V(A). Planned Program (Summary)

Program # 3
1. Name of the Planned Program
4-H Youth Development

☑ Reporting on this Program

V(B). Program Knowledge Area(s)
1. Program Knowledge Areas and Percentage

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<tr>
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<th>%1890 Extension</th>
<th>%1862 Research</th>
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V(C). Planned Program (Inputs)
1. Actual amount of FTE/SYs expended this Program

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

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

Positive Youth Development:
• Employ Essential Elements (belonging, independence, mastery and generosity) as the basis for life skill development and related workforce development skills.

• Utilize Experiential Education Model (Experience, Share, Process, Generalize, Apply).

Provide opportunities for youth to:

• Feel and believe that they are cared about by others (Attachment, Belonging, Connection)

• Feel and believe they are capable and successful (Achievement, Mastery, Competence)

• Know they are able to influence people and events (Autonomy, Power, Confidence)

• Practice helping others through youth’s own generosity (Altruism, Purpose, Contribution)

Subject matter:

(USDA/NIFA Mission Mandates)

Science, Engineering, Technology (includes: science literacy, animal science, plant science, environmental science, life sciences, etc) Citizenship (includes youth engagement, community youth development, community service, character development, civic engagement, etc) Healthy Lifestyles (includes chemical health, mental and emotional health, foods & nutrition, physical health and safety, etc).

2. Brief description of the target audience

• School Age Youth (K - 13, one year out of high school) and their Parents

• 4-H Volunteers (adult and youth)

• Teachers/Educators/other Youth Development Educators

• School Age Child Care Providers

• College Students (interns, collegiate 4-H)

• Other Extension Professionals and University Partners

• Communities: Stakeholders and Non-Profit, Social Service, Government Agencies

• Under-served and Under-represented Audiences

Delivery modes:

• 4-H Clubs and Related Activities

• 4-H Afterschool (clubs and short-term programs)

• 4-H School Enrichment

• 4-H Special Interest

• 4-H Camping (day camps and overnight camping)

• 4-H Mentoring and Individual Study

3. How was eXtension used?

Faculty participated in the development of collaborative educational products.

V(E). Planned Program (Outputs)

1. Standard output measures
2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2015
Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

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</table>

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

A variety of strategies will be implemented to reach target audiences. This will include and not
be limited to workshops, field visits, classes, newsletters, media releases, electronic
communications, and publications. In addition a trained volunteer teaching base will be
developed. Quantitative reports of participation will be collected.

<table>
<thead>
<tr>
<th>Year</th>
<th>Actual</th>
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</thead>
<tbody>
<tr>
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## V(G). State Defined Outcomes

### V. State Defined Outcomes Table of Content

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<tr>
<th>O. No.</th>
<th>OUTCOME NAME</th>
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<tbody>
<tr>
<td>1</td>
<td>Short Term - Youth increase awareness, knowledge, attitudes, and skills related to essential elements, workforce development, life skill development, and relevant subject matter. Volunteers increase knowledge and awareness of practices fostering positive youth development, including youth/adult partnerships. Youth development professionals and stakeholders increase awareness and knowledge of problems and solutions supporting positive youth development, including: policies that need to be addressed, community resources and support.</td>
</tr>
<tr>
<td>2</td>
<td>Medium Term - Youth apply knowledge, attitudes, skills, and behaviors needed to become competent, caring and contributing citizens by: taking on leadership roles in their youth organizations and schools, and working in partnership with adults in a variety of settings. Youth and adults demonstrate effective partnerships through increased youth participation on advisory committees and other governing bodies. Volunteers and youth development professionals apply practices fostering positive youth development.</td>
</tr>
<tr>
<td>3</td>
<td>Long Term - Youth demonstrate mastery and competencies needed to become engaged by assuming leadership positions in communities; developing and implementing action plans to address community needs, and becoming productive members of the workforce. 4-H youth are engaged partners in decision making regarding RCE programming including but not limited to 4-H youth development programming. 4-H alumni and volunteers become engaged citizens by assuming leadership positions in communities. Youth development professionals and stakeholders influence decision makers in policy development related to youth development needs and issues.</td>
</tr>
<tr>
<td>4</td>
<td>New Jersey 4-H goLEAD Youth Leadership Institute - MEDIUM TERM - Youth apply knowledge, attitudes, skills, and behaviors needed to become competent, caring and contributing citizens by: taking on leadership roles in their youth organizations and schools, and working in partnership with adults in a variety of settings. Youth and adults demonstrate effective partnerships through increased youth participation on advisory committees and other governing bodies. Volunteers and youth development professionals apply practices fostering positive youth development.</td>
</tr>
<tr>
<td>5</td>
<td>New Jersey Lindley G. Cook 4-H Camp - MEDIUM TERM - Youth apply knowledge, attitudes, skills, and behaviors needed to become competent, caring and contributing citizens by: taking on leadership roles in their youth organizations and schools, and working in partnership with adults in a variety of settings. Youth and adults demonstrate effective partnerships through increased youth participation on advisory committees and other governing bodies. Volunteers and youth development professionals apply practices fostering positive youth development.</td>
</tr>
<tr>
<td>6</td>
<td>NJ 4-H Public Speaking Program - MEDIUM TERM - Youth apply knowledge, attitudes, skills, and behaviors needed to become competent, caring and contributing citizens by: taking on leadership roles in their youth organizations and schools, and working in partnership with adults in a variety of settings. Youth and adults demonstrate effective partnerships through increased youth participation on advisory committees and other governing bodies. Volunteers and youth development professionals apply practices fostering positive youth development.</td>
</tr>
</tbody>
</table>
| 7      | Professional Development for Informal Science Educators - MEDIUM TERM - Youth apply knowledge, attitudes, skills, and behaviors needed to become competent, caring and contributing citizens by: taking on leadership roles in their youth organizations and schools, and working in partnership with adults in a variety of settings. Youth and adults demonstrate }
effective partnerships through increased youth participation on advisory committees and other governing bodies. Volunteers and youth development professionals apply practices fostering positive youth development.

4-H is For You! - MEDIUM TERM - Youth apply knowledge, attitudes, skills, and behaviors needed to become competent, caring and contributing citizens by: taking on leadership roles in their youth organizations and schools, and working in partnership with adults in a variety of settings. Youth and adults demonstrate effective partnerships through increased youth participation on advisory committees and other governing bodies. Volunteers and youth development professionals apply practices fostering positive youth development.

Discover the Leader in You! 4-H Conference - MEDIUM TERM - Youth apply knowledge, attitudes, skills, and behaviors needed to become competent, caring and contributing citizens by: taking on leadership roles in their youth organizations and schools, and working in partnership with adults in a variety of settings. Youth and adults demonstrate effective partnerships through increased youth participation on advisory committees and other governing bodies. Volunteers and youth development professionals apply practices fostering positive youth development.

2015 Passaic County 4-H Teen Community Service Week - MEDIUM TERM - Youth apply knowledge, attitudes, skills, and behaviors needed to become competent, caring and contributing citizens by: taking on leadership roles in their youth organizations and schools, and working in partnership with adults in a variety of settings. Youth and adults demonstrate effective partnerships through increased youth participation on advisory committees and other governing bodies. Volunteers and youth development professionals apply practices fostering positive youth development.

Mentor Network - MEDIUM TERM - Youth apply knowledge, attitudes, skills, and behaviors needed to become competent, caring and contributing citizens by: taking on leadership roles in their youth organizations and schools, and working in partnership with adults in a variety of settings. Youth and adults demonstrate effective partnerships through increased youth participation on advisory committees and other governing bodies. Volunteers and youth development professionals apply practices fostering positive youth development.

4-H Science, Engineering and Technology Program - LONG TERM - Youth demonstrate mastery and competencies needed to become engaged by assuming leadership positions in communities; developing and implementing action plans to address community needs, and becoming productive members of the workforce. 4-H youth are engaged partners in decision making regarding RCE programming including but not limited to 4-H youth development programming. 4-H alumni and volunteers become engaged citizens by assuming leadership positions in communities. Youth development professionals and stakeholders influence decision makers in policy development related to youth development needs and issues.

**Outcome #1**

1. **Outcome Measures**

   Short Term - Youth increase awareness, knowledge, attitudes, and skills related to essential elements, workforce development, life skill development, and relevant subject matter. Volunteers increase knowledge and awareness of practices fostering positive youth development, including youth/adult partnerships. Youth development professionals and stakeholders increase awareness and knowledge of problems and solutions supporting positive youth development, including: policies that need to be addressed, community resources and support.
2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

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</thead>
<tbody>
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3c. Qualitative Outcome or Impact Statement

**Issue (Who cares and Why)**
Morris County 4-H Science-sational Day - To demonstrate the value of 4-H promoting Science, Engineering & Technology (SET) skills.

**What has been done**
A one-day science conference for youth in grades K-6 was held, Morris County 4-H Science-sational Day, with the goal of increasing youth knowledge and interest in science, strengthen skills in inquiry based learning, and introduce available 4-H programs and opportunities throughout the year. Youth participated in an energizing general session then visited three of twelve workshops providing hands-on science experiments. Workshops were presented by adult and teen volunteers from the community and included topics such as chemistry, engineering, biology and physics.

**Results**
One-hundred eighty youth from 37 towns participated in the 2015 in this event. 134 youth participants indicated on end-of-program evaluations their reaction to the day's programs. 62 parents indicated their reaction to the program through an online survey immediately following the event. 94% of youth viewed the event positively and 88% reported a stronger interest in science because of their participation in the program. 76% of youth reported learning more about 4-H programs and opportunities. 94% of parents reported their child enjoyed the event and 81% reported their child shared something they learned.

4. Associated Knowledge Areas

<table>
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<tr>
<th>KA Code</th>
<th>Knowledge Area</th>
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</thead>
<tbody>
<tr>
<td>806</td>
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Outcome #2

1. Outcome Measures

Medium Term - Youth apply knowledge, attitudes, skills, and behaviors needed to become competent, caring and contributing citizens by: taking on leadership roles in their youth organizations and schools, and working in partnership with adults in a variety of settings. Youth and adults demonstrate effective partnerships through increased youth participation on advisory committees and other governing bodies. Volunteers and youth development professionals apply practices fostering positive youth development.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

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<tr>
<th>Year</th>
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3c. Qualitative Outcome or Impact Statement

**Issue (Who cares and Why)**

Youth Urban Farm Club - Urban youth often lack opportunities to gain a firsthand understanding of where their food comes from and the food system that feeds their community. Youth and volunteers in the most urban areas of Essex and Hudson counties were engaged in local community garden sites while learning skills in gardening, animal husbandry, and community service.

**What has been done**

The Youth Urban Farm Club recruited youth and volunteers through the Master Gardeners, the Rutgers Veterans Environmental Technology Solutions program and local community garden sites in Essex and Hudson counties. All volunteers were trained with resources and skills to lead positive youth-development programming. Youth were recruited through schools, community groups and 4-H members' word of mouth. Youth selected the community garden sites where they wanted to volunteer and signed a program agreement stating their obligation to complete 30 hours of service while maintaining specific attitude and reliability commitments. Six community garden sites were selected based on their flexibility to provide space for youth learning activities, their need for help maintaining the garden, and the availability of hyper local volunteers. Work site roles were established to meet the needs of the garden and its surrounding community. Upon completion of the program, youth and adults were recognized for their achievements in gardening, horticulture and community service at the annual county level 4-H Achievement Ceremony.
Results
Eighty percent of youth surveyed indicated they learned a lot about where their food comes from as a result of participating in the program - 100% of youth surveyed indicated they learned something new or different as a result of participating in the program - 14 adult volunteers dedicated over 250 hours to lead YUFC - 26 youth from 7 different cities dedicated over 780 hours to help build and maintain local community garden sites - 200 short term volunteers dedicated over 400 hours to help build and maintain local community garden sites - 850 pounds of fresh produce was reported to be donated to local community centers.

4. Associated Knowledge Areas

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<tr>
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Outcome #3

1. Outcome Measures
Long Term - Youth demonstrate mastery and competencies needed to become engaged by assuming leadership positions in communities; developing and implementing action plans to address community needs, and becoming productive members of the workforce. 4-H youth are engaged partners in decision making regarding RCE programming including but not limited to 4-H youth development programming. 4-H alumni and volunteers become engaged citizens by assuming leadership positions in communities. Youth development professionals and stakeholders influence decision makers in policy development related to youth development needs and issues.

2. Associated Institution Types
- 1862 Extension

3a. Outcome Type:
Change in Condition Outcome Measure

3b. Quantitative Outcome

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<tbody>
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</table>

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
New Brunswick 4-H Youth Development- Latino youth in New Jersey and New Brunswick in particular, are at great risk due to their poverty and challenges with educational achievement. National research indicates that 29% of early adolescents do not have the opportunity to access community youth programs and that 4-H is typically less prevalent in poor neighborhoods (U.S. Department of Education), which demonstrates that there is a clear need for focused 4-H
programming in poor urban neighborhoods.

**What has been done**
The New Brunswick and Newark Urban 4-H programs provide high context, club-based positive youth development programming to Latino youth in the urban, at-risk communities of New Brunswick and Newark, NJ. Youth in these communities take part in traditional 4-H club programs, and special interest programs working in collaboration with schools and community and cultural organizations. 4-H youth members experience mastery in project areas clubs that fit their interests, develop independence through 4-H leadership, organization and decision-making skills training and opportunities, and demonstrate generosity in club and community-based service learning experiences. This community program is enhanced through the inclusion of Rutgers University students as volunteer leaders, trainers, and mentors. Community-based adults and AmeriCorps and AmeriCorps VISTA volunteers provide support as volunteer leaders and program resource personnel.

**Results**
In 2015 the New Brunswick 4-H program continued to demonstrate opportunities for 4-H youth to become fully integrated into county, regional and state level 4-H programs through clubs, special interest and after-school programs in the areas of robotics, arts, dance, leadership, science, environmental education, food and fitness, citizenship and gardening. In 2015, there was an increase in Rutgers University students who requested to complete department internships and practicum courses with the 4-H program. Many special interest programs were run in partnership with local organizations and requests for educational programs provided by 4-H have increased. An ongoing partnership with New Brunswick High School has continued to provide up to 15 students serving as interns with the 4-H program annually and assisting with program development and program promotion. New Brunswick 4-H social media sites and websites have successfully been utilized and traffic on these sites has increased. New Brunswick teens served as camp counselors for a county 4-H day camp for the first time in 2015, and teens help plan and run county level fundraisers and events such as the 4-H Haunted House and Project GIFT service learning event. New Brunswick 4-H teens also served as representatives on the North Jersey 4-H Teen Conference planning committee and attended state level 4-H science programs. The New Brunswick 4-H Teen Council and the County 4-H Teen Council have begun to work collaboratively on many programs (another long term goal of the program). Results of end of program evaluations indicated that youth self-reported increases in communication, leadership, and organizational skills as a well as an increased ability to work in a team.

4. **Associated Knowledge Areas**

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Outcome #4

1. Outcome Measures

New Jersey 4-H goLEAD Youth Leadership Institute - MEDIUM TERM - Youth apply knowledge, attitudes, skills, and behaviors needed to become competent, caring and contributing citizens by: taking on leadership roles in their youth organizations and schools, and working in partnership with adults in a variety of settings. Youth and adults demonstrate effective partnerships through increased youth participation on advisory committees and other governing bodies. Volunteers and youth development professionals apply practices fostering positive youth development.

2. Associated Institution Types

● 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

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3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Citizenship is one of the 4-H Mission Mandates and community service is an integral part of every 4-H member's experience. Until a few years ago there were no regional or statewide 4-H educational programs offered to middle school aged youth focusing on leadership and citizenship, despite the fact that more than 25% of our statewide membership are in grades 6-9. It was evident that a programming gap exist; therefore, this was one of the programs created to meet the needs of our clientele.

What has been done
The New Jersey 4-H goLEAD Youth Leadership Institute, which utilized the goLEAD approach, provided an opportunity for 4-H members in grades 6-8 to build their leadership skills as well as enhance their knowledge about how to plan and conduct service projects in their own communities. Two 4-H faculty completed a 2-day facilitator training workshop on the goLEAD curriculum. Program participants learned how to reflect on the impact they are having on their community. goLEAD (generationOn's Leadership, Education, and Development program) is an innovative approach to equip middle and high school aged youth with invaluable 21st century skills that will allow them to change themselves and the world through service and is a program of Generation On, a global youth service movement igniting the power of all kids to make their mark on the world. The goLEAD Institute was held on campus in July 2015 for two-days. In addition to teaching youth about service learning, these 4-H members were also exposed to the college/university experience, such as staying in a dorm, eating in the dining hall, and attending
conference workshops in the Cook Student Center. The NJ 4-H goLEAD Youth Leadership Institute participants was designed for youth participants to: 1) learn about the goLEAD approach to service - leadership, project planning and management. 2) learn about the 4-H Citizenship Mission Mandate and the importance of community service. 3) learn about community mapping and how to identify community needs 4) learn how to set goals, plan and conduct a service project in their community.

Results
The target audience consisted of 28 youth in grades 6-9. There were 19 girls and 9 boys who completed the program. Twenty-one percent of the participants represented diverse audiences. Participants expressed great satisfaction with the program. They expressed appreciation for the program content as well as for the excitement in participating in an on-campus program. Evaluation results demonstrated the impact of the program: 90% of the participants indicated that they "Strongly Agree" or "Agree" that as a result of their participation in the conference they have a greater interest in leadership. 100% of the participants indicated that they plan to use what they learned and 89% plan to share what they learned. 93% of the participants rated the program as "Excellent" or "Very Good." 93% "Strongly Agree" or "Agree" that they expect to get more involved in 4-H service projects. 90% of the participants indicated that they "Strongly Agree" or "Agree" that as a result of their participation in the conference they have a greater interest in leadership. 90% of the participants indicated that they "Strongly Agree" or "Agree" that they have a greater interest in community service. Participant Comments: Favorite aspect of the NJ 4-H goLEAD Youth Leadership Institute/Lessons Learned: They taught me lessons that I can use in life. Sharing new ideas and points of view with others. Being able to meet new people and express your ideas and desires. I learned a lot. I am leaving as a better leader, better communicator, and better citizen. I learned how to greet new people and work with them to make the best possible outcome. A follow-up survey is being planned for spring 2016 to capture the individual impact members may have had on the community over the last year, and the NJ 4-H goLEAD Youth Leadership Institute will be conducted again on June 29-30, 2016 at Rutgers University.

4. Associated Knowledge Areas

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<tr>
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<th>Knowledge Area</th>
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<tbody>
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Outcome #5

1. Outcome Measures

New Jersey Lindley G. Cook 4-H Camp - MEDIUM TERM - Youth apply knowledge, attitudes, skills, and behaviors needed to become competent, caring and contributing citizens by: taking on leadership roles in their youth organizations and schools, and working in partnership with adults in a variety of settings. Youth and adults demonstrate effective partnerships through increased youth participation on advisory committees and other governing bodies. Volunteers and youth development professionals apply practices fostering positive youth development.

2. Associated Institution Types
3a. Outcome Type:
Change in Action Outcome Measure

3b. Quantitative Outcome

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3c. Qualitative Outcome or Impact Statement

**Issue (Who cares and Why)**
Lindley G. Cook 4-H Camp provides youth with a safe environment for fun, hands-on residential outdoor educational experiences; fostering independence, leadership development, respect, tolerance and positive self-esteem. This is accomplished under the guidelines of 4-H and Rutgers Cooperative Extension principles and missions. The focus of the camp is on social education and encouraging an atmosphere rooted in both respect and kindness. These needs are only more crucial as the new generation of 21st century campers who, through cell phones, technological devices, and social networks are simultaneously further connected and more secluded.

**What has been done**
Since 1951 Lindley G. Cook 4-H Camp's main goals are to provide a weeklong experiential program to all youth of New Jersey, which promotes 4-H and its curriculum. The camp has provided outdoor opportunities to 4-H and non-4-H audiences since its inception. Lindley G. Cook 4-H Camp builds independence and self-confidence in our campers. We provide a challenging yet nurturing setting, where youth "learn by doing" in our hands on learning environment based on the philosophy of 4-H.

**Results**
Seven-Hundred One children attended the summer camp program in 2015 for a total of 903 camper weeks. (a 11% increase from 2014). 347 of the campers were female, and 354 were male. 637 campers were from New Jersey. The campers were from a variety of residential settings. Cities > 50K People 75 Suburbs > 50K People 147 Town < 10K People 88 Town 10K - 50K People 242 Farm 17 16.17% (146) of our camper weeks were occupied by campers in 4-H clubs. 100% of the parents surveyed would have their children come back to camp next year. 100% of the campers surveyed said that they would like to return to camp in the summer of 2015. 65% of the campers in 2015 were returning campers from 2014. 67% of the counselor and coordinator staff had previously been campers here at Lindley G. Cook. One counselor said she returned to be a staff member because "I want to work at 4-H so I can grow our camp spirit with my love for the people and land of LG Cook. I want to do for current campers what I felt in summers past: I spent my 50 non-camp weeks of the year thinking about my counselors who thought I was so special and cool. Then, after a few summers at camp, I realized that I WAS special and cool, and brought that happiness and confidence with me away from camp. Now, it's my turn to show all of my campers how special, funny, cool, and wild they are." Camper evaluations were conducted online after the campers participated in a week of camp.
Campers were asked what they liked best about camp. Here are a few of their responses -

"Everything I need to say right now is thank you. Thank you for setting up such a wonderful place to keep me emotionally and physically healthy. Thank you for letting me meet so many different people. Thank you for letting me experience something amazing." "If it weren't for 4H camp, I wouldn't be the person I am to this very second. 4H camp is a life-changing experience that alters your perspectives on the world and on life in general in a positive way." "So yet again thank you for changing my life. And let this message speak for many other campers as well." "I had an amazing week just as expected. I love meeting up with old friends and meeting new ones. I also loved having some of my friends become junior counselors and being able to be at camp with them just like old times." "Camp is my favorite place in the world. I cry every year at the end and talk about it nonstop during the year. It makes me extremely happy to show other people how amazing camp is and I'm extremely grateful to have something so amazing in my life." Several parents wrote notes of appreciation and positive comments on their evaluations.

4. Associated Knowledge Areas

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<tr>
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<th>Knowledge Area</th>
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<tr>
<td>806</td>
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Outcome #6

1. Outcome Measures

NJ 4-H Public Speaking Program - MEDIUM TERM - Youth apply knowledge, attitudes, skills, and behaviors needed to become competent, caring and contributing citizens by: taking on leadership roles in their youth organizations and schools, and working in partnership with adults in a variety of settings. Youth and adults demonstrate effective partnerships through increased youth participation on advisory committees and other governing bodies. Volunteers and youth development professionals apply practices fostering positive youth development.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

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3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

There are 16 identified skills that employers believe are workplace basics and public speaking skills are ranked number one among the skill sets of professionals.
Developing public speaking skills is an important part of being a strong leader, it increases self-esteem and the ability to accept feedback, and expands skills for researching, planning, preparation, and performance.

What has been done
All NJ 4-H counties conduct a 4-H Public Speaking or Presentations program for their members and prepare them for the state level competition. Implementing a standardized evaluation form at the county and state level provides a means of assessing impact on 4-H members learning and practicing these valuable life and workplace skills. The objectives include: Developing leadership talents and work toward character development and effective citizenship; Recognizing the value of obtaining all available information on a given topic; Organizing their ideas and present them in a logical order; Emphasize the major points of a presentation through the use of visuals, technology, and/or examples; Expressing themselves clearly and convincingly; Developing a pleasing personal appearance before an audience and develop confidence; Listening to the opinions of others. 4-H Public Presentations are held at the county level in the spring of each year and in June for the state level held at at Rutgers University. Counties use the 4-H Member Guide: How to Make a 4-H Public Presentation to conduct workshops and to train volunteers to help members at the club level.

Results
All 4-H members, grades K-13, are encouraged and eligible to participate at the county level and senior members enrolled in grades 8-13 during the current 4-H year and who receive a score of excellent on a county presentation are eligible to attend the state event. Members that start young and participate annually are more likely to apply for other leadership experiences - such as their county 4-H Ambassador, Equestrian of the Year, and national 4-H recognition trips. 4-H alumni who participated in 4-H Public Speaking when they were younger, come back to tell us that this was their most important 4-H life skill that they learned.

4. Associated Knowledge Areas

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<tr>
<th>KA Code</th>
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<tr>
<td>806</td>
<td>Youth Development</td>
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</table>

Outcome #7

1. Outcome Measures

Professional Development for Informal Science Educators - MEDIUM TERM - Youth apply knowledge, attitudes, skills, and behaviors needed to become competent, caring and contributing citizens by: taking on leadership roles in their youth organizations and schools, and working in partnership with adults in a variety of settings. Youth and adults demonstrate effective partnerships through increased youth participation on advisory committees and other governing bodies. Volunteers and youth development professionals apply practices fostering positive youth development.

2. Associated Institution Types
3b. **Quantitative Outcome**

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<tr>
<th>Year</th>
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<tbody>
<tr>
<td>2015</td>
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3c. **Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**
While STEM education is a national priority, not all out of school educators (4-H, afterschool programs, etc.) have the background and skills to effectively create and conduct programming.

**What has been done**
The series of workshops highlighted here addressed four topics pertinent to preparing out of school educators to engage in STEM education: 1) The Project WET (Water Education for Teachers): STEM and Beyond workshop provided a day-long opportunity to learn about water as an integrating topic for STEAM (Science, Technology, Engineering, Arts, and Math). 2) The "What Kind of Scientist RU?" workshop highlighted the multiple ways scientists identify, think about, and solve problems both qualitatively and quantitatively. 3) Understanding and Using the Six Strands of Informal Science Education introduced participants to the six research-based strands of informal science education that will help prepare youth to be users of science in multiple capacities and how to use them to improve extant programming. 4) The Environmental Problem-based Learning workshop helped afterschool educators develop skills in directing youth through environmental inquiry that led to plans for where to situate a wind farm in the state of NJ.

**Results**
The targeted audience was out of school educators including: 4-H faculty and staff, nature center staff, afterschool program educators, museum educators, and Master Gardener s. These participants work with youth and the general public in a variety of out of school settings. Based on evaluations from the four workshops, the participants were satisfied with the programs, with the presenter receiving an average of 4.7 on a 5 point scale from poor (1) to excellent (5) and the programs receiving an average of 4.6 on the same scale. Based on program evaluations, participants reported increases in knowledge on all measured components. For example, in the Project WET workshop, on the workshop goal of using water topics to teach multiple subjects, participants’ ratings of how much they knew before and after increased 58.3%, and their knowledge of the science of water increased 29.6%. In the Six Strands of ISE workshop, participants’ report of knowledge of the traits of informal science education increased 45% and their understanding of how to use the strands to improve their programming increased 32%. In addition, 56% of participants reported that they will use the knowledge they gained to educate youth and the public, and 28% said they would use it for staff training and curriculum development.
4. Associated Knowledge Areas

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Outcome #8

1. Outcome Measures

4-H is For You! - MEDIUM TERM - Youth apply knowledge, attitudes, skills, and behaviors needed to become competent, caring and contributing citizens by: taking on leadership roles in their youth organizations and schools, and working in partnership with adults in a variety of settings. Youth and adults demonstrate effective partnerships through increased youth participation on advisory committees and other governing bodies. Volunteers and youth development professionals apply practices fostering positive youth development.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

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3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Youth in military families may change schools up to 7-10 times before they graduate from high school. While they are leaving one location and transitioning to a new location, it is difficult to participate in school activities, plays, band, etc. 4-H can be a place where they feel a sense of belonging wherever their location.

What has been done
The following events were planned/implemented by 4-H faculty: (1) Family Night Coffeehouse events at three Armory locations-12 current clubs (non-military) showcased their projects, 60 Guard/Reserve families attended. Adults participated in presentation while youth participated in hands on project activities. (2) Day camp at Armory-2 days-programs included Healthy Living, Winter Habitats for Animals, Snow Globe makers (Cloverbud age group) - 42 youth attended (3) O’League Sports-STEM series of six programs - 22 youth participated (4) Sewing workshop (3 hours) - 12 youth participated (5) Teen lock-in- Healthy Living program- 40 teens participated (6) Army Reserve-Bring Your Child to Work Day-Healthy Living-85 youth participated (7) Summer Camp Prep- Presentation for the 34 Guard/Reserve youth registered to attend L.G.Cook STEM Micro Camp in June, 2015 (8) National 4-H Science Challenge-Motion Commotion, 20 youth
participated (9) Text Talk Act (Mental Health Awareness) - National 4-H project- 21 teens gathered at Armory, accessed round table discussion by cell phone. (10)December Holiday Camp at two armories-Healthy Living-73 youth; Yoga for Kids-20 youth.

Results
Parents have made commitments to volunteer and partner with 4-H staff to offer more programs. The Army Youth Coordinators have assumed the role of marketing 4-H and distributing program information to service branch families in both National Guard and Reserve. Youth participants demonstrate life skills learned in clubs and special programs such as: Four teens have been trained and are working as Health Ambassadors, one youth attended National 4-H Healthy Living Summit in Washington, D.C., another youth obtained funds from Leaders Council and is attending 2016 Leadership Washington Focus, three newly appointed volunteers (one Army National Guard, two Army Reserve), eleven youth joined currently established clubs, one newly established Cloverbud club meeting at Armory, future Action Plan: (1) "Fun 4 Guards" club (4th & up) starting STEM project February, 2016. (2) Obtained Leaders Council funding to send youth to compete at National Engineering Challenge at Purdue. (3) Upcoming Army Reserve Mother/Daughter and Father/Son nights scheduled 4-H hands on activities. (4) National Guard teen lock-in scheduled at Armory. (5) O-League starting new 4-H STEM club in spring, 2016, with two new adult volunteers.

4. Associated Knowledge Areas

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Outcome #9

1. Outcome Measures

Discover the Leader in You! 4-H Conference - MEDIUM TERM - Youth apply knowledge, attitudes, skills, and behaviors needed to become competent, caring and contributing citizens by: taking on leadership roles in their youth organizations and schools, and working in partnership with adults in a variety of settings. Youth and adults demonstrate effective partnerships through increased youth participation on advisory committees and other governing bodies. Volunteers and youth development professionals apply practices fostering positive youth development.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

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3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Leadership is an essential life skill to develop in both youth and adults. Leadership development enables individuals to initiate qualities, which can make them a leader and guide others to be more productive. In today's world, human productivity and success are a result of leadership skills and abilities. The unpredictable challenges of the future emphasize the need for effective leaders. Although every young person has some leadership potential, the skills necessary to be a leader do not necessarily develop in the natural course of life.

What has been done
In an effort to provide opportunities beyond county programming to engage middle school youth in leadership and personal development, as in 2014 the "Discover the Leader in You" 4-H Conference was planned and implemented in Spring 2015. The conference included large and small group interactive and hands-on activities focusing on leadership and personal development.

Results
Sixty-nine (69) 4-H members in grades 6-8, two teen 4-H members and three 4-H staff representing 18 counties (Atlantic, Burlington, Camden, Cape May, Cumberland, Essex, Gloucester, Hunterdon, Middlesex, Monmouth, Morris, Ocean, Passaic, Salem, Somerset, Sussex, Union and Warren) participated in a full day (5.5 hours) leadership conference. The purpose/objectives of the program were to provide an opportunity for program participants to: - Develop an understanding of leadership and who is a leader. - Identify qualities and characteristics of effective leaders. - Develop an understanding of leadership skills and characteristics. - Increase their awareness about the seven leadership life skills (understanding self, communicating, getting along with others, learning to learn, making decisions, managing, and working with groups). The evaluation methods for this program included an End-of-Program Evaluation. Evaluation results for the 2015 conference are as follows: - 96% of the program participants indicated that as a result of participating in the conference they learned "a lot" about leadership. - 96% learned "a lot" about leadership skills and characteristics. - 98% indicated that they plan to use what they learned. - 86% plan to take on more leadership roles in their 4-H club and/or county 4-H program. - 100% of the participants rated the program as "Great" or "Good". - 81% of the participants indicated that they "Strongly Agree" or "Agree" that as a result of their participation in the Discover in the Leader in You! 4-H Conference, they feel comfortable taking on a leadership role. - As a result of participating in the Discover the Leader in You! 4-H Conference, eight youth applied and were selected to attend Leadership Washington Focus at the National 4-H Center in July 2015. - It has been reported by county 4-H staff that program participants have utilized and implemented knowledge and skills learned at the Discover in the Leader in You! 4-H Conference. - As reported by 4-H parents, 4-H volunteers and 4-H staff, program participants thoroughly enjoyed learning about leadership and developing valuable life skills. Two 4-H members set the goal of running for a club officer position and were elected president of their clubs. One 4-H member set a goal of coordinating a countywide community service project and effectively took on this leadership role.

4. Associated Knowledge Areas

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</table>
Outcome #10

1. Outcome Measures

2015 Passaic County 4-H Teen Community Service Week - MEDIUM TERM - Youth apply knowledge, attitudes, skills, and behaviors needed to become competent, caring and contributing citizens by: taking on leadership roles in their youth organizations and schools, and working in partnership with adults in a variety of settings. Youth and adults demonstrate effective partnerships through increased youth participation on advisory committees and other governing bodies. Volunteers and youth development professionals apply practices fostering positive youth development.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

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3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Urban communities in Passaic County tend to have lower graduation rates and higher rates of poverty and unemployment - all contributing to educational deficits. It is important to provide urban 4-Hers an opportunity to take on leadership roles in identifying the needs and ways they can help to make change in their community.

What has been done
Beginning in May 2015 urban teens from the Passaic County Teen Crusaders 4-H club begin planning for their annual teen community service week, which occurs in August. Teens who participate are able to help those in their communities, learn new things, and make connections with others interested in the area of service; therefore, teens work together to decide as a group on the service activities and learning opportunities in which they will participate. Teens are responsible for planning and implementation of the week. Additional assistance in the planning and implementation was provided by 4-H staff. There is no cost and transportation is provided.

Results
Teens complete an evaluation at the end of the service week. A total of thirteen teens participated in Teen Community Service week during 2015. Eleven teens completed evaluation forms- 85% response rate. Teens were asked to rate each of the following: N = 11 % of Teens who selected Very Good & Excellent # of teen volunteers 64% Length of program 64% Activities 91% Locations
73% Overall Experience 82% 100% of the teens who participated felt that their work throughout the week had an impact on the people/organizations they were working with. Some of the teens commented: "I learned that everyone appreciates my help." "We helped the farmer prepare food for the farmers market. The residents at Preakness enjoyed our company." 64% of the teens felt that their work had an impact on the community as a whole. "Volunteering helps those suffering from hunger in our community, and we educated our youth." 82% of the teens who participated are interested in participating in next year's service week and are also interested in helping to coordinate. Teens said they enjoyed volunteering, BINGO at Preakness, working on the farm and working with all the animals at the Sussex County fair. They believed that they gained knowledge and improved skills in all of the following areas: teaching kids, agriculture, farming, multi-tasking, teamwork, cooperation, patience, and communication.

4. Associated Knowledge Areas

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Outcome #11

1. Outcome Measures

Mentor Network - MEDIUM TERM - Youth apply knowledge, attitudes, skills, and behaviors needed to become competent, caring and contributing citizens by: taking on leadership roles in their youth organizations and schools, and working in partnership with adults in a variety of settings. Youth and adults demonstrate effective partnerships through increased youth participation on advisory committees and other governing bodies. Volunteers and youth development professionals apply practices fostering positive youth development.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

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3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Mentoring matters in positive youth development. Youth with mentors are more confident and have fewer behavioral problems. Atlantic City and Pleasantville have numerous mentor programs recruiting from the same audience base, with little to no resources, and in many instances limited training and/or experience with positive youth development.
What has been done
The Mentor Network was initiated to offer a continuum of community-based services, to pool resources, and provide on-going training for directors and mentors. Directors of local mentor programs and recruited volunteer mentors convene monthly from January through June in a collaborative learning relationship that provides the foundation of a positive mentor program, training of mentors, and increasing family involvement. Its primary goal is to help mentors acquire the essential The youth development framework, as described by Roth, Brooks-Gunn, Murray and Foster (1998), includes (a) program elements that present youth with new roles and responsibilities, (b) support for youth, and (c) a focus on enhancing internal assets and competencies. Competencies needed to effectively work with youth. Using materials and curriculum from the Youth and Families with Promise, Connect Curriculum, and the Essential Elements of Positive Youth Development, six 1.5 to 2 hour sessions were conducted on building relationships, communication skills, asset development, and providing positive experiences. Each session also provided time for groups to share problems, successes, upcoming events, and current issues.

Results
In its initial year, those involved have been very pleased with the network and the sharing of ideas, events, and resources. Two groups 4-H was introduced to as part of the network recruited and sent teens to the RU Summer Science Camp once they became aware and several groups pooled resources for buses for college trips rather than each getting a bus and not filling it as happened in past. Mentors have expressed they feel better prepared for their role and know there is a network out there to help with any problems they might encounter. n=21; 8 males & 13 females

<table>
<thead>
<tr>
<th>BEFORE</th>
<th>AFTER</th>
<th>% CHANGE</th>
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<tbody>
<tr>
<td>I enjoy working with youth.</td>
<td>3</td>
<td>3.45</td>
</tr>
<tr>
<td>I feel confident about myself.</td>
<td>3.36</td>
<td>3.91</td>
</tr>
<tr>
<td>I can organize youth activities.</td>
<td>2.78</td>
<td>3.44</td>
</tr>
<tr>
<td>I enjoy teaching/helping others.</td>
<td>2.55</td>
<td>3.09</td>
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<tr>
<td>I feel like I have made a difference in the world.</td>
<td>2.8</td>
<td>3.4</td>
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<tr>
<td>I believe mentoring is worthwhile.</td>
<td>2.91</td>
<td>3.55</td>
</tr>
<tr>
<td>I have good skills to relate with youth.</td>
<td>3.18</td>
<td>3.91</td>
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<tr>
<td>I understand the needs of youth.</td>
<td>3</td>
<td>3.7</td>
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4. Associated Knowledge Areas

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Outcome #12

1. Outcome Measures

4-H Science, Engineering and Technology Program - LONG TERM - Youth demonstrate mastery and competencies needed to become engaged by assuming leadership positions in communities; developing and implementing action plans to address community needs, and becoming productive members of the workforce. 4-H youth are engaged partners in decision making regarding RCE programming including but not limited to 4-H youth development programming. 4-H alumni and volunteers become engaged citizens by assuming leadership positions in communities. Youth development professionals and stakeholders influence decision makers in policy development related to youth development needs and issues.

2. Associated Institution Types
3a. **Outcome Type:**

Change in Condition Outcome Measure

3b. **Quantitative Outcome**

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

**Issue (Who cares and Why)**

The President's Council of Advisors on Science and Technology forecasts the need for approximately one million more college graduates in STEM fields than expected under current assumptions over the next decade to fulfill anticipated jobs (PCAST, 2013). To meet this goal, the United States will need to increase the number of students who receive undergraduate STEM degrees by about 34% annually over current rates. Therefore, there is a need to recruit and retain students from a variety of backgrounds into STEM fields. In addition, a National Academies report (2007) articulates that personally consequential and authentic inquiry is essential to develop interest in, motivation for, and identity with respect to science and the development of a career path in science. Effective STEM programs employ a combination of both training processes that are sequential and active, with program content that is focused and explicit.

**What has been done**

4-H County Agents have designed and implemented programs that highlight the cutting edge science at Rutgers to inspire and educate NJ young people about STEM careers. Several 4-H signature programs are: 4-H Rutgerscience Saturdays, 4-H Climate and Environmental Change Teen Summit, Science of Soil Summit, and the 4-H Summer Science program. 4-H Rutgerscience Saturdays are geared toward middle school age youth (grades 6-8) and designed to enrich young people’s interest and competency in science, technology, engineering and mathematics by having direct interaction with Rutgers University faculty, graduate, and undergraduate students. The program offers middle school aged young people the opportunity to engage in hands on activities and demonstrations that highlight a wide variety of STEM disciplines offered at Rutgers University. The program is a combination of demonstrations, tours, field experiences, and hands on activities focused on a different STEM theme. Since 2009, the program has offered programs in topics such as geology, entomology, oceanography, food sciences, and environmental sciences. The Climate and Environmental Change Summit is a multi-day on campus event for middle and high school students designed to increase knowledge and understanding of climate change science through interaction with Rutgers University scientists. Using an action planning process, youth develop community service projects to demonstrate their knowledge of climate change and their creativity in addressing sustainability issues. The 4-H Summer Science program designed to enrich young people’s interest and competency in science, technology, and communications by having direct experiences with Rutgers University faculty, graduate and undergraduate students. This five-day program creates and supports 4-H Science, Engineering & Technology (SET) Ambassadors who share their
experience, new knowledge, and understanding of SET topics and campus life with other students in their community through employment and/or volunteer opportunities through local 4-H offices. The youth posted a blog about their experiences with the Summer Science program at http://coseenow.net/summerscience/. Now in its fourth year, the 4-H Summer Science program is maturing into a vibrant STEM program that engages students in learning what it means to be a scientist. The Science of Soil program (SOS) focuses on getting middle school age youth involved in citizen science related to soil health. The program starts with a two day professional development for the educators/leaders. 4-H Agents and staff facilitate a series of Video Teleconferences (VTCs) with the students and selected Rutgers scientists. The youth ask questions of the scientists and ultimately develop a poster that they present at an on campus event in the spring. Finally, the 4-H Education team also has several National Science Foundation grants where 4-H Agents and staff engage educators and their students in polar science research. Polar ICE brings together a group of collaborating colleagues from three key institutions: Rutgers the State University of New Jersey (RU), Monterey Bay Research Institute (MBARI), and California State University Monterey Bay (CSUMB). Polar ICE pairs educators and scientists in partnerships that are win-win. Scientists are afforded a productive way of contributing to public education and share their research and understanding of the changes in climate, food webs, and human culture in the Polar Regions. Educators have the opportunity to share their knowledge of science communication and effective practices in reaching young audiences. Together educators and scientists create excitement and contribute to the necessary skills required to meet 21st century workforce needs.

Results
Since 2009, the 4-H Agent and staff conducted formative evaluation on 4-H Rutgerscience Saturday programs to improve the program quality and interactions with Rutgers scientists. From these evaluations it is known that young people are motivated to attend 4-H Rutgerscience Saturdays because they are interested in fun and engaging hands on activities taught by interesting scientists. Approximately 58% of youth have attended more than one 4-H Rutgerscience Saturday program annually. The 4-H Department has partnered with nonprofit youth groups to bring large numbers of underserved youth to 4-H Rutgerscience Saturday programs and with the hope of expanding programming opportunities for these groups to improve young people's identity as someone who can become a scientist and participate productively in the science community. Data for the Climate Change Teen Summit shows the average values of the student self-report assessments both before and after the Climate and Environmental Change Teen Summit. Students reported significant (Wilcoxon Signed-Rank test p>0.0004) improvements in their ability to work as part of a team, work in adult-youth partnerships, be a leader, serve their community, and develop plans of action. In the 2015 Summer Science cohort, young people were asked what they think about science through a series of item statements about the characteristics of science. Table 1 (n=60) shows positive shifts in young people's perception of what science is and what scientists do. Participants indicated they strongly agree that: Science is for everyone and is useful to all (not for only highly trained people)- Science builds on the knowledge of their peers/others - Science is dynamic and subject to change based on new evidence - Science contributes to our understanding of the natural world. Scientists are creative people For our Polar ICE program: These outreach components provided both a deep dive connection into the content and process of science for almost 1,000 teachers and students as well as connected over 7,000 people throughout the globe to the collaborative. Thus far with polar science education efforts have reached: 22 Science Teachers from grades 6-9 and their students (~950) participated in the year-long comprehensive partnership with the science team. ~7,000 science interested. Members of the general public participated in the 2-hour long video broadcasts from the penguin colony. How and Why Successful: These outreach components provided both a deep dive
connection into the content and process of science for almost 1,000 teachers and students as well as connected over 7,000 people throughout the globe to the collaborative research being conducted down at Palmer Research Station. The teachers and students felt a part of the research mission and were extremely invested in the scientists' work and findings. The participants of the live video broadcasts were able to witness a live penguin colony and have their questions answered in real time about the birds, ecosystem, and polar research.

4. Associated Knowledge Areas

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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 (Youth risk factors)

Brief Explanation

None to report.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

NJAES research and extension outcomes related to this planned program were evaluated utilizing a variety of evaluation methods appropriate for each initiative to determine effectiveness on both a qualitative and quantitative level. For KASA and practice change we included the measurement of knowledge gained as measured by pre/post Likert-scale assessments. Surveys were used to measure increase in skills acquired, behavior change and practice adoption. For process evaluation we focused on program delivery, participation, relevance and timeliness. Data was collected at appropriate times for each initiative that supports this planned program. IRB approved evaluation instruments were used to collect research and extension data. Data analyses and comparisons relevant to basic and applied research and demonstration were collected and analyzed and reported utilizing a variety of data collection methods appropriate to each research question. The major goal of evaluating is the demonstration of social, economic, behavior and environmental changes in conditions that contribute to improved quality of life as a result of participation in programs and benefits of research solutions. See state defined outcomes for detailed results of each initiative.
Key Items of Evaluation

None to report.