

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

**Program # 6**

**1. Name of the Planned Program**

4-H Youth Development and Families

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
801	Individual and Family Resource Management	5%	25%	0%	0%
802	Human Development and Family Well-Being	15%	10%	0%	0%
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	30%	20%	0%	0%
806	Youth Development	50%	45%	0%	0%
	<b>Total</b>	100%	100%	0%	0%

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

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	24.0	15.0	0.0	1.0
Actual Paid Professional	19.0	11.5	0.0	0.0
Actual Volunteer	0.0	0.0	0.0	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
722840	481645	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
722840	398477	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

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

### 1. Brief description of the Activity

Clemson Extension 4-H conducted 3,326 programs that reached over 69,171 youth and families. In addition, 4,508 adult volunteers were trained, who then trained youth in leadership development; hunting safety; plant and animal projects; science, technology and engineering projects; day and overnight camping; and nutrition, health and fitness. 4-H adults and teens contributed 27,048 hours of volunteer service, which represents a \$465,225 value of program support.

4-H partnered with local schools to implement the National Youth Science Day project, "EcoBots." Students worked in pairs to design a robot to clean-up a fictitious toxic spill. Teams of youth demonstrated the use of critical thinking and problem solving in this three-part experiment. This project met SC science education standards. In 4-H, youth used math skills, critical thinking, and creativity, which are valuable life skills. South Carolina 4-H participants coordinated and participated in community service projects as they donated no-sew blankets to Project Linus, an organization that hand makes blankets for critically ill children, raised funds for 4-H families in Oklahoma affected by the tornados, helped assemble hero packs for SC Operation: Military Kids, conducted food drives, and visited nursing homes throughout the year.

Youth and family development programs continued to provide skills needed to become well-rounded citizens of South Carolina. Lessons covered leadership, conflict resolution, stress, financial management, social skills and diversity. Computer skills and nutrition information were provided.

### 2. Brief description of the target audience

All youth between the ages of nine and nineteen  
 All youth between the ages of five and eight  
 Parents and other adults interested in the development of South Carolina youth.  
 30-44 parent and young adult  
 45-64 Mature volunteer  
 65+ Grandparent and Senior Volunteer.  
 Adult learners (college students)  
 Teachers

### 3. How was eXtension used?

eXtension was not used in this program

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

### 1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	4861	715140	55709	11462

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

Year: 2013  
 Actual: 0

**Patents listed**

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

**Number of Peer Reviewed Publications**

2013	Extension	Research	Total
Actual	0	1	0

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

**Output Target**

**Output #1**

**Output Measure**

- Number of people participating in educational workshops conducted

Year	Actual
2013	53588

**Output #2**

**Output Measure**

- Total number of adult volunteers ( including non-Extension staff) trained in club, school enrichment, and special interest program delivery and management in all 4-H project areas.

Year	Actual
2013	90

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

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

O. No.	OUTCOME NAME
1	Number of trained adult volunteers and staff, (including non-Extension staff) who teach subject matter and life skills to youth
2	Number of youth who gain knowledge in leadership and citizenship project areas
3	Number of youth participating in service learning projects for the community and to improve themselves, and help others.
4	Number of youth who gain knowledge and skills about plants, livestock and/or pets.
5	Number of youth who develop knowledge and skills in science, engineering, and technology (including electricity, computers, pontoon classroom, etc.).
6	Number of youth gain knowledge in nutrition and fitness
7	Number of youth who gain knowledge in natural resources and shooting sports
8	Number of youth who develop and improve communication skills through speaking and debating

**Outcome #1**

**1. Outcome Measures**

Number of trained adult volunteers and staff, (including non-Extension staff) who teach subject matter and life skills to youth

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

Year	Actual
2013	580

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

**Issue (Who cares and Why)**

There is a need for an effective system to develop volunteer trainers in 4-H Youth Development.

**What has been done**

This year, almost 600 volunteers were trained. These along with over 4,508 other adult volunteers previously trained taught others using approved curriculum material. These volunteers then trained youth in leadership development; hunting safety; plant and animal projects; science, technology and engineering projects; day and overnight camping; and nutrition, health and fitness. Agents and volunteers used facebook, web pages, Skype, exhibits, and traditional media to promote youth development programs.

**Results**

Volunteers were equipped for leadership roles and have made positive impacts and contributions in their communities and trained youth with new knowledge and skills. Adults contributed 27,048 hours of volunteer service, which represents a \$465,225 value of program support. Volunteers reported seeing significant improvement in the children's overall problem-solving skills and math skills as well as the children's willingness to work together as a team to solve problems and make decisions. In addition, there were reports that youth used creativity and displayed increased self-confidence and self-pride as they accomplished projects.

**4. Associated Knowledge Areas**

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

803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

## **Outcome #2**

### **1. Outcome Measures**

Number of youth who gain knowledge in leadership and citizenship project areas

### **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>
2013	12958

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

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

Youth have basic needs that include developing a sense that they are valuable contributing members of their family and community. At-risk-youth represent a high percentage of South Carolina's high school dropout rate and juvenile law violating behaviors. The Juvenile Offenders and Victims Report indicates the top characteristics of juvenile law offenders are living in poverty, limited connectedness to school or work and limited basic life skills. The characteristics are evident in 80% of the state's juvenile offenders. When external factors challenge academic performance, youth lack the labor skills, basic skills and educational level required to seek sustainable employment. When youth are not aware of the roles, responsibilities and benefits of effective citizenship, they are more likely to become dependent upon their government when they reach adulthood.

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

The SC State Extension Program coordinated a Citizenship Program, which focused on the development of Citizenship, Leadership skills, Basic Life Skills and Character Education.

Clemson's 4-Hers participated in State Congress and statewide Ambassador Training, Senior Leadership Training, and Senior and Junior Teen Weekend to help them serve more effectively in their leadership roles at the club, county, regional, or state levels. Youth were empowered to actively engage in their communities and the world through a series of workshops on leadership, self-esteem, 4-H and conflict resolution. Over 11,219 youth were served in a combination of 397 workshops and activities.

## Results

As a result of evaluations conducted at the end of the Citizenship Program, 81% of the program participants indicated knowledge gained. Twenty percent (20%) of the evaluated population indicated their intent to adopt Citizenship and Basic Life Skills Principles as well as pursue post-secondary education and/or military or vocational training. Of the 20% evaluated population, 15% stated they have adopted the principles they learned. With one student stating that the Citizenship Program helped him become a leader by letting him know to always think about his actions and the consequences. He also stated that it will also help him to remember to always do things that will help others. The individuals are more likely to become productive taxpaying citizens. Some 38 Clemson 4-H youth were trained to be 4-H Ambassadors. Ambassadors represent 4-H to the public and are involved in writing and speaking to the media.

### 4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being
806	Youth Development

### Outcome #3

#### 1. Outcome Measures

Number of youth participating in service learning projects for the community and to improve themselves, and help others.

#### 2. Associated Institution Types

- 1862 Extension

#### 3a. Outcome Type:

Change in Action Outcome Measure

#### 3b. Quantitative Outcome

Year	Actual
2013	50

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

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

Studies show that youth develop in areas of civic engagement, respect, and social responsibility through participating in service-learning projects. Service learning can also have a positive effect on students' ability to relate to culturally diverse groups (Fox, 2010). Recent findings from the 4-H Study of Positive Youth Development indicate that young people in 4-H are three times more likely to contribute to their communities than youth not participating in 4-H.

##### What has been done

Over 50 youth provided leadership in service learning community projects.

### Results

Youth in Clemson's 4-H programs donated no-sew blankets to Project Linus, an organization that hand makes blankets for critically ill children, raised funds for 4-H families in Oklahoma affected by the tornadoes, helped pack hero packs for SC Operation Military Kids, made animal treats for animal shelters, collected needed items for animal shelters, conducted food drives, and visited nursing homes throughout the year.

### 4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management
802	Human Development and Family Well-Being
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

### Outcome #4

#### 1. Outcome Measures

Number of youth who gain knowledge and skills about plants, livestock and/or pets.

#### 2. Associated Institution Types

- 1862 Extension
- 1890 Extension

#### 3a. Outcome Type:

Change in Action Outcome Measure

#### 3b. Quantitative Outcome

Year	Actual
2013	1224

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

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

Research reveals that when children have hands-on experiences with nature, the results can lead to fewer incidents of anxiety and depression, improved self-esteem, enhanced brain development, and a sense of connectedness to the community and the environment. They have opportunities for such development by participating in the 4-H Plants and Animals project.

##### What has been done

Over 694 Plants and Animals programs were conducted reaching 2,305 youth. Youth in Clemson Extension 4-H programs are involved in hands on nature based programs such as Jr. Master Gardener, 4-H20, Dairy Heifer, Livestock, Barrow, Swine, Sheep, Beef, Poultry, Gardening, Goat, Horse, Rabbit and other plant and animal projects.

The South Carolina 4-H Small Garden Project involved youth from seven counties in the state. Participants were required to plant a minimum 100 square foot garden with a minimum of three crops and to keep a record book to account for costs and labor. Participants in the program were taught the proper use of fertilizers and pesticides and how that related to water quality. Participants in another Summer Gardening Program made nutritious recipes with various fruits and vegetables from their gardens.

Participants in the SC 4-H Forestry Clinic learned how to measure trees (diameter and height) and learned how to use various measuring devices. County 4-H units partnered with school district to establish and maintain Habitat (Butterfly) Gardens. The sites incorporated rainwater harvesting (rain barrels) for the purpose of irrigating.

## Results

The youth were able to experience gardening, from soil and seed and from the market to the table. They learned about their community and were contributing members of it.

By competing in the shows and raising show animals, the youth learned valuable animal husbandry lessons in nutrition, genetics, reproduction, animal health, and handling techniques. Youth also were able to increase their ability to select good livestock and learned the responsibility needed to raise and manage these animals. Showing livestock also helps build confidence in the youth and teaches them responsibility.

## 4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management
802	Human Development and Family Well-Being
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

## Outcome #5

### 1. Outcome Measures

Number of youth who develop knowledge and skills in science, engineering, and technology (including electricity, computers, pontoon classroom, etc.).

### 2. Associated Institution Types

- 1862 Extension
- 1890 Extension

### 3a. Outcome Type:

Change in Knowledge Outcome Measure

### 3b. Quantitative Outcome

Year	Actual
2013	7983

### 3c. Qualitative Outcome or Impact Statement

#### Issue (Who cares and Why)

Science and technology skills are needed if youth are to keep up with the rapidly changing knowledge-based and knowledge-transfer society. According to the Department of Labor's Employment and Training Administration, the majority of careers beginning in 2012 will require some knowledge of geospatial technology and systems. The 4-H program in South Carolina offers youth the opportunity to develop knowledge and skills in science, engineering, and technology.

#### What has been done

During one opportunity, 4-H partnered with local schools to implement the National Youth Science Day project, EcoBots in five schools with 95 elementary and middle school students. These students joined thousands of young people across South Carolina and the United States to become scientists for the day. Students worked in pairs to design a robot to clean up a fictitious toxic spill. No solutions were given to students to help them solve the contamination problem. Students were encouraged to use the scientific process, test hypotheses and theories, explore all ideas and possibilities with their respective partners, and discuss concepts such as costs of malfunctions and why robots are used instead of humans.

Agents worked with youth in science and robotics clubs and assisted youth in preparation for statewide engineering competitions. Extension specialists, developed and published an iPhone App named Firefly Flash Counter. It will be used as an educational and outreach tool of the Clemson Vanishing Firefly Project.

#### Results

Teams of youth demonstrated the use of critical thinking and problem solving in this three-part experiment. This project met SC science education standards. In 4-H, youth used math skills, critical thinking, and creativity, which are valuable life skills.

## 4. Associated Knowledge Areas

KA Code	Knowledge Area
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801	Individual and Family Resource Management
802	Human Development and Family Well-Being
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

### **Outcome #6**

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

Number of youth gain knowledge in nutrition and fitness

Not Reporting on this Outcome Measure

### **Outcome #7**

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

Number of youth who gain knowledge in natural resources and shooting sports

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

- 1862 Extension

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

Change in Knowledge Outcome Measure

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

<b>Year</b>	<b>Actual</b>
2013	4327

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

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

Many youth either participate in hunting or have family members who hunt and, therefore, have access to guns. Many youth do not have any formal training in the safe use and handling of firearms. Although rare, accidents with firearms do occur, and often are the result of improper handling of firearms. Exposing youth to firearms and teaching both adults and youth the proper way to safely handle firearms can reduce the risk of accidents.

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

Some 148 programs were conducted reaching over 4,435 persons. Youth participated in hunting safety programs, natural resource clubs, shotgun and rifle clubs, 4-H Archery Clubs, and Food and Cover Establishment for wildlife programs. Youth learned components of wildlife habitat, water quality, and environmental stewardship. In addition, a SC 4-H Forestry Team participated in

the National 4-H Forestry Invitational.

**Results**

Ninety-eight percent of the youth participating in natural resource and shooting sports programs gained knowledge. Youth demonstrated wise decision-making skills and self-confidence. They demonstrated caring of their environment and established food plots to benefit small game and other wildlife species. They demonstrated proper shotgun handling.

**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
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

**Outcome #8**

**1. Outcome Measures**

Number of youth who develop and improve communication skills through speaking and debating

**2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2013	552

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

**Issue (Who cares and Why)**

Youth need opportunities to develop assets such as good communication skills, organizational abilities, reasoning skills, and self-confidence. They have opportunities for such development through participating in the Communication and Expressive Arts projects.

**What has been done**

Twenty programs were conducted reaching 552 youth. Youth gave presentations and demonstrations during club and county level contests and gave speeches at community organizations promoting 4-H. A sign language workshop was conducted.

### **Results**

Youth successfully prepared and gave presentations. They demonstrated good communication skills, organizational abilities, reasoning skills, and self-confidence. Youth researched various topics and presented information.

### **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
806	Youth Development

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

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

- Economy
- Appropriations changes
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

#### **Brief Explanation**

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

#### **Evaluation Results**

Observation and pre-post tests were conducted. 4-H youth used math skills, critical thinking, and creativity to address issues and solve problems which are valuable life skills. They contributed to their communities, learned how to work in teams, and demonstrated leadership.

#### **Key Items of Evaluation**