



# RESEARCH PROJECT OUTLINE

Research and Graduate Education ♦ College of Agricultural Sciences  
The Pennsylvania State University ♦ University Park, Pennsylvania

**Title:** Strategies to Overcome Barriers to Underserved Clientele Participation in Agricultural and Extension Education Programs

**Probable Duration:** 58 months (June 1, 2008 through March 31, 2013)

**Personnel:**

*Project Investigator(s)*  
Connie D. Baggett (18%)  
Patreese D. Ingram (25%)  
Department of Agricultural and Extension Education

**Justification, Relevance and Expected Outcomes or Impacts:**

One of the under linings efforts of the American society is the involvement of all populations. These populations include individuals from all ethnic backgrounds, socio-economic statuses, educational level, employment levels, and employment types. Because local, state, and federal programs are funded with tax payer dollars, these programs should be available to all populations where relevant and appropriate. Consequently, programs that foster proper nutrition should be available to the general population while programs that improve agricultural production should be available to all agricultural producers but may not be relevant or appropriate for apartment dwellers. However, educational programs funded by taxpayer dollars should be available to the general population regardless of where a person lives, works, or socializes. There are many such programs designed to help young people explore and get involved in productive activities relevant to future education and career development or personal and professional growth. Agricultural and extension programs are no exception.

Secondary education involving agricultural skills acquisition, FFA and 4-H leadership programs are great programs for our youth. Learning about food and fiber production, environmental stewardship, natural resources management, being a community leader, building strong community infrastructures, building or maintaining a strong family system or other such civic involvements are essential for a strong community, state and nation. However, many individuals in the community are not knowledgeable about agricultural and extension programs. Of those individuals who are knowledgeable, many do not participate because of real or perceived barriers preventing their participation. If we are to continue to build strong social systems and knowledgeable and responsible citizenry, our citizens must know about these programs. Learning about such programs and opportunities should start with the high school guidance counselor, local radio and television programs, local newspapers, and civic groups.

It is inconceivable that our young people can become interested in opportunities and programs in agriculture and related industries without knowledge about them. Fifty years ago, Super (1957) stated that interest is learned. This idea was studied by Baggett (1982) and Christie (1996). They found that students who were exposed to information about careers showed an interest in some of these areas. The specific number of districts offering a curricula covering careers out of the 501 school districts in Pennsylvania is not available. However, every school district has guidance counselors helping students make decisions about what college to attend, which high school academic program to pursue (general, vocational, or college preparation), as well as what job to seek based upon a student's interest inventory. Consequently, counselors need good information to share with their students. To recruit participants into extension program or secondary agricultural programs, extension educators and agricultural teachers need good material as well.

“According to the United States Department of Agriculture (USDA), 17 percent of the workforce is employed in more than 300 agriculturally related careers. Currently, colleges of agriculture are not serving 17 percent of the student population which creates a deficiency between the amount of agriculturally related jobs and the number students who graduate. Also, colleges of agriculture are experiencing a decline in the number of students enrolling in undergraduate and graduate programs (Gwynn & Thompson, 1990) and ethnic minorities have historically not enrolled in colleges of agriculture. Research on the reasons why minorities do not enroll in colleges of agriculture is insufficient (Mitchell, 1993). This insufficiency can be attributed to the fact that issues related to minorities have been seen as “social” rather than research worthy issues (Bowen, 1987). Population trends indicate that ethnic minorities are increasing. If the agriculture industry is to be sustained, more people of color need to be encouraged to participate in agricultural and related programs (Mitchell, 1993). Many ethnic minorities think of agriculture as only farming, low-wage, and a job for unskilled workers. This attitude is keeping minorities from taking part in agriculturally related activities and programs (Larke & Barr, 1987). Understanding minority opinions and their lack of knowledge about agriculture will help administrators and student recruiters to increase enrollment in colleges of agriculture and increase minority participation in agricultural and related programs.” (Hollins & Baggett, 2008)

### **Previous Work (Background) and Present Outlook:**

The term “underserved” refers to those individuals who have not enjoyed the full benefits or been recipients of the services sponsored or administered by governmental agencies, educational institutions, or businesses. Underserved clients have been classified into the following:

- **Traditionally Underserved Clientele.** Clientele who may at present have participation rates that are in parity, but who were underserved in the past.
- **Targeted Clientele (or Planned Participants).** The members of the potential clientele whom program planner’s plans to reach during a specific program year.
- **Underserved Clientele.** Members of those protected classes (racial minorities and women) for which parity has not been achieved.

From AES project 3951, responding students identified the follow barriers to underserved population participation in agricultural and extension education programs: lack of mentors/role models, lack of contact with recruiters in agriculture, lack of career opportunities available in agriculture, lack of parental support, lack of people of color in agriculture, negative stereotyping of agriculture, ridicule by peers regarding agriculture, ridicule by community regarding agriculture, not discussed by high school guidance counselors, lack of support by high school guidance counselors, and lack of promotional materials about agriculture. These findings are supported by Wiley, Bowen, Bowen, and Heinsohn, (1997). From this list, not discussed by high school guidance counselors and lack of promotional materials about agriculture were identified by the majority of students as lacking (Faulkner, Baggett, & Alston (in progress)). Preliminary conclusions are cautiously made because of the limited number of respondents. However, based upon this limited data, it was concluded that more training for high school guidance counselors regarding agriculture and career opportunities in agriculture is needed. Likewise, a framework and/or best practices should be developed to help with increasing participation of underserved clients in agriculture. Obviously, more promotional materials should be developed to enhance interest in agriculture and related careers.

The need for this research project has never been greater. As the number of minorities increase and state and federal funding decrease, agricultural and extension education specialists and educators must be more directed and focused in their programs. Identifying and recruiting more and better program participants is crucial to ensuring that a viable pool of young people are available to fill job openings in the future. Currently, there are no African Americans teaching secondary agricultural education in Pennsylvania’s school. Likewise, there are few African Americans in Penn State’s Cooperative Extension as assistant and associate agents. Without the Department of Agricultural and Extension Education, the number of African Americans holding teaching appointments in the College of Agricultural Sciences would be drastically reduced. The number of Hispanics, Asian Americans, and other minorities in Penn State’s Cooperative Extension and Pennsylvania’s secondary agricultural education are very few.

### **Purpose and Objectives:**

The purpose of this study is to determine ways in which barriers to participation of selected underserved groups can be removed or overcome in Penn State Cooperative Extension programs and secondary agricultural education programs. Specific objectives of the study are:

1. Determine what strategies exist that program providers are effectively using to remove or overcome barriers effecting and affecting underserved clientele participation in Pennsylvania's extension education and secondary school agricultural education programs and determine what are the gaps these strategies.
2. Determine how effective are new strategies in removing or overcoming barriers effecting and affecting underserved clientele participation in Pennsylvania's extension education and secondary school agricultural education programs.
3. Determine what agricultural promotional materials exist and are needed to help guidance counselors or program providers to attract interest in agricultural and extension programs.

### **Procedures:**

This study will use a descriptive survey research design strategy. The study will use randomization in all phases and one objective will be accomplished each year throughout the duration of this project. The following procedures will be used.

*Objective 1a Procedure: Survey researchers from the CRIS search to determine strategies they used to remove or overcome barriers to involvement of participants in their programs.* There were 38 research projects identified through the CRIS search and the principle investigators and their address will be retrieved for use in this project. Many of these principle investigators may have experience clients with real or perceived barriers to participation in agricultural and extension education programs. These principle investigators will be surveyed to determine if this is true and what strategies were used to overcome such barriers. This procedure will generate a list of strategies used by other AES project investigators. This compiled list of strategies will also be shared with the AES project investigators and used in the next procedure.

*Objective 1b Procedure: Survey county extension educators about overcoming barriers to involvement of participants of their programs.* Pennsylvania has extension educators in every county and these individuals have a wide range of experiences working with stakeholders and clients. Many also have tried to expand their programs and include underserved clients with varying success. Some of these programs have targeted inner city youth (Philadelphia, Harrisburg, and Pittsburgh), Anabaptist (Lancaster and York Counties), as well as Hispanics (Chester and surrounding counties). A random sample of these extension educators will be surveyed to gather information about their successful and unsuccessful strategies. These strategies will be compiled into the "do's and don'ts" and shared with all extension educators in the state.

*Objective 1c Procedure: Survey secondary school agricultural education teachers about overcoming barriers to involvement of participants of their programs.* The secondary agricultural education classroom is populated with a diversity of students. These classes include individuals from all ethnic backgrounds and socio-economic status and whose parents have a variety of educational levels, employment levels, and employment types. Secondary agricultural teachers have successfully attracted these students into their elective instructional program. An agricultural teacher survey will gather information as to "how did they get these students to participate" strategies and what strategies did not work. These strategies will be compiled into the "do's and don'ts" and shared with all secondary agricultural educators in the state.

*Objective 1d Procedure: Compile, compare and contrast the list of strategies identified by researchers, extension educators and secondary agricultural education teachers to determine duplications and possible gaps.* The list of strategies identified in objective 1 will be compiled and consolidated. Duplications will be eliminated. Principal investigators will evaluate the list to determine possible gaps.

Objective 2 Procedure: *Ask researchers, county extension educators, and secondary school agricultural educators to evaluate, rank, and determine gaps where new strategies are needed to overcome barriers to involvement of underserved clientele participants in agricultural and extension programs.* This objective will be accomplished using the Delphi method. Each Delphi group will evaluate the list of strategies. They will be asked to identify gaps in the strategies as well. The Delphi method should result in a consensus of strategies to help possible program participants overcome barriers to participation in agricultural and extension programs. With the implementation of these strategies, the number of participants in the secondary agricultural programs should increase.

Objective 3a Procedure: *Collect, compile, and assemble recruitment materials for the programs of researchers, extension educators and secondary agricultural education teachers.* The 38 CRIS search principal investigators, extension educators, and secondary agricultural education teachers will be asked to provide copies of their program recruitment materials. These materials will be organized around the Delphi list of strategies and gaps will be noted. Appropriate recruitment material will also be solicited from other land grant institutions.

Objective 3b Procedure: *Compile a list of evaluation criteria to judge the quality of recruitment material.* Using the Penn State University's and the College of Agricultural Sciences' public relations personnel, a list of evaluation criteria will be compiled. This list will be augmented with information found at reputable web sites. Principal investigators, extension educators and secondary school agricultural educators will be asked to apply the criteria to the recruitment materials. Ask extension educators, agricultural teachers and guidance counselors to assess the usefulness of the compiled materials. Inappropriate materials will be discarded.

Objective 3c Procedure: *Develop and evaluate sample recruitment material as needed.* Using the colleges' public relations personnel, recruitment materials will be developed to fill gaps in the list of materials. The use of cutting edge technology, where appropriate and feasible, will be employed to insure that the material embraces the visual, cognitive, spatial, and intellectual faculties. For example could holographic materials, computer enhanced (animated power point slide shows), wikis, or Micromedia Flash animation, be used or principal investigators, extension educators, secondary school agricultural educators and the general student population will be asked to rate the appeal of the recruitment materials in overcoming barriers to underserved populations to participate in agricultural and extension programs. Guidance counselors, agricultural teachers, and extension educators will be asked to use these advertising and informational at career opportunities, where appropriate, and provide feedback about their usefulness. All materials will be inserviced the annual Pennsylvania Agricultural teachers' meeting and at annual extension inservice meeting. Additionally, these materials will be proposed for inclusion at one of the regional and annual America Association Agricultural of Educators.

### **Stakeholder Engagement:**

Stakeholders for this project have been built into the study. They include extension educators, secondary school agricultural education teachers, public relations personnel at the college and university levels, and students at the secondary and collegiate levels. During the execution of this project, they will be asked to play an active role in determining strategies to overcome barriers to participation in agricultural and extension programs.

### **Scope of Impact:**

Although this is a state project, it draws upon principal investigators identified by the CRIS search conducted at the initial phase of this project. Information and strategies identified by this study should prove important and valuable to high school guidance counselors, college student recruiters, and agricultural industry human resource personnel.

### **Integrated Activities:**

This project will not be successful without the cooperation of extension educators, secondary school agricultural education teachers, public relations personnel at the college and university levels, and students at the secondary and collegiate levels. Efforts will also be made to involve agricultural industries that hire college graduates.

Consequently, every opportunity to involve these groups reviewing and critiquing strategies and recruitment materials.

**Milestones:**

The ultimate objective of this project will be the production of recruitment materials that will positively impact participation in agricultural and extension education and secondary school agricultural education programs.

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