven Urban regional extension agents reached 3915 program participants with each youth having completed a minimum of 10 hours of educational training on the 4-H Health Rocks

curricula. Fifty-one (51) sites were organized across the state for program implementation including, local school systems, afterschool care and summer programs, Boys and Girls Clubs, and faith-based institutions. Additionally, 95 youth and adult volunteers provided instructional and leadership support for the 4-H Health Rocks! Program.

## Results

After training youth showed an increase 91.3% (1919) in how to better handle stress compared to 80.7% (N=1696) prior to training t-test 17.49\*\*\* p<.001 (N=2102)

### 4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

#### Outcome #23

##### 1. Outcome Measures

The number of VIP Leaders with increased knowledge of leadership and community service opportunities

##### 2. Associated Institution Types

- 1890 Extension

##### 3a. Outcome Type:

Change in Knowledge Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	32

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

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

Volunteers are a vital asset to ACES and they play an integral role in planning, implementing, and enhancing Urban Program outreach efforts.

###### What has been done

Networking opportunities were provided through the VIP and AAMU Service Learning program. Over 4000 students and VIPs provided a combined total of over 73,000 clock hours which equates to a monetary value of over 1.7 million dollars in financial savings to the agency.

## Results

Increased awareness of ACES and Urban Affairs and New Nontraditional Programs Unit; volunteers became better leaders and use the skills to improve their community; Increased knowledge of basic technical, office, and computer skills; improved knowledge of volunteer opportunities with the community; volunteers increased their knowledge by 70% in areas of communication and leadership skills(VIP Leadership Conference)N=32)

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

#### Outcome #24

##### 1. Outcome Measures

Number of youth who increased knowledge in Relationship Smarts Plus

##### 2. Associated Institution Types

- 1862 Extension

##### 3a. Outcome Type:

Change in Knowledge Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	3393

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

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

Youth conflict management, interpersonal skills, social support skills,, dating violence awareness, communication skills, and financial management skills are essential positive youth behaviors.

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

176 series of 6-8 classes were offered in FCS and Health classes at various high schools around the state. 32 relationship educators/agents partnered with the project leader and delivered Relationship Smarts Plus for youth in various settings (i.e., during school, afterschool, youth detention facilities) across the state. Relationship Smarts Plus is a 6-8 week program that teaches youth conflict management, interpersonal skills, social support skills, dating violence awareness, communication skills, and financial management skills. 3393 youth completed the Relationship Smarts Plus program. 38% are African American, 51% are White, 3% are Hispanic or Latino, 5% are biracial, 1% are Asian, and 1% are Native American . 58% are female and 42% are male. 16% lived in large cities or urban areas and the other 84% lived in rural townships. 41% of youth had a mother with a high school degree or less. 57% were not currently in dating relationships. Following an approved IRB protocol for informed consent, data were collected from participants on pre-program and post-program surveys. Data were entered

into a centralized database and pre and post surveys were matched by participant identification code.

**Results**

Paired sample t-tests were conducted on composite scores of multi-item measures. Youth participants showed statistically significant ( $p < .05$ ) improvement in the following outcome measures: 1. Individual functioning: care for self, conflict management skills, social support skills, conflict resolution skills, dating violence awareness, financial management skills, depression/distress, and overall stress; 2. Dating relationship functioning: understanding of significant other, care for significant other, communication skills in relationship, and commitment to healthy dating relationship; 3. Parent-child relationship functioning: understanding of parents, care for parents, and commitment to healthy relationship with parents; and 4. Peer relationship functioning: understanding of peers, care for peers, and commitment to healthy relationship with peers.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
802	Human Development and Family Well-Being
806	Youth Development

**Outcome #25**

**1. Outcome Measures**

Number of Children who increase interpersonal skills

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	130

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

**Issue (Who cares and Why)**

Bullying, particularly among school-age children, is a major public health concern internationally, nationally, and in the state of Alabama (Nansel, Craig, Overpeck, Saluja, & Ruan, 2004). The state of Alabama has legally mandated that all schools adopt measures to prevent harassment in schools and create a plan of action when bullying is reported (Crane, 2012). While some schools in the state have active programs, many do not. This program addresses the issue of bullying by

providing schools with a curriculum that will enhance their understanding and efficacy around preventing the culture of bullying behaviors.

**What has been done**

Regional Extension Agents and County Agents implemented the Be SAFE curriculum across the state. Be SAFE is a 7 week series program focused on promoting social and emotional learning, addressing and reducing bullying, and developing positive relationships among peers.

**Results**

Statistically significant increases were documented for beliefs and perceptions concerning peer roles in stopping bullying behaviors

Statistically significant increases were documented in understanding strategies for regulating emotions.

Statistically significant increases in understanding how to identify healthy and unhealthy peer relationships.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
802	Human Development and Family Well-Being
806	Youth Development

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

**External factors which affected outcomes**

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

**Brief Explanation**

Competition for classroom time, weather, wear and tear of equipment, the inherent dangers of active groups of young people, appropriate classroom conditions to engage youth in experiential learning, the cost of providing the materials for programming, and the time and effort to create environments where experiential learning can happen. Fire drills, students late to class, classroom interruptions, sick youth that did not complete all sessions. Volunteers that do not follow through.

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

**Evaluation Results**

Based on pretest and posttest results, 391 participants' level of **knowledge** increased

significantly regarding:

1. their family's strengths (t = 6.36 , p = .00)
2. ways to strengthen their family (t = 8.16, p = .00)
3. the effects of stress on the body (t =9.03 , p = .00 )
4. the ripple effect of stress on the family (t =8.62 , p = .00)
5. appropriate methods for handling conflict (t =9.85 , p =.00)
6. how to reach agreements in which everyone wins or feels okay about the decision made (t =9.34, p =.00)

On average of more than 30 to 60 days after participation in the program, the frequency of the following **actions** of 109 participants increased significantly:

1. deliberately created chances for family to spend more time together (t=2.73, p=.01).
2. used negotiation skills when dealing with conflicts (t=6.06, p=.00).
3. included children in financial decisions (t=2.14, p=.03).
4. developed a written spending plan/budget and paid close attention to it (t=2.80, p=.01).
5. practiced stress management techniques (t=6.47, p=.00).
6. identified things that stressed them (t=3.22, p=.01).

63% of participants improved knowledge in selecting a college to attend, 58% of participants improved knowledge in choosing a career in science; 39% of the participants improved knowledge about solar cars; 63% improved knowledge in setting personal goals(N=90) STEM Day Evaluation: 73% of participants improved knowledge in forensic science; 61% of participants improved knowledge in careers in science; 56% of participants improved knowledge in water conservation(N=65)

411 students combined from each of the three sites, Mobile, Morgan, & Colbert Participated in the post assessment:\*49% of teens reported that they make healthy eating choices to reduce health risks. 83% of the 411 teens reported that they are physically active 70% of teens reported that they felt as smart as others; 82% of teens reported that their appearance mattered to them; 81% of teens reported that they believed that managing stress in an important way; 91% of teens reported that before making a decision, they would think about how their choices would affect their future.; 82% of teens who participated in the CYFAR TMI program reported that they knew which career they would like to pursue and 94% of CYFAR TMI teens reported that they had set goals for themselves.

#### **TMI Youth Comments**

**" I learned about the keys to character and how I am going to be more respectful and definitely more honest and how I want my character to be great when people are and aren't around."**

**"In the future I plan on using every single key in life. I plan on being honest with everyone. I plan on caring for others and their feelings, treating people the way I would want to be treated and help everyone in my community."**

**"I learned how to eat right and eat healthy. Every last Wednesday I have been trying to eat healthy I've bought fruit and have been exercising before I go to bed."**

**After training youth showed an increase 91.3% (1919) in how to better handle stress compared to 80.7% (N=1696) prior to training t-test 17.49\*\*\* p<.001 (N=2102)**

#### **Key Items of Evaluation**

Based on 109 pretest and posttest results, on average of more than 30 to 60 days after participation in the program, the frequency of the following **actions** of 109 participants increased significantly:

1. deliberately created chances for family to spend more time together ( $t=2.73$ ,  $p=.01$ ).
2. used negotiation skills when dealing with conflicts ( $t=6.06$ ,  $p=.00$ ).
3. included children in financial decisions ( $t=2.14$ ,  $p=.03$ ).
4. developed a written spending plan/budget and paid close attention to it ( $t=2.80$ ,  $p=.01$ ). e) practiced stress management techniques ( $t=6.47$ ,  $p=.00$ ). f) identified things that stressed them ( $t=3.22$ ,  $p=.01$ ).

63% of participants improved knowledge in selecting a college to attend, 58% of participants improved knowledge in choosing a career in science; 39% of the participants improved knowledge about solar cars; 63% improved knowledge in setting personal goals(N=90) STEM Day Evaluation: 73% of participants improved knowledge in forensic science; 61% of participants improved knowledge in careers in science; 56% of participants improved knowledge in water conservation(N=65)

411 students combined from each of the three sites participated in the post assessment:\*49% of teens reported that they make healthy eating choices to reduce health risks. 83% of the 411 teens reported that they are physically active 70% of teens reported that they felt as smart as others; 82% of teens reported that their appearance mattered to them; 81% of teens reported that they believed that managing stress in an important way; 91% of teens reported that before making a decision, they would think about how their choices would affect their future.; 82% of teens who participated in the CYFAR TMI program reported that they knew which career they would like to pursue and 94% of CYFAR TMI teens reported that they had set goals for themselves.

**TMI Youth Comments " I learned about the keys to character and how I am going to be more respectful and definitely more honest and how I want my character to be great when people are and aren't around." ; "In the future I plan on using every single key in life. I plan on being honest with everyone. I plan on caring for others and their feelings, treating people the way I would want to be treated and help everyone in my community.";"I learned how to eat right and eat healthy. Every last Wednesday I have been trying to eat healthy I've bought fruit and have been exercising before I go to bed."**

Based on paired-sample t-tests conducted on multi-item indicators, statistically significant ( $p < .05$ ) improvement was documented for the following outcome measures: 1. Individual functioning: self-care, financial management skills, depression, conflict management skills, and connections to social support; 2. Couple/marital relationship functioning: domestic violence awareness, connection, understanding of significant other, caring toward significant other ,couple quality; 3. Parenting: child maltreatment awareness; 4. Co-parenting relationship functioning: understanding of co-parent, caring toward co-parent.

Happy couples are better couples, better workers and better community members which impacts the economic well-being of communities.



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

**Program # 8**

**1. Name of the Planned Program**

Economic and Community Development

Reporting on this Program

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

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
601	Economics of Agricultural Production and Farm Management	0%	20%		
605	Natural Resource and Environmental Economics	15%	10%		
608	Community Resource Planning and Development	70%	50%		
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	10%	10%		
805	Community Institutions, Health, and Social Services	5%	10%		
	<b>Total</b>	100%	100%		

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

1. Actual amount of FTE/SYs expended this Program

Year: 2014	Extension		Research	
	1862	1890	1862	1890
<b>Plan</b>	14.3	1.2	0.0	0.0
<b>Actual Paid</b>	24.0	3.4	0.0	0.0
<b>Actual Volunteer</b>	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
253671	175567	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
482857	192296	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
1455966	389077	0	0

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

**1. Brief description of the Activity**

The primary activities in this area are individualized community, county, and regional economic and community development programs. The planned program activities and projects for these include:

**Education and Training**

- Conducted Impact Alabama Roundtable, an executive economic development training program for Alabama's top economic developers
- Conducted two-week Intensive Economic Development Training Course
- Conducted online entrepreneurship and business development training
- Administered AU Graduate Minor in Economic Development
- Conducted Alabama-Mississippi Rural Tourism Conference
- Conducted online community development and leadership training
- Conducted social media entrepreneurship and business development support activities

**Connections and Partnership**

- Managed the Alabama Communities of Excellence program which focuses on communities with populations between 2,000 and 18,000
  - Administered the Alabama Community Leaders Network and conducted annual conference and midyear meeting
  - Partnered with Tuskegee University on the Black Belt Leadership project in providing series of leadership workshops throughout 12 target counties in west Alabama
  - Participated on economic and community development advisory boards throughout the state
  - Partnered with AAMU and other institutions and agencies to organize and conduct programs to support community development in urban environments

**Research and Communications**

- Published quarterly Extension ACTION newsletter
- Published and disseminate research on topics relevant to state economic and community development policy and practice
  - Developed economic impact/forecast models for local communities using software from EMSI (Economic Modeling Specialists)
  - Maintained online resources to support the creation of businesses and creation of entrepreneurs with a focus on small businesses and limited resource audiences

**Consulting, Community Support & Engagement**

- Administered Rural Alabama Initiative grant program

- Developed Elected Officials Alliance in Pickens County that brought together all mayors and county commissioners for monthly engagement and planning sessions
- Facilitated community and regional strategic planning, assessment and asset mapping efforts throughout the state that engaged over 300 citizen leaders in deliberation and action planning
- Coordinated a pilot Grassroots Leadership Initiative in three counties featuring civic engagement, planning and leadership development activities
  - Facilitated deliberative forums, roundtables and town meetings
  - Supported regional efforts to promote tourism
  - Continued communication and support for community organizations focused on developing Entrepreneurship programs and or initiatives
- Supported regional efforts to promote entrepreneurship by local municipalities and chambers of commerce

**Virtual Entrepreneurship Center**

- Administered the VEC online network consisting of 2500 individuals - project has members tied into the VEC from: Facebook, LinkedIn, Twitter, and YouTube. There were over 1200 visitors to the online video archives.
  - Increased the online video library and redesigned the website
  - Launched Entrepreneurship Basic Course and Micro-grant program

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

The primary target audiences are current and future community leaders, decision makers, and local and state governmental officials in all communities across the state. The VEC targets individuals contemplating starting a business or preparing for future entrepreneurial endeavors. The target audience also includes existing entrepreneurs looking for additional training and support for current and future ventures. The project focuses on providing services to new and nontraditional populations that may be underserved by traditional entrepreneurship training activities.

**3. How was eXtension used?**

eXtension was used to identify webinars that would be of interest to the 79 Alabama Cooperative Extension System professionals who make up the Economic and Community Development Program Priority Team. Each week economic and community development webinars along with small business webinars are highlighted and sent to each team member. eXtension is one of the key resources used in the identification of these webinars. Furthermore several team members participated on communities of practice within eXtension, such as the new Tourism and Recreation community of practice.

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

**1. Standard output measures**

2014	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	15338	59188	2672	20715

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

**Patent Applications Submitted**

Year: 2014  
 Actual: 0

**Patents listed**

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

**Number of Peer Reviewed Publications**

2014	Extension	Research	Total
Actual	0	0	0

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

**Output Target**

**Output #1**

**Output Measure**

- This program area will include numerous output activities and methods as part of the Extension Team Projects (ETPs) which are described/explained in Section V(F). The success of many of these outcomes will be formally evaluated/measured by using individual activity evaluation forms designed specifically for each activity, the success of other activities and projects will be measured by the level of participation in the activity.  
 Not reporting on this Output for this Annual Report

**Output #2**

**Output Measure**

- The number of VEC activities conducted

Year	Actual
2014	26

**Output #3**

**Output Measure**

- The number of Participants in the VEC

Year	Actual
2014	1824

**Output #4**

**Output Measure**

- The number of training modules developed

<b>Year</b>	<b>Actual</b>
2014	29

**Output #5**

**Output Measure**

- Number of Rural Alabama Initiative (RAI) grants awarded to County Extension Coordinators by the Economic and Community Development Institute.

<b>Year</b>	<b>Actual</b>
2014	9

**Output #6**

**Output Measure**

- Dollar amount of Rural Alabama Initiative (RAI) grants awarded to County Extension Coordinators by the Economic and Community Development Institute.

<b>Year</b>	<b>Actual</b>
2014	28000

**Output #7**

**Output Measure**

- The number of programs coordinated by ECDI to improve economic and community development in counties across Alabama.

<b>Year</b>	<b>Actual</b>
2014	268

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

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

O. No.	OUTCOME NAME
1	Outcomes from this program area include: a) Number of community and economic development projects conducted, b) Community and economic development training resources developed, c) Number of community and economic development programs conducted, and d) number of educational grant projects funded.
2	Each ACES employee is required to provide a success story on the program activity which they felt best demonstrates the impacts of their work. These success stories contain the following elements: a) Why - Explain the reason the program was done, or the situation or problem that the program addressed; b) What - Specifically what was done and how it was done; c) When - If this was a one-time event, the date it occurred. If it is was a series of events, or an on-going program, when it began; d) Where - Specific location-- the county or counties involved; e) Who and how many - The "who" includes both who did the program and who were the clients of the program, as well as how many people were served; f) So what - This is the part that gives the real meaning to "success." The basic question to be answered in this part is "what difference did this program make." The difference may be measured in terms of dollars, or in changes in habits, lifestyles or attitudes. Whenever possible use numbers to show the effect of the program. If it is not possible to use numbers, provide a qualitative measurement like client comments or another type of testimonial about the program. Since the Economic and Community Development program area is very broad in scope and contains multiple Extension Team Projects which have different outcomes measures, the impacts for this program area are best measured in the number and quality of the success stories generated by the individuals who work on these projects. Therefore, one very significant outcome measure is the number of success stories generated.
3	Number of participants increasing leadership skills
4	The number of individuals who utilized training from the VEC to improve their business

**Outcome #1**

**1. Outcome Measures**

Outcomes from this program area include: a) Number of community and economic development projects conducted, b) Community and economic development training resources developed, c) Number of community and economic development programs conducted, and d) number of educational grant projects funded.

Not Reporting on this Outcome Measure

**Outcome #2**

**1. Outcome Measures**

Each ACES employee is required to provide a success story on the program activity which they felt best demonstrates the impacts of their work. These success stories contain the following elements: a) Why - Explain the reason the program was done, or the situation or problem that the program addressed; b) What - Specifically what was done and how it was done; c) When - If this was a one-time event, the date it occurred. If it is was a series of events, or an on-going program, when it began; d) Where - Specific location-- the county or counties involved; e) Who and how many - The ?who? includes both who did the program and who were the clients of the program, as well as how many people were served; f) So what - This is the part that gives the real meaning to ?success.? The basic question to be answered in this part is ?what difference did this program make.? The difference may be measured in terms of dollars, or in changes in habits, lifestyles or attitudes. Whenever possible use numbers to show the effect of the program. If it is not possible to use numbers, provide a qualitative measurement like client comments or another type of testimonial about the program. Since the Economic and Community Development program area is very broad in scope and contains multiple Extension Team Projects which have different outcomes measures, the impacts for this program area are best measured in the number and quality of the success stories generated by the individuals who work on these projects. Therefore, one very significant outcome measure is the number of success stories generated.

Not Reporting on this Outcome Measure

**Outcome #3**

**1. Outcome Measures**

Number of participants increasing leadership skills

**2. Associated Institution Types**

- 1862 Extension
- 1890 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	180

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

**Issue (Who cares and Why)**

Active engagement, connections among public, private, and education sector stakeholders, and strong local leadership are essential requirements for successful local community and economic development. The importance of working together to deal with crisis and the value of tourism to the economy are two important lessons learned from recent natural and man-made disasters. Many communities may have good community leadership with excellent ideas for projects that would enhance local community and economic development. What they may lack is a source of funding to seed those local projects.

**What has been done**

Rural Alabama Initiative (RAI) grant program was created to provide seed money for worthwhile community initiatives. Priority was given to projects featuring collaborations among organizations and jurisdictions in rural Alabama with a focus on youth and adult leadership programs. Promoted education and training in economic development through the Intensive Economic Development Training Course, in leadership development through Alabama Community Leadership Network Conference, and in tourism development through annual Alabama-Mississippi Rural Tourism Conference. Leadership specialists and County Extension Coordinators have conducted conferences, workshops and roundtables

**Results**

ECDI funded 9 Rural Alabama Initiative projects for 2014 at a total of \$28,000, many focusing on community development, engagement, and youth leadership. The RAI grant application process was very competitive. The grants funded 3 youth leadership programs and 3 adult leadership programs as well as an engagement project in another county that brought together all mayors and county commissioners for monthly engagement and planning sessions. The engagement project resulted in coordinated identification and prioritization of transportation, water system projects and public safety projects. Alabama Grassroots Initiative funded 4 communities to develop critical local projects. Strategic plans were developed for Washington County Economic Development Authority, Alexander City Economic Development Authority, Elmore County, and the 5-county region in Alabama Black Belt (Perry, Marengo, Sumter, Dallas and Wilcox counties) within the "Stronger Economies Together" project.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
605	Natural Resource and Environmental Economics
608	Community Resource Planning and Development
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services



## **Outcome #4**

### **1. Outcome Measures**

The number of individuals who utilized training from the VEC to improve their business

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

- 1862 Extension
- 1890 Extension

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

Change in Action Outcome Measure

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

<b>Year</b>	<b>Actual</b>
2014	312

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

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

Successful local community and economic development requires active engagement, connections among public, private, and education sector stakeholders, and strong local leadership. Of course, many communities may have good community leadership with excellent ideas for projects that would enhance local community and economic development. What they may lack is a source of funding to seed those local projects and provide training to local entrepreneurs. The VEC is designed to provide services to emerging entrepreneurs. These individuals are a part of the fastest growing sector in the state's economy, small business. State and local community leaders have placed a focus on the start-up and development of new small businesses. Based on current projections they will be a key part of the Alabama economy, tax base, and future employment outlook.

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

During this program year the VEC (through working with its advisory board, contacting program participants, and conducting research) has endeavored to stay abreast of changes in the business environment as well as the needs of emerging entrepreneurs. As a result of these efforts timely topics were selected for new module development and launched on the VEC platform and advertised through traditional mechanisms and via social media. As a result of these efforts 29 new training modules were introduced for program participants. These modules were grouped together to create the Entrepreneurship Basics Certificate program.

#### **Results**

Individuals participating in the Virtual Entrepreneurship Center were contacted through social media and via email to provide feedback on the program. Of the 59 certificate program participants 14 reported that they had either started a new business or used the information to significantly expand an existing business. Of the program participants 7 were awarded micro-

grants from external funders to develop their business.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
605	Natural Resource and Environmental Economics
608	Community Resource Planning and Development
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services

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

##### External factors which affected outcomes

- Economy
- Appropriations changes
- Other (Attitudes towards partnerships, digital divide within the state and target population)

##### Brief Explanation

The largest single external factor for the next several years is most likely to be the nation's and state's weak economies. This has put pressures on Extension and changes in budgeting priorities within ACES have steadily and dramatically reduced funding for the Rural Alabama Initiative program. Over the past seven years the budget for this program has been reduced by over 94%, starting with \$500,000 the initial year and reduced to \$28,000 in 2014.

Outcomes were also influenced by the willingness of external groups to work collaboratively. For the most part partnerships with universities (University of Alabama, Tuskegee, etc.), governmental agencies (ADECA, USDA, etc.), non-profits (Alabama Association of Community Development Corporations, Alabama Rural Health Association, etc.) and the private sector (Alabama Power, Regions Bank, etc.) have enhanced outcomes. However, in a few instances reluctant attitudes by agencies and groups have hindered outcomes

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

##### Evaluation Results

ECDI funded 9 Rural Alabama Initiative projects for 2014 at \$28,000, many focusing on community development, engagement, and youth leadership. Results included:

- Pickens Co elected officials engagement project brought city and county elected officials together on a monthly basis to discuss opportunities for cooperative problem solving. Projects identified through these meetings included transportation, water system projects and public safety projects.
- The Lauderdale Co workforce development project brought over 100 local educators together with 5 area business and industry leaders to discuss areas of mutual concern. The project has resulted in a much stronger alignment of private business needs with the education community. School counselors, teachers and principals are much more aware of the needs of business and area employers are more aware of what local schools can offer.

- The Talladega Co economic development roundtables project involved over 100 county residents interested in starting/expanding a small business. The roundtables project has resulted in 5 individuals deciding to start their own business.
- The 3 youth leadership projects in Bullock, Conecuh and Washington counties had 65 high school juniors and seniors participating. They demonstrated enhanced leadership skills through involvement in clubs, projects, initiatives and community service projects.
- Approximately 115 adults were involved in leadership training carried out in Barbour, Cleburne, and Macon counties. They demonstrated their new skills by taking on community projects following the training program. These projects ranged from community cleanup projects to projects aimed at improving local school systems.

Alabama Grassroots Initiative funded 4 communities to develop critical local projects. Strategic plans were developed for Washington Co Economic Development Authority, Alexander City Economic Development Authority, Elmore Co, and the 5-county region in Ala Black Belt (Perry, Marengo, Sumter, Dallas and Wilcox counties) within the "Stronger Economies Together" project. Plans are being implemented **that include sustainable community facilities such as pavilions used for reunions and wedding receptions.**

Individuals participating in the Virtual Entrepreneurship Center were contacted through social media and via email to provide feedback. Of the program participants that responded to the 83 % said that they were very or extremely likely to use this info in starting or developing a business and 26% said that they had used information to start or develop their business.

### Key Items of Evaluation

ECDI funded 9 Rural Alabama Initiative projects for 2014 at \$28,000, many focusing on community development, engagement, and youth leadership. Results included:

- Pickens Co elected officials engagement project brought city and county elected officials together on a monthly basis to discuss opportunities for cooperative problem solving. Projects identified through these meetings included transportation, water system projects and public safety projects.
- The Lauderdale Co workforce development project brought over 100 local educators together with 5 area business and industry leaders to discuss areas of mutual concern. The project has resulted in a much stronger alignment of private business needs with the education community. School counselors, teachers and principals are much more aware of the needs of business and area employers are more aware of what local schools can offer.
- The Talladega Co economic development roundtables project involved over 100 county residents interested in starting/expanding a small business. The roundtables project has resulted in 5 individuals deciding to start their own business.
- The 3 youth leadership projects in Bullock, Conecuh and Washington counties had 65 high school juniors and seniors participating. They demonstrated enhanced leadership skills through involvement in clubs, projects, initiatives and community service projects.
- Approximately 115 adults were involved in leadership training carried out in Barbour, Cleburne, and Macon counties. They demonstrated their new skills by taking on community projects following the training program. These projects ranged from community cleanup projects to projects aimed at improving local school systems.
- Alabama Grassroots Initiative funded 4 communities to develop critical local projects. Strategic plans were developed for Washington Co Economic Development Authority, Alexander City Economic Development Authority, Elmore Co, and the 5-county region in Ala Black Belt (Perry, Marengo, Sumter, Dallas and Wilcox counties) within the "Stronger Economies Together" project. Plans are being implemented **that include sustainable community facilities such as pavilions used for reunions and wedding receptions.**

- Individuals participating in the Virtual Entrepreneurship Center were contacted through social media and via email to provide feedback. Of the program participants that responded to the 83 % said that they were very or extremely likely to use this info in starting or developing a business and 26% said that they had used information to start or develop their business.

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

**Program # 9**

**1. Name of the Planned Program**

Environmental Stewardship

Reporting on this Program

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

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships	10%	10%		
104	Protect Soil from Harmful Effects of Natural Elements	10%	10%		
111	Conservation and Efficient Use of Water	10%	10%		
112	Watershed Protection and Management	10%	20%		
123	Management and Sustainability of Forest Resources	10%	0%		
131	Alternative Uses of Land	10%	0%		
132	Weather and Climate	10%	0%		
133	Pollution Prevention and Mitigation	10%	10%		
135	Aquatic and Terrestrial Wildlife	10%	0%		
136	Conservation of Biological Diversity	5%	0%		
403	Waste Disposal, Recycling, and Reuse	5%	20%		
723	Hazards to Human Health and Safety	0%	20%		
	<b>Total</b>	100%	100%		

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

1. Actual amount of FTE/SYs expended this Program

Year: 2014	Extension		Research	
	1862	1890	1862	1890
<b>Plan</b>	16.2	3.8	0.0	0.0
<b>Actual Paid</b>	38.1	1.9	0.0	0.0
<b>Actual Volunteer</b>	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
627376	98831	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
767113	108249	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
3065911	205731	0	0

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

### 1. Brief description of the Activity

The Alabama Outdoor Classroom (AOC) program provides guidance to develop outdoor classrooms on school campuses and provide professional development workshops for educators and those that work with youth. 4-H Skins 'N Skulls program provides hands-on lessons for youth to learn about wildlife, native habitats, and the larger ecosystems in which we all coexist. Mobile Bay Oyster Garden Program (MBOGP) is a volunteer restoration program. Volunteers grow oysters on private wharves for collection and planting on restoration sites. Watershed Management: Educational multi-team programs were conducted to integrate the link between land use and water quality. Topics include link between soils, forages, riparian forests, urban landscapes, and water quality. Actions include citizen science training and monitoring of waterways, implementation of BMPs, and engagement of decision makers. Alabama Smart Yards (ASY) projects offer residential landscape management solutions to reduce nonpoint source pollution associated with the everyday activities within a watershed. Professional Logger Manager (PLM) focuses on continuing education for professional loggers with regard to resource conservation, safety, and business management. The E-waste Institute offers education on the importance of properly managing electronic waste. Synergistic Efforts to Reduce Pharmaceuticals in the Environment offers resources that enable citizens to safeguard their home and the environment from pharmaceuticals and personal care products. The Urban Environmental Science Education Program utilizes in-school enrichment programs to improve environmental stewardship. Alabama Urban Home\*A\*Syst helps homeowners identify risks in and around the home and encourages them to take action. Waterwheels Program reaches out to Alabama citizens to engage them in hands-on learning activities about water conservation and intervention strategies.

### 2. Brief description of the target audience

The target audience includes youth, educators, volunteers, and other youth development professionals; coastal residents and visitors; landowners; homeowners; elected officials; farmers; loggers; poultry growers; consumers of horticulture goods and services; citizens, and land managers.

### 3. How was eXtension used?

The All Bugs Good and Bad series of nine webinars was coordinated, delivered, and recorded. Webinars were delivered to a live audience, and recording made available. The webinar series was co-sponsored by Fire Ant eXtension. Webinars were delivered using eXtension's Adobe Connect Software. Topics included management of fire ants, ticks, termites, pollinator health, and mosquitoes.

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

**1. Standard output measures**

2014	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	61809	2605966	15225	2500

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

**Patent Applications Submitted**

Year: 2014  
 Actual: 0

**Patents listed**

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

**Number of Peer Reviewed Publications**

2014	Extension	Research	Total
<b>Actual</b>	0	0	0

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

**Output Target**

**Output #1**

**Output Measure**

- ACES will reach both adult and youth audiences, agricultural producers, homeowners, agribusinesses, and rural and urban populations through participation in workshops, targeted PPT programs, 4-H enrichment programs, 4-H Club meetings, Coosa River Science School, media exposure, websites, partnerships, and curriculum.  
 Not reporting on this Output for this Annual Report

**Output #2**

**Output Measure**

- Number of trained volunteers to produce, collect, and plant oysters in restoration areas in Mobile Bay

Year	Actual
2014	82

**Output #3**

**Output Measure**

- Number of individuals participating in meetings focused on Watershed Management and Stormwater Best Management Practices

<b>Year</b>	<b>Actual</b>
2014	2235

**Output #4**

**Output Measure**

- Number of individuals who participated in water monitoring educational activities

<b>Year</b>	<b>Actual</b>
2014	793

**Output #5**

**Output Measure**

- Number of individuals participating in Alabama Urban Home\*A\*Syst workshop series.

<b>Year</b>	<b>Actual</b>
2014	68

**Output #6**

**Output Measure**

- Number of individuals participating in meetings focused on Nutrient Management Planning for Poultry Growers

<b>Year</b>	<b>Actual</b>
2014	740

**Output #7**

**Output Measure**

- Number of participants reached in Alabama Smart Yards (ASY) face-to-face programs

<b>Year</b>	<b>Actual</b>
2014	4045

**Output #8**

**Output Measure**

- Number of participants engaging in continuing education Professional Logger Manager course.

<b>Year</b>	<b>Actual</b>
-------------	---------------



2014 1700

**Output #9**

**Output Measure**

- Number of participants engaging in continuing education Professional Logger Manager course.

<b>Year</b>	<b>Actual</b>
2014	1700

**Output #10**

**Output Measure**

- Number of participants in E-waste Institute face-to-face programs and activities.

<b>Year</b>	<b>Actual</b>
2014	472

**Output #11**

**Output Measure**

- Number of Synergistic Efforts to Reduce Pharmaceuticals in the Environment Activities.

<b>Year</b>	<b>Actual</b>
2014	28

**Output #12**

**Output Measure**

- Number of participants reached in Urban Environmental Science Education face-to-face programs.

<b>Year</b>	<b>Actual</b>
2014	415

**Output #13**

**Output Measure**

- Number of participants in live sessions of All Bugs Good and Bad webinar series.

<b>Year</b>	<b>Actual</b>
2014	834

**Output #14**

**Output Measure**

- Number of viewers to recorded sessions of All Bugs Good and Bad webinar series.

<b>Year</b>	<b>Actual</b>
2014	7929

**Output #15**

**Output Measure**

- Number of youth participants in the Alabama Outdoor Classroom Program.

<b>Year</b>	<b>Actual</b>
2014	2084

**Output #16**

**Output Measure**

- Number of youth participants in the Skins ?N Skulls Program.

<b>Year</b>	<b>Actual</b>
2014	10479

**Output #17**

**Output Measure**

- Number of youth participants in the Water Wheels Program.

<b>Year</b>	<b>Actual</b>
2014	2629

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

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

O. No.	OUTCOME NAME
1	-knowledge increase local and state environment -how one's action affect the environment - increased knowledge of environmental sustainability -understand value of local involvement - increased knowledge of career choices related to environmental stewardship
2	-increased respect for citizenry, community, and environment; -increased frequency of sustainability behaviors; -increased community service related to environmental stewardship; -inform the policy process as it relates to environmental stewardship; -increased implementation of environmental stewardship management practices
3	-increased perception of self-empowerment - ability to make a difference; -increased capacity for planning organizing, problem solving, decision-making, and teamwork to address problems; -Increased leadership skills; -increased number of citizens practicing environmental stewardship leading to a cleaner, safer environment; -increased capacity to create innovative solutions for complex environmental problems; -increased environmental stewardship advocacy; - revenue generation attributed to improved environmental sustainability; -increased use of alternative, renewable sources of energy
4	Increase citizen awareness of best management practices for residential landscapes
5	Increase adoption of principles taught: IPM, rain barrels installed, pruning for plant health/aesthetics, proper use of garden chemicals, right plant - right place, identification of invasive exotic plants, environmentally sound production of livestock and poultry
6	Increased knowledge and awareness of household hazards and their impact on the environment and human health; -Increased adoption of environmentally friendly homesite BMPs; -Modified behavior towards homesite and residential land management;-Increased conservation of soil and water resources; -Improved management of the household waste generated from urban and suburban homes
7	Number of oysters produced as a result of implementation of environmental stewardship management practices through local involvement.
8	Dollar value of the implementation of Stormwater Control Measures
9	Number of citizen science water monitoring data collection records submitted.
10	Number of individuals who adopted environmentally friendly home site best management practices (BMPs).
11	Percent of attendees who plan to adopt at least 1 BMP related to the proper storage and use of broiler litter
12	Number of individuals who adopted IPM practices taught in Smart Yards and All Bugs programs.
13	The value of the Professional Logging Manager Program to the attendees
14	Quantity of e-waste (pounds) recycled by citizens practicing improved environmental stewardship leading to a cleaner, safer environment

15	Percentage of individuals who adopted a recommended pharmaceutical best management practice (BMP)
16	Number of youth that improved their knowledge of environmental issues and concepts through the Urban Environmental Science Education Program.
17	Number of participants who adopted insect identification techniques for more efficient management of pest insects and protection of beneficial insects.
18	Number of Youth with an increased appreciation and understanding of our state's natural resources and environmental stewardship.
19	Number of Youth who increased their knowledge of native Alabama wildlife and wildlife habitat.
20	Percentage of youth that increased their knowledge of water conservation principles and practices.

**Outcome #1**

**1. Outcome Measures**

-knowledge increase local and state environment -how one's action affect the environment - increased knowledge of environmental sustainability -understand value of local involvement - increased knowledge of career choices related to environmental stewardship

Not Reporting on this Outcome Measure

**Outcome #2**

**1. Outcome Measures**

-increased respect for citizenry, community, and environment; -increased frequency of sustainability behaviors; -increased community service related to environmental stewardship; -inform the policy process as it relates to environmental stewardship; -increased implementation of environmental stewardship management practices

Not Reporting on this Outcome Measure

**Outcome #3**

**1. Outcome Measures**

-increased perception of self-empowerment - ability to make a difference; -increased capacity for planning organizing, problem solving, decision-making, and teamwork to address problems; - Increased leadership skills; -increased number of citizens practicing environmental stewardship leading to a cleaner, safer environment; -increased capacity to create innovative solutions for complex environmental problems; -increased environmental stewardship advocacy; - revenue generation attributed to improved environmental sustainability; -increased use of alternative, renewable sources of energy

Not Reporting on this Outcome Measure

**Outcome #4**

**1. Outcome Measures**

Increase citizen awareness of best management practices for residential landscapes

Not Reporting on this Outcome Measure

**Outcome #5**

**1. Outcome Measures**

Increase adoption of principles taught: IPM, rain barrels installed, pruning for plant health/aesthetics, proper use of garden chemicals, right plant - right place, identification of invasive exotic plants, environmentally sound production of livestock and poultry

Not Reporting on this Outcome Measure

**Outcome #6**

**1. Outcome Measures**

Increased knowledge and awareness of household hazards and their impact on the environment and human health; -Increased adoption of environmentally friendly homesite BMPs; -Modified behavior towards homesite and residential land management;-Increased conservation of soil and water resources; -Improved management of the household waste generated from urban and suburban homes

Not Reporting on this Outcome Measure

**Outcome #7**

**1. Outcome Measures**

Number of oysters produced as a result of implementation of environmental stewardship management practices through local involvement.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
-------------	---------------

2014

68770

### 3c. Qualitative Outcome or Impact Statement

#### Issue (Who cares and Why)

The Eastern Oyster, *Crassostrea virginica*, is of commercial and economic importance to the Mobile Bay. Oyster beds serve as habitat for about 300 different species of vertebrates and invertebrates which help form the food web of this estuarine ecosystem. Likewise, adult oysters help to improve water quality by filtering phytoplankton from as much as 4-gallons of water per hour. Thus, Oyster Restoration in Mobile Bay is important to the environment and the local economy as its tourism capabilities thrive on the ability to produce oysters.

#### What has been done

Mobile Bay Oyster Garden Program implemented by recruiting volunteers, producing spat on shell in partnership with AU Shellfish Laboratory and delivering spat on shell to Gardeners. Gardeners care for their spat on shell by cleaning, and removing predators from the gardens to allow for a protected nursery phase on a home-scale engaging with their ecosystem in the form of the mini reef found in the gardens. In November, gardens are collected and planted on restoration reef sites in and around Mobile Bay.

#### Results

The Mobile Bay Oyster Garden Program engaged 82-gardeners to produce 59,330-oysters of an average size of 46.1-mm, at 41 sites in Mobile Bay. Additionally, students at Alma Bryant High School produced 9,440-oysters on the restoration and enhancement sites.

### 4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
132	Weather and Climate
135	Aquatic and Terrestrial Wildlife
136	Conservation of Biological Diversity

### Outcome #8

#### 1. Outcome Measures

Dollar value of the implementation of Stormwater Control Measures

#### 2. Associated Institution Types

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	27500

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

**Issue (Who cares and Why)**

Working with local, state, and federal agencies to meet goals that include improved quality of life; safe, abundant drinking water; waters that meet their designated use standard; and increased awareness of new technologies to achieve these goals.

**What has been done**

ACES becomes the focal point for regional watershed planning ACES has assisted with implementing several place-based local watershed plans (Fowl River, Pintlala Creek, Choccolocco Creek, Parkerson Mill Creek, Saugahatchee Creek, Mill Creek, Mud Creek / Spring Creek, and Rock Creek). Initial investigations were made in the development of watershed plans for Cottonwood Creek and Turkey Creek. ACES is also involved at the river basin level with the Clean Water Partnership steering committees and at the state level with the Alabama Erosion and Sediment Control State Committee and Alabama Water Resource Association Committee. A "Pastures and Ponds" Field Day was developed to demonstrate the relationship between managing pastures for livestock and maintaining surface water quality. ACES is also the focal point for training professionals in the development and implementation of management practices to maintain and enhance water quality on farms with livestock and poultry. Watershed plans were developed. The ACES Water Program was awarded extramural funding to continue the implementation of the Mill Creek Watershed Plan in Lee and Russell Counties and is working with the Fowl River Watershed Planning Project in Mobile County. ACES representatives are actively involved in the Pintlala Creek Watershed Plan in Montgomery County.

**Results**

500 linear feet of stream enhanced or restored. Improved stormwater quality from implementation of 4 stormwater control measures; 14 agricultural BMPs, valued at \$27,500 completed. BMPs included waste management facilities, pasture improvements, stream crossings, and heavy use areas.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
104	Protect Soil from Harmful Effects of Natural Elements
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management

131	Alternative Uses of Land
135	Aquatic and Terrestrial Wildlife
403	Waste Disposal, Recycling, and Reuse

**Outcome #9**

**1. Outcome Measures**

Number of citizen science water monitoring data collection records submitted.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	3572

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

**Issue (Who cares and Why)**

The mission of AWW is to improve both water quality and water policy through citizen monitoring and action. Water monitoring workshops, watershed data interpretation, and water data-to-action presentations and publications enable watershed stakeholders to monitor local water quality conditions and become active participants in watershed management.

**What has been done**

AWW conducted 114 training sessions in 2014: thirty-four water chemistry workshops, 23 bacteriological workshops, four Exploring Alabama's Living Streams workshops, 31 re-certification sessions, four trainer refresher workshop, and five training-of-trainers were completed in 2014. AWW-certified citizen trainers conducted about 70% of the workshops. Monitor groups included public school groups, lake homeowner-boat owner groups, retiree groups, lake stakeholder groups, stream/river stakeholder groups, bay/estuary stakeholder groups, 4-H youth groups, Future Farmers of America groups, conservation groups, university student groups, and professional groups. Water monitoring and watershed stewardship outreach was extended to a broader audience via presentations at community meetings, professional meetings and conferences, along with regular publications of volunteer monitoring activities and success stories in various publications.

**Results**

A total of 793 certifications were awarded in 2014: 245 people were certified in water chemistry monitoring, 362 people were certified in bacteriological monitoring, 29 people were certified in Exploring Alabama's Living Streams, 125 people were recertified in water chemistry and/or



bacteriological monitoring, 8 citizen trainers were certified in the trainer-refresher workshop, eleven new citizen trainers were certified in training-of-trainer workshops, and 13 new trainers completed their intern workshops. AWW-certified water monitors contributed 3,572 additional water data records to the AWW online database in 2014. AWW water monitor workshops and water monitoring are routinely employed in the implementation of ADEM 319(h) watershed management plans throughout the state for both stewardship outreach and water data collection/watershed assessment. Municipal, county, university and state agencies also employ AWW monitoring for data collection, outreach and watershed management.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
135	Aquatic and Terrestrial Wildlife

**Outcome #10**

**1. Outcome Measures**

Number of individuals who adopted environmentally friendly home site best management practices (BMPs).

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	55

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

**Issue (Who cares and Why)**

Education and outreach programs that address emerging environmental issues and offer integrated approaches to help resolve them are critical in combating environmental illiteracy among urban and suburban home owners. In order to enhance decision-making, homeowners must understand that their actions are crucial to the protection of their health and the environment.

**What has been done**

Alabama Urban Home\*A\*Syst workshops were conducted to help homeowners identify risks or problems found in and around the home, and encourage them to take action. A total of 68

participants learned how to complete action checklists and perform environmental risk assessments. The majority of the participants surveyed identified runoff management, lawn and garden care, and managing household trash and waste prevention as "high risk" as it is related to their home and property; while storage and handling of automotive products was rated as a "low risk".

**Results**

Participants (n=68) showed increased knowledge in water quality; runoff management; lawn and garden; managing hazardous products; storing automotive products; household wastewater treatment; and managing trash and waste prevention. Of the 55 participants responding to 3 to 6 month follow-up surveys, 75% had adopted at least 2 of the recommended BMPs and 81% felt that the program enabled them to achieve a social (hazard free, securer home), environmental (protecting the environment from poor home site management practices) or economic (saving money ) expectation.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
403	Waste Disposal, Recycling, and Reuse
723	Hazards to Human Health and Safety

**Outcome #11**

**1. Outcome Measures**

Percent of attendees who plan to adopt at least 1 BMP related to the proper storage and use of broiler litter

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	92

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

**Issue (Who cares and Why)**

Poultry litter is a valuable commodity when handled, stored, and used properly and can be sold by producers to increase sustainability of the farm enterprise and to reduce phosphorus buildup on surrounding farm land. Boiler producers now sell much of their litter to row crop producers.

These new users of broiler litter are less knowledgeable regarding the property storage and use of litter.

**What has been done**

Row crop producers were targeted through 14-litter management meetings. Poultry producers have also been trained to provide key litter management tips to their customers who purchase litter.

**Results**

92% of litter management meeting participants plan to adopt at least one of the litter management BMPs.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
102	Soil, Plant, Water, Nutrient Relationships
104	Protect Soil from Harmful Effects of Natural Elements
112	Watershed Protection and Management
133	Pollution Prevention and Mitigation
403	Waste Disposal, Recycling, and Reuse

**Outcome #12**

**1. Outcome Measures**

Number of individuals who adopted IPM practices taught in Smart Yards and All Bugs programs.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	911

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

**Issue (Who cares and Why)**

Non-point source pollution is associated with land uses and every day activities of the people living within each watershed (EPA841-F-96-004A). Residential landscapes are one of these activity areas. Consumer spending related to horticulture goods was \$843 million in 2009. This has huge potential for environmental impact.

**What has been done**

79 workshops, demonstrations and webinars were conducted in 2014 on topics such as pest management in home landscapes (IPM), pollinator protection, pest/beneficial insect ID, home lawn fertility and management, water conservation and collection, and invasive pest species.

**Results**

87% of 1,040 participants (n=911) adopted the IPM practices promoted or taught during the programs. The webinar series, All Bugs Good and Bad was especially successful having 96% (n=404) of respondents saying "yes" they adopted the IPM techniques.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
136	Conservation of Biological Diversity

**Outcome #13**

**1. Outcome Measures**

The value of the Professional Logging Manager Program to the attendees

**2. Associated Institution Types**

- 1862 Extension
- 1890 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	87

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

**Issue (Who cares and Why)**

The Professional Logging Manager (PLM) Training Program began in the early 1990's to address professionalism of logging firms with regard to resource conservation, safety, and business management issues. The Sustainable Forestry Initiative (SFI) designated the program as the program in Alabama that satisfied SFI objectives in the mid 1990's. The need to demonstrate continuous improvement resulted in a continuing education requirement of six hours per year in 2002. ACES is responsible for curriculum development and preparation of trainers. Participation in the PLM program by SFI members and their contractors addresses criteria and indicators in the SFI certification system. The program has about 1700 active members and PLM training adds about 100 new participants each year.

**What has been done**

The program is held over 2 days and covers forest resource conservation, endangered species, conserving biodiversity, forest productivity through forest management, best management practices for water quality protection, and timber harvest planning. Also included are logging safety and compliance, business regulations, and logging business information and management tools. 130 participants attended the program in 2014.

**Results**

In the program evaluations the participants express that the information in the programs is new and valuable to them. Ratings range from 1.3 to 1.5 on a 5 point scale (1 = Strongly agree) with standard deviations from 0.5 to 0.7. The programs yield greater value than total cost of attendance (1.4). We have projected total direct cost of attendance at \$1000 per day. General program ratings were similar with 90 % of participants projecting that they plan to adopt (1.3) information or tools presented in the program. From the evaluations about 75% of the program participants were loggers, and collectively the participants manage or work on logging firms that account for about 15% of the annual harvest in Alabama.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
104	Protect Soil from Harmful Effects of Natural Elements
112	Watershed Protection and Management
123	Management and Sustainability of Forest Resources

**Outcome #14**

**1. Outcome Measures**

Quantity of e-waste (pounds) recycled by citizens practicing improved environmental stewardship leading to a cleaner, safer environment

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	10753

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

**Issue (Who cares and Why)**

Educational information to respond to community needs related to electronic waste (e-waste)

management is becoming increasingly important. The number of electronic products in households and businesses that are considered to be obsolete, broken, or irreparable is growing at an enormous rate. Continued production of e-waste in such a rapid manner creates a need for improved education and increased adoption of e-waste BMPs. The E-Waste Institute serves as a medium to educate, train, and influence public policies about safe environmental practices for e-waste.

**What has been done**

1) In 2014, 1503 lbs. of printer cartridges (921) and cell phones (69) were recycled through the small electronics recycling program (SERP) via Funding Factory, resulting in 839.22 lbs. of remanufactured items and 664.03 lbs. of recycled items. 2) Two city-wide e-waste recycling drives in 2014 led to 203 cars dropping off 9250 lbs. of e-waste. A survey of the participants (n=203) revealed that 56% of the individuals participating were female. It also revealed that participation among African Americans (19%) and other minorities (Asian >1) was low when compared to Caucasians (80%). The survey also revealed that 79% of the participants were recycling e-waste for the first time.

**Results**

A total of 10,753 lbs. of e-waste was recycled in 2014. 1) The 1503 lbs. of e-waste recycled through the SERP program led to the reclamation of 425.23 lbs. of precious resources (i.e., copper, steel, aluminum). Fourteen MtCO<sub>2e</sub> (metric ton carbon dioxide equivalent) were prevented through remanufacturing and recycling. This is equivalent to offsetting CO<sub>2</sub> emissions from the consumption of 1,670.64 gallons of gasoline or the consumption of 34.66 barrels of oil. Total earnings generated since development of the Funding Factory partnership equals \$746.88. 2) The economic and environmental gains observed from the 9250 lbs. of e-waste recycled via the city-wide e-waste drives totaled \$1,269.00 for 2200 lbs. of plastic (\$44.00), 3500 lbs. of metal (\$245.00); 300 lbs. of wire (\$240.00) and 600 lbs. of electrical units (\$240.00). The two e-waste drives deferred 14,930 lbs. of carbon emissions from entering the atmosphere. According to the EPA Waste Reduction Model (WARM) this equates to 2,533 gallons of gasoline conserved [@\$1.98 per gal. = \$5015.34], 576 trees saved, 21,638 plastic bottles recycled or 99,534 aluminum cans recycled [@\$0.60 per lb. = \$59,740.20].

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
112	Watershed Protection and Management
133	Pollution Prevention and Mitigation
403	Waste Disposal, Recycling, and Reuse
723	Hazards to Human Health and Safety

**Outcome #15**

**1. Outcome Measures**

Percentage of individuals who adopted a recommended pharmaceutical best management practice (BMP)

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	88

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

**Issue (Who cares and Why)**

Pharmaceuticals and personal care products (PPCPs) are being detected in the environment by scientists all over the world. The Synergistic Efforts to Reduce Pharmaceuticals in the Environment (SerPIE) Program helps individuals understand the environmental safeguards germane to proper management and disposal of unwanted medicine. The program aims to improve human, animal and environmental health through a reduction in the number of pharmaceuticals fated for the environment and stockpiled in homes by promoting positive changes in behavior and adoption of recommended pharmaceutical best management practices (BMPs).

**What has been done**

Modes of program delivery in 2014 included workshops, demonstrations and drug take-back initiatives. A total of 11 drug take-back programs with ACES staff participation yielded over 1500 lbs. of PPCPS. A survey of 380 participants revealed that 71% (n=131) of the participants in the drug take-back initiatives were female. It also revealed that participation among minorities was fairly low (16%). The majority of the medicines collected were prescription drugs, followed by over-the-counter medicines. A survey of individual participating in SerPIE demonstrations revealed that 81% (n=249) of the participants were female; while 19% were male. Sixty-six percent of the participants were African American and 30% Caucasian; other minorities made up the additional 5%.

**Results**

Results identifying trends among demonstration participants (n=249) revealed that 85% of the participants were aware of the growing problem of prescription drug abuse; 78% stated that they kept their pharmaceuticals out of reach, locked up or away from youth. Interestingly, 42% of the respondents frequently kept expired pharmaceuticals in their medicine cabinet. When asked how they disposed of unwanted pharmaceuticals, 41% of the respondents admitted to throwing drugs in the trash; 24% admitted to flushing them down the toilet; 4% admitted to giving them to friends or relatives; while 31% chose not to respond. Of the 35 (n=44) participants responding to 3 to 6 month follow-up surveys, 88% had eliminated the practice of throwing drugs in the trash and 84% had achieved their environmental expectation of protecting the environment from pharmaceutical drug contamination

**4. Associated Knowledge Areas**

**KA Code    Knowledge Area**

111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
133	Pollution Prevention and Mitigation
403	Waste Disposal, Recycling, and Reuse
723	Hazards to Human Health and Safety

## **Outcome #16**

### **1. Outcome Measures**

Number of youth that improved their knowledge of environmental issues and concepts through the Urban Environmental Science Education Program.

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

- 1890 Extension

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

Change in Knowledge Outcome Measure

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

<b>Year</b>	<b>Actual</b>
2014	415

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

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

Outreach education provides a framework for citizens to avoid the long-term consequences associated with poor environmental stewardship and management of natural resources. The Urban Environmental Science Education Program (UESeP) seeks to improve citizen appreciation for science and enhance their understanding of the environment. In short, it identifies environmental issues and provides unbiased, science-based information to help citizens become better stewards of the environment.

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

A team-based approach was used to implement UESeP in various settings. The Team carried out 70 activities utilizing multiple delivery modes, including classroom enrichment, workshops, field days, fairs and festivals. Four extramural grants were received and presentations were also made at local and regional conferences. Research activities were used to create experiential learning opportunities for undergraduate students and to provide researched-based data for Extension program enhancement.

#### **Results**

UESEP youth learned the impacts of non-point pollution; the importance of natural resource conservation, the importance of pollinators; and the benefits of reducing, reusing and recycling discarded waste. The percentage of youth participants who improved their knowledge of program concepts was as follows: water quality and quantity (71%); natural resource conservation (75%);



forestry and wildlife; (70%) energy and waste management (64%) (n=415). The average youths knowledge before the workshops was rated very low to moderate (1-3) compared to ratings of high and very high (4-5) after the workshops. Surveys revealed that 82% of youth surveyed agreed that the program made them want to become better stewards of the environment (n= 415). Comments: Great Program! Loved It! Excellent Speaker; Great Presentation, I learned a lot I didn't know! It really made me think of outdoors! The YeES Program was Fun! When are you coming back?

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
403	Waste Disposal, Recycling, and Reuse
723	Hazards to Human Health and Safety

#### Outcome #17

##### 1. Outcome Measures

Number of participants who adopted insect identification techniques for more efficient management of pest insects and protection of beneficial insects.

##### 2. Associated Institution Types

- 1862 Extension

##### 3a. Outcome Type:

Change in Action Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	156

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

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

Entomologists estimate that 2% of insects are considered pests. An example of increased pest pressure due to misuse of miticides is noted in spider mite populations. This often damages parasitoid populations which would normally manage the spider mites to tolerable levels. Identification is important before any pesticide is chosen or used. As well, the misuse of insecticides can have a negative effect on pollinating insects important to food producing crops.

###### What has been done

Workshops and demonstrations were hosted to teach the value of and identification of beneficial insects (including pollinators). 206 participants answered our surveys.

**Results**

156 (76%) of 206 participants who responded said they added plants to their landscape to attract pollinating insects. 144 (70%) learned about beneficial (predatory and parasitoid) insect identification. 187 (91%) learned to identify types of pollinating insects.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
136	Conservation of Biological Diversity

**Outcome #18**

**1. Outcome Measures**

Number of Youth with an increased appreciation and understanding of our state's natural resources and environmental stewardship.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	2084

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

**Issue (Who cares and Why)**

The youth involved in the AOC program have become more aware and actively involved in environmental issues and in improving the local natural environment around their school's campus. This local involvement is very important as it gives them a "voice" as well as ownership in the world around them. Once they realize that they do have a "voice" in improving the local environment, they are more likely to realize that they can also have an impact on a larger scale regarding the environment.

**What has been done**

Through the AOC Program, youth actively participated in assisting with the development and maintenance of their school's outdoor classroom as well as with the design and construction. For example, students have helped construct raised bed gardens, aquatic study areas (ponds), tree plantings, wildlife habitat development, as well as many other learning stations. In addition to the learning station development, the students actively participate in activities related to these areas.

**Results**

According to the quantitative outcome, 2084 students were identified as being reached through the AOC program. The students involved in the AOC program have a better understanding of the natural world and the role they can personally play. The AOC program is continuing to expand, adding approximately 15-20 new schools to the program each year. Each year, enrolled schools receive thousands of dollars in grants for the development of their outdoor classrooms. Even though the number of students represented above gives us a numerical number, we know that with 310 schools enrolled in the AOC program, this number is a small fraction of the youth that are actually reached by this program. Being conservative, if we figure that just 10 teachers at each school, with an average class size of 20 involve their students in only one environmental-based activity per year in their outdoor classroom, this would mean that at least 62,000 students are really involved in the AOC program. Of course, we know that many of these teachers teach several lessons a year in the outdoor classroom and that many of these teachers teach more than one group of students.

#### 4. Associated Knowledge Areas

<b>KA Code</b>	<b>Knowledge Area</b>
102	Soil, Plant, Water, Nutrient Relationships
104	Protect Soil from Harmful Effects of Natural Elements
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
123	Management and Sustainability of Forest Resources
131	Alternative Uses of Land
132	Weather and Climate
133	Pollution Prevention and Mitigation
135	Aquatic and Terrestrial Wildlife
136	Conservation of Biological Diversity
403	Waste Disposal, Recycling, and Reuse
723	Hazards to Human Health and Safety

#### **Outcome #19**

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

Number of Youth who increased their knowledge of native Alabama wildlife and wildlife habitat.

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

- 1862 Extension

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

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	10479

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

**Issue (Who cares and Why)**

The Skins N Skulls Program gives youth the opportunity to not only see the skins and skull of the selected mammal but to also learn why the different species are classified as carnivore, herbivore, or omnivore. Youth learn about the different roles each species plays in the environment, and also their role in the food chain. This Program is also a great way to introduce wildlife management.

**What has been done**

For the Skins N Skulls program, we have a prepared written as well as a PowerPoint presentation with hands-on materials that can be adjusted depending on the size of the group, age of the group, and other factors. The Skins N Skulls module or kit contains the skins of 10 common Alabama mammals as well as the skulls of these same 10 species. During a presentation, the skins and skulls can be passed around to let the youth and adults that are participating in the program, have direct contact with the items. In addition, the PP presentation can be used to show the students other images of the mammals as well as a means to share other information about the various species, therefore increasing their knowledge level. This module has been used with 4-H In-School Groups/Clubs, 4-H Clubs, 4-H Enrichment, adult groups, as well with general audiences such as at a county fair, community event or other program. This presentation has been verified by wildlife experts to assure that scientifically, fact-based information is being communicated to the audience

**Results**

During 2014, a total of 10,479 youth are reported as having participated in the Skins N Skulls program through 350 presentations. Most of the participants were reached through group presentations (In-School Clubs/Groups, Enrichment, and traditional 4-H Clubs. Through the Skins N Skulls presentations that where conducted, the participants increased their knowledge pertaining to the following: 1) Participants learned the different between a herbivore, carnivore and omnivore. 2) Participants learned the difference between hair and fur. 3) Participants increased their knowledge regarding the importance of wildlife management 4) Participants are able to name at least 8 different mammals that are native to Alabama.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
135	Aquatic and Terrestrial Wildlife
136	Conservation of Biological Diversity
723	Hazards to Human Health and Safety

## **Outcome #20**

### **1. Outcome Measures**

Percentage of youth that increased their knowledge of water conservation principles and practices.

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

- 1890 Extension

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

Change in Knowledge Outcome Measure

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

<b>Year</b>	<b>Actual</b>
2014	61

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

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

The Interactive 3-D Game-Based Mobile Water Conservation Learning Laboratory (Water Wheels) Program is supported primarily by one Urban Program Assistant, who also serves as the Program Manager; and 6 Urban Regional Extension Agents (UREAs), cover 9 urban centers which encompass 21 counties and span the whole state of Alabama. During the course of 2014, Water Wheels conducted workshops, seminars and attended various conferences to educate Alabama urban youth and clientele on the benefits of rain water harvesting in limited urban spaces, the options rain water gardening with limited resources, and potentially create a behavior change in youth and adults towards water conservation.

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

The Water Wheels 2014 FY reached 2,629 (face to face) individuals through 50 scheduled activities. Some of these activities also have the potential to reach other (non-face to face) individuals through distributed educational resource materials, internet, radio and T.V. interviews, social media (Website visited for FY2014, 7,142 visits, with 13,658 website hits, 19 average visits per day, and August with the highest traffic month: 56% visits from the U.S.), and newspapers. The non-traceable clientele are estimated to be 7,626. Total number reached by the Water Wheels FY2014 is 10,255. The face to face clientele (2,629) were 37% adults, 61% youth, 20% black, 78% white, 50% male, and 50% female.

#### **Results**

Administered surveys and responses indicate that the Water Wheels programming has (2629 face to face, 932 surveyed): 1. Increase the use of rainwater and adoption of water conservation interventions (Adult: 32% n=1014 / Youth: 18% n=1614), 2. Decrease in pollution and runoff, 3. Knowledge gain of water conservation (Adult: 85% n=1014 / Youth: 15% n=1614), 4. Number of clientele participating in the cost/returns /impact of the project increased (324, 32% participation, n=1014).

#### 4. Associated Knowledge Areas

<b>KA Code</b>	<b>Knowledge Area</b>
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
133	Pollution Prevention and Mitigation
723	Hazards to Human Health and Safety

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

##### External factors which affected outcomes

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

##### Brief Explanation

Strong partnerships among local, state, and federal institutions have provided a solid platform for successful implementation of projects and additional extramural funding. These partnerships also include state and national commodity organizations as well as non-agriculture environmental groups. AWW's merger with the AU Water Resources Center in mid-2013 has provided institutional stability and expanded facilities for the program, which is aiding in more effective outreach efforts and more competitiveness for grant funds. Strong partnerships and close collaboration fostered by the development of personal relationships between AWW staff and our AWW volunteer monitors continues to provide a solid foundation for the success and expansion of our program. Grants acquired for related projects provide synergies in outreach and staff support. Grant funds were received in 2014 from USDA-AFRI, ADEM, Alabama Water Resources Research Institute, the Mobile Bay National Estuary Program, and contributions from individuals throughout the state.

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

##### Evaluation Results

- The Mobile Bay Oyster Garden Program engaged 82-gardeners to produce 59,330-oysters of an average size of 46.1-mm, at 41 sites in Mobile Bay. Additionally, students at Alma Bryant High School produced 9,440-oysters on the restoration and enhancement sites.
- 500 linear feet of stream enhanced or restored. Improved stormwater quality from implementation of 4 stormwater control measures; 14 agricultural BMPs, valued at \$27,500 completed.

- 245 people were certified in water chemistry monitoring, 362 people were certified in bacteriological monitoring, 29 people were certified in Exploring Alabama's Living Streams, 125 people were recertified in water chemistry and/or bacteriological monitoring, 8 citizen trainers were certified in the trainer-refresher workshop, eleven new citizen trainers were certified in training-of-trainer workshops, and 13 new trainers completed their intern workshops.
  - Participants (n=68) showed increased knowledge in water quality; runoff management; lawn and garden; managing hazardous products; storing automotive products; household wastewater treatment; and managing trash and waste prevention. Of the 55 participants responding to 3 to 6 month follow-up surveys, 75% had adopted at least 2 of the recommended BMPs and 81% felt that the program enabled them to achieve a social, environmental, or economic expectation.
  - 87% of 1,040 participants (n=911) adopted the IPM practices promoted or taught during the programs.
  - All Bugs Good and Bad was especially successful having 96% (n=404) of respondents saying "yes" they adopted the IPM techniques.
  - The SERP program led to the reclamation of 425.23 lbs. of precious resources (i.e., copper, steel, aluminum). Additionally, 14 MtCO<sub>2</sub>e (metric ton carbon dioxide equivalent) were prevented through remanufacturing and recycling. The quantity of e-waste recycled was equivalent to offsetting CO<sub>2</sub> emissions from the consumption of 1,670.64 gallons of gasoline or the consumption of 34.66 barrels of oil. SerPIE workshop outcomes revealed that 80% of participants (n=44) increased their knowledge concerning the impacts of improperly disposing of pharmaceuticals.
  - 156 (76%) of 206 participants who responded said they added plants to their landscape to attract pollinating insects. 144 (70%) learned about beneficial (predatory and parasitoid) insect identification. 187 (91%) learned to identify types of pollinating insects.
  - The students involved in the AOC program have a better understanding of the natural world and the role they can personally play. The AOC program is continuing to expand, adding approximately 15-20 new schools to the program each year.
- Water Wheels programming has (2629 face to face, 932 surveyed): 1. Increase the use of rainwater and adoption of water conservation interventions (Adult: 32% n=1014 / Youth: 18% n=1614), 2. Decrease in pollution and runoff, 3. Knowledge gain of water conservation (Adult; 85% n=1014 / Youth: 15% n=1614), 4. Number of clientele participating in the cost/returns /impact of the project increased (324, 32% participation, n=1014).

## Key Items of Evaluation

Implementation of stream restoration and both urban and agricultural stormwater measures contributed to improved water quality of Alabama water resources. As a result, 500-linear feet of stream was enhanced or restored; and 14-agricultural Best Management Practices, valued at \$27,500, were completed.

### **The Synergistic Efforts to Reduce Pharmaceuticals in the Environment (SerPIE) Program-**

Results identifying trends among demonstration participants (n=249) revealed that 85% of the participants were aware of the growing problem of prescription drug abuse; 78% stated that they kept their pharmaceuticals out of reach, locked up or away from youth. Of the 35 (n=44) participants responding to 3 to 6 month follow-up surveys, 88% had eliminated the practice of throwing drugs in the trash and 84% had achieved their environmental expectation of protecting the environment from pharmaceutical drug contamination.

**Smart Yards** - 87% of 1,040 participants (n=911) of the Smart Yards and All Bugs Good and Bad Programs adopted the Integrated Pest Management (IPM) practices promoted or taught during the programs. Results from the webinar series, All Bugs Good and Bad

revealed that 96% (n=404) of respondents adopted the IPM techniques. Workshops and demonstrations were hosted to teach the value of and identification of beneficial insects (including pollinators). Survey results indicate that 156 (76%) of 206 participants who responded said they added plants to their landscape to attract pollinating insects. 144 (70%) learned about beneficial (predatory and parasitoid) insect identification. 187 (91%) learned to identify types of pollinating insects.

**Implementation of the SERP Program resulted in a total of 10,753 lbs.** of e-waste recycled in 2014. The economic and environmental gains observed from the 9250 lbs. of e-waste recycled via the city-wide e-waste drives totaled \$1,269.00 for 2200 lbs. of plastic (\$44.00), 3500 lbs. of metal (\$245.00); 300 lbs. of wire (\$240.00) and 600 lbs. of electrical units (\$240.00). The two e-waste drives deferred 14,930 lbs. of carbon emissions from entering the atmosphere. According to the EPA Waste Reduction Model (WARM) this equates to 2,533 gallons of gasoline conserved [@\$1.98 per gal. = \$5015.34], 576 trees saved, 21,638 plastic bottles recycled or 99,534 aluminum cans recycled [@\$0.60 per lb. = \$59,740.20].

**The Urban Environmental Science Education Program (UESEP)** -Results indicated increased knowledge of UESEP program concepts: water quality and quantity (71%); natural resource conservation (75%); forestry and wildlife; (70%) energy and waste management (64%) (n=415). The average youths' knowledge before the workshops was rated very low to moderate (1-3) compared to ratings of high and very high (4-5) after the workshops. Surveys revealed that 82% of youth surveyed agreed that the program made them want to become better stewards of the environment (n= 415).



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

**Program # 10**

**1. Name of the Planned Program**

Financial Literacy Across the Lifespan

Reporting on this Program

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

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
602	Business Management, Finance, and Taxation	5%	5%		
607	Consumer Economics	5%	5%		
801	Individual and Family Resource Management	85%	85%		
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	5%	5%		
<b>Total</b>		100%	100%		

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

1. Actual amount of FTE/SYs expended this Program

Year: 2014	Extension		Research	
	1862	1890	1862	1890
<b>Plan</b>	8.2	5.3	0.0	0.0
<b>Actual Paid</b>	9.3	3.0	0.0	0.0
<b>Actual Volunteer</b>	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
98805	156059	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
188074	170929	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
703828	291303	0	0

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

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

NEFE High School Financial Management Program, a 6 lesson financial management program to teach fundamental personal finance knowledge and skills to youth statewide. The program focused on spending plan, credit, debt, earning, investing, financial services, insurance and culminated with the Reality Check financial simulation. It focused on spending plan, credit, debt, earning, investing, financial services and insurance. Conducted an additional 96 Reality Check simulations for middle and high school youth. ETP: Making Money Count Program, a 6 lesson financial management program to teach fundamental personal finance knowledge and skills to adults statewide. It focused on spending plan, credit, consumer skills, contracts, recordkeeping, taxes, banking services, insurance, saving and investing. Conducted 43 Career Preparation seminars focused on building competencies for an effective job search: resume writing, interview skills, applications. Participated in 4 career fairs to assist 876 displaced workers at Hillshire Brands and Wayne Farms.

Consumer Score with Credit in Check through Responsible Spending, a financial management curriculum, was implemented as a series of five lessons or as stand-alone programs in various settings throughout the state. It focuses on bank accounts, credit, spending plans, the buying process, and career plans.

Promoting Readiness for Employment Possibilities (PREP), a Job-Readiness curriculum was implemented as a series of four lessons or as stand-alone programs in various settings throughout the state. It focuses on job applications, resume writing, interviewing, and professional dress.

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

NEFE High School Financial Management Program: The program had 2653 participants in grades 8-12. Demographics for the participants were: 53% African American, 41% White, 0.004% Asian or Pacific Islander, 0.02% Hispanic, 0.01% Other race, 0.005% More than one race. 55% were female while 45% were male. 100% were classified as rural participants. Reality Check reached 11,211 youth with demographics: 34% African American, 46% White, 0.002% Asian or Pacific Islander, 0.012% Hispanic, 0.006% Other race, 0.063% More than one race. 61% were female while 39% were male. 100% were classified as rural participants.

Making Money Count Program: The program had 686 adult participants. Demographics for the 686 traceable participants were: 44% African American, 53% White, 0.003% American Indian, 0.003% Alaska Native, 0.001% Hispanic, 0.001% Other race, 0.012% More than one race. 74% were female while 26% were male. 100% were classified as rural participants.

Career Preparation Seminars: Demographics for the 323 traceable adult participants were: 56% African American, 39% White, 0.003% Asian or Pacific Islander, 0.04% Hispanic, 0.006% Other race, 0.003% More than one race. 81% were female while 19% were male. 100% were classified as rural participants.

Consumer Score: This program had approximately 7,829 participants. Of the 2,948 traceable participants, 98% were from urban areas and only 2% were from rural areas. Nearly three quarters (72%) of the participants were adults. The majority of traceable participants were female (76%) and black (72%). White participants made up 26% of the group while Hispanic, Biracial, Indian, and Asian made up approximately 2% of the program participants.

PREP: This program had approximately 3,886 participants. Of the 2,961 traceable participants, 100% were from urban areas. Seventy percent of the participants were adults. The majority of traceable

participants were female (79%) and black (74%). White participants made up 16% of the group while Hispanic, Biracial, and Indian made up only than 4%. Asian/Pacific Islander made up approximately 6% of the program participants.

**3. How was eXtension used?**

eXtension was not used in this program

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

**1. Standard output measures**

2014	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	3334	0	16574	0

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

**Patent Applications Submitted**

Year: 2014  
 Actual: 0

**Patents listed**

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

**Number of Peer Reviewed Publications**

2014	Extension	Research	Total
<b>Actual</b>	1	0	1

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

**Output Target**

**Output #1**

**Output Measure**

- This program area will include numerous output activities and methods as part of the Strategic Program Initiative (SPI) which are described/explained in the prior "outcome activities and methods sections." The success of these outcomes will be formally evaluated/measured by using individual activity evaluation forms designed specifically for each activity, the success of other activities and methods will be measured by the level of participation in the activity. In the target boxes below for each year, we are indicating the number of individual activities within the SPIs for this program area that will be formally evaluated using an evaluation instrument designed specifically for that activity.  
 Not reporting on this Output for this Annual Report

**Output #2**

**Output Measure**

- Number of adult financial classes taught

<b>Year</b>	<b>Actual</b>
2014	35

**Output #3**

**Output Measure**

- Number of youth financial classes taught

<b>Year</b>	<b>Actual</b>
2014	55

**Output #4**

**Output Measure**

- Number of financial simulations implemented

<b>Year</b>	<b>Actual</b>
2014	96

**Output #5**

**Output Measure**

- In-Service Trainings for Staff

<b>Year</b>	<b>Actual</b>
2014	2

**Output #6**

**Output Measure**

- Number of personal financial management classes taught.

<b>Year</b>	<b>Actual</b>
2014	85

**Output #7**

**Output Measure**

- Number of career-related activities conducted

<b>Year</b>	<b>Actual</b>
2014	83

**Output #8**

**Output Measure**

- Number of individuals participating in Financial Management Activities

<b>Year</b>	<b>Actual</b>
2014	2948

**Output #9**

**Output Measure**

- Number of individuals participating in Career Related Activities

<b>Year</b>	<b>Actual</b>
2014	2961

**Output #10**

**Output Measure**

- Number of resumes developed.

<b>Year</b>	<b>Actual</b>
2014	264

**Output #11**

**Output Measure**

- Number of individuals participating in Financial Management classes.

<b>Year</b>	<b>Actual</b>
2014	174

**Output #12**

**Output Measure**

- Number of individuals participating in Career Related classes

<b>Year</b>	<b>Actual</b>
2014	1064

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

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

O. No.	OUTCOME NAME
1	Total number of people completing financial management education programs who actually adopted one or more recommended practices to decrease consumer credit debt, or increase investing and savings, and plan for retirement within six months after completing one or more of these programs.
2	Each ACES employee is required to provide a success story on the program activity which they felt best demonstrates the impacts of their work. These success stories contain the following elements: Why: Explain the reason the program was done, or the situation or problem that the program addressed What: Specifically what was done and how it was done. When: If this was a one-time event, the date it occurred. If it is was a series of events, or an on-going program, when it began. Where: Specific location-- the county or counties involved. Who and how many: The "who" includes both who did the program and who were the clients of the program, as well as how many people were served. So what: This is the part that gives the real meaning to "success". The basic question to be answered in this part is "what difference did this program make". The difference may be measured in terms of dollars, or in changes in habits, lifestyles or attitudes. Whenever possible use numbers to show the effect of the program. In addition to quantitative data, qualitative measurement like client comments or another type of testimonial about the program may be included. The impacts for this program area are measured by use of pre, post and delayed post assessments. Additionally, the number and quality of the success stories generated by the individuals who work on these projects are also used.
3	Total number of youth that increased financial management knowledge through the NEFE program.
4	Number of adults that increased financial management knowledge through the Making Money Count Program
5	Number of adults with increased knowledge of job search skills needed for 21st century employment
6	Percentage of youth implementing Money Management practices after financial classes
7	Percentage of adults implementing Money Management practices after financial classes
8	Number of participants who got hired.
9	Number of participants better prepared for job seeking
10	Number of participants better prepared for job seeking.
11	Number of participants with a greater understanding of financial practices after participating in the five-series of Consumer Score classes
12	Number of participants implementing financial practices learned in the five-series of Consumer Score classes.

## **Outcome #1**

### **1. Outcome Measures**

Total number of people completing financial management education programs who actually adopted one or more recommended practices to decrease consumer credit debt, or increase investing and savings, and plan for retirement within six months after completing one or more of these programs.

Not Reporting on this Outcome Measure

## **Outcome #2**

### **1. Outcome Measures**

Each ACES employee is required to provide a success story on the program activity which they felt best demonstrates the impacts of their work. These success stories contain the following elements: Why: Explain the reason the program was done, or the situation or problem that the program addressed What: Specifically what was done and how it was done. When: If this was a one-time event, the date it occurred. If it is was a series of events, or an on-going program, when it began. Where: Specific location-- the county or counties involved. Who and how many: The "who" includes both who did the program and who were the clients of the program, as well as how many people were served. So what: This is the part that gives the real meaning to "success". The basic question to be answered in this part is "what difference did this program make". The difference may be measured in terms of dollars, or in changes in habits, lifestyles or attitudes. Whenever possible use numbers to show the effect of the program. In addition to quantitative data, qualitative measurement like client comments or another type of testimonial about the program may be included. The impacts for this program area are measured by use of pre, post and delayed post assessments. Additionally, the number and quality of the success stories generated by the individuals who work on these projects are also used.

Not Reporting on this Outcome Measure

## **Outcome #3**

### **1. Outcome Measures**

Total number of youth that increased financial management knowledge through the NEFE program.

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

- 1862 Extension

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

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	423

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

**Issue (Who cares and Why)**

Teens spend billions of dollars each year. Credit card and ATM card use is on the rise among this group. Unfortunately, teens receive little financial education on how to handle money responsibly now and into future. Increasingly, youth in Alabama need information and training to manage financial issues effectively. Additionally, the Alabama Department of Education implemented mandatory financial management and career education for high school students during the 2013-2014 academic year.

**What has been done**

The NEFE High School Financial Management Program was conducted by 8 Regional Extension agents. Sixteen series with 6 lessons each were presented in 11 counties in partnership with middle and high schools or community groups.

**Results**

A pre- and post- survey was completed by 554 (21%) of participants. Results show increases in knowledge in specific topical areas: setting SMART goals (44%), using the DECIDE process (44%), creating a spending plan (40%), evaluating credit card offers (51%), identity theft protection (35%), choosing a career (26%), creating a career plan (39%), saving (39%), evaluating bank services (55%), making a personal property inventory (42%).

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
607	Consumer Economics
801	Individual and Family Resource Management

**Outcome #4**

**1. Outcome Measures**

Number of adults that increased financial management knowledge through the Making Money Count Program

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure



**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	66

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

**Issue (Who cares and Why)**

Managing finances continues to be a challenge for families as high debt, credit abuse and the absence of retirement preparation threatens financial security. The state profile reflects a highly unbanked population, low levels of educational attainment and high levels of single parent households. These factors support the need to equip youth and adults with the financial knowledge and skills to manage available resources and make thoughtful financial decisions.

**What has been done**

Eight Regional Extension agents conducted 17 programs consisting of 6 sessions each using the "Making Money Count Curriculum". The program was implemented in 15 counties in collaboration with various public and private organizations (housing authority, DHR, Community Action, mental health center, Christian Women's Job Corps).

**Results**

Associate KAs from the Two hundred and one (29%) of participants responded to a pre- and post-survey to assess knowledge gained. Results show that knowledge increased in specific areas: dispute credit report information (43%), decision making process (35%), credit & debit card pros and cons (38%), consumer rights and responsibilities (32%), types of consumer fraud (35%), use of a household inventory for insurance claims (41%), estate planning documents (40%), establish a banking account (37%), communication with insurance agents (37%), basic investment principles (35%), tracking spending (43%).

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
607	Consumer Economics
801	Individual and Family Resource Management

**Outcome #5**

**1. Outcome Measures**

Number of adults with increased knowledge of job search skills needed for 21st century employment

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	323

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

**Issue (Who cares and Why)**

Due to the slow economic recovery many Alabamians were without jobs. The unemployment rate remained high throughout 2014.

**What has been done**

Eight Regional Extension Agents conducted 43 Career Preparation seminars to increase knowledge of resume writing, successful interviewing, filling out an application and professional dress. Extension participated in 4 career fairs were conducted for 876 displaced workers at Hillshire Brands & Wayne Farms. Instruction focused on completing applications, resume writing, successful interviewing and professional dress.

**Results**

Participants learned methods for structuring a resume, etiquette and tips for filling out applications and interviewing, appropriate dress and appearance for an interview.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
801	Individual and Family Resource Management

**Outcome #6**

**1. Outcome Measures**

Percentage of youth implementing Money Management practices after financial classes

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
------	--------

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

**Issue (Who cares and Why)**

Teens spend billions of dollars each year. Credit card and ATM card use is on the rise among this group. Unfortunately, teens receive little financial education on how to handle money responsibly now and into future. Increasingly, youth in Alabama need information and training to manage financial issues effectively. Additionally, the Alabama Department of Education implemented mandatory financial management education for high school students during the 2013-2014 academic year.

**What has been done**

The NEFE High School Financial Management Program was conducted by 8 Regional Extension agents. Sixteen series with 6 lessons each were presented in 11 counties in partnership with middle and high schools or community groups.

**Results**

Twenty-one percent of participants responded to a 30-day follow-up survey. Recommended financial behaviors that participants put into practice after receiving training include: 57% practice safety when using the internet, 61% protect against identify theft or fraud, 54% use SMART process to set financial goals, 31% write out a spending plan.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
607	Consumer Economics
801	Individual and Family Resource Management

**Outcome #7**

**1. Outcome Measures**

Percentage of adults implementing Money Management practices after financial classes

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	171

### 3c. Qualitative Outcome or Impact Statement

#### Issue (Who cares and Why)

Managing finances continues to be a challenge for families as high debt, credit abuse and the absence of retirement preparation threatens financial security. The state profile reflects a highly unbanked population, low levels of educational attainment and high levels of single parent households. These factors support the need to equip youth and adults with the financial knowledge and skills to manage available resources and make thoughtful financial decisions.

#### What has been done

Eight Regional Extension agents conducted 17 programs consisting of 6 sessions each. The program was implemented in 15 counties in collaboration with various public and private organizations (housing authority, DHR, Community Action, mental health center, Christian Women's Job Corps).

#### Results

One hundred and seventy-one (25%) of participants responded to a 90-day follow-up survey to assess what financial actions were taken after the training. Results indicate that financial practices adopted by participants included: 88% established financial goals, 94% organized financial records, 85% worry less about money, 90% communicating more effectively about finances, 89% paying off debt on schedule, 89% tracked spending for 30 days, 87% making deliberate financial decisions, 84% made a household inventory, 89% contributed to an emergency fund, 95% read and understand documents before signing, 76% obtained a durable power of attorney or health care directive.

### 4. Associated Knowledge Areas

KA Code	Knowledge Area
607	Consumer Economics
801	Individual and Family Resource Management

#### Outcome #8

##### 1. Outcome Measures

Number of participants who got hired.

##### 2. Associated Institution Types

- 1890 Extension

##### 3a. Outcome Type:

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	71

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

**Issue (Who cares and Why)**

Various programs throughout the state require individuals to attend job readiness classes as a means for transitioning into the workforce. Many TANF (Dept. of Human Resources) have such requirements. If such preparation is neglected, limited-resource individuals will lose public assistance.

**What has been done**

Eight Urban Regional Agents utilized workshops, conferences and job fairs to increase individuals understanding of job applications, resume writing, interviewing, and professional dress. The Promoting Readiness for Employment Possibilities, a Job-Readiness Toolkit, was implemented as a series of four lessons or as a stand-alone program in urban areas of 15 counties.

**Results**

Of the 1064 participants 71 secured a job as a result of this training.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
602	Business Management, Finance, and Taxation
607	Consumer Economics
801	Individual and Family Resource Management
803	Sociological and Technological Change Affecting Individuals, Families, and Communities

**Outcome #9**

**1. Outcome Measures**

Number of participants better prepared for job seeking

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	337

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

**Issue (Who cares and Why)**

Various programs throughout the state require individuals to attend job readiness classes as a means for transitioning into the workforce. Many TANF (Dept. of Human Resources) have such requirements. If such preparation is neglected, limited-resource individuals will lose public assistance.

**What has been done**

Eight Urban Regional Agents utilized workshops, conferences and job fairs to increase individuals understanding of job applications, resume writing, interviewing, and professional dress. The Promoting Readiness for Employment Possibilities, a Job-Readiness Toolkit, was implemented as a series of four lessons or as a stand-alone program in urban areas of 15 counties.

**Results**

Of the 1064 participants 601 developed a resume as a result of this training

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
602	Business Management, Finance, and Taxation
607	Consumer Economics
801	Individual and Family Resource Management
803	Sociological and Technological Change Affecting Individuals, Families, and Communities

**Outcome #10**

**1. Outcome Measures**

Number of participants better prepared for job seeking.

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	518

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

**Issue (Who cares and Why)**

Various programs throughout the state require individuals to attend job readiness classes as a means for transitioning into the workforce. Many TANF (Dept. of Human Resources) have such requirements. If such preparation is neglected, limited-resource individuals will lose public assistance.

**What has been done**

Eight Urban Regional Agents utilized workshops, conferences and job fairs to increase individuals understanding of job applications, resume writing, interviewing, and professional dress. The Promoting Readiness for Employment Possibilities, a Job-Readiness Toolkit, was implemented as a series of four lessons or as a stand-alone program in urban areas of 15 counties.

**Results**

Based on pretest and posttest results, the percentage of participants whose knowledge of the following increased:

- a) how to complete a job application
- b) what to do during a technology assisted interview
- c) how to interview for a job (t = 22.85, p=.00)
- d) how to dress appropriately for a job interview (t = 23.38, p=.00)
- e) how to conduct job searches (t = 20.79, p=.00)

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
602	Business Management, Finance, and Taxation
607	Consumer Economics
801	Individual and Family Resource Management
803	Sociological and Technological Change Affecting Individuals, Families, and Communities

**Outcome #11**

**1. Outcome Measures**

Number of participants with a greater understanding of financial practices after participating in the five-series of Consumer Score classes

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	174

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

**Issue (Who cares and Why)**

Many households within the US are faced with problems such as overextended credit, limited savings, underemployment and many other finance-related issues. Financial educators agree that many families and individuals lack the financial literacy needed to make good financial choices about spending, banking, saving, investing and securing their financial resources.

**What has been done**

Five Urban Regional Agents and One Regional Agents utilized workshops, conferences and job fairs to increase individuals understanding of bank accounts, credit, spending plans, the buying process and career plans. The Consumer Score with Credit in Check through Responsible Spending, a financial management curriculum, was implemented as a series of five lessons or as a stand-alone program in urban areas of 15 counties

**Results**

Based on pretest and posttest results, the percentage of participants whose knowledge of the following increased:

- a)steps to take to improve credit score (53%).
- b)how to obtain their credit score (43%).
- c)importance of paying more than the minimum balance (33%).
- d)importance of paying bills on time (38%).

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
602	Business Management, Finance, and Taxation
607	Consumer Economics



- 801 Individual and Family Resource Management
- 803 Sociological and Technological Change Affecting Individuals, Families, and Communities

**Outcome #12**

**1. Outcome Measures**

Number of participants implementing financial practices learned in the five-series of Consumer Score classes.

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	174

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

**Issue (Who cares and Why)**

Many households within the US are faced with problems such as overextended credit, limited savings, underemployment and many other finance-related issues. Financial educators agree that many families and individuals lack the financial literacy needed to make good financial choices about spending, banking, saving, investing and securing their financial resources.

**What has been done**

Five Urban Regional Agents and One Regional Agents utilized workshops, conferences and job fairs to increase individuals understanding of bank accounts, credit, spending plans, the buying process and career plans. The Consumer Score with Credit in Check through Responsible Spending, a financial management curriculum, was implemented as a series of five lessons or as a stand-alone program in urban areas of 15 counties.

**Results**

On average of more than 30 to 60 days after participation in the program, the frequency of the following actions of 174 participants increased significantly:

- a)65% started a checking account.
- b)42% started a saving account.
- c)75% developed a spending plan.

**4. Associated Knowledge Areas**

**KA Code    Knowledge Area**

602	Business Management, Finance, and Taxation
607	Consumer Economics
801	Individual and Family Resource Management
803	Sociological and Technological Change Affecting Individuals, Families, and Communities

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

##### External factors which affected outcomes

- Economy
- Public Policy changes

##### Brief Explanation

ACES provided a large number of financial management and career preparation programs for youth and adults. Opportunities were plentiful due to the sluggish economy and high unemployment. Diverse private and public organizations looked to Alabama Cooperative Extension to educate their clients, students and personnel. High schools utilized Extension programs to support a new mandatory course focused on financial management and career preparation subject matter.

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

##### Evaluation Results

Eighty four (12%) of adult participants in the Making Money Count Program responded to a 90-day follow-up survey to assess participant financial actions after the training. Results indicated that a significant number of participants implemented behaviors that support a change in financial condition: 95% reported making better informed financial decisions, 89% established or added to emergency savings, 90% reported financial records were in better order, 31.8% reported increased control over finances. On average, monthly expenses reduced by \$15.86, funds for saving or investing increased by \$42.24 and funds to pay off debt increased by \$31.95. Five hundred and fifty-four (21%) of youth participants in the NEFE Program responded to a 30-day follow-up survey. Results indicated that participants implemented behaviors that support a change in financial condition: 57% reported they used good money habits learned in class, 63% of youth reported saving money regularly, 56% tracked spending, 59% planned purchases before buying.

The frequency of the following **actions** of 1064 participants increased significantly:

1. 71 (7%) participants secured a job as a result of the training.
2. 601 participants developed a resume (78% increase in participants having a resume - from 337 to 601)

Based on pretest and posttest results, the percentage of participants whose **knowledge** of the following increased:

1. how to complete a job application (30%-- from 594 to 770)
2. what to do during a technology assisted interview (73%-- from 299 to 518)
3. how to interview for a job (t = 22.85, p=.00)
4. how to dress appropriately for a job interview (t = 23.38, p=.00)

5. how to conduct job searches ( $t = 20.79, p=.00$ )

On average of more than 30 to 60 days after participation in the program, frequency of the following **actions** of 174 participants increased significantly:

1. 65% started a checking account.
2. 42% started a saving account.
3. 75% developed a spending plan.

Based on pretest and posttest results, the percentage of the 174 participants whose **knowledge** of the following increased:

1. steps to take to improve credit score (53%).
  2. how to obtain their credit score (43%).
  3. importance of paying more than the minimum balance (33%).
- importance of paying bills on time (38%).

### Key Items of Evaluation

Eighty four (12%) of adult participants in the Making Money Count Program responded to a 90-day follow-up survey to assess participant financial actions after the training. Results indicated that a significant number of participants implemented behaviors that support a change in financial condition: 95% reported making better informed financial decisions, 89% established or added to emergency savings, 90% reported financial records were in better order, 31.8% reported increased control over finances. On average, monthly expenses reduced by \$15.86, funds for saving or investing increased by \$42.24 and funds to pay off debt increased by \$31.95. Five hundred and fifty-four (21%) of youth participants in the NEFE Program responded to a 30-day follow-up survey. Results indicated that participants implemented behaviors that support a change in financial condition: 57% reported they used good money habits learned in class, 63% of youth reported saving money regularly, 56% tracked spending, 59% planed purchases before buying.

The frequency of the following **actions** of 1064 participants increased significantly:

1. 71 (7%) participants secured a job as a result of the training.
2. 601 participants developed a resume (78% increase in participants having a resume - from 337 to 601)

Based on pretest and posttest results, the percentage of participants whose **knowledge** of the following increased:

1. how to complete a job application (30%-- from 594 to 770)
2. what to do during a technology assisted interview (73%-- from 299 to 518)
3. how to interview for a job ( $t = 22.85, p=.00$ )
4. how to dress appropriately for a job interview ( $t = 23.38, p=.00$ )
5. how to conduct job searches ( $t = 20.79, p=.00$ )

On average of more than 30 to 60 days after participation in the program, frequency of the following **actions** of 174 participants increased significantly:

1. 65% started a checking account.
2. 42% started a saving account.
3. 75% developed a spending plan.

Based on pretest and posttest results, the percentage of the 174 participants whose **knowledge** of the following increased:

1. steps to take to improve credit score (53%).
  2. how to obtain their credit score (43%).
  3. importance of paying more than the minimum balance (33%).
- importance of paying bills on time (38%).

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

**Program # 11**

**1. Name of the Planned Program**

Human Nutrition, Diet and Health

Reporting on this Program

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

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
701	Nutrient Composition of Food	40%	20%		
703	Nutrition Education and Behavior	50%	40%		
724	Healthy Lifestyle	5%	30%		
903	Communication, Education, and Information Delivery	5%	10%		
	<b>Total</b>	100%	100%		

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

1. Actual amount of FTE/SYs expended this Program

Year: 2014	Extension		Research	
	1862	1890	1862	1890
<b>Plan</b>	72.2	16.9	0.0	0.0
<b>Actual Paid</b>	42.0	6.5	0.0	0.0
<b>Actual Volunteer</b>	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
446823	342456	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
846372	375089	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
5476331	1127382	0	0

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

## 1. Brief description of the Activity

Expanded Food and Nutrition Education Program (EFNEP) assisted limited-resource audiences in acquiring knowledge, skills, and changed behavior necessary for nutritionally sound diets, and contribute to personal development and improvement of family diet and nutritional wellbeing. EFNEP provided audiences with opportunities for informed dietary choices, lifestyle changes, reduction in health care costs, and healthier lives. EFNEP was leveraged by Smith-Lever and 1890 Extension funds.

Urban Expanded Food and Nutrition Education Program (UEFNEP) Nutrition education classes are provided for Alabamians with limited resources to empower people to make better nutrition choices and health decisions. Research studies reveal families receiving nutrition and health education through

EFNEP programs exhibits healthier children, positive youth development, and better food management skills. In addition, families were healthier and spent less money on junk food and healthcare. UEFNEP was leveraged by Smith-Lever and 1890 Extension funds.

The Eat Healthy, Be Active Community Workshop Series is based on the 2010 Dietary Guidelines for Americans and the 2008 Physical Activity Guidelines. In this program, the information is packaged into six easy to conduct, interactive workshops. Each 60-minute workshop contains learning objectives, icebreaker activities, talking points, instructions for stretch breaks, and hands-on learning activities, and provides opportunities to implement new practices that will lead to lasting lifestyle changes.

Community Health Aerobic Motivational Program Initiating Optimal Nutrition (CHAMPION) curriculum is a series of six lessons; activities include nutrition, health and physical activity classes, and food demonstrations and pre/post weight assessments.

Special Nutrition Assistance Program-Education (SNAP-Ed): Goals of SNAP-Ed are to improve the likelihood that individuals eligible for SNAP will improve dietary quality and physical activity. SNAP-Ed was leveraged by Smith-Lever and 1890 Extension funds.

Urban Supplemental Nutrition Assistance Program-Education (Urban SNAP-Ed): Goals of Urban SNAP-Ed are to provide nutrition education that enhances the capacity of limited resource individuals and their families to make healthy food choices, to use proper food handling and storage techniques, and to eat nutrient-dense foods. Snap-Ed was leveraged by Smith-Lever and 1890 Extension funds.

## 2. Brief description of the target audience

EFNEP: Target audience is limited-resource expectant mothers and limited-resource families with young children.

UEFNEP Program: is targeted towards Hispanic families with limited-resources. The program is conducted in four urban counties, Madison, Limestone, Marshall and Morgan.

Eat Healthy, Be Active: The workshops and corresponding materials are suitable for groups of adults, including those with low health literacy. The workshops were conducted in 42 of Alabama's 67 counties. 717 Adults participated in EHBA. Participants were 55.8% male, 86% White, 13% High School Education or less and 36.7% were 60 years of age or older.

CHAMPION: Adults and elderly (18 and above). 245 adults participated. The demographics consisted of females (56%) and males (43%), with the majority being between the ages of 60-69 (27%). African

American (49%) and Caucasian (48%).

SNAP-Ed Program: Through Auburn University SNAP-Ed, the target population eligible to receive nutrition education and obesity prevention services continues to focus on SNAP participants and low-income individuals eligible to participate in SNAP or other means-tested Federal assistance programs. SNAP-Ed efforts will target women and children in households participating in SNAP. Demographic characteristics of the targeted SNAP-Ed audience will parallel those of statewide food assistance clientele.

Urban Supplemental Nutrition Assistance Program (Urban SNAP-Ed) target audience is limited resource individuals and families in Alabama's Metropolitan Statistical Area (MSAs). Program implemented in 20 counties resulting in: 1327 adults participating- the majorities were non-Hispanic (90%), African American (55%), females (80%) aged 60+ years old (82%).

**3. How was eXtension used?**

eXtension was not used in this program

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

**1. Standard output measures**

2014	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	36581	519266	1153	7664

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

**Patent Applications Submitted**

Year: 2014  
 Actual: 0

**Patents listed**

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

**Number of Peer Reviewed Publications**

2014	Extension	Research	Total
<b>Actual</b>	5	0	5

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

**Output Target**

**Output #1**

**Output Measure**

- ACES will reach families and individuals in rural and urban populations through participation in workshops, targeted PPT programs, enrichment meetings, faith-based organizations, 4-H Club meetings, health fairs, conferences, social networking, media exposure, websites, partnerships, and curricula.  
Not reporting on this Output for this Annual Report

**Output #2**

**Output Measure**

- EFNEP: Number of participants

<b>Year</b>	<b>Actual</b>
2014	2885

**Output #3**

**Output Measure**

- Number of peer reviewed publications

<b>Year</b>	<b>Actual</b>
2014	5

**Output #4**

**Output Measure**

- UEFNEP: Number of participants

<b>Year</b>	<b>Actual</b>
2014	88

**Output #5**

**Output Measure**

- UEFNEP: Number of In-service trainings

<b>Year</b>	<b>Actual</b>
2014	3

**Output #6**

**Output Measure**

- UEFNEP: Number of Health Fairs

<b>Year</b>	<b>Actual</b>
2014	6



**Output #7**

**Output Measure**

- UEFNEP: Number of PTA Presentations

<b>Year</b>	<b>Actual</b>
2014	2

**Output #8**

**Output Measure**

- UEFNEP: Number of Catholic Churches presentations

<b>Year</b>	<b>Actual</b>
2014	4

**Output #9**

**Output Measure**

- UEFNEP: Number of Hispanic Organization presentation

<b>Year</b>	<b>Actual</b>
2014	3

**Output #10**

**Output Measure**

- UEFNEP Food Demonstrations

<b>Year</b>	<b>Actual</b>
2014	15

**Output #11**

**Output Measure**

- UEFNEP Distributed materials with nutritional education message

<b>Year</b>	<b>Actual</b>
2014	250

**Output #12**

**Output Measure**

- Eat Healthy, Be Active Community: Number of participants

<b>Year</b>	<b>Actual</b>
2014	2995

**Output #13**

**Output Measure**

- Eat Healthy Be Active: Number of Adults Completing surveys

<b>Year</b>	<b>Actual</b>
2014	717

**Output #14**

**Output Measure**

- Eat Healthy Be Active: Number of Counties implemented program

<b>Year</b>	<b>Actual</b>
2014	42

**Output #15**

**Output Measure**

- CHAMPION :Number of participants

<b>Year</b>	<b>Actual</b>
2014	245

**Output #16**

**Output Measure**

- Number of CHAMPION adult classes conducted

<b>Year</b>	<b>Actual</b>
2014	324

**Output #17**

**Output Measure**

- Number of CHAMPION 30 minute exercise classes conducted

<b>Year</b>	<b>Actual</b>
2014	144

**Output #18**

**Output Measure**

- CHAMPION: Number of Public Housing partnerships

<b>Year</b>	<b>Actual</b>
2014	5

**Output #19**

**Output Measure**

- CHAMPION: Number of Women Shelters partnerships

<b>Year</b>	<b>Actual</b>
2014	5

**Output #20**

**Output Measure**

- CHAMPION: Number of Senior Center partnerships

<b>Year</b>	<b>Actual</b>
2014	6

**Output #21**

**Output Measure**

- CHAMPION: Number of Daycare partnerships

<b>Year</b>	<b>Actual</b>
2014	1

**Output #22**

**Output Measure**

- CHAMPION: Number of YMCA partnerships

<b>Year</b>	<b>Actual</b>
2014	1

**Output #23**

**Output Measure**

- CHAMPION: Number of Exercise Center partnerships

<b>Year</b>	<b>Actual</b>
2014	2

**Output #24**

**Output Measure**

- CHAMPION: Number of Prison partnerships

<b>Year</b>	<b>Actual</b>
2014	2

**Output #25**

**Output Measure**

- SNAP Ed: Number of nutrition classes conducted

<b>Year</b>	<b>Actual</b>
2014	4434

**Output #26**

**Output Measure**

- SNAP-Ed: Number of participants to one-time classes

<b>Year</b>	<b>Actual</b>
2014	23688

**Output #27**

**Output Measure**

- SNAP-Ed: Health Fairs

<b>Year</b>	<b>Actual</b>
2014	23

**Output #28**

**Output Measure**

- SNAP-Ed: Number of PSAs on radio/tv

<b>Year</b>	<b>Actual</b>
2014	12

**Output #29**

**Output Measure**

- SNAP-Ed: Number of adult participants

<b>Year</b>	<b>Actual</b>
2014	23688

**Output #30**

**Output Measure**

- Urban SNAP-Ed :Number of participants

<b>Year</b>	<b>Actual</b>
2014	1327

**Output #31**

**Output Measure**

- Urban SNAP-Ed number of food demonstrations

<b>Year</b>	<b>Actual</b>
2014	176

**Output #32**

**Output Measure**

- Urban SNAP-Ed: In-service Trainings

<b>Year</b>	<b>Actual</b>
2014	1

**Output #33**

**Output Measure**

- Urban SNAP- Ed: Resources Updated

<b>Year</b>	<b>Actual</b>
2014	1

**Output #34**

**Output Measure**

- Urban Snap-Ed: Health Fairs

<b>Year</b>	<b>Actual</b>
2014	7

**Output #35**

**Output Measure**

- Urban Snap-Ed Delivery sites for adults: Elderly Centers

<b>Year</b>	<b>Actual</b>
2014	31

**Output #36**

**Output Measure**

- Urban Snap-Ed Delivery sites for adults: Community Centers

<b>Year</b>	<b>Actual</b>
2014	9

**Output #37**

**Output Measure**

- Urban Snap-Ed Delivery sites for adults: Number of DHR

<b>Year</b>	<b>Actual</b>
2014	2

**Output #38**

**Output Measure**

- Urban Snap-Ed Delivery sites for adults: Number of Health Departments

<b>Year</b>	<b>Actual</b>
2014	1

**Output #39**

**Output Measure**

- Urban Snap-Ed Delivery sites for adults: Number of Libraries

<b>Year</b>	<b>Actual</b>
2014	1

**Output #40**

**Output Measure**

- Urban Snap-Ed Delivery sites for adults: Number of Public Housing Authorities

<b>Year</b>	<b>Actual</b>
2014	18

**Output #41**

**Output Measure**

- Rite Bite: Number of participants

<b>Year</b>	<b>Actual</b>
2014	130

**Output #42**

**Output Measure**

- Battled-Pink and Teal Cancer Awareness: Number of Counties implementing the program

<b>Year</b>	<b>Actual</b>
2014	3

**Output #43**

**Output Measure**

- Battled-Pink and Teal Cancer Awareness: Number of participants in breast self-examination training

<b>Year</b>	<b>Actual</b>
2014	20

**Output #44**

**Output Measure**

- Battled-Pink and Teal Cancer Awareness: Number of participants in seminar/health fair

<b>Year</b>	<b>Actual</b>
2014	120

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

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

O. No.	OUTCOME NAME
1	This program area will include numerous output activities and methods which are described/explained in the logic model. The success of many of these outcomes will be formal evaluations/measured by using individual activity evaluation forms designed specifically for each activit. The success of other activities and methods will be measured by the level of participation in the activity. In the target boxes below for each year, we are indicating the number of individual activities for this program area that will be formally evaluated using the evaluation instrument designed specifically for that activity
2	CHAMPION Pre and Post Tests and Weight Management Observation
3	CHAMPION: the number of participants who maintained healthy behaviors
4	The number of participants who increased health wellbeing- EFNEP
5	EFNEP: The number of participant who increased healthy behaviors
6	Urban EFNEP: Increase in #/% of Hispanic adults nutrition knowledge
7	Urban EFNEP: Hispanic adults #/% of nutrition practices improved.
8	Urban EFNEP: Hispanic adults #/% of food safety practices improved.
9	Urban EFNEP: Hispanic adults #/% of food resource management practices improved.
10	Urban SNAP-Ed: Number of adults with increased understanding of basic nutrition concepts.
11	Urban SNAP-Ed: The number of adults with increased understanding of the six major nutrients and their functions
12	Urban SNAP-Ed: Number of adults who follow the MyPlate/Dietary Guidelines recommendations.
13	Urban SNAP-Ed: The number of of adults who are physically active each day
14	Urban SNAP-Ed: The number of adults who separate foods that are raw, cooked, or ready-to-eat to avoid cross contamination.
15	Urban SNAP-Ed: Increase % of adults who read food labels when purchasing foods.
16	Urban SNAP-Ed: Increase % of adults who utilize a personal budget



17	Urban SNAP-Ed: Increase % of adults who plan meals based on what's on hand, on sale, and in season.
18	Urban SNAP-Ed: Increase % of adults who modify recipes to make them healthier.
19	Eat Healthy Be Active: The number of workshop participants who increased healthy behaviors
20	SNAP-Ed
21	Number of participants who increased knowledge of breast and ovarian cancer related issues.

**Outcome #1**

**1. Outcome Measures**

This program area will include numerous output activities and methods which are described/explained in the logic model. The success of many of these outcomes will be formal evaluations/measured by using individual activity evaluation forms designed specifically for each activit. The success of other activities and methods will be measured by the level of participation in the activity. In the target boxes below for each year, we are indicating the number of individual activities for this program area that will be formally evaluated using the evaluation instrument designed specifically for that activity

Not Reporting on this Outcome Measure

**Outcome #2**

**1. Outcome Measures**

CHAMPION Pre and Post Tests and Weight Management Observation

Not Reporting on this Outcome Measure

**Outcome #3**

**1. Outcome Measures**

CHAMPION: the number of participants who maintained healthy behaviors

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	245

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

**Issue (Who cares and Why)**

Alabamians' obesity rate is significantly high in adults (33%) and youth 2-17 years old (28%). This rate has an effect on the increased incidents of obesity-related diseases (Diabetes-14.1%, Hypertension-40.0%, High Cholesterol-34.1 %, Coronary Heart Disease-7.4%). Contributing key factors are unhealthy eating habits- consume under the recommended servings of fruits and vegetables combined (adults-52% and youth-165%) and physical inactivity (adults-31% and youth-22.4%).

**What has been done**

Nine (9) Urban Regional Extension Agents (UREAs) implemented a 12 week Community Health Aerobic Motivational Program Initiating Optimal Nutrition (CHAMPION) program in nine (9) metropolitan areas. Each agent conducted six (6) lessons and four (4) 30 minutes exercise classes using the iChoose CHAMPION curriculum for adult ages 18 and above. Before and after lessons, the agents collected demographics, behavioral and knowledge data. Behavioral habits were reassessed three (3) months after program completion. There were a total of 245 adult participants

**Results**

An independent-samples t-test was conducted to compare before (N=243) and after (N=239) knowledge of CHAMPION adult participants. There was a significant higher ( $p < 0.05$ ) score for the posttest (M=9.81, SD=2.57) than the pretest (M=6.99, SD=2.78),  $t = -11.57$ . The results suggest that adult participants' knowledge increased from pretests to posttests. Behavioral habits of adults before (N=196), after (N=154) and three (3) months post-delayed (N=95) were assessed for consumption of fruits, vegetables, whole grains, lean meats, and water and time engaged in physical activity. Results: 1) Fruits were consumed 1-2 times/day: Pre- 68%; Post- 58% and Post-delayed- 66%. 2) Vegetables were consumed 1-2 times/day: Pre- 67%; Post- 55%; Post-delayed- 58%. 3) 8 ounces or more of water was consumed 5 or more times/day: Pre- 32%; Post- 36%; and Post-delayed- 37%. 4) Engagement in physical activity for 3-5 days- Pre- 5-20 minutes (36%); Post- 30-minutes (34%) and Post-delayed- 30 minutes (35%).

**4. Associated Knowledge Areas**

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

**Outcome #4**

**1. Outcome Measures**

The number of participants who increased health wellbeing- EFNEP

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	2885

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

**Issue (Who cares and Why)**

Poor nutrition and obesity are significant health concerns which disproportionately affect minorities and limited-resource populations in Alabama. Increasing physical activity helps individuals maintain healthy weight and combat obesity and chronic diseases. As well as an increasing fruits, vegetables, whole grains, protein foods, and dairy while decreasing oils, solid fats, and sugars helps guard against chronic diseases and encourages healthy food choices.

**What has been done**

To aid clients in making dietary changes and increasing physical activity levels, 41 Extension EFNEP educators taught a series of six nutrition education lessons to the target population in 38 Alabama counties. Goals accomplished through education, food demonstrations/tasting experiences, and hands-on activities.

**Results**

At program exit, 94% of EFNEP graduates showed a positive change in at least one food group while 33.8% showed a positive change in physical activity.

**4. Associated Knowledge Areas**

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

## **Outcome #5**

### **1. Outcome Measures**

EFNEP: The number of participant who increased healthy behaviors

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

- 1862 Extension

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

Change in Action Outcome Measure

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

<b>Year</b>	<b>Actual</b>
2014	2885

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

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

Food resource management, nutrition practices, and food safety practices include healthy behaviors that Alabama?s limited-resource population should put into practice. Wise food safety practices help reduce the likelihood of foodborne illness while nutrition and cost savings are increased when careful, planned food shopping is exhibited.

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

To aid EFNEP adult participants in exhibiting healthy behaviors, 41 Extension EFNEP educators taught a series of six nutrition education lessons emphasizing food resource management practices, nutrition practices and food safety practices to the target population in 38 Alabama counties. Goals were accomplished through education, food demonstrations/tasting experiences, and hands-on activities.

#### **Results**

As a result of participating in EFNEP, seventy-eight percent of adult participants showed improvement in one or more food resource management practices, eighty-four percent of adult participants showed improvement in one or more nutrition practices, and fifty-seven percent of adult participants showed improvement in one or more food safety practices.

### **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  
903 Communication, Education, and Information Delivery

**Outcome #6**

**1. Outcome Measures**

Urban EFNEP: Increase in #/% of Hispanic adults nutrition knowledge

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	88

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

**Issue (Who cares and Why)**

Hispanics adults are at risk for obesity and other health-related diseases due to lack of knowledge on healthy eating patterns, proper physical activity, and available resources. This has an impact on shaping the health status, eating habits, and physical activity which will play a significant role on long-term health and health care cost for Hispanic and other disadvantaged populations.

**What has been done**

Three UEFNEP Agent Assistants delivered programming using the Wise Eating for a Life Time of Health (WEALTH) curriculum. A 10-lessons series on basic nutrition, food safety, food resource management and meal planning was taught. Agent assistants conducted 15 food demonstrations. The Mobile Nutrition Unit was used as an educational and marketing tool at health fairs and church outreach activities

**Results**

73% (64 of 88) more often thought about healthy food choices when deciding what to feed their families.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

903 Communication, Education, and Information Delivery

**Outcome #7**

**1. Outcome Measures**

Urban EFNEP: Hispanic adults #/% of nutrition practices improved.

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	88

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

**Issue (Who cares and Why)**

Hispanics adults are at risk for obesity and other health-related diseases due to lack of knowledge on healthy eating patterns, proper physical activity, and available resources. This has an impact on shaping the health status, eating habits, and physical activity which will play a significant role on long-term health and health care cost for Hispanic and other disadvantaged populations.

**What has been done**

Three UEFNEP Agent Assistants delivered programming using the Wise Eating for a Life Time of Health (WEALTH) curriculum. A 10-lessons series on basic nutrition, food safety, food resource management and meal planning was taught. Agent assistants conducted 15 food demonstrations. The Mobile Nutrition Unit was used as an educational and marketing tool at health fairs and church outreach activities.

**Results**

77% (68 of 88) more often planned meals in advance; 49% (43 of 88) more often prepared foods without adding salt; 80% (70 of 88) more often used the "Nutrition Facts" on food labels to make food choices; 52% (46 of 88) reported their children ate breakfast more often

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle
903	Communication, Education, and Information Delivery

**Outcome #8**

**1. Outcome Measures**

Urban EFNEP: Hispanic adults #/% of food safety practices improved.

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	88

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

**Issue (Who cares and Why)**

Hispanics adults are at risk for obesity and other health-related diseases due to lack of knowledge on healthy eating patterns, proper physical activity, and available resources. This has an impact on shaping the health status, eating habits, and physical activity which will play a significant role on long-term health and health care cost for Hispanic and other disadvantaged populations.

**What has been done**

Three UEFNEP Agent Assistants delivered programming using the Wise Eating for a Life Time of Health (WEALTH) curriculum. A 10-lessons series on basic nutrition, food safety, food resource management and meal planning was taught. Agent assistants conducted 15 food demonstrations. The Mobile Nutrition Unit was used as an educational and marketing tool at health fairs and church outreach activities

**Results**

41% (36 of 88) more often followed the recommended practices of not allowing meat and dairy foods to sit out for more than two hours. Furthermore 32% (28 of 88) always follow the recommended practice.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle
903	Communication, Education, and Information Delivery

**Outcome #9**

**1. Outcome Measures**

Urban EFNEP: Hispanic adults #/% of food resource management practices improved.

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	88

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

**Issue (Who cares and Why)**

Hispanics adults are at risk for obesity and other health-related diseases due to lack of knowledge on healthy eating patterns, proper physical activity, and available resources. This has an impact on shaping the health status, eating habits, and physical activity which will play a significant role on long-term health and health care cost for Hispanic and other disadvantaged populations.

**What has been done**

Three UEFNEP Agent Assistants delivered programming using the Wise Eating for a Life Time of Health (WEALTH) curriculum. A 10-lessons series on basic nutrition, food safety, food resource management and meal planning was taught. Agent assistants conducted 15 food demonstrations. The Mobile Nutrition Unit was used as an educational and marketing tool at health fairs and church outreach activities.

**Results**

77% (68 of 88) more often planned meals in advance; 61% (54 of 88) more often compared prices when shopping; 34% (30 of 88) less often ran out of food before the end of the month; 66% (58 of 88) more often used a list for grocery shopping.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle
903	Communication, Education, and Information Delivery



**Outcome #10**

**1. Outcome Measures**

Urban SNAP-Ed: Number of adults with increased understanding of basic nutrition concepts.

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	1327

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

**Issue (Who cares and Why)**

Adults are not meeting the requirements for fruits and vegetables, whole grains, and physical activity. They are consuming excessive amounts of sodium, sugar and fat. The results from these poor behavior habits are the increased risks of chronic diseases such as obesity, diabetes, heart disease and some forms of cancer. The benefits of consuming a healthy diet and exercising will improve health status and health cost.

**What has been done**

Twelve USNAP-Ed Agent Assistants, delivered programming in 20 counties using the Wise Eating Approaches for a Lifetime of Health (WEALTH) curriculum. Programming was conducted at 62 adult sites including, WIC/DHR offices, public housing, senior centers, and community centers. Pre, post and 3 month delayed post assessments were collected.

**Results**

The percentage of adults who responded "very clear" increased; 22% (pre), 47% (post), and 60% (delayed post).

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

**Outcome #11**

**1. Outcome Measures**

Urban SNAP-Ed: The number of adults with increased understanding of the six major nutrients and their functions

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	1327

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

**Issue (Who cares and Why)**

Adults are not meeting the requirements for fruits and vegetables, whole grains, and physical activity. They are consuming excessive amounts of sodium, sugar and fat. The results from these poor behavior habits are the increased risks of chronic diseases such as obesity, diabetes, heart disease and some forms of cancer. The benefits of consuming a healthy diet and exercising will improve health status and health cost.

**What has been done**

Twelve USNAP-Ed Agent Assistants, delivered programming in 20 counties using the Wise Eating Approaches for a Lifetime of Health (WEALTH) curriculum. Programming was conducted at 62 adult sites including, WIC/DHR offices, public housing, senior centers, and community centers. Pre, post and 3 month delayed post assessments were collected.

**Results**

The percentage of adult participants' responses of "very clear" increased; 17% (pre), 45% (post), and 50% (delayed post).

**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 #12**

**1. Outcome Measures**

Urban SNAP-Ed: Number of adults who follow the MyPlate/Dietary Guidelines recommendations.

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	1327

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

**Issue (Who cares and Why)**

Adults are not meeting the requirements for fruits and vegetables, whole grains, and physical activity. They are consuming excessive amounts of sodium, sugar and fat. The results from these poor behavior habits are the increased risks of chronic diseases such as obesity, diabetes, heart disease and some forms of cancer. The benefits of consuming a healthy diet and exercising will improve health status and health cost.

**What has been done**

Twelve USNAP-Ed Agent Assistants, delivered programming in 20 counties using the Wise Eating Approaches for a Lifetime of Health (WEALTH) curriculum. Programming was conducted at 62 adult sites including, WIC/DHR offices, public housing, senior centers, and community centers. Pre, post and 3 month delayed post assessments were collected.

**Results**

The percentage of adults responded "always" and "most of the time" increased; 53% (pre), 77% (post), and 84% (delayed post). The percentage of adults responding "always" and "most of the time" increased; 58% (pre), 82% (post), and 87% (delayed post). The percentage of adults responding "always" and "most of the time" increased; 56% (pre), 83% (post), and 80% (delayed post).

**4. Associated Knowledge Areas**

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

**Outcome #13**

**1. Outcome Measures**

Urban SNAP-Ed: The number of of adults who are physically active each day

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	1093

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

**Issue (Who cares and Why)**

Adults are not meeting the requirements for fruits and vegetables, whole grains, and physical activity. They are consuming excessive amounts of sodium, sugar and fat. The results from these poor behavior habits are the increased risks of chronic diseases such as obesity, diabetes, heart disease and some forms of cancer. The benefits of consuming a healthy diet and exercising will improve health status and health cost.

**What has been done**

Twelve USNAP-Ed Agent Assistants, delivered programming in 20 counties using the Wise Eating Approaches for a Lifetime of Health (WEALTH) curriculum. Programming was conducted at 62 adult sites including, WIC/DHR offices, public housing, senior centers, and community centers. Pre, post and 3 month delayed post assessments were collected.

**Results**

The percentage of adults responded "always" or "most of the time" increased; 684 (56% at pre), 1052 (77% at post), and 1093 (80% at delayed post).

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

**Outcome #14**

**1. Outcome Measures**

Urban SNAP-Ed: The number of adults who separate foods that are raw, cooked, or ready-to-eat to avoid cross contamination.

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	1194

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

**Issue (Who cares and Why)**

Adults are not meeting the requirements for fruits and vegetables, whole grains, and physical activity. They are consuming excessive amounts of sodium, sugar and fat. The results from these poor behavior habits are the increased risks of chronic diseases such as obesity, diabetes, heart disease and some forms of cancer. The benefits of consuming a healthy diet and exercising will improve health status and health cost.

**What has been done**

Twelve USNAP-Ed Agent Assistants, delivered programming in 20 counties using the Wise Eating Approaches for a Lifetime of Health (WEALTH) curriculum. Programming was conducted at 62 adult sites including, WIC/DHR offices, public housing, senior centers, and community centers. Pre, post and 3 month delayed post assessments were collected.

**Results**

The percentage of adults responded "always" and "most of the time" increased from 70% (pre), 95% (post), and 90% (1194 at delayed post).

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
703	Nutrition Education and Behavior
724	Healthy Lifestyle

**Outcome #15**

**1. Outcome Measures**

Urban SNAP-Ed: Increase % of adults who read food labels when purchasing foods.

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	1327

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

**Issue (Who cares and Why)**

Adults are not meeting the requirements for fruits and vegetables, whole grains, and physical activity. They are consuming excessive amounts of sodium, sugar and fat. The results from these poor behavior habits are the increased risks of chronic diseases such as obesity, diabetes, heart disease and some forms of cancer. The benefits of consuming a healthy diet and exercising will improve health status and health cost.

**What has been done**

Twelve USNAP-Ed Agent Assistants, delivered programming in 20 counties using the Wise Eating Approaches for a Lifetime of Health (WEALTH) curriculum. Programming was conducted at 62 adult sites including, WIC/DHR offices, public housing, senior centers, and community centers. Pre, post and 3 month delayed post assessments were collected.

**Results**

The percentage of adults responded "always" and "most of the time" increased from 50% (pre), 79% (post), and 87% (delayed post).

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
703	Nutrition Education and Behavior
724	Healthy Lifestyle

**Outcome #16**

**1. Outcome Measures**

Urban SNAP-Ed: Increase % of adults who utilize a personal budget

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	1327

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

**Issue (Who cares and Why)**

Adults are not meeting the requirements for fruits and vegetables, whole grains, and physical activity. They are consuming excessive amounts of sodium, sugar and fat. The results from these poor behavior habits are the increased risks of chronic diseases such as obesity, diabetes, heart disease and some forms of cancer. The benefits of consuming a healthy diet and exercising will improve health status and health cost.

**What has been done**

Twelve USNAP-Ed Agent Assistants, delivered programming in 20 counties using the Wise Eating Approaches for a Lifetime of Health (WEALTH) curriculum. Programming was conducted at 62 adult sites including, WIC/DHR offices, public housing, senior centers, and community centers. Pre, post and 3 month delayed post assessments were collected.

**Results**

The percentage of adult participant responses of "always" and "most of the time" increased; 57% (pre) to 79% (post), and 88% (delayed post).

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
703	Nutrition Education and Behavior
724	Healthy Lifestyle

**Outcome #17**

**1. Outcome Measures**

Urban SNAP-Ed: Increase % of adults who plan meals based on what's on hand, on sale, and in season.

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	1327

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

**Issue (Who cares and Why)**

Adults are not meeting the requirements for fruits and vegetables, whole grains, and physical activity. They are consuming excessive amounts of sodium, sugar and fat. The results from these poor behavior habits are the increased risks of chronic diseases such as obesity, diabetes, heart disease and some forms of cancer. The benefits of consuming a healthy diet and exercising will improve health status and health cost.

**What has been done**

Twelve USNAP-Ed Agent Assistants, delivered programming in 20 counties using the Wise Eating Approaches for a Lifetime of Health (WEALTH) curriculum. Programming was conducted at 62 adult sites including, WIC/DHR offices, public housing, senior centers, and community centers. Pre, post and 3 month delayed post assessments were collected.

**Results**

The percentage of adults responded "always" and "most of the time" increased; 58% (pre), 83% (post), and 88% (delayed post).

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
703	Nutrition Education and Behavior
724	Healthy Lifestyle



**Outcome #18**

**1. Outcome Measures**

Urban SNAP-Ed: Increase % of adults who modify recipes to make them healthier.

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	1327

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

**Issue (Who cares and Why)**

Adults are not meeting the requirements for fruits and vegetables, whole grains, and physical activity. They are consuming excessive amounts of sodium, sugar and fat. The results from these poor behavior habits are the increased risks of chronic diseases such as obesity, diabetes, heart disease and some forms of cancer. The benefits of consuming a healthy diet and exercising will improve health status and health cost

**What has been done**

Twelve USNAP-Ed Agent Assistants, delivered programming in 20 counties using the Wise Eating Approaches for a Lifetime of Health (WEALTH) curriculum. Programming was conducted at 62 adult sites including, WIC/DHR offices, public housing, senior centers, and community centers. Pre, post and 3 month delayed post assessments were collected.

**Results**

The percentage of adult participant responses of "always" and "most of the time" increased;37% (pre), 63% (post), and 62% (delayed post).

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
703	Nutrition Education and Behavior
724	Healthy Lifestyle

**Outcome #19**

**1. Outcome Measures**

Eat Healthy Be Active: The number of workshop participants who increased healthy behaviors

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	60

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

**Issue (Who cares and Why)**

According to America's Health Rankings, Alabama's overall ranking has improved from 48th in 2011 to 45th in 2012 (Alabama has the fifth highest rate of adult obesity in the nation (33%) and the sixth highest rate of overweight youths (ages 10-17 at 36%). Overall, two-thirds of Alabama's adults are either overweight or obese. If obesity rates continue on their current trajectory, by 2030, 13 states, one of which is Alabama, could have adult obesity rates above 60% (Alabama 62.6%) and all 50 states could have rates above 44%. America's Health Ranking lists Alabama's health challenges as; diet-related chronic diseases (obesity, diabetes, heart disease, stroke, and cancer).

**What has been done**

The workshops were offered in all 67 counties, but were successfully implemented in 42 counties by 8 Regional Extension Agents.

**Results**

N= 60 32% reported participating in a planned physical activity for more than 6 months, 20% reported less than 6 months, 12% reported to start in the next 30 days, 20% planned to in the next 6 months, and 16% did not plan to in the next 6 months; 2.42% reported eating 5 or more cups of fruit and vegetables a day for more than 6 months, 25% eating for less than 6 months, 17% planned to in the next 30 days, 13% planned to in the next 6 months, and 4% did not plan to in the next 6 months.

**4. Associated Knowledge Areas**

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

701	Nutrient Composition of Food
703	Nutrition Education and Behavior
724	Healthy Lifestyle

**Outcome #20**

**1. Outcome Measures**

SNAP-Ed

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	23688

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

**Issue (Who cares and Why)**

The Alabama population shows great disparity in terms of obesity rates, obesity-related disease rates, low fruit and vegetable intakes and minimal physical activity levels. The SNAP population is disproportionately affected by these health issues.

**What has been done**

Twenty-four Extension SNAP-Ed educators provide direct nutrition education in 47 rural Alabama counties to SNAP-Ed eligible recipients. This education is provided in county food assistance offices, emergency food banks and subsidized housing.

**Results**

Eighty-nine percent of adults reported using food resource management skills to extend the food dollar for their families.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
703	Nutrition Education and Behavior

**Outcome #21**

**1. Outcome Measures**

Number of participants who increased knowledge of breast and ovarian cancer related issues.

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	126

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

**Issue (Who cares and Why)**

Cancer awareness education to citizens about the importance of early detection and the signs and symptoms of breast and ovarian cancer are critical in combating high cancer rates among females in these three counties.

**What has been done**

Three activities, consisting of seminar, training workshop and health fair, were conducted to provide cancer awareness education to citizens about the importance of early detection and the signs and symptoms of breast and ovarian cancer.

A total of three counties (Clay, Randolph and Talladega) in Region 4 implemented the BATILED program for youth and adults. The BATILED program teaches the importance of preventive measures such as breast self-examination (BSE), early detection and screening. In addition, educates Alabamians on other related forms of cancers associated with breast cancer.

126 youth and adults participated in BATILED. Twenty (20) youth participated in the breast self-examination training for high school students. 106 adults participated in the seminars and health fair. Of the 126 participants, 45% were white, 54% were black and 1% more than one race.

**Results**

Students learned how to conduct breast self-examination using the mamma care breast models. Using the beads of hope necklaces, students learned how to recognize shapes and sizes of various breast lumps found by breast self-examination. Each bead representing a different dimension and diameter for each lump found.

Students learned how other cancers may be linked to breast and ovarian cancers.

Students received understanding on medical terminology associated with breast and ovarian cancer.

Thirty-five (35%) of the students indicated they would perform a monthly breast self-examination. Health fair participants became more aware of the importance of early detection after viewing four different images of lumps in the mammogram models.

A total of 47 participants indicated the health fair increased their knowledge on how to access information and resources regarding breast and ovarian cancer.

Twenty-three (23) participants indicated they would take advantage of the reduced pricing screening opportunities offered by local health care providers and hospitals.

Participants indicated their knowledge about ovarian cancer and its association with other cancers had increased.

At least 35% of the participants in the seminars indicated having a yearly screening conducted or had one scheduled within the next two months.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle
903	Communication, Education, and Information Delivery

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

##### External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Other (Transportation; time restraints)

##### Brief Explanation

An external factor faced by the USNAP-Ed program included navigating the schedule changes that arise at some of the sites. An attempt was made to avoid this by meeting with the site directors and plan out all of the meeting times in advance so that it is on the calendar.

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

##### Evaluation Results

###### EFNEP:

94% showed a positive change in any food group at exit (fruits, vegetables, grains, protein foods, dairy)

34% showed a positive change in physical activity

78% showed improvement in one or more food resource management practices (plan meals, compare prices, does not run out of food or uses grocery lists)

84% showed improvement in one or more nutrition practices (plans meals, makes healthy food choices, prepares food without adding salt, reads nutrition labels or has children eat breakfast.

57% of participants showed improvement in one or more food safety practice (thawing and storing foods correctly)

Urban SNAP-Ed: Understanding of basic nutrition concepts increased- 22% (pre), 47%

(post), and 60% (delayed post). Adults' action changed: MyPlate/Dietary Guidelines recommendations: Eat Fruit- "always" and "most of the time" 53% (pre), 77% (post), and 84% (delayed post); Eat Vegetables - "always" and "most of the time" 58% (pre), 82% (post), and 87% (delayed post); Be physically active each day- "always" or "most of the time" 56% (pre), 77% (post), and 80% (delayed post).

Urban EFNEP: Adults increased nutrition knowledge 73% (64 of 88); improved nutrition practices on planning meals in advance-77% (68 of 88), using the "Nutrition Facts" on food labels to make food choices- 80% (70 of 88), preparing foods without adding salt- 49% (43 of 88).

CHAMPION: Adults' before (N=243) and after (N=239) knowledge significantly increased ( $p < 0.05$ ) posttest ( $M=9.81$ ,  $SD=2.57$ ) than the pretest ( $M=6.99$ ,  $SD=2.78$ ),  $t= -11.57$ . Adults three (3) months post-delayed (N=95) continued to consume fruits (66%) and vegetables (58%) 1-2 times/day and engaged in physical activity 3-5 days for 30 minutes (35%.)

#### Cancer Awareness

Thirty-five (35%) of the students indicated they would perform a monthly breast self- examination.

A total of 47 participants indicated the health fair increased their knowledge on how to access information and resources regarding breast and ovarian cancer.

Twenty-three (23) participants indicated they would take advantage of the reduced pricing screening opportunities offered by local health care providers and hospitals.

At least 35% of the participants in the seminars indicated having a yearly screening conducted or had one scheduled within the next two months.

Eat Healthy Be Active N= 60 32% reported participating in a planned physical activity for more than 6 months, 20% reported less than 6 months, 12% reported to start in the next 30 days; 2.42% reported eating 5 or more cups of fruit and vegetables a day for more than 6 months, 25% eating for less than 6 months

#### EFNEP:

94% showed a positive change in any food group at exit (fruits, vegetables, grains, protein foods, dairy)

34% showed a positive change in physical activity

78% showed improvement in one or more food resource management practices (plan meals, compare prices, does not run out of food or uses grocery lists

84% showed improvement in one or more nutrition practices (plans meals, makes healthy food choices, prepares food without adding salt, reads nutrition labels or has children eat breakfast.

57% of participants showed improvement in one or more food safety practice (thawing and storing foods correctly)

Urban SNAP-Ed: Understanding of basic nutrition concepts increased- 22% (pre), 47% (post), and 60% (delayed post). Adults' action changed: MyPlate/Dietary Guidelines recommendations: Eat Fruit- "always" and "most of the time" 53% (pre), 77% (post), and 84% (delayed post); Eat Vegetables - "always" and "most of the time" 58% (pre), 82% (post), and 87% (delayed post); Be physically active each day- "always" or "most of the time" 56% (pre), 77% (post), and 80% (delayed post).

Urban EFNEP: Adults increased nutrition knowledge 73% (64 of 88); improved nutrition practices on planning meals in advance-77% (68 of 88), using the "Nutrition Facts" on food labels to make food choices- 80% (70 of 88), preparing foods without adding salt- 49% (43 of 88).

CHAMPION: Adults' before (N=243) and after (N=239) knowledge significantly increased ( $p<0.05$ ) posttest ( $M=9.81$ ,  $SD=2.57$ ) than the pretest ( $M=6.99$ ,  $SD=2.78$ ),  $t= -11.57$ . Adults three (3) months post-delayed (N=95) continued to consume fruits (66%) and vegetables (58%) 1-2 times/day and engaged in physical activity 3-5 days for 30 minutes (35%.)

#### Cancer Awareness

Thirty-five (35%) of the students indicated they would perform a monthly breast self- examination.

A total of 47 participants indicated the health fair increased their knowledge on how to access information and resources regarding breast and ovarian cancer.

Twenty-three (23) participants indicated they would take advantage of the reduced pricing screening opportunities offered by local health care providers and hospitals.

At least 35% of the participants in the seminars indicated having a yearly screening conducted or had one scheduled within the next two months.

Eat Healthy Be Active N= 60 32% reported participating in a planned physical activity for more than 6 months, 20% reported less than 6 months, 12% reported to start in the next 30 days; 2.42% reported eating 5 or more cups of fruit and vegetables a day for more than 6 months, 25% eating for less than 6 months

### Key Items of Evaluation

#### EFNEP:

94% showed a positive change in any food group at exit (fruits, vegetables, grains, protein foods, dairy)

34% showed a positive change in physical activity

78% showed improvement in one or more food resource management practices (plan meals, compare prices, does not run out of food or uses grocery lists)

84% showed improvement in one or more nutrition practices (plans meals, makes healthy food choices, prepares food without adding salt, reads nutrition labels or has children eat breakfast.

57% of participants showed improvement in one or more food safety practice (thawing and storing foods correctly)

Urban SNAP-Ed: Understanding of basic nutrition concepts increased- 22% (pre), 47% (post), and 60% (delayed post). Adults' action changed: MyPlate/Dietary Guidelines recommendations: Eat Fruit- "always" and "most of the time" 53% (pre), 77% (post), and 84% (delayed post); Eat Vegetables - "always" and "most of the time" 58% (pre), 82% (post), and 87% (delayed post); Be physically active each day- "always" or "most of the time" 56% (pre), 77% (post), and 80% (delayed post).

Urban EFNEP: Adults increased nutrition knowledge 73% (64 of 88); improved nutrition practices on planning meals in advance-77% (68 of 88), using the "Nutrition Facts" on food labels to make food choices- 80% (70 of 88), preparing foods without adding salt- 49% (43 of 88).

CHAMPION: Adults' before (N=243) and after (N=239) knowledge significantly increased ( $p<0.05$ ) posttest ( $M=9.81$ ,  $SD=2.57$ ) than the pretest ( $M=6.99$ ,  $SD=2.78$ ),  $t= -11.57$ . Adults three (3) months post-delayed (N=95) continued to consume fruits (66%) and vegetables (58%) 1-2 times/day and engaged in physical activity 3-5 days for 30 minutes (35%.)

#### Cancer Awareness

Thirty-five (35%) of the students indicated they would perform a monthly breast self- examination.

A total of 47 participants indicated the health fair increased their knowledge on how to access information and resources regarding breast and ovarian cancer.

Twenty-three (23) participants indicated they would take advantage of the reduced pricing screening opportunities offered by local health care providers and hospitals.

At least 35% of the participants in the seminars indicated having a yearly screening conducted or had one scheduled within the next two months.

Eat Healthy Be Active N= 60 32% reported participating in a planned physical activity for more than 6 months, 20% reported less than 6 months, 12% reported to start in the next 30 days; 2.42% reported eating 5 or more cups of fruit and vegetables a day for more than 6 months, 25% eating for less than 6 months



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

**Program # 12**

**1. Name of the Planned Program**

Workforce Development

Reporting on this Program

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

**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
608	Community Resource Planning and Development	55%	40%		
806	Youth Development	10%	50%		
903	Communication, Education, and Information Delivery	35%	10%		
	<b>Total</b>	100%	100%		

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

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

Year: 2014	Extension		Research	
	1862	1890	1862	1890
<b>Plan</b>	8.8	2.2	0.0	0.0
<b>Actual Paid</b>	21.4	1.6	0.0	0.0
<b>Actual Volunteer</b>	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
226152	81930	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
430474	89738	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
1413357	189450	0	0

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

## 1. Brief description of the Activity

### Education & Training

- Continued refinement of Broadband modules and conduction of broadband workshops and community forums following the completion of the \$1.2 million Sustainable Broadband Adoption grant. Initial forums and training sessions were conducted by AU based extension staff and County Extension Coordinators. Expanded the project and marketed it so the 10 training modules (Introduction to the Internet and Broadband 101, eHome, eCommunity, eCommerce, eGovernment, eLearning, eGlobal, eHealth, eWorkforce, and ePublic Safety) could be used by anyone, not just extension personnel
  - 4-H continued their newly developed 4-H Innovators program designed to develop STEM life skills so Alabama youth will be competitive in the 21<sup>st</sup> Century workforce. Program is supported by all 4-H delivery modes. Over 3200 individuals participated in this "hands-on, minds-on" inquiry based learning. 243 activities were carried out. Each participant received 3 to 10 hours of instruction
- Urban Regional Agents (UREAs) working with local partners conducted 26 Career Countdown programs in 8 counties across the state of Alabama. The program: (a) simulates economic deterioration; (b) educates on the causes of economic deterioration, (c) provides direction and training on career planning, and (d) provides direction and training on education planning. A total of 4400 youth participated in the program

### Community Engagement

- Initiated the potential development of a multi-state "Stronger Economies Together(SET) planning project for a 7 county region along the Tenn-Tom Waterway
  - An engagement tool, "Community Questions: Engaging Citizens to Address Community Concerns," was created and provided to over 300 community leaders throughout Alabama
  - Participated in Extension Reconsidered, an initiative examining the legacy and impact of Extension programs, and envisioning future directions for Extension in the 21<sup>st</sup> Century. In Alabama, deliberative forums were conducted for about 25 Extension program and administrative leaders, 35 regional specialists, and 30 County Extension Coordinators
- County Extension Coordinators (CECs) conducted Small Business Roundtables in many counties throughout Alabama. The roundtables brought together local business representatives to discuss local issues, needs and strategies.
- Each quarter, Impact Alabama brought together a class of 16 of Alabama's top economic development executives for two-day issue-oriented forums
  - 49 participants in Alabama Intensive Economic Development Training Course engaged in roundtable discussions about issues related to Alabama economic development
  - Multiple county-level meetings were held by County Extension Coordinators. When the largest employer in Northwest Alabama closed, 5 county Extension Coordinators conducted meetings of key regional stakeholders to address the needs of displaced workers

## 2. Brief description of the target audience

The primary target audiences are current and future community leaders, decision makers, and local and state governmental officials and youth in communities across the state. 4-H Innovators is directed to youth 9 through 18.

## 3. How was eXtension used?

All 4-H Innovators materials are housed in eXtension FYFLY network.

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

**1. Standard output measures**

2014	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	2736	2224	23793	25740

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

**Patent Applications Submitted**

Year: 2014  
 Actual: 0

**Patents listed**

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

**Number of Peer Reviewed Publications**

2014	Extension	Research	Total
<b>Actual</b>	9	0	9

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

**Output Target**

**Output #1**

**Output Measure**

- 1. Study circles and/or deliberative forums focused on education and workforce development organized and conducted.  
 Not reporting on this Output for this Annual Report

**Output #2**

**Output Measure**

- 2. Alabama 4-H and youth development day camps, after-school programs, in-school enrichment groups conducted and partnerships created with other youth serving organizations.  
 Not reporting on this Output for this Annual Report

**Output #3**

**Output Measure**

- 3. Employment simulations, career awareness, skills assessment, and career planning conducted throughout urban and rural Alabama.

Not reporting on this Output for this Annual Report

**Output #4**

**Output Measure**

- 4. Regional Workforce Development Boards conducted and partnerships created.

Not reporting on this Output for this Annual Report

**Output #5**

**Output Measure**

- The number of Alabama Intensive Economic Development Training Courses conducted

<b>Year</b>	<b>Actual</b>
2014	1

**Output #6**

**Output Measure**

- Number of 4-H youth engaged in career and college readiness programming,

<b>Year</b>	<b>Actual</b>
2014	19288

**Output #7**

**Output Measure**

- The number of career activities throughout urban and rural Alabama.

<b>Year</b>	<b>Actual</b>
2014	4400

**Output #8**

**Output Measure**

- The number of Career Countdown program simulation and career exploration workshops

<b>Year</b>	<b>Actual</b>
2014	26

**Output #9**

**Output Measure**

- The number of completed by Career Countdown participants

<b>Year</b>	<b>Actual</b>
2014	3700

**Output #10**

**Output Measure**

- The number of 4-Hi engineering design prototypes were built, revised, and tested

<b>Year</b>	<b>Actual</b>
2014	1070

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

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

O. No.	OUTCOME NAME
1	1. Increased knowledge among citizens and stakeholders of the social and economic benefits and practical applications of broadband technology. 2. New opportunities to connect business and education stakeholders (Workforce Region 8). 3. Increased knowledge among young people about the negative impacts of early exit from high school, the rewards available through technical careers, and entrepreneurship opportunities. 4. Increased Extension capacity for meeting facilitation, public deliberation, and strategic planning.
2	Youth will: 1. Learn how to take control of their future and make healthy choices. 2. Make decisions based on accurate information 3. Learn importance of youth/adult partnerships 4. Understand consequences of risk behavior 5. Make a difference 6. Do the right thing
3	Participants will: 1. Complete a career plan. 2. Complete a skills assessment. 3. Complete an education plan.
4	The number of Community leaders who increased knowledge in the basics of economic development
5	The number of kids with increased decision making skills
6	Number of program participants who increased career prep skills
7	The number of community leaders with increased knowledge of the basics of economic development

**Outcome #1**

**1. Outcome Measures**

1. Increased knowledge among citizens and stakeholders of the social and economic benefits and practical applications of broadband technology. 2. New opportunities to connect business and education stakeholders (Workforce Region 8). 3. Increased knowledge among young people about the negative impacts of early exit from high school, the rewards available through technical careers, and entrepreneurship opportunities. 4. Increased Extension capacity for meeting facilitation, public deliberation, and strategic planning.

Not Reporting on this Outcome Measure

**Outcome #2**

**1. Outcome Measures**

Youth will: 1. Learn how to take control of their future and make healthy choices. 2. Make decisions based on accurate information 3. Learn importance of youth/adult partnerships 4. Understand consequences of risk behavior 5. Make a difference 6. Do the right thing

Not Reporting on this Outcome Measure

**Outcome #3**

**1. Outcome Measures**

Participants will: 1. Complete a career plan. 2. Complete a skills assessment. 3. Complete an education plan.

Not Reporting on this Outcome Measure

**Outcome #4**

**1. Outcome Measures**

The number of Community leaders who increased knowledge in the basics of economic development

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
-------------	---------------

### 3c. Qualitative Outcome or Impact Statement

#### Issue (Who cares and Why)

Workforce development has been identified by Alabama business leaders as the state's number one economic development issue. As technological advances and global competition increase the pace of change for today's businesses, a knowledgeable, skilled, and adaptable workforce has never been a more valuable asset, or a greater necessity for economic survival. A particular focus is to create new community connections to foster a shared vision for workforce and economic development. Maintaining skills in the use of communications technology is a requisite for most New Economy jobs. There is a deficit in these skills within many rural communities.

#### What has been done

Provided a community engagement tool, "Community Questions: Engaging Citizens to Address Community Concerns", to over 300 community leader across the state. Participated in national Extension Reconsidered initiative and conducted deliberative forums for 25 extension program and administrative leaders, 35 regional specialists, and over 30 county extension coordinators. 16 of Alabama's top economic development executives participated in quarterly two-day issue-oriented forums, addressing important issues facing Alabama in the field of economic development. Refined Broadband modules such that broadband workshops and community forums were conducted by extension and non-extension personnel across Alabama

#### Results

Improved capacity, strategy, and relevance for ECDI in identifying and addressing the state's community and economic development needs. Increased level of consensus and collaboration among Alabama's leading economic developers in successfully addressing the state's economic development challenges. Increased capacity of Alabama's community development stakeholders to share ideas and develop collaborative strategies, resulting in increased community prosperity and quality of place. Increased leadership collaboration in community building and planning activities, contributing to improved quality of life and economic prosperity. Leaders at all levels who recognize the value of community leadership collaboration as determinants of economic development, resulting in improved community decision making and outcomes. Communities and organizations better aligned to achieve goals.

### 4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
806	Youth Development
903	Communication, Education, and Information Delivery



## **Outcome #5**

### **1. Outcome Measures**

The number of kids with increased decision making skills

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

- 1862 Extension
- 1890 Extension

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

Change in Action Outcome Measure

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

<b>Year</b>	<b>Actual</b>
2014	3212

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

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

Our young people must be an educated, creative and powerful workforce if we are to remain an economically robust nation. It is also directly important to our families, communities, and especially to the young people themselves. Obviously it is impossible to predict the future, specifically the challenges and opportunities that are awaiting our young people. However, that is the future for which we must help them prepare. Today's work environment requires that workers receive continuous training and embrace lifelong learning at an early age to survive. The best preparation for many is the development of a good work ethic, a value for lifelong learning, and transferable skills like flexibility, teamwork, timeliness, self-reliance, communication, and the avoidance of unhealthy lifestyle choices.

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

243 4-H Innovator program activities were conducted that focused on engaging Alabama youth in hands-on, minds-on inquiry based learning. 8 4-Hi publications and 4 4-Hi youth online learning modules were produced. 22 of 67 counties reported work in 4-Hi with a total of 3212 participants. Over 1070 4-Hi engineering design prototypes were built, revised, and tested.

#### **Results**

From the Pre-Test to the Post-Test (n=3212) there was increase across the board for youth with low self-efficacy (15%) and high self-efficacy (15%) in ability to solve a problem based upon an engineering challenge; significant increase (25%) in the number of youth that think about being an engineer now than before participating in the program; demonstrably significant increase across the board for youth in understanding what a prototype is and building a prototype - low self-efficacy increase of (3.77), high self-efficacy an increase of (4.5%); increase youth ability to design a prototype based on criteria - low self-efficacy (5%) and high self-efficacy (20%); increased youth ability to test prototypes and improve design based on testing - low self-efficacy

(3.5%) and high self-efficacy (21.9%); increased youth ability to describe how the parts of prototypes work; low self-efficacy (4.7%) and high self-efficacy (16.6%); increase youth use the Engineering Design Process to help solve a problem low self-efficacy (7.2%) and high self-efficacy (8.6%) but major change in the middle (50%); minimal increase in youth interested in taking more math and science classes; low self-efficacy (13%) and high self-efficacy (10.6%).

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development
903	Communication, Education, and Information Delivery

#### Outcome #6

##### 1. Outcome Measures

Number of program participants who increased career prep skills

##### 2. Associated Institution Types

- 1862 Extension
- 1890 Extension

##### 3a. Outcome Type:

Change in Action Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	3700

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

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

For our nation to be economically robust and globally competitive, young people have to be an educated, creative and powerful workforce. It's not just important to our nation, it is important to families and communities' and to the young people personally. Although we can't foretell the future and the challenges youth will face, we can prepare them to successfully face the future equipped with skills and abilities. Today's work environment requires that workers receive continuous training and embrace lifelong learning at an early age and continue the process throughout life.

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

A total of 4400 youth participated in 26 Career countdown programs across the state. The program (a) simulates economic deterioration; (b) educates them on the causes of economic deterioration, (c) provides direction and training on career planning, and (d) provides direction and training on education planning

**Results**

After the program was over students were contacted to see what changes they had made in their life as a result of having participated in career countdown. 54% of program participants reported that they had explored new careers, 18% began to studying for the ACT, 47% started studying harder, 52% improved grades, and 7% applied for post-secondary education institutions.

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
806	Youth Development
903	Communication, Education, and Information Delivery

**Outcome #7**

**1. Outcome Measures**

The number of community leaders with increased knowledge of the basics of economic development

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2014	44

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

**Issue (Who cares and Why)**

Workforce development has been identified by Alabama business leaders as the state's number one economic development issue. As technological advances and global competition increase the pace of change for today's businesses, a knowledgeable, skilled, and adaptable workforce has never been a more valuable asset, or a greater necessity for economic survival. A particular focus is to create new community connections to foster a shared vision for workforce and economic development. Maintaining skills in the use of communications technology is a requisite for most New Economy jobs. There is a deficit in these skills within many rural communities.

**What has been done**

Provided a community engagement tool, "Community Questions: Engaging Citizens to Address Community Concerns", to over 300 community leader across the state. Participated in national Extension Reconsidered initiative and conducted deliberative forums for 25 extension program and administrative leaders, 35 regional specialists, and over 30 county extension coordinators. 16 of Alabama's top economic development executives participated in quarterly two-day issue-

oriented forums, addressing important issues facing Alabama in the field of economic development. Refined Broadband modules such that broadband workshops and community forums were conducted by extension and non-extension personnel across Alabama.

### **Results**

Improved capacity, strategy, and relevance for Economic and Community Development Institute (ECDI) in identifying and addressing the state's community and economic development needs. Increased level of consensus and collaboration among Alabama's leading economic developers in successfully addressing the state's economic development challenges. Increased capacity of Alabama's community development stakeholders to share ideas and develop collaborative strategies, resulting in increased community prosperity and quality of place. Increased leadership collaboration in community building and planning activities, contributing to improved quality of life and economic prosperity. Leaders at all levels who recognize the value of community leadership collaboration as determinants of economic development, resulting in improved community decision making and outcomes. Communities and organizations better aligned to achieve goals. The 44 individuals attending the Intensive Course gave the course an overall course rating of 4.83 on a 5 point scale. Many positive comments were made such as "Course was OUTSTANDING! Far exceeded my expectations. Really covered all bases and had very useful real-world applicability. My notes from this course will truly be a great reference as I move forward in my career."

## **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
608	Community Resource Planning and Development
806	Youth Development
903	Communication, Education, and Information Delivery

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

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

- Economy

#### **Brief Explanation**

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

#### **Evaluation Results**

80% of the fastest growing occupations depend upon mathematics and scientific knowledge and skills. Alabama 4-H is committed to meet this need by providing opportunities for youth to develop the belief and security that they can do math and science through fast paced, engaging, hands on experiences in math, science, engineering and technology. From the Pre-Test to the Post-Test (n=3212) for the 4-HInnovators program there was:

- increase across the board for youth with low self-efficacy (15%) and high self-efficacy (15%) in ability to solve a problem based upon an engineering challenge
  - significant increase (25%) in the number of youth that think about being an engineer now than before participating in the program
  - demonstrably significant increase across the board for youth in understanding what a prototype is and building a prototype - low self-efficacy increase of (3.77), high self-efficacy an increase of (4.5%)
  - increase youth ability to design a prototype based on criteria - low self-efficacy (5%) and high self-efficacy (20%)
  - increased youth ability to test prototypes and improve design based on testing - low self-efficacy (3.5%) and high self-efficacy (21.9%).
  - increased youth ability to describe how the parts of prototypes work; low self-efficacy (4.7%) and high self-efficacy (16.6%)
  - increase youth use the Engineering Design Process to help solve a problem low self-efficacy (7.2%) and high self-efficacy (8.6%) but major change in the middle - students that did not know on the pre-test had a 50% increase on the post-test
  - minimal increase in youth interested in taking more math and science classes; low self-efficacy (13%) and high self-efficacy (10.6%).

Following the completion of the Career Countdown Program students reported improvement in a variety of different areas. There were a total of 4400 program participants of which 3700 pre and posttest were conducted which yielded 900 delayed posttest. The average study time for program participants increased from 1.6 hours per week to 3.1 hours per week. Before the program only 19% of participants reported that they had an education plan after the program this number increased to 84%. Before the program only 19% reported that they had a career plan after the program this number increased to 72%.

After the program was over students were contacted to see what changes they had made in their life as a result of having participated in career countdown. 54% of program participants reported that they had explored new careers, 18% began to studying for the ACT, 47% started studying harder, 52% improved grades, and 7% applied for post-secondary education institutions.

## Key Items of Evaluation

80% of the fastest growing occupations depend upon mathematics and scientific knowledge and skills. Alabama 4-H is committed to meet this need by providing opportunities for youth to develop the belief and security that they can do math and science through fast paced, engaging, hands on experiences in math, science, engineering and technology. From the Pre-Test to the Post-Test (n=3212) for the 4-HInnovators program there was:

- increase across the board for youth with low self-efficacy (15%) and high self-efficacy (15%) in ability to solve a problem based upon an engineering challenge
  - significant increase (25%) in the number of youth that think about being an engineer now than before participating in the program
  - demonstrably significant increase across the board for youth in understanding what a prototype is and building a prototype - low self-efficacy increase of (3.77), high self-efficacy an increase of (4.5%)
  - increase youth ability to design a prototype based on criteria - low self-efficacy (5%) and high self-efficacy (20%)
  - increased youth ability to test prototypes and improve design based on testing - low self-efficacy (3.5%) and high self-efficacy (21.9%).

- increased youth ability to describe how the parts of prototypes work; low self-efficacy (4.7%) and high self-efficacy (16.6%)
- increase youth use the Engineering Design Process to help solve a problem low self-efficacy (7.2%) and high self-efficacy (8.6%) but major change in the middle - students that did not know on the pre-test had a 50% increase on the post-test
- minimal increase in youth interested in taking more math and science classes; low self-efficacy (13%) and high self-efficacy (10.6%).

After the program was over students were contacted to see what changes they had made in their life as a result of having participated in career countdown. 54% of program participants reported that they had explored new careers, 18% began to studying for the ACT, 47% started studying harder, 52% improved grades, and 7% applied for post-secondary education institutions.

## VI. National Outcomes and Indicators

### 1. NIFA Selected Outcomes and Indicators

<b>Childhood Obesity (Outcome 1, Indicator 1.c)</b>	
1643	Number of children and youth who reported eating more of healthy foods.
<b>Climate Change (Outcome 1, Indicator 4)</b>	
0	Number of new crop varieties, animal breeds, and genotypes with climate adaptive traits.
<b>Global Food Security and Hunger (Outcome 1, Indicator 4.a)</b>	
11555	Number of participants adopting best practices and technologies resulting in increased yield, reduced inputs, increased efficiency, increased economic return, and/or conservation of resources.
<b>Global Food Security and Hunger (Outcome 2, Indicator 1)</b>	
0	Number of new or improved innovations developed for food enterprises.
<b>Food Safety (Outcome 1, Indicator 1)</b>	
0	Number of viable technologies developed or modified for the detection and
<b>Sustainable Energy (Outcome 3, Indicator 2)</b>	
0	Number of farmers who adopted a dedicated bioenergy crop
<b>Sustainable Energy (Outcome 3, Indicator 4)</b>	
0	Tons of feedstocks delivered.