

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

**Program # 13**

**1. Name of the Planned Program**

Human and Community Resource Development (OARDC Led)

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	0%		10%	
802	Human Development and Family Well-Being	0%		10%	
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	0%		25%	
804	Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures	0%		10%	
805	Community Institutions and Social Services	0%		10%	
901	Program and Project Design, and Statistics	0%		10%	
903	Communication, Education, and Information Delivery	0%		25%	
	<b>Total</b>	0%		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>	0.0	0.0	1.8	0.0
<b>Actual Paid</b>	0.0	0.0	2.5	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
0	0	297555	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	302863	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

The activities carried out in the Human and Community Resource Development Planned Program is primarily applied research and is supported by several CFAES academic departments. The preceding sections help to characterize activities within this Planned Program. Both laboratories and multiple field sites/community settings are available throughout state to permit data gathering and to continue projects requiring data over time. All functional laboratories and sites are improved over time as program need warrants. OARDC faculty and staff engage in appropriate levels of outreach, engagement, and consultation, with both internal stakeholders such as fellow Extension personnel, and with external stakeholders.

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

Targeted audiences include, but not limited to:

- Specific individuals or groups who have expressed a need for information related to some aspect of human capital that is to be derived through new research, extracted from on-going research, or is derived from scientific literature;
  - Fellow academic units that depend on scientists in this program for support information and for approaches/measures;
  - Fellow agencies or support organizations who will not only use the social information but will also extend that information;
  - Populations who have not requested the information but will likely benefit from that information;
  - Other scientists and scientific groups;
  - Political entities;
  - Extension personnel;
  - Students from pre-school to post doctorate studies;
  - News organizations;
  - Business and industrial groups.

#### 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>	0	0	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
<b>Actual</b>	0	7	0

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

**Output Target**

**Output #1**

**Output Measure**

- Number of graduate students completed  
Not reporting on this Output for this Annual Report

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

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

O. No.	OUTCOME NAME
1	Advance human capital and sociological studies that will inform strategies for expanding and strengthening individual and family well-being, community stability, and agricultural workforce leading to improved quality and quantity of life.
2	Investigate shifts in rural-urban interface, land use, immigration, and similar changes to determine if community policies and/or levels of social capital in the community can shape the future of agriculture in face of urbanization pressures.
3	Improve through research the understanding of and skill development for decision-making by local farmers that will result in improved farm viability and competitiveness at the rural-urban interface.
4	Study rural educational systems relative to educational resources, curriculum, instructional delivery, and student learning to the extent necessary to inform decision-makers how to improve rural education systems as requested.
5	Investigate the social implications of structural changes in agriculture and their economic implications, documenting challenges and opportunities for rural individuals, families, groups and communities, including business and government.
6	Advance understanding of communication, education and information services to show gain scores in the teaching and learning process within related agriculture and natural resources programs.

## **Outcome #1**

### **1. Outcome Measures**

Advance human capital and sociological studies that will inform strategies for expanding and strengthening individual and family well-being, community stability, and agricultural workforce leading to improved quality and quantity of life.

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

- 1862 Research

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

Change in Condition Outcome Measure

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

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

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

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

The prevalence of Autism Spectrum Disorder (ASD) has risen substantially in U.S children in recent years. One study concluded that the prevalence rate among children aged 6-11 had grown from .6 to 3.1 per 1000 children from 1994-2003; a five-fold increase. Children in military families have experienced parallel increases in ASD diagnoses. While a variety of factors may help explain this increase, the result is significant, and military families are searching for effective methods to help their children with ASD.

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

Experts located in national centers and land grant universities have worked on the following objectives of this implementation project: (1) To assess the local availability of educational services for children with ASD on and near military bases and installations following the protocols established in the start-up phase of this project. (2) To develop a review of evidence-based, best practices in educational services for children with ASD and vet this review with national experts in autism. (3) To create a set of recommendations for the provision of ASD educational services to military dependent children. (4) To present a report to CSREES for presentation to the Secretary of Defense that outlines ASD service availability in and around military bases, evidence-based educational service options that are appropriate across the autism spectrum, and recommendations related to assuring that appropriate evidence-based best practices in the provision of educational services are available to military dependent children.

#### **Results**

Ultimately, the educational needs of military families with children diagnosed with ASD will be better met due to the products resulting from this project. Policies related to assuring that military

dependent children with ASD receive adequate and appropriate services will be guided by the recommendations that are generated from the project. During this reporting period, the Department of Defense Office of Special Needs Education Directory for Children with Special Needs searchable website was updated with downloadable PDFs, which provide a review of best practices in educational services for children with ASD and other disabilities and assess the local availability of educational services.

In addition to the state-specific information and resources provided, the directory provides valuable information and tools that all families can use to help with a smooth transition as they relocate with a family member with special needs. Project staff also made recommendations to the office of the Secretary of Defense regarding provision of adequate and appropriate educational services for military dependent children with ASD and other disabilities. Project staff also developed a report for the Secretary of Defense that outlined ASD service availability in and around military bases, evidence-based educational service options that are appropriate across the autism spectrum, and recommendations related to assuring that appropriate evidence-based best practices in the provision of educational services are available to military dependent children.

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

<b>KA Code</b>	<b>Knowledge Area</b>
802	Human Development and Family Well-Being

#### **Outcome #2**

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

Investigate shifts in rural-urban interface, land use, immigration, and similar changes to determine if community policies and/or levels of social capital in the community can shape the future of agriculture in face of urbanization pressures.

Not Reporting on this Outcome Measure

#### **Outcome #3**

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

Improve through research the understanding of and skill development for decision-making by local farmers that will result in improved farm viability and competitiveness at the rural-urban interface.

Not Reporting on this Outcome Measure

#### **Outcome #4**

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

Study rural educational systems relative to educational resources, curriculum, instructional delivery, and student learning to the extent necessary to inform decision-makers how to improve rural education systems as requested.

## 2. Associated Institution Types

- 1862 Research

### 3a. Outcome Type:

Change in Condition Outcome Measure

### 3b. Quantitative Outcome

Year	Actual
2014	0

### 3c. Qualitative Outcome or Impact Statement

#### Issue (Who cares and Why)

It is important for the field of bioenergy that future consumers, policy makers and taxpayers develop knowledge and awareness of bioenergy. Current resources to promote bioenergy awareness often target youth in only the 6th through 12th grades. Research indicates that to effectively impact youth knowledge, skills and abilities, they should be reached at earlier ages for long-term developmental outcomes (Bronfenbrenner, 2005; Enver, Partridge & Clark, 2008). Therefore, educational resources for children are needed to increase bioenergy knowledge, appreciation and career interest.

#### What has been done

A bioenergy educational curriculum for children (K-5th grades) was developed. Three curriculum pieces were created (bioenergy sources, bioenergy conversion, and bioproducts) and the curriculum is available via the web ([www.ohio4h.org/BioenergyEducation](http://www.ohio4h.org/BioenergyEducation)).

A webinar was conducted for states in the northeast Sun Grant region to introduce the bioenergy curriculum and for implementation. Also at state-wide Extension in-service the material was introduced and discussed for implementation.

The curriculum was piloted in seven Ohio counties with 439 children under the supervision of 4-H Extension professionals.

Results have been shared nationally through a Sun Grant Initiative Conference and a state-wide Extension conference in Ohio.

#### Results

The curriculum contributed to the national science education standards in the K-4th grades content areas of life sciences and science as inquiry.

The following impacts are based on the evaluation of 439 children in seven Ohio counties engaged in the bioenergy curriculum. The activities were leader-directed by adult Extension 4H volunteers or professionals and results were based on their reported observations of the participating children.

Seven questions inquired about life skills, behaviors or environment. The scale ranged from 0 (none of the children) to 4 (all of the children). Findings are reported with values "3" and "4" combined.

Increased knowledge about bioenergy: 56.3%  
Gained self-confidence: 50%  
Recognized importance of bioenergy as renewable energy: 56.3%  
Improved in getting along with others: 62.6%  
Asked questions and made predictions (scientific inquiry): 68.8%  
Increased awareness about bioenergy: 68.8%

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
903	Communication, Education, and Information Delivery

#### Outcome #5

##### 1. Outcome Measures

Investigate the social implications of structural changes in agriculture and their economic implications, documenting challenges and opportunities for rural individuals, families, groups and communities, including business and government.

Not Reporting on this Outcome Measure

#### Outcome #6

##### 1. Outcome Measures

Advance understanding of communication, education and information services to show gain scores in the teaching and learning process within related agriculture and natural resources programs.

Not Reporting on this Outcome Measure

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

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

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

### **Brief Explanation**

How society is organized, make decisions, is educated, move from locale to locale, etc. all impact the food, agricultural, and environmental human - resources matrix. Factors such as the availability of base funding to ensure a core faculty and staff, availability of extramural funds, and programmatic demands that often exceed resources, will affect outcomes.

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

### **Evaluation Results**

For 2014, CFAES-OARDC has conducted no formal studies regarding evaluation of our research program. Surrogate evaluation metrics--inclusive but not limited to--that are considered indicators of research success are:

- Research contracts and awards received/ongoing/completed (\$166 million plus in active projects during 2014);
- Number of referred publications reported elsewhere in this report;
- Number of business, industries an groups engaged in CFAES's research programs;
- Number of patents received;
- Economic impact of this college's research program as reported elsewhere in this report;
- The level of base funding from USDA-NIFA and the State of Ohio in 2014;
- Impacts submitted in this report, and the continued robustness of CFAES' research program throughout 2014, both in terms of breadth of programs and depth of new knowledge generated and applied.

The research reported herein is also supported by an informal yet effective formative evaluation. Very little research is conducted at OARDC without early engagement of business, industry, commodity groups, special interest or community groups, or other interested parties given these are the individuals who have the need for and will be the adopters of our research output/impacts. Even in the case of very theoretical research, fellow researchers in industry, government, and academic institutions are consulted (formative evaluation/needs assessment) in the formulation of studies.

### **Key Items of Evaluation**

OARDC researchers, with help from OSU Extension educators, provide unbiased information related to bioenergy to future consumers, policy makers and taxpayers. Additionally, a bioenergy educational curriculum for children was developed to promote awareness and foster long-term developmental outcomes.