

**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%	10%	0%	0%
802	Human Development and Family Well-Being	15%	20%	0%	0%
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	30%	20%	0%	0%
806	Youth Development	50%	50%	0%	0%
	<b>Total</b>	100%	100%	0%	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>	24.0	15.0	0.0	0.0
<b>Actual Paid</b>	23.0	10.5	0.0	0.0
<b>Actual Volunteer</b>	0.0	96.0	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
788100	460114	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
788100	386863	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**

Over 70,000 youth and families were reached through 4-H Youth Development programs. Over 4,000 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; nutrition, health and fitness, natural resources; water quality and conservation. The 4-H Science on the Move (SOTM) program obtained two mobile trailers, one for the upstate and one for the coastal region of the state, to house hands-on science projects related to Geospatial Science, Energy, Environmental Science, Plant and Animal Science, Health Science and Robotics and Engineering. County agents exhibited the SOTM Trailer (mobile classroom) during in-school and afterschool events. Youth participated in activities that included exploring geospatial sciences, geocaching, and community mapping. 4-H volunteers led a 4-H Soapbox racer car building project and taught lessons on simple machines, potential energy, acceleration, kinetic energy, aerodynamics, inertia and friction. In 4-H, youth use math skills, critical thinking, and creativity, which are valuable life skills. Kids Farm Days allowed youth to learn about crop and soil science, life cycle and ag mechanization. Agents conducted a weeklong curriculum writing session with teachers from three counties, which produced 100 lesson plans.

4-H is a youth development educational program that is committed to assisting youth and adults in acquiring knowledge, life skills and attitudes that will enable them to become self-directing, contributing and productive members of society. Additionally, 4-H participants are youth ages 5 - 19 who are currently taking part in programs offered by 1890 Extension personnel in cooperation with volunteers. 4-H is characterized as being community centered, volunteer led, Extension staff supervised, research based, home and family oriented, publicly and privately funded and responsive to change. The 1890 Extension Program focuses on four programmatic areas: healthy lifestyles; science, engineering and technology; citizenship and financial management.

1890 Extension was responsible for planning and conducting the 4-H Biennial Conference. The purpose of the conference was designed to provide participants with an enhanced understanding of the requirements to develop and deliver quality and impactful programs that were measureable and relevant to participants with knowledge and skills to derive practical and innovative solutions that address emerging issues based on stakeholders' needs, foster and strengthen quality extension educational programming throughout the Southern Region. Also, to provide opportunities for networking, program sharing and observation. Sixty-two professionals were in attendance. Youth and adults were taught sound financial management practices and conducted experiments through hands-on activities. Young people were taught ways to be active and the importance of eating nutritious meals. Overall, youth were encouraged to

become productive citizens.

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

- The 4-H program will target the following audience:
- All youth between the ages of five and eight
- All youth between the ages of nine and nineteen
- Parents and other adults interested in the development of South Carolina youth.
- Parents and young adults ages 30-44
- Mature volunteers ages 45-64
- Grandparent and Senior Volunteers ages 65+
- Adult learners (college students)
- Teachers

**3. How was eXtension used?**

-

**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>	4757	568552	61252	17307

**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 people participating in educational workshops conducted

<b>Year</b>	<b>Actual</b>
2014	53817

**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.

<b>Year</b>	<b>Actual</b>
2014	4814

**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
- 1890 Extension

**3a. Outcome Type:**

Change in Condition Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	4814

**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**

Clemson Extension and 1890 Extension trained over 4814 adult volunteers, 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. 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. 4-H adults and teens contributed 30,184 hours of volunteer service, which represents a \$608,207 value of program support. Volunteers reported seeing significant improvement in the children's overall problem-solving 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**

<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 #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>
2014	7328

### **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.

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

Clemson's 4-Hers participated in State Congress and statewide Ambassador Training, Senior Leadership Training, and Senior and Junior Teen Weekend and officer training to help them serve more effectively in their leadership roles at the club, county, regional, or state levels. 1890 Extension held a series of workshops on leadership, self-esteem, basic life skills, character education and conflict resolution.

#### **Results**

Some 34 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. Gains have been reported in knowledge of civic engagement, improvement in self-esteem, new skills demonstrated, and improved connections to the community. In regard to 1890 Extension, as a result of the evaluations, 75% of the participants indicated their intent to adopt citizenship and basic life skills

principles taught.

#### 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
2014	688

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

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

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**

Youth participated in educational programs on service learning. Six hundred eighty-eight youth provided leadership in service learning community projects. Teen leaders read books to youth during National Young Readers Week, participated in National Public Forums, surveyed customers at a local Farmers Market with regards to expansion of services, filled and delivered over 1,000 bags of non-perishable items for special needs populations, conducted a puppet show at the SAFEKIDS Event, and made 25 blankets for the Wounded Warrior Project.

###### **Results**

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). These traits have been observed in youth participating in service projects.

#### 4. Associated Knowledge Areas

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

##### 3a. Outcome Type:

Change in Action Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	579

##### 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 479 Plants and Animals programs were conducted. 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/Embryology, Gardening, Goat, Horse, Rabbit and other plant and animal projects. County 4-H units continued to partner with school districts to establish and maintain butterfly gardens. The sites incorporated rainwater harvesting (rain barrels) for the purpose of irrigating.

### Results

The youth were able to experience gardening and gardening yields from soil to the table. 4-H Community Gardening efforts alone have impacted more than 3000 youth and families through active participation and community outreach. They learned about their communities and were contributing members in them. By raising show animals and competing in livestock shows, 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 and teaches responsibility.

### 4. Associated Knowledge Areas

KA Code	Knowledge Area
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 Action Outcome Measure

#### 3b. Quantitative Outcome

Year	Actual
2014	17901

#### 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. Most careers that began in 2012 required 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, technology and math.

### What has been done

---

The 4-H Science on the Move (SOTM) program obtained two mobile trailers, one for the upstate and one for the coastal region of the state, to house hands-on science projects related to Geospatial Science, Energy, Environmental Science, Plant and Animal Science, Health Science and Robotics and Engineering. Youth participated during in-school and after school activities via the trailers. In addition, 4-H volunteers led a 4-H Soapbox racer car building project and taught lessons on simple machines, potential energy, acceleration, kinetic energy, aerodynamics, inertia and friction.

**Results**

Youth demonstrated the use of math, critical thinking, problem solving, and creativity, which are valuable life skills.

In addition, evaluations indicated 90% of the participants increased their interest in a science related career.

**4. Associated Knowledge Areas**

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

**2. Associated Institution Types**

- 1890 Extension

**3a. Outcome Type:**

Change in Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	909

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

**Issue (Who cares and Why)**

Childhood obesity is an epidemic in South Carolina. It is mostly due to physical inactivity and unhealthy dietary behaviors. State data indicates that 20% of the total population is physically inactive.

**What has been done**

1890 Extension coordinated a healthy lifestyles program to address the health concerns in South Carolina. The healthy lifestyles program consists of 6 projects, which resulted in 275 workshops, activities and demonstrations. The program focused on healthy food choices, exercise options, team sports and cooking alternatives.

**Results**

One hundred percent of the participants indicated an increase in knowledge at the end of the program. Eighty-three percent indicated intent to adopt daily exercise options and physical activity principles. It was concluded that adoption of daily healthy practices, could decrease the need for health care visits, which would result in fewer tax dollars spent on health care coverage for those in welfare related programs.

**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

**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>
2014	2114

**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. In addition, this program promoted natural resource conservation.

**What has been done**

Some 136 programs were conducted reaching over 3,526 persons. Youth participated in hunting safety programs, natural resource clubs, shotgun and rifle clubs, 4-H archery clubs, forestry camps, 4H20 camps, recycling 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**

Youth demonstrated wise decision-making skills and self-confidence. They demonstrated caring for 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>
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 Knowledge Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	130

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

**Issue (Who cares and Why)**

Youth need opportunities to develop 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**

Seventeen programs were conducted reaching 130 youth. Youth gave presentations and demonstrations during club and county level contests and gave speeches at community organizations promoting 4-H.

**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>
806	Youth Development

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

**External factors which affected outcomes**

- Populations changes (immigration, new cultural groupings, etc.)

**Brief Explanation**

Strategies have been implemented to reach the increasing Hispanic populations through 4-H clubs and outreach.

**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**