INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.
A STATUS STUDY OF THE RECRUITMENT AND RETENTION OF AFRICAN-AMERICAN STUDENTS IN AGRICULTURAL EDUCATION BACCALAUREATE PROGRAMS

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the
Degree of Doctor of Philosophy in the Graduate
School of The Ohio State University

By

Janice Lester Bell, B.S., M.A.

* * * * *

The Ohio State University
1997

Dissertation Committee: Approved by
Dr. Michael L. Scott, Advisor
Dr. Janet L. Henderson
Dr. James N. Upton

Advisor

Comprehensive Vocational Education
Graduate Program
ABSTRACT

The purpose of this study was threefold. First, an attempt was made to ascertain the level of African-American student enrollment in U.S. agricultural education programs and if this level has increased over the past ten years. Second, an effort was made to identify strategies used to recruit and retain African-American students into U.S. agricultural education programs. Finally a comparison was made between agricultural education programs housed at HBCU institutions and non-HBCU institutions in terms of use of strategies to recruit and retain African-American students in agricultural education programs.

This research employed a mailed survey. The instrument was forwarded to all Chairs and Department Heads of US agricultural education programs (N = 92). Eight administrators did not respond for a response rate of 91%. Seven administrators were eliminated from the data set because they did not meet study criteria (N = 77). The information requested concerned student enrollment data for each agricultural education baccalaureate program. The administrators were also asked to provide information on the type and frequency of the strategies their program currently employs to recruit and retain African-American students.
The results indicate that enrollment of African-American students in agricultural education has made little to no progress in the past 10 years and is unlikely to increase in the future. There is a need for organized on-going recruitment and retention programs to balance the representation of African-American students in agricultural education. US agricultural education programs should establish and periodically update programs designed to recruit and retain African-American and other minority students.
DEDICATION

With praise and thanksgiving to God, I dedicate this work to my family,

Tenolian Rodney Bell, M.S.W., M.Div., Ph.D.,

Tenolian Rodney Bell, Jr., B.S.,

Londia Iver Bell (GingerSnap),

Lemoria Luri Lester (patriarch),

Carolyn Studstill Lester, M.S.W., and

Lemoria Leon Lester, M.S.
ACKNOWLEDGMENTS

It is difficult to quantify the impact of various of individuals with whom I have crossed paths. Limitations of time and space will not allow me to name individually all those who have played a part in motivating, shaping, and supporting me to this point. Therefore, friends, school teachers, classmates, community and church families (Antioch, West Palm Beach and Antioch, St. Louis) as well as my personal family must know that as greatly as I have depended on you for prayer and encouragement, I love and thank you.

I am most especially grateful to my husband and best friend, Rev. Dr. Tenolian R. Bell without whom I would not have begun this project. While working on his own doctoral program, Tenolian did not cease in his role as attentive father, husband, and counselor. Non-traditional in many of his attitudes, Tenolian was determined that we be equal partners in family responsibility and professional aspirations. His faith and drive were the inspiration that kept me going.

My children found their own ways to cheer and spur me on to completion. Thank you to my son who started his college career as I returned to mine.
Tenolian, Jr. inspired me by overcoming obstacles and never giving up on his goal. The completion of his degree in May, 1997 was a family triumph. Thanks to my daughter, Londia, we celebrate her graduation from middle school in June, 1997. Londia sacrificed much of our ‘Mother/Daughter’ time for this project. In addition, she was my trusty companion on late night trips to the library, my assistant in typing, duplicating, collating, stapling, and mailing associated with the project. Thank you all for your love, support, and patience.

To my parents, Deacon Lemoria Lester, Sr and Mrs. Carolyn Lester, thank you for instilling in me a desire to do my best in all my endeavors. You have inspired and encouraged me every step of my life’s journey. If not for your prayers, faith, and support, I would not be here today.

Similarly I thank my brother, Deacon Lemoria Lester, Jr. Your prayers, cards, accolades and words of inspiration played a very large role in my continued motivation.

I wish to acknowledge and thank my dissertation advisor, Dr. Michael L. Scott, for your leadership and guidance beginning with my generals committee through my research project. Thanks to Dr. James N. Upton who also served on my generals and dissertation committee. Your encouragement was beyond measure in the confidence it instilled in me. A special thanks to Dr. Janet L. Henderson for your available shoulder, persistent encourage, understanding, guidance, and hard work in getting me through this research project.
To Dr. Emmalou Norland and Dr. Mac Stewart thank you for serving on my general examination committee.

Thanks to my mother-in-law, Mrs. Arvella J. Bell, who gave birth and shape to the life of Tenolian. Mother Bell continued her encouragement of both Tenolian and I through the dissertation process.

Thanks to my grandparents, Ulysee and Ethel Studstill (deceased), who taught me love of family, hard work and self confidence.

Thank you to my grandparents, Frank and Julia Luster (deceased), who taught me patience, kindness and inner strength.

I am truly grateful to Dr. Gwendolyn Mitchell. Thank you for introducing me to the area of agricultural education. Your encouragement and watchful assurance has meant more to me than I can express.

To Dr. L.H. Newcomb, thank you for your encouragement, concern, flexible work schedule, financial support, and tough love. Your ‘prints’ have made a permanent impression on me.

I extend a special thank you to those members of the Second Baptist Church family that encouraged and prayed for our familys’ well being. Specifically, I want to thank Sister Tamara Bosley, Sister Ruth Smith, Brother Rudy Carter, my ‘Big Brother’ Clyde and Dee Wright, Brother Jim and Sister Crystal Stowe, and last but definitely not least Dr. Eugene, Dr. Jackie, and Scholar
Lauren Jones as well as Kristen and Nicole in their absence. Thank you all for your special help during the final ‘leg’ of this journey.

To Terry Osterman, Eilene Reece, Sylvia Carter, Ann Gales, and Tina Gilfilin thank you very much for your technical and typing assistance.

To MANRRS and Manisa Kung, thanks for your friendship, encouragement and assistance with the research project.

To my supportive campus Sorors as well as my distant Soror, best friend and college roommate, Veronica F. W. Carter, your faith and encouragement continue to motivate me.

Finally to my mentor and big sister, Dr. Marquita Chamblee Jones, thank you for being there to tell me I ‘could’, when I began to doubt the fact.
October 18, 1955 .................. Born - West Palm Beach, Florida

1973 ........................................ Graduated - Suncoast High School, Riviera
  Beach, Florida

1976 ........................................ Bachelor of Science, Mass Communications,
  Florida State University, Tallahassee, Florida

1977 ........................................ Research Assistant, Florida House of
  Representatives, Tallahassee, Florida

1979-1985 ........................... Telecommunication Representative AT&T
  Information Systems St. Louis, Missouri

1987-1988 ........................... Training Officer, University of Wisconsin
  Madison, Wisconsin

1990 ...................................... Human Resource Development Specialist, State
  of Wisconsin Madison, Wisconsin

1992-1993 ........................... Graduate Administrative Associate, Office of
  Continuing Education, The Ohio State University
  Columbus, Ohio

1993 ...................................... Master of Arts, Training and Development,
  The Ohio State University, Columbus, Ohio

1993-1997 ........................... Graduate Administrative Associate, College of
  Food, Agricultural, and Environmental Science,
  The Ohio State University, Columbus, Ohio
TABLE OF CONTENTS

Abstract ................................................................. ii
Dedication .............................................................. iv
Acknowledgments ................................................... v
Vita ........................................................................ ix
List of Tables ........................................................ xiv
List of Figures ......................................................... xvii
Chapters:
1. Introduction ...................................................... 1
   Statement of the Problem ................................. 5
   Purpose of the Study ....................................... 6
   Research Questions ......................................... 6
   Assumptions ..................................................... 9
   Definition of Terms ......................................... 10
   Limitations of the Study ................................. 11
   Significance of the Study ................................. 12
2. Review of Literature .......................................... 15
   Overview ........................................................ 15
   African American Land-Grant Colleges ............ 21
   Recruitment and Retention in Higher Education .... 23
   The Agriculture Image .................................... 28
Strategies to Recruit African American Students ............................................. 29
Retention of African American Students ......................................................... 32

3. Methodology ................................................................................................. 38

Research Design ............................................................................................. 38
Population ........................................................................................................ 38
Instrumentation ............................................................................................... 40
Validity ............................................................................................................. 44
Reliability ......................................................................................................... 46
Human Subjects Review ................................................................................... 47
Data Collection ................................................................................................. 48
Data Analysis .................................................................................................... 49

4. Findings ........................................................................................................ 52

Data Respondents .............................................................................................. 53
Research Questions ........................................................................................... 55

1. How many African-American students were enrolled in agricultural education programs in the United States (U.S.) during the 1995-1996 academic year? ............................................................................ 55
   1A. What percentage of the total 1995-96 agricultural education student enrollment did African-Americans represent? ............................................................................................................. 57
   1B. Did the number of 1995-96 African-American students represent an increased percentage of the total agricultural education student enrollment compared to the African-American student enrollment for 1985-86, 1990-91, or both? ............................................................................................................. 60

2. What strategies were used to recruit African-American students into agricultural education programs? ............................................................................. 61
   2A. What primary markets were targeted for recruitment of African-American students? ..................................................................................................................... 61
   2B. What factors were considered primary barriers to recruitment of African-American students in agricultural programs? ............................................................................. 64
   2C. Did program units designate a leader for African-American student recruitment? ............................................................................................................. 67
   2D. To what extent did agricultural education unit budgets include monies for recruitment of African-American students? ..................................................................................... 71
   2E. What was the extent of use of primary strategies to recruit African-American students? ............................................................................................................. 72
3. What strategies were used to retain African-American students in agricultural education programs? .............................................. 76

3A. What factors were considered primary barriers to retention of African-American students? ............................................ 76

3B. To what extent did agricultural education unit budgets include monies for retention of African-American students? ... 80

3C. Did program units designate a leader for African-American student retention? ............................................................. 81

3D. What types of efforts were designed and implemented to retain African-American students? ................................. 84

3E. What percentage of the faculty were African-Americans? ... 90

3F. How were agricultural education programs modified curricula to embrace African-American contributions to the profession? ............................................................. 93

3G. Did the number of 1995-96 African-American graduates in agricultural education programs represent an increased percentage of African-American student graduates compared to 1985-86, 1990-91, or both? .......................... 95

4. How did historically Black institutions and non-historically Black institutions compare on the following factors? ................. 62

4A. Recruitment strategies ......................................................... 62

a. Type of strategies used to recruit African-American students ....................................................................... 63

b. Frequency of which strategy to recruit African-American students is used? ......................................................... 63

4B. Retention strategies ........................................................... 77

a. Type of strategies used to retain African-American students ....................................................................... 80

b. Frequency of which strategy to retain African-American students are used? ...................................................... 80

5. Summary, Conclusions, and Recommendations ............................... 96

Research Questions ....................................................................... 97
Research Design ........................................................................... 99
Population ............................................................................... 100
Instrumentation ......................................................................... 100
Data Collection ........................................................................ 101
Data Analysis ........................................................................... 102
Summary and Implications of the Findings ..................................... 102
Research Question 1 ............................................................. 102
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Number of African-American students enrolled in agricultural education during the 1995/96 academic year</td>
<td>56</td>
</tr>
<tr>
<td>2.</td>
<td>Number of African-American students enrolled in agricultural education during the 1995/96 academic year by type of institution</td>
<td>57</td>
</tr>
<tr>
<td>6.</td>
<td>Primary markets targeted for recruitment of African-American students</td>
<td>62</td>
</tr>
<tr>
<td>7.</td>
<td>Primary markets targeted for recruitment of African-American students by type of institution</td>
<td>63</td>
</tr>
<tr>
<td>8.</td>
<td>Factors considered as primary barriers to recruiting African-American students into agricultural education programs</td>
<td>65</td>
</tr>
<tr>
<td>9.</td>
<td>Factors considered as primary barriers to recruiting African-American students into agricultural education programs</td>
<td>66</td>
</tr>
<tr>
<td>10.</td>
<td>Factors considered as primary barriers to recruiting African-American students into agricultural education programs</td>
<td>68</td>
</tr>
<tr>
<td>11.</td>
<td>Factors considered as primary barriers to recruiting African-American students into agricultural education programs</td>
<td>69</td>
</tr>
</tbody>
</table>
12. Characteristics of leader designated to recruit African-American students by type of institution ................................................................. 70
13. Number of programs with separate funding for African-American student recruitment by institution ............................................................... 72
14. Strategies frequently used in agricultural education to recruit African-American students .............................................................. 73
15. Strategies frequently used in agricultural education to recruit African-American students by type of institution ........................................... 75
16. Strategies frequently used in agricultural education to recruit African-American students by type of institution ........................................... 77
17. Recognized barriers to retaining African-American students in agricultural education programs by type of institution ........................................ 79
18. Number of agricultural education programs with separate funds for African-American student retention by type of institution .................. 81
19. Number of agricultural education programs with a designated person for African-American student retention by type of institution .............. 82
20. Percentage of designee’s time allotted for retention ............................................... 83
21. Characteristics of person designated to coordinate retention activities for African-American students by type of institution ....................... 84
22. Approaches to increase sensitivity and support of African-American students .................................................................................................. 85
23. Approaches to increase sensitivity and support of African-American students by type of institution ......................................................... 86
24. Approaches used to retain African-American students ........................................ ........ 87
25. Approaches used to retain African-Americans by type of institution ............... 89
26. Number of faculty in agricultural education ................................................................. 91

xv
27. Number and status of African-American faculty in agricultural education by type of institution .............................................. 92

28. Number of agricultural education programs with multicultural curriculum by type of institution .............................................. 93

29. Approaches to inclusion of multicultural curriculum by type of institution ................................................................. 94
<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Model for recruitment of underrepresented groups</td>
<td>27</td>
</tr>
<tr>
<td>2.</td>
<td>Model for retention of underrepresented groups</td>
<td>36</td>
</tr>
<tr>
<td>3.</td>
<td>Research population by type of institution</td>
<td>39</td>
</tr>
<tr>
<td>4.</td>
<td>Responses to the mailed questionnaire from U.S. agricultural education programs</td>
<td>54</td>
</tr>
</tbody>
</table>
CHAPTER 1

INTRODUCTION

Declining enrollment is a well-documented phenomenon at U.S. institutions of higher education (Bell & Fritz, 1994; Norris & Townsend, 1987; Thompson, Gwynn, & Kawamura, 1989). This trend has been noted as particularly stressful for colleges of agricultures (Hoover & Scanlon, 1991; Nefstead, 1988). Though the 1980s were a time of enrollment growth for most of the nation's land-grant institutions, decreases continued for agricultural programs and colleges (Gwynn & Thompson, 1990). Reisch (1984), in his discussion of recruiting and retention, states:

We are concerned about the declining enrollment in our agricultural programs nationwide. Enrollment in our land-grant colleges of agriculture has declined nearly 25 percent in the past five years. This, coupled with a shortage of agricultural scientists and an unusually high percent of faculty who are of retirement age, has created a national concern for the expertise needed to respond to the challenges of the next 16 years and on into the 21st Century. (p. 27)

Concomitant with this decreasing enrollment was the declining number of traditional-aged farm youth. Rural youth have traditionally constituted the primary
focus of agricultural recruitment and curriculum (Mitchell, 1993; Dyer, Lacey & Osborne, 1995). However, rural students are increasingly seeking non-agricultural degrees (McCarthy, 1992).

Shifts in the demographics of U.S. society have had and are predicted to have continued affects on college enrollment as a whole and particularly in colleges of agriculture. Levine (1990) describes the possible affect of the decline in traditional college-age students and the increase of non-traditional students on college enrollment:

The proportion of minorities in the U.S. population is increasing rapidly, and the college pool will reflect this increase to an even larger extent than the nation as a whole. By the year 2000, a little more than two-thirds of the pool . . . The largest of the nonwhite groups-Hispanics and Blacks-have the highest rates of poverty and the lowest rates of educational attainment . . . Without preventive action, the decline in college attendance will be even greater than the drop in population indicates. (p. 27)

Some discussion concerning the problem of declining enrollment in agriculture during the past decade suggested that greater emphasis be given to the use of marketing techniques and actively recruiting minority students into agricultural programs (Dunkelberger et al., 1982; Reisch, 1984; Schuster & Costantino, 1986; Thompson & Massey, 1989). Marketing as defined by Kotler (1982) is an organizations’ effective management of its various markets and publics. In light of changing demographics and declining enrollments, using marketing techniques would seem to provide a logical solution. While this
discussion began more than a decade ago, approaches to recruitment or the
demographic makeup of members of U.S. agricultural education professions have
changed little (Jones, 1993).

Historically, minorities have had limited participation in agricultural
education at predominately white institutions (Bowen, 1994; Hickley & Hickley,
1987). Minority students studying agriculture are now under-represented in the
total agricultural education enterprise. Twelve percent of students enrolled in
United States agricultural programs are minority (Litzenberg, Whatley, &
Scamardo, 1996).

According to Bowen (1994), most racial and gender segregation in the
agricultural education professions has been eradicated by the removal of legal
barriers to participation:

However, 35 years after the first mandates, the profession's quest for
diversity is being severely hampered by repeated failures to distinguish
between desegregation and integration. Thus the integration of females and
minorities into the fabric of a desegregated agricultural education is proving
to be slow and difficult. Demographic trends suggest that effective
integration cannot wait much longer. (p. 6)

The issue of low minority enrollment in agricultural education
baccalaureate programs may be linked to a subtle continuation of historical
opposition:
Often members of minority populations are impeded from entering agricultural education because of embedded biases of teachers and white students. Embedded biases can be subtle or blatant and are usually unconscious. They are expressed when teachers and/or students have preconceived ideas about a specific race or gender that limits the acceptance or success of that group in specific programs or careers. People with embedded biases can subtly or blatantly treat some people as less than equal. (Whent, 1994, p. 9)

Agribusiness firms are interested in increasing the number of minorities and women among their employees (Hildreth, 1986). Changes stemming from these interests have resulted in a mixed reality. "We [agricultural education programs] have made some progress in diversifying our student populations by gender at both the secondary and post-secondary levels, but we have a long way to go in developing a truly diverse corps of agricultural educators at any level" (Osborne, 1994). The number of women in agricultural study, has increased significantly in recent years. Unfortunately, a similar increase has not been accomplished with minorities, and there is a concern for recruiting minorities among the brightest and best of all students (Hildreth, 1986). We are less than optimally effective until we have a diverse professional corps. Ideally, our profession should parallel the composition of our nation as a whole in its ethnic and gender make-up (Osborne, 1994).

A commitment is needed to develop cohesive, integrated strategies for recruiting and retaining minority students in agricultural education programs. To increase enrollment of minority students in agricultural education programs,
knowing what strategies are being employed and their respective levels of success is important. The mere existence of isolated recruitment programs does not provide a systematic solution to the problem of low minority enrollment in agricultural education. Key individuals who are responsible for program delivery must work methodically to improve professional diversity or little progress will be made (Moore, 1994; Osborne, 1994). Knowing what if any strategies are used by agricultural education programs is important.

Statement of the Problem

Under representation of minority students in agricultural studies has continued to trouble the profession. A number of studies have been conducted identifying factors such as agricultural literacy, attitude toward agriculture, and agricultural background in relation to minorities in agriculture (Mitchell, 1993; Jones, 1993). However, few if any recent studies have investigated the status of African-American recruitment and retention within the agricultural education program unit. Therefore the problem in this study was that a dearth of information exists concerning the application of strategies to recruit and retain of minorities, particularly African Americans, into agricultural education. Further, a
comparison of recruitment and retention strategies at Historically Black Colleges and Universities (HBCU) and non-HBCU institutions has not been documented in the literature.

Purpose of the Study

The purpose of this study was threefold. First, an attempt was made to ascertain the level of African-American student enrollment in U.S. agricultural education programs and if this level has increased over the past ten years. Second, an effort was made to identify strategies used to recruit and retain African-American students into U.S. agricultural education programs. Finally a comparison was made between agricultural education programs housed at HBCU institutions and non-HBCU institutions in terms of use of strategies to recruit and retain African-American students in agricultural education programs.

Research Questions

Research questions were used to guide this descriptive research investigation. The following questions directed the acquisition and assimilation of data for the study:
1. How many African-American students were enrolled in agricultural education programs in the United States (U.S.) during the 1995-1996 academic year?

A. What percentage of the total 1995-96 agricultural education student enrollment did African-Americans represent?

B. Did the number of 1995-96 African-American students represent an increased percentage of the total agricultural education student enrollment compared to the African-American student enrollment for 1985-86, 1990-91, or both?

2. What strategies were used to recruit African-American students into agricultural education programs?

A. What primary markets were targeted for recruitment of African American students?

B. What factors were considered primary barriers to recruitment of African-American students in agricultural programs?

C. Did program units designate a leader for African-American student recruitment?

D. To what extent did agricultural education unit budgets include monies for recruitment of African-American students?

E. What was the extent of use of primary strategies to recruit African-American students?
3. What strategies were used to retain African-American students in agricultural education programs?

A. What factors were considered primary barriers to retention of African-American students?

B. To what extent did agricultural education unit budgets include monies for retention of African-American students?

C. Did program units designate a leader for African-American student retention?

D. What types of efforts were designed and implemented to retain African-American students?

E. What percentage of the faculty were African-Americans?

F. How were agricultural education programs modified curricula to embrace African-American contributions to the profession?

G. Did the number of 1995-96 African-American graduates in agricultural education programs represent an increased percentage of African-American student graduates compared to 1985-86, 1990-91, or both?

4. How did historically Black institutions and non-historically Black institutions compare on the following factors?

A. Recruitment strategies
a. Type of strategies used to recruit African-American students

b. Frequency of which strategy to recruit African-American students is used?

B. Retention strategies

a. Type of strategies used to retain African-American students

b. Frequency of which strategy to retain African-American students is used?

Assumptions

1. Survey recipients have general authority for recruitment and retention in their program or department.

2. Department heads are aware of minority recruitment and retention practices employed in their program or department.

3. Department heads will provide valid and reliable data on the survey questionnaire.

4. Recruitment and retention of African-American students is a positive activity for the programs.

5. HBCUs and non-HBCUs differ in their approaches to the recruitment and retention of African-American students.
Definition of Terms

The following operational definitions were used in the study:

**African-American**


**Recruitment strategies**

Recruitment is defined in terms of actions: to enroll or try to enroll (*The American Heritage Student Dictionary*, 1994). Strategy can be defined as: 2. A plan of action intended to accomplish a specific goal (*The American Heritage Student Dictionary*, 1994). Recruitment strategy is defined as any effort to market a program area in order to attract students, staff or faculty for the purpose of matriculation (Johnson, 1994; Swoope, 1995).

For the purpose of this study recruitment strategies are defined as: techniques used by agricultural education departments and programs to attract students to enroll in the program, including visits to campus, visits with recruiters,
visits with current students, faculty and staff, career fairs brochures, and other program literature.

**Retention strategies**

Retention is the act of retaining or the condition of being retained. The definition of retain is to keep or hold in a particular place, condition, or position (*The American Heritage Student Dictionary*, 1994). Retention strategies as defined by Williams (1994) is a cadre of interwoven activities which demonstrate campus leaders' serious interest in cultivating a community that value and welcome the differences people of color bring to the academy.

For the purpose of this study, retention strategies are techniques used by agricultural education departments and programs to encourage, involve, incorporate and retain students in the program from recruitment through graduation including campus climate, faculty mentors, faculty advising, student organizations, tutoring, orientation seminars, and group study sessions.

**Limitations of the Study**

This study was limited to the following conditions:

1. The study was limited to agricultural education departments and programs and not to the total context of colleges of agriculture.
2. The population was limited to agricultural teacher education administrators of departments and programs that lead to the baccalaureate degree.

3. The population was further limited to those administrators listed in the updated 1996-1997 Director of Teacher Educators in Agriculture (Graham, 1996.)

4. The study was limited to recruitment and retention strategies of African-American students.

Significance of the Study

A number of studies have examined factors that contribute to the recruitment and/or retention of minority students (Dunkelberger et al., 1981; Findlay & Rawls, 1984; Mitchell, 1993). Further, there have been a number of reports, suggestions, and recommendations to target and increase efforts to recruit African-American and other minorities into agricultural education programs (Dunkelberger et al., 1982; Hildreth, 1986; Levine, 1990; Thompson & Massey, 1989; Moore, 1994; Osborne, 1994). Yet very little, if any, research has provided a collective description of recruitment and retention strategies for African-American students into agricultural education programs.
Attracting minority students to the agricultural professions is a particular challenge (Thompson & Massey, 1989). Osborne (1994) cites three reasons for the lack of progress in this area:

First, a large majority of secondary agriculture teachers and university agricultural education faculty are white males. In general, people tend to surround themselves with the familiar. Thus, most of our educators tend to consciously or unconsciously seek out members of the majority. Secondly, the absence of minority role models in agricultural education is striking. Thirdly, in general, minorities tend to shy away from agriculture as a career field. (p. 3)

Many African-Americans have a negative bias towards agriculture. Minorities often equate agricultural careers to "farming." For some African-Americans agriculture conjures images of slavery (Bowen, 1994). The career image is limited to degrading, hard, fieldwork, with low status and low pay (Whent, 1994).

Given the current concern for declining enrollment in agricultural education and the projected demographic changes in the U.S., identifying and describing the most effective recruitment and retention strategies for African-American students is an important activity. This study provides valuable information to those program administrations responsible for student enrollment. The study identified strategies used at U.S. institutions of higher learning to recruit and retain African-American students. If a diverse population in agricultural education programs is desirable, then the findings of this research should be used by U.S. institutions to design strategies to more effectively recruit and retain African-American students.
A United States Department of Agriculture (USDA) (1990) national study of employment opportunities projected shortages of qualified agriculture graduates to meet the needs of the agricultural industry. If agricultural education is to be a vital part of the food, agricultural, and natural resources systems, then the profession has responsibilities of assisting in meeting the system's employment demands. In order to meet future projections, the agricultural education profession will have to take a serious look at the whole issue of diversity (Moore, 1994). This research could benefit agribusinesses by advancing the development of an educational environment conducive to increased minority retention. Similarly, if the agriculture industry, as the nations' largest employer, is eager to augment the number of qualified minorities in their employ, then growth of the number of African-American students in agricultural studies, will ultimately benefit students as well as employees.
CHAPTER 2

REVIEW OF LITERATURE

Overview

The review of literature is composed of three major sections. The first section explores the historical background of education for African-Americans in the United States. The second section focuses on African-American Land-grant colleges. The third section examines strategies for recruitment and retention in higher education.

Historical Background

The history of African-Americans in the United States is primarily that of strife. Africans were brought to this country with little consideration of their well being, merely to fill a need for use as cheap labor. The termination of the formal institution of slavery did not end the discord between this land of freedom and its
"seventh son". DuBois (1903) gives voice to the desires of these new citizens, whose simple wish is to be of African decent and an American, without being cursed and spit upon by his fellow Americans, without having the doors of opportunity closed roughly in his face. "This, then is the end of his striving; to be a co-worker in the kingdom of culture, to escape both death and isolation, to husband and use his best powers and his latent genius" (DuBois, 1903, p. 96).

The history of African-Americans' struggle to gain access to higher education in the United States is fundamental to understanding issues that African-American students face today. Many African-Americans' first impressions of agriculture in the United States are based on their knowledge of the forced labor of slaves in the early seventeenth century. The institution of slavery forbade providing education to African-Americans (Logan, 1970). In many states educating a black person was a criminal offense (Jones, 1993).

African-Americans were nonetheless determined to become educated. Some African-Americans made application and were accepted into a small number of northern white colleges. Despite opposition, a small number of African-American colleges also existed during the pre- and post Civil War years (Jones, 1993).

Abolition of the formal institution of slavery during the U.S. Civil war brought freedom from slavery. However, the status of citizenship to African-Americans, as promised by the constitution continued to be denied. The four
million tyro citizens received little more than their slave clothes, a few tools, and perhaps some farm animals (Williams, 1984).

Even as a youth, and later in manhood, I had the feeling that it was cruelly wrong in the central government, at the beginning of our freedom, to fail to make some provision for the general education of our people in addition to what the states might do, so that the people would be the better prepared for the duties of citizenship. (Washington, 1901, p. 18)

For many minorities, the crop-lien system or “sharecropping” became a way of life (Bowen & Moore, forthcoming; Williams, 1984). The crop-lien system was one in which the former slave was now a tenant farmer and the former slave owner, the landlord. The landlord-tenant arrangement, required the tenant to stock, work, and maintain the farm as his own. Payment for use of the land, housing fuel, animals, seed, and tools was made with an “appropriate share” of the crops (Studstill, personal communication, July, 1970). This system engendered numerous injustices due to the landowners’ control of financial records and high interest rates on the credit extended to the tenant for the basic necessities of day to day living. Minority farmers worked smaller and less fertile cropland than other farmers (Williams, 1984). Often, the yield was not sufficient to cover the debt of the African-American farmers. The oral contracts, allowed by labor contract legislation, enabled landowners to secure liens on a sharecroppers’ entire crop or execute other forms of punishment (William, 1984).

In the search for citizenship, African-Americans looked to education. The African-Americans’ interest in education had been aroused during slavery. Faith
in education soon became a cornerstone of African-Americans' desire to be a co-worker in the “kingdom of cultures”.

During the 1800s Samuel Chapman Armstrong, the founder of Hampton Institute, tried to address the race problem which was concerned with the social and economic relations of the newly freed men, women and children to the rest of the white South, which had fought against freeing them. The comprehensiveness of his plan for Hampton Institute was quite obvious as revealed in one of his writings:

The thing to be done was clear: to train selected Negro youth who should go out and teach and lead their people, first by example, by getting land and homes; do give them not the dollar that they could earn for themselves; to teach respect for labor, to replace stupid drudgery with skilled hands, and to those ends to build up an industrial system for the sake not only of self-support and intelligent labor, but also for the sake of character. (Bennett, 1924. p.244)

Hampton Normal and Industrial Institute (Hampton University) came into being April 1, 1868, with General Armstrong as its principal, one matron and 15 boarding pupils. By April 26th, the number of pupils had doubled and the school continued to grow.

Booker T. Washington, who was General Armstrong's prize student, took on the same values and philosophical views as his mentor. These philosophical views of elevation through methodical and mutual compromise, attracted heated criticism from other African-American leaders. Washington held firmly to his beliefs as the "ideal" route for most African-Americans. His tenure as a member
on the Board of Trustees at Fisk University, indicates that he supported the pursuit of a "classical" education for African-Americans. However, for the greater benefit of the masses, Washington advocated industrial schooling over academic. He worked to build the average African-American into the existing U.S. society. Washington's thinking was grounded in his understanding of the times in which he lived.

In contrast, William Edward Burghardt DuBois, a classically educated African-American scholar and political activist, believed a better course was to first educate a few leaders. DuBois felt that African-Americans would be better served if the most talented of the race were classically prepared for leadership. This "Talented Tenth" would then lead the masses into full society (DuBois, 1903). DuBois criticized that Washington concentrated too much on vocational training, discouraging African-Americans from attending liberal arts colleges. This portion of the philosophical debate between DuBois and Washington drew a great deal of attention. The debate, however, was not the central nor the strongest area of contention between the two leaders. Nor was this debate exclusive to them. At this point much of the U.S. educational system was in debate about "classical versus industrial" education.

DuBois also believed that Booker T. Washington was too conciliatory toward the South. His criticism was that Washington was not adamant in the fight for civil rights (Bowen & Moore, 1995). DuBois and others felt that industrial
education alone could not solve the problems facing the Negro people. Support for full citizenship of the Negro must come from political leaders as well (DuBois, 1903).

Primarily DuBois objected to Washington's efforts to eradicate any variance of thought from his "model" philosophy. DuBois accused Washington of teaching a program of unquestioning followers (DuBois, 1961). DuBois' condemnation was that Washington asked African-Americans to give up three essentials of citizenship: political power, insistence on civil rights, and higher education for African-American youth.

Ironically, most historians agree that Booker T. Washington's ideology became the hallmark for higher education in agriculture for the African-Americans. Hampton and Tuskegee Institutes (now universities) were the principal models for the 1890 land-grant institutions. Higher education for the African-American masses was closely linked to the establishment and development of "black land-grant colleges."
African-American Land-Grant Colleges

The Morrill Acts

The Morrill Act of 1862 provided for the establishment of land-grant colleges. The mission of these institutions was to provide access to education for the agricultural and industrial classes (Morrill Act, 1862). The lack of specific language concerning the education of African-Americans allowed the near complete use of funding of institutions for whites.

There is little consensus on the number of institutions which provided instruction to African-Americans under the 1862 Morrill Act. Hall (1973) indicated that only four states provided instruction for African-Americans, Mississippi and Kentucky with state institutions, and two departments within private institutions in South Carolina, and Virginia. According to McGee and McAfee (1977), Mississippi, Virginia, and South Carolina established African-American institutions under the Act, while Williams and Williamson (1985) stated that Mississippi, Virginia, and Kentucky were the only states providing instruction to African-Americans. Christy and Williamson (1992) reported that only Mississippi and Kentucky established African-American institutions, with Alcorn in Mississippi being the first. There is consensus however, that an
extremely limited number of the 16 southern and border states established land-grant institutions for African-Americans under the terms of the first Morrill Act.

The Morrill Act of 1890, was essentially legislated to provide additional funds for land-grant institutions designed under the 1892 Act. However, the core mission of “lifting rural dwellers out of ignorance and poverty” (Smith, 1992), was extended to African-Americans through a "separate but equal" clause (Hightower, 1972). Nine of the African-American colleges which existed prior to the passage of the second act were designated as African-American land-grant colleges after the 1890 Act was passed (Molnar et al., 1981). Tennessee State University, founded in 1909, was the last incorporation of the African-American land-grants colleges (Christy et al., 1992).

The Morrill Act of 1890 supported the doctrine of "separate but equal" doctrine of education. However, the disparate funding was much less than equal. As a result of this second Morrill Act each land-grant institution was to have received 25,000 acres of land designated for building, research, or fund-raising. The average land award made to the 1890 institutions was 1,000 acres (Wheelock, 1983).
Discriminatory withholding of federal funding stifled the potential of these institutions (Browning, 1982).

These schools were established because the Morrill Act of 1862, creating the land-grant college system, and the Hatch Act of 1887, establishing the agricultural research arm of that system, were not accessible to Blacks [African-Americans]. The Smith-Lever Act of 1914 authorized the establishment of a system of extension service for the diffusion of practical information relative to agricultural, home economics, and related subjects to rural dwellers. Thus, the 1890 schools, like their 1862 counterparts consolidated the three functions of teaching, research, and extension in their quest to enhance the quality of life in rural communities. (Smith, 1992, p. 51)

Regardless of the disparities in level of funding, the 1890 institutions remain an integral part of rural development and the establishment of an educated African-American citizenry (Smith, 1992).

Recruitment and Retention in Higher Education

A study of 108 minority institutions was conducted by the Government Relations Committee of the Association of Colleges and Schools of Education in the State Universities and Affiliated Private Universities, in December 1986 (Anderton, 1990). The study described minority student enrollment in the institutions and compiled current practices of minority recruitment and retention within colleges of education in the association. Results showed that the most used recruitment strategies were college fairs (85%), direct mailing (68%), contacts
with high school counselors (70%), explanations of support services (63%), and telephone contacts (51%). The data indicate that 51% of the respondents recognized individual contacts as the most effective recruitment strategy. The least effective recruitment techniques revealed by the study were general and direct mailing. The study concluded that where recruiters seek potential students is just as important as the type of recruitment strategies. Even though approximately of the minority students in postsecondary education begin at a two-year institution, community college has historically been overlooked as a resource for potential minority students (Hamilton, Anglin, & Mooradian, 1992).

Recruiters could improve opportunities to recruit minorities by going to urban high schools. Visits to the larger cities in the United States are recommended. Recruiters must expand contact beyond suburban school districts to include inner city schools as well (Pettigrew, 1991). Recruitment strategies should include churches, doctors offices, business and industrial settings. All forms of communications, such as magazine and newspaper advertising, radio and television, should also be utilized (Gardner et al., 1983).

Administrators and faculty who express their concern about the recruitment of African-American students only magnify the problem when they take no action to enhance recruitment. "Lip service" is a major hindrance to recruitment efforts (Moore, 1994).
A barrier that confounds recruitment efforts is the behavior of faculty who profess support of such programs but are unwilling to translate their beliefs into action. The presence of verbally committed but inactive faculty and administrators creates numerous unintentional problems. Their characteristically 'after the fact' public support, coupled with a selectively expressed private fervor, contributes to inflated expectations of the potential of recruitment programs and at times even leads to a reduction of critical resources (e.g., consultation, money, manpower). The assumption that verbally committed persons will automatically contribute their expertise and time to recruitment activities is frequently false. The assumption is particularly likely to be false when such volunteer work is not systematically linked to the professional and university reward structure. (Oliver & Brown, 1988, p. 41)

Recruitment of minority students also suffers because of the lack of consensus and "uncertainty as to which of the recruitment methods will do the best job, and the tendency by universities to approach minority recruitment in a non-systematic, ad hoc fashion. A first step in breaking this pattern is to develop recruitment principles that serve as a general guideline for recruitment decisions" (Case et al., 1988 p. 42).

The most successful minority recruitment programs for college students, according to the American Council of Education (ACE), include:

- Aggressive and personalized recruitment
- Full fellowships to allow students to focus on academic work
- Academic and social support—an office of minority programs
- An atmosphere of expected success
- Support groups that allow students to share success
- A culture that supports mentoring by faculty
• Curricula that reflect diverse ethnicity (Morgan, 1992)

Enrollment in colleges of agriculture peaked in the 1970s for most land-grant institutions. By 1981 enrollments began to decline. Baccalaureate enrollments plunged by 33% between 1981 and 1987, recovering slightly with an 8% increase by 1990 (Litzenberg, Suter, & Whatley, 1991). This massive reduction in enrollment, forced colleges of agriculture to examine methods of recruiting students. Some institutions investigated the use of marketing and promotion strategies to attract students (Schuster & Constantino, 1986). Resulting enrollment gains have thus far been minute.

In a recent study conducted by the College of Agriculture and Life Sciences at Texas A&M University (Talbert et al., 1997), student participants of a summer college recruitment and preparatory program were interviewed to evaluate elements of the program. The recruitment model developed as a result of that study (see figure 1) incorporates seven components for successful recruitment:

• Personal contact with a faculty member over time
• Scholarship or other forms of financial support
• Improving the image of agriculture in the community
• Upperclass student mentors
• A critical mass of others from under-represented populations
• Affordable on-campus housing
• Field trips taken for the purpose of exploring career opportunities
Figure 1: Model for recruitment of underrepresented groups (Talbert et al., 1997)
Understanding the "importance of image" is one of six major factors in developing an effective recruitment program. It is imperative that an institution manage their image. Recruiting equates to marketing. The institution must discover what is its current image among potential recruits. It is necessary to know if the image reflects the institution as it is today, or as it was several years ago (Robin, 1988).

Current research in agriculture has recognized the pivotal role of image in recruiting students (Powers & Bull, 1995; Davis, 1995; Thompson, 1993). Many high school students are unaware of the scope of agricultural careers and have an antiquated view of agriculture as a strictly production-oriented vocation (Bowen, 1994; Doerfert, 1995; Gardner, 1991; Terry & Gray, 1990). A study of beliefs and intentions of counselors, parents and high school students revealed the necessity of positive images. Well informed parents and counselors are more receptive to students securing agricultural education. “Counselors and parents should be viewed as potential and actual allies of agricultural educators. Their influence on youth is enormous, and they are frequently more willing to support students’ participation in agriculture than many believe. Closer collaboration with them is essential in effectively serving youth” (Thompson & Russell, 1993).
The stereotypical "ag image" presents a general recruiting barrier for agriculture. However, the image problem is compounded as it relates to the recruitment of minority students.

'Agriculture' is a dirty word to many black and Hispanic students. Their definition of agriculture is negative and, also, their outlook toward earning a livelihood in agriculture is also different. The attitude of such minority groups is no surprise. Previous generations in their families may have been subjected to low-paying, demeaning farm labor positions. Hispanics have provided the bulk of the farm labor workforce for many years and blacks were forced to work for their masters as slaves. Feelings toward agriculture are derived partially from such negative experiences that are passed from generation to generation. (Reed & Flores, 1987)

Others have suggested the negative association of slavery and dehumanizing labor with agriculture as reasons minorities do not pursue agricultural programs of study (Hunte, 1992; Bowen, 1994; Bowen & Moore, 1995). Minority students lack exposure to the type of work and study involved in agriculture, making it difficult to conceptualize a career in agriculture. Minorities are also inhibited by a belief that agriculture is a financially risky line of work (Betts & Newcomb, 1986; Hunte, 1992).

Strategies to Recruit African-American Students

The intensely negative view most minorities hold of agriculture requires the use of innovative strategies in recruiting minority students. Traditional methods of
recruitment for agricultural programs literally miss the mark by concentrating efforts primarily in communities and schools with low minority populations. In order to increase the possibility of minority enrollment, the focus of recruitment toward larger minority populations must occur (Bowen, 1987). Outreach programs to relay agricultural concepts to student in inner-city schools could increase minority awareness of career opportunities in agriculture and thereby encourage minorities toward agricultural careers (Larke & Barr, 1987).

Walker (1992) discusses the need for early intervention programs. African-American youth must be introduced to various aspects of agriculture, to dispel negative stereotypes of agriculture. Walker provides a program profile which begins working with students in the eighth grade. Student participation continues through enrollment in undergraduate programs in agriculture and subsequent enrollment in an agricultural graduate program. This program is founded on the idea that agriculture can be assured a supply of qualified minority professionals who can be maintained using early intervention, an adequate supply of resources, and cooperative efforts between all levels of educational institutions, government, and the private sector (Walker, 1992).

Recruitment of African-American students into agriculture is also made more difficult by the absence of role models. In the early history of 1890 land-grant institutions and well into the 1960s, the number of African-American teachers of agriculture continually increased. Vocational agriculture teachers were
primary influences in the educational and economic development of their communities. Vocational agriculture teachers were respected well beyond today's image of school teachers. They were revered as highly respected community leaders (Bowen & Moore, 1995). The unanticipated loss of these leaders as a resource reduced the number of potential recruits into agricultural studies.

From an agricultural perspective, the 1960s and 1970s brought the end of the strong community leadership role played by Negro vocational agriculture teachers. With the arrival of integration, desegregation, and consolidation, the Negro agriculture teacher was typically (1) assigned to the junior high school, (2) sought other types of employment, or (3) retired. Consequently, the number of Negro teachers assigned to the new consolidated high school did not approach the total that had formerly served as valuable role models for Negro students. Without effective role models, fewer African-American students majored in agricultural education at the 1890 land grants or the newly integrated 1862 land grant institutions so they could replace the Negro teachers as they left the profession. This trend continued into the 1980s as even fewer African-American students chose majors in agricultural education so they could have careers as secondary teachers in public schools. (Bowen & Moore, forthcoming, p. 8)

Hunte (1992) offers several suggestions for increasing enrollment in agriculture and related degree programs:

(a) combine practice with theory within agricultural teaching curriculums; (b) teach young African-Americans that farming and agriculture are not the same; (c) make African-Americans more aware of the vast number of high-status agricultural career opportunities; (d) educate African-Americans about the relationships among land, power, and wealth. (p. 14)

Hunte's suggestions that African-Americans who are taught to differentiate agriculture from farming gain an awareness of the array of opportunities in agriculture, contribute significantly to recruitment efforts (Jones, 1993). The
United States Department of Agriculture (USDA) designed a program to expose minority high school students to agricultural and environmental sciences. The USDA Minority Research Apprenticeship Program was developed in 1979 to provide youth with the experience of working directly with agricultural and natural resource scientists. Most apprenticeship were located on the 1862 and 1890 land-grant institution campuses. After their apprenticeship experiences many students enrolled in agricultural degree programs at their host institutions (Walker, 1992).

Retention of African-American Students

Although African-American enrollment represented 10% of all undergraduates in 1990, representation of the bachelor degrees earned in 1994 was 7%. During that same period, Whites represented 76% of undergraduates, but earned 80% of bachelor degrees. A 13% difference exists between the retention rate of African-Americans and Whites who enter college immediately after high school. Of the 1980 high school graduates who went to four-year colleges full-time, 43.5% of African-Americans and 42% of Hispanics were continuing in college four years later as compared to 61% of Asian Americans, 56% of Whites, and 54% of Native Americans (Conciatore, 1991).

Retention of African-American students at the collegiate level is a growing problem (Johnson, 1994; Summers, 1990; Williams, 1994). Research indicates
that attrition is heaviest during the freshman year. Students experience profound
changes as a result of maturation and a new environment (Astin, 1977; Chickering,
1969). High attrition rates have been linked to:

- isolation (Astin, 1977; Tinto, 1987)
- insufficient financial aid (Jackson, 1988; Nora, 1990)
- lack of faculty contact and advising (Winters, 1990)
- lack of faculty commitment (Buckley, 1980)
- insufficiently positive institutional climate (lack of Offices for Minority
  Affairs; scholarship incentives; remedial programs; counseling, tutoring and
  basic skill development programs) (Clewell & Ficklen, 1987).

In addition, the literature suggests several attitudinal and skill related
factors that lend themselves to effective retention. These factors can be clustered
into three major groups: (a) knowledge of the student, including his or her values,
goals, level of confidence, coping system, and self-assessment; (b) knowledge of
the campus at large, including cultural or racial climate, student resources -
academic, social and spiritual, and (c) perceptual skills related to the proactive use
of intervention strategies (Anderson, 1990). Further, retention of African-
American students is greatly enhanced by a learning environment which integrates
culturally related teaching strategies and cognitive patterns into the curriculum on
a campus-wide basis (Grosz, 1989).
Retention of African-American students in higher education is synonymous with recruitment. The enthusiasm used to attract African-American students to a particular institution must continue to exist if the institution intends to graduate them. Many strategies have been developed to assist in the retention efforts for African-American students. Such strategies include monitoring student progress, tutoring, scholarship funding, African-American organizations, African-American cultural centers, and mentor programs (Johnson, 1994). The importance of a supportive environment should not be overlooked. A positive academic climate is important for all students, but particularly those, such as African-Americans, who are more likely to experience feelings of isolation and alienation (Jones, 1993).

Talbert et al. (1997), highlight seven strategies as critical to academic success and continuation at the university:

- Structured mentoring by peers
- University or college working to eliminate biases among faculty, staff, and students
- Administrators providing visible support for the students’ being on campus
- Career fairs as positive reinforcement for agricultural image
- Inclusive social climate on campus
- Information on financial support and part-time employment opportunities
- Establishment of student organizations
These components were developed into a model for retention of under-represented students (see figure 2). The model emphasizes that recruitment and retention are no single person or departments' responsibility. In an educational institution, the
Figure 2: Model for retention of underrepresented groups (Talbert et al., 1997)
recruitment task must begin with the campus president and flow through the institution (Henderson, 1987).

The College of Food, Agricultural, and Environmental Sciences, at The Ohio State University uses a poem to convey the idea that students are the priority:

What Are Students?

Students are the most important people in our college.
Students are not an interruption of our work - they are the purpose for it.
Students are a necessary part of our business - they are not outsiders.
Students are not cold statistics - they are flesh and blood human beings with feelings and emotions like yours and mine.
Students are people who bring us their needs - it is our privilege to fulfill those needs.
Students are deserving of our most courteous and attentive treatment.
Students are full partners in our efforts to cultivate wisdom through knowledge.
Students are the life blood of this and every college

- Author Unknown

Conveying such an idea to students is the challenge for every college and department. Have academic units developed strategies to promote a positive retention message to African-American students? If so, what are these strategies? How have the strategies been implemented? How effective are the strategies? The researcher seeks to have these questions as they relate to African-Americans addressed by the academic leadership of U. S. agricultural education programs.
CHAPTER 3

METHODOLOGY

Research Design

This study used descriptive research methodology as described by Salant and Dillman (1994). The purpose of this study was to describe the level of enrollment of African-American students in U.S. agricultural education undergraduate programs. Additionally, an effort was made to describe selected characteristics of strategies used to recruit and retain African-American students into U.S. agricultural education programs. Finally, findings between selected programs were compared.

Population

The population for this survey was all department heads, chairs or coordinators of agricultural education programs at U.S. colleges and universities.
Figure 3: Research population by type of institution
(N=92, see Figure 3). The names of the program administrators were secured from the *Directory of Teacher Educators in Agriculture 1996-1997* (Graham, 1996), published by the office of Larry D. Case, U.S. Department of Education, Washington, DC, in cooperation with the American Association for Agricultural Education, updated by John Stanton, The Ohio State University. Due to the accessibility and small number (N=92, see Appendix A) of top administrators, this study was conducted as a census.

**Instrumentation**

This study was conducted using a mail questionnaire. Survey research is defined as a means to assess the characteristics, behaviors, or opinions of specific populations (Salant & Dillman, 1994). Fowler's (1993) description of the purpose of survey research is to supply quantitative or numerical descriptions of some facet of the study population.

The questionnaire was developed by the researcher using information from the review of literature, related research, and questionnaire items from studies cited in the literature. The instrument was constructed by the researcher, to identify information intended for the study. The research questions facilitated the construction of the survey questionnaire. An Instrument Task Matrix (Appendix B) was developed to cross reference each item on the survey
questionnaire with the research questions to validate its inclusion. The survey was
designed to collect data pertaining to program administrators' use of strategies for
the recruitment and retention of African-American students in undergraduate
agricultural education programs. The instrument was organized to collect data
relating to each of three research areas: (a) recruitment of African-American
students, (b) retention African-American students, and (c) enrolled student
demographics. The survey was divided into three sections with titles reflecting
each research area.

Section I: Recruitment of African-American Students - included five
questions which were broken into several of items. Question number one
consisted of six items designed to identify the program units' primary areas of
recruitment. A "check all that apply" format was used with the option of adding
other market locations.

Question number two pertained to those factors perceived as barriers to
recruitment of African-American students into the agricultural education program.
The "check all that apply" format was repeated. The eight items listed included
the option to specify additional barriers.

In question number three, inquiry concerning information on the leadership
of the recruitment function was made. This segment required a "single check"
response to three items and one “complete the blank” the purpose of which were to
determine if the program had a leader of recruitment and collect selected
demographics concerning that leader.

Question number four included two items concerning recruitment funding.
This question required a “single check” and “complete the blank” responses.

Question number five was designed to identify and measure the use of
strategies to recruit African-American students into the agricultural education unit.
Administrators were asked to respond to nine items on a Likert-type scale. The
“extent of use” scale ranged from never (1) to frequently (4).

Section II: Retention of African-American Students - included five
questions which were broken into separate of items. Question number one
consisted of nine items designed to identify the program units’ barriers to the
recruitment of African-American students. A “check all that apply” format was
used with the option of identifying other barriers.

Question number two included two items concerning funding the retention
program. This question required a “single check” and “complete the blank”
responses. The purpose of these item was to determine if retention funding was
available and a regular part of the budget.

In question number three, Administrators were asked to provide information
concerning the leadership of the retention function. This segment required a
“single check” response to three items and one “complete the blank.” The purpose of these items were to determine if the program had a leader for retention and to collect selected demographics concerning that leader.

Question number four was returned to the “check all that apply” format. This question contained six items designed to identify methods used by the agricultural education unit to provide an environment of cultural awareness and sensitivity.

Question number five was designed to identify and measure the use of strategies to retain African-American students in the agricultural education unit. Administrators were asked to respond to 19 items on a Likert-type scale. The “extent of use” scale ranged from never (1) to frequently (4). The option to include other strategies was included.

Section III: Agricultural Education Program Information - included four program-driven questions and a question requesting additional comments concerning the research topic. The question in this section asked for demographic information regarding each program’s student enrollment with requests to provide separate information concerning the African-American student composition.

Question number one requested the total number of students enrolled in the agricultural education program during three sequential academic years. The
school years were set at five year intervals, beginning in 1985-86. The second portion of this question was constructed to obtain corresponding figures on African-American student enrollment.

Question number two was similarly designed to gather information on the total number of students graduated from the agricultural education baccalaureate program during three sequential academic years. The second part of the question was intended to identify the number of African-American students graduated from the agricultural education program at five year intervals, beginning in 1985-86.

The "complete the blank" format was used again in question number three. The purpose of these seven items was first to quantify the total agricultural education faculty. The second function of this question was to number and identify the rank of African-American faculty in each agricultural education program.

Question four consisted of a combination "check all that apply" and a "single check" responses. Administrators were asked to confirm whether the agricultural education programs’ curriculum was multiculturally inclusive or not. A request to describe the nature of the inclusion was the purpose of the second portion. A copy of the survey instrument is found in Appendix C.

Validity

Validity refers to the ability of an empirical measure to actually measure what it is intended to measure (Sanders & Pinhey, 1983). A breakdown in the
validity function is referred to as systematic or non-random error. Non-random error will be present in any research to some extent (Babbie, 1992; Sanders & Pinhey, 1983). For the purpose of this study, content validity was assessed by a panel of experts.

Content validity is the idea that the items on a scale or index represent the different dimensions of the concept being measured (Babbie, 1992; Sanders & Pinhey, 1983). Nine participants for the panel of experts (Appendix D) were selected based on their expertise in agricultural education and knowledge of efforts to recruit and retain African-American students in agricultural education. The panel critiqued the instrument for content and face validity.

A cover letter (Appendix E), a Validity Comment Form (Appendix F), and an instrument were mailed to members of the panel. Members of the panel were asked to critique the survey questionnaire for item content and clarity, complexity, format, length, biased items, and the overall appearance of the instrument. Feedback from the panel was reviewed for instrument improvement. The instrument was revised based on the recommendations of the panel members.

The purpose of the field test was to determine the extent to which the instrument was user friendly. Nine administrators of agricultural education programs who were not in the research population, served on the panel of experts, for the field test of the study instrument. The participants examined clarity,
length and the instruments' overall ease of use. The questionnaire was modified to establish format continuity and content clarity per feedback from the panel.

**Reliability**

Reliability refers to the likelihood that a given measurement procedure will produce the same description of a given phenomenon if that measurement is repeated (Sanders & Pinhey, 1983). Random error is a threat to the reliability of an instrument. Random error occurs when responses on an instrument are influenced by outside factors.

Reliability of the instrument was determined by means of a pilot test. Based on the need to include all agricultural education program administrators in the actual study, program chairs from similar program content areas with a similar history of African-American student representation served as a representative sample. Program chairs (n = 10) in the College of Human Ecology and the College of Food, Agricultural, and Environmental Sciences at The Ohio State University were subjects for the pilot study (Appendix G). A request of participation letter was mailed to each participant emphasizing the importance of their participation (Appendix H). The instrument and a self addressed return envelope were mailed to the pilot group.

The test-retest reliability method as described by Henderson (1997), was employed to calculate stability. The pilot test group was given the same
instrument at a one week interval. The responses from the first and second administration of the survey were compared to calculate a percent agreement for the instrument.

The process used to determine the percent agreement was as follows: Each response item was numbered. A record was made of the number of times the first pilot test response was the same as the second ("hit") or was different ("miss"). For the Likert-scale items a response that was one number off was considered a "hit." Any response with a greater differences were considered a "miss." The correct responses were totaled and averaged to provide the percent agreement. The results of the pilot study indicated that the instrument had an overall agreement of 89% agreement, for all items.

Human Subjects Protection Review

An application for exemption from human subjects committee review was submitted to the Office of Research Risks at The Ohio State University (Appendix I). The exemption was requested because the participants for this study were volunteers and were adults over the age of 17 years. In addition, no information of a sensitive nature was collected. Therefore, the study met criteria for exemption of a protection review.
Data Collection

A mailed questionnaire was used to gather information on program enrollment, and the strategies used by agricultural education program units to recruit and retain African-American students into the program. The mailed survey method was selected due to its moderate cost, time saving factors, it can be accomplished by an individual researcher, it provides respondents with confidentiality, and allows for thoughtful responses (Fowler, 1993; Fraenkel & Wallen, 1996; Salant & Dillman, 1994).

The agricultural education program heads and coordinators identified in the Directory of Teacher Educators in Agriculture 1996-1997, were informed of the research survey by an advance letter (Appendix J), on March 7, 1997. A description of the study, its purpose, importance of response, guarantee of confidentiality, and instructions for completion were explained in this letter. A single herbal tea bag was be sent to the administrators, as a token of appreciation.

The second mailing which included a detailed cover letter, questionnaire, a single serving of cappuccino as an expression of appreciation, and a self-addressed, stamped envelope was forwarded to the participants. The nature of the information requested required that the administrators conduct a records search. Therefore, a single serving of cocoa accompanied the mailing with a note
indicating that it was a token of appreciation for the person responsible for the records search. This mailing occurred on March 27, 1997 and generated a 61% response rate.

Three weeks after the second mailing, an electronic-mail follow-up message was sent to all listed subjects who had not responded (Appendix K). The following day, a follow-up post card (Appendix L) was mailed to all non-respondents. The card served as a request to return the survey for those who had not responded and a thank you for the administrators whose survey had was in transit.

A major concern of descriptive research is non-response error. Non-response error occurs when a subject fails to return the mailed questionnaire (Miller, 1992). In order to avoid the non-response problem, follow-up phone calls were made. In addition, a final mailing was made to non-respondents five weeks after the mailing of the initial questionnaire. A new cover letter, questionnaire and envelop were included in the mailing.

Data Analysis

This descriptive study collected nominal, ordinal, and interval data. Data were coded to facilitate computer analysis and the construction of tables.
Procedures for data analysis were guided by the research questions. Descriptive statistics of frequencies, ranges, and percentages were calculated to organize and summarize data related to:

1. How many African-American students were enrolled in agricultural education programs in the United States (U.S.) during the 1995-1996 academic year and what percentage of the total agricultural education enrollment do African-Americans represent?

Data for this question were collected in section three of the questionnaire. Responses were gathered from survey items 1-4 in the section titled "Agricultural Education Program Information." The objective was to provide a profile of the current U.S. undergraduate student enrollment in agricultural education. Data were reported using tables showing means and standard deviations.

2. What strategies are used to recruit African-American students into agricultural education programs?

This information was gathered in the recruitment section of the survey. There were five question numbers in this section. A summary of currently employed recruitment strategies was developed from these items. Data were reported using frequencies, percentages, and rank order.

3. What strategies are used to retain African-American students in agricultural education programs?
A summary of retention strategies currently used was compiled from responses to this question. The information was gathered from the retention section. There were five survey questions in this section. Data were reported using frequencies, percentages, and rank order.

4. How do historically Black institutions (N=10) and non-historically Black institutions (N=82) compare on the following factors?

A. Recruitment strategies
   a. Type of strategies used to recruit African-American students
   b. Frequency of which strategy to recruit African-American students is used?

B. Retention strategies
   a. Type of strategies used to retain African-American students
   b. Frequency of which strategy to retain African-American students are used?

Data for this comparison were collected as a function of both sections I and II. Data were reported using frequencies, percentages, and rank order.
CHAPTER 4

FINDINGS

This chapter presents the findings of the research study and is organized into six major sections: (a) a summary of the research population’s rate of response, (b) a profile of current U.S. undergraduate student enrollment in agricultural education, (c) a summary of recruitment strategies currently employed by agricultural education units to recruit African-American students, (d) a summary of retention strategies currently employed by agricultural education units to retain African-American students, and (e) a comparison of recruitment and retention strategies employed by historically Black institutions and non-historically Black institutions.
Data Respondents

The first mailing to the research population resulted in a 61% return rate. A follow-up post card with the survey logo was mailed to all non-respondents on April 18, 1997. Additionally, the day before, on April 17, 1997 an electronic mail message was sent to non-respondents with published e-mail addresses.

Subsequent to the post card follow-up the response rate was increased to 80%. A telephone call was made to the non-respondents on April 30, 1997. A second copy of the questionnaire, a cover letter and another self-addressed stamped envelope were mailed to each non-respondent. The original survey population included 92 program administrators. Eight administrators did not respond after all follow-up attempts, for a 91% response rate. Of the 84 responding administrators, 91% returned useable questionnaires (see figure 4). Seven administrators were removed from the data set (N = 84) because their units did not maintain a baccalaureate program in agricultural education.
Figure 4: Responses to the mailed questionnaire from U.S. agricultural education programs
Research Questions

1. How many African-American students were enrolled in agricultural education programs in the United States (U.S.) during the 1995-1996 academic year?

The number of African-American students enrolled in agricultural education during 1995-96 is provided in Table 1. The number of students ranged from 0 students in 40 programs, to a single program reporting 189 African-American students enrolled in agricultural education. The majority of agricultural education’s African-American student population (88%) was enrolled in fewer than 10% of the degree granting programs.
Table 1: Number of African-American Students Enrolled in Agricultural Education During the 1995/96 Academic Year (N = 71).

Note. N includes only those programs who provided enrollment data for all three academic years.

<table>
<thead>
<tr>
<th>Number of Students</th>
<th>Number of Programs</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>40</td>
<td>56</td>
</tr>
<tr>
<td>1</td>
<td>16</td>
<td>24</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>&gt; 4</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>289</td>
<td>71</td>
</tr>
</tbody>
</table>

Table 2 presents the number and percentage of African-American students enrolled in agricultural education programs during the 1995 school year, by type of institution. A review of the data in Table 2 reveals that 56% of the agricultural education programs at Non-HBCU institutions had no African-American students enrolled. Six programs provided 88% of the African-American student population, four of those were located at HBCU institutions.
Table 2: Number of African-American Students Enrolled in Agricultural Education During the 1995/96 Academic Year by Type of Institution (N = 71)

<table>
<thead>
<tr>
<th>Number of Students</th>
<th>HBCU N = 6</th>
<th></th>
<th>Non - HBCU N = 65</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
<td></td>
<td>f</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>40</td>
<td>62</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>17</td>
<td>15</td>
<td>23</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>17</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>&gt; 4</td>
<td>4</td>
<td>66</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

1A. What percentage of the total 1995-96 agricultural education student enrollment did African-Americans represent?

The reported percentage of agricultural education students who are African-American is provided in Table 3. A total of 3,499 students were reported as enrolled in agricultural education programs in 1995. African-American students represented 8% of the total enrollment. Table 3 illustrates the fluctuation in total
student enrollment for 1985, 1990, and 1995. During these periods the percentage of African-American enrollment remained fairly constant. The actual change was a slight decrease.

<table>
<thead>
<tr>
<th></th>
<th>1985-86</th>
<th>1990-91</th>
<th>1995-96</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students Enrolled</td>
<td>f</td>
<td>%</td>
<td>f</td>
</tr>
<tr>
<td>African-American students</td>
<td>294</td>
<td>8</td>
<td>269</td>
</tr>
<tr>
<td>Total Enrollment</td>
<td>3,537</td>
<td>100</td>
<td>3,184</td>
</tr>
</tbody>
</table>

Table 3: Percentage of African-American Students Enrolled in Agricultural Education Programs in 1985-86, 1990-91, and 1995-96 (N = 64)
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HBCU</td>
<td>Non-HBCU</td>
<td>HBCU</td>
</tr>
<tr>
<td>African-Americans</td>
<td>260</td>
<td>89</td>
<td>34</td>
</tr>
<tr>
<td>Total Enrollment</td>
<td>293</td>
<td>100</td>
<td>3182</td>
</tr>
</tbody>
</table>

Table 4: Comparison by Type of Institution of Percentages of African-American Students Enrolled in Agricultural Education Programs in 1985-86, 1990-91, and 1995-96 (N = 63)

Table 4 provides a comparison of African-American students and total enrollment by institution. For each of the three years under investigation, non-HBCU institutions' enrollment of African-Americans was less than three percent of total enrollment. The minimum percent for the HBCUs enrollment of African-American students was 83%.
1B. Did the number of 1995-96 African-American students represent an increased percentage of the total agricultural education student enrollment compared to 1985-86 and/or 1990-91 African-American student enrollment?

Table 5 breaks the data down on percentage of African-American students in agricultural education programs by type of institution. The data reveal that for each of the three years, the programs at HBCU institutions enrolled the vast majority of African-American students. The data also show that each year the non-HBCU programs increased the percentage of African-American students enrolled.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Students Enrolled</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African-American students</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HBCU</td>
<td>260 88</td>
<td>232 86</td>
<td>240 84</td>
</tr>
<tr>
<td>Non-HBCU</td>
<td>34 12</td>
<td>37 14</td>
<td>46 16</td>
</tr>
</tbody>
</table>

Table 5: Percentage of African-American Students Enrolled in Agricultural Education Programs in 1985-86, 1990-91, and 1995-96 by Type of Institution (N = 64)

2. What strategies were used to recruit African-American students into agricultural education programs?

2A. What primary markets were targeted for recruitment of African American students?

Table 6 shows the number and percentage of agricultural education programs that use selected target markets for recruiting African-American students.
students. The data identified vocational education programs as the market most frequently targeted. The least targeted market for recruiting African-Americans was 4-H programs.

<table>
<thead>
<tr>
<th>Market</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocational Education Programs</td>
<td>51</td>
<td>66</td>
</tr>
<tr>
<td>High School Science Classes</td>
<td>29</td>
<td>38</td>
</tr>
<tr>
<td>Other Depts at the Institution</td>
<td>28</td>
<td>36</td>
</tr>
<tr>
<td>Community Colleges</td>
<td>24</td>
<td>31</td>
</tr>
<tr>
<td>4-H Programs</td>
<td>17</td>
<td>22</td>
</tr>
</tbody>
</table>

Table 6: Primary Markets targeted for Recruitment of African-American Students (N = 77)

An examination of Table 7 discloses a variation in the target market between the HBCU programs and the non-HBCU programs. High school science
classes were most frequently targeted for recruitment by HBCU programs.

Another difference between the types of institution is that 4-H is among the top three target markets for HBCU programs, but is the least targeted by non-HBCU programs.

<table>
<thead>
<tr>
<th>Market</th>
<th>HBCU N = 8</th>
<th>Non-HBCU N = 69</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocational Education Programs</td>
<td>7</td>
<td>44</td>
</tr>
<tr>
<td>High School Science Classes</td>
<td>8</td>
<td>21</td>
</tr>
<tr>
<td>Other Depts at the Institution</td>
<td>3</td>
<td>25</td>
</tr>
<tr>
<td>Community Colleges</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>4-H Programs</td>
<td>5</td>
<td>12</td>
</tr>
</tbody>
</table>

Table 7: Primary Markets targeted for Recruitment of African-American Students by Type of Institution (N = 77)
2B. What factors were considered primary barriers to recruitment of African-American students in agricultural programs?

Barriers to successful recruitment of African-American students are described in Table 8. Examination of Table 8 reveals that both a stereotyped agricultural image and lack of student interest in the program area are most often cited as barriers to recruitment of African-American students into agricultural education programs. A majority (53%) of agricultural education programs also cite absence of visible African-American role models as a barrier. Admissions requirements were reported least often as a barrier to recruitment.

In Table 9 the barriers perceived by HBCU programs are recorded in a different priority than that of the non-HBCU programs. The highest ranked (88%) barrier for the HBCU programs was the stereotyped image of agriculture. Lack of competitive scholarships was the second most (63%) recognized barrier for HBCU programs.
<table>
<thead>
<tr>
<th>Barrier</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of Student Interest in Program Area</td>
<td>54</td>
<td>70</td>
</tr>
<tr>
<td>Stereotyped &quot;Agriculture&quot; Image</td>
<td>54</td>
<td>70</td>
</tr>
<tr>
<td>Absence of African-American Role Models</td>
<td>41</td>
<td>53</td>
</tr>
<tr>
<td>Lack of Sufficient Competitive Scholarships</td>
<td>28</td>
<td>36</td>
</tr>
<tr>
<td>Lack of Faculty Mentors</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>Negative Institutional Climate</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Admission’s Requirements too Limiting</td>
<td>5</td>
<td>7</td>
</tr>
</tbody>
</table>

Table 8: Factors Considered as Primary Barriers to Recruiting African-American Students into Agricultural Education Programs (N = 77)
<table>
<thead>
<tr>
<th>Barrier</th>
<th>HBCU N = 8</th>
<th>Non-HBCU N = 69</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of Student Interest in Program Area</td>
<td>4</td>
<td>50</td>
</tr>
<tr>
<td>Stereotyped “Agriculture” Image</td>
<td>7</td>
<td>88</td>
</tr>
<tr>
<td>Absence of African-American Role Models</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>Lack of Sufficient Competitive Scholarships</td>
<td>5</td>
<td>63</td>
</tr>
<tr>
<td>Lack of Faculty Mentors</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>Negative Institutional Climate</td>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td>Admission’s Requirements too Limiting</td>
<td>1</td>
<td>13</td>
</tr>
</tbody>
</table>

Table 9: Factors Considered as Primary Barriers to Recruiting African-American Students into Agricultural Education Programs by Type of Institution (N= 77)
2C. Did program units designate a leader for African-American student recruitment?

Table 10 identifies the number of agricultural education programs that have specific personnel designated to recruit African-American students. The data revealed that 72 (94%) of the agricultural education programs do not have a specific person designated to recruit African-American students. Of the five programs that have designated recruiters for African-American students, two (2%) are from HBCU programs and three (4%) remaining are from non-HBCU programs.
Table 10: Number of Programs with Person Designated to Lead Recruitment African-American Students by Type of Institution (N = 77)

<table>
<thead>
<tr>
<th></th>
<th>HBCU</th>
<th></th>
<th>Non-HBCU</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N = 8</td>
<td>N = 69</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>f</td>
<td>%</td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>Designated Recruiter</td>
<td>Yes</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>6</td>
<td>66</td>
<td>86</td>
</tr>
</tbody>
</table>

Table 11 provides a percentage break down of recruiters by type of institution as well as the percentage of time the recruiter is able to devote to the recruitment effort. Table 11 reveals that the HBCU institutions designated the majority of the recruitment leaders’ time to recruiting African-American students. The non-HBCU institutions designated 50% or less of the recruitment leaders’ time to recruiting African-American students.
Table 11: Percentage of Lead Recruiter's Time allotted for Recruitment (N = 5)

<table>
<thead>
<tr>
<th>%Time Allotted</th>
<th>HBCU N = 2</th>
<th>Non-HBCU N = 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>100</td>
<td>1</td>
<td>50</td>
</tr>
<tr>
<td>80</td>
<td>1</td>
<td>50</td>
</tr>
<tr>
<td>50</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 12 further defines attributes of the recruiter by detailing selected characteristics. Both (100%) of the recruiters from the HBCU programs are African-American persons holding staff positions. The three individuals from non-HBCU programs are more diverse. Two (66%) of the recruiters from non-
HBCU programs are African-American, with one holding a staff position and the other a faculty member. The third recruiter from non-HBCUs is identified as a non-African-American faculty member.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>HBCU N = 2</th>
<th>Non-HBCU N = 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>African-American</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Staff</td>
<td>2</td>
<td>40</td>
</tr>
<tr>
<td>Non-African-American</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Staff</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 12: Characteristics of Leader Designated to Recruit African-American Students by Type of Institution (N = 5)
2D. To what extent did agricultural education unit budgets include monies for recruitment of African-American students?

Table 13 identifies the number of agricultural education programs that provide funding specifically for the recruitment of African-American students. The data revealed that there was a low incidence of separate funding for recruitment from both the HBCU and the non-HBCU programs. Three (4%) of the agricultural education programs responded positively. Of the three positive responses, one program indicated the percentage of its total recruitment budget was designated to recruiting African-American students. The HBCU program reported that 25% of the recruitment budget was dedicated to recruiting African-American students.
Table 13: Number of Programs with Separate Funding for African-American Student Recruitment by Institution (N = 77)

<table>
<thead>
<tr>
<th>Separate Funding</th>
<th>HBCU N = 8</th>
<th></th>
<th>Non-HBCU N = 69</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>Yes</td>
<td>1</td>
<td>13%</td>
<td>2</td>
<td>3%</td>
</tr>
<tr>
<td>No</td>
<td>7</td>
<td>88%</td>
<td>67</td>
<td>97%</td>
</tr>
</tbody>
</table>

2E. **What was the extent of use of primary strategies to recruit African-American students?**

Table 14 lists in rank order of frequency, the approaches agricultural education programs reported frequently using to recruit African-American students. Respondents were to indicate the frequency of all approaches the program employed. The data revealed that the approach most frequently used (15%) was mailed brochures. Speaking in schools with large populations of African-American students was the second (12%) most frequently used approach.
Table 14: Strategies Frequently used in Agricultural Education to Recruit African-American Students (N = 77)

<table>
<thead>
<tr>
<th>Strategy</th>
<th>f</th>
<th>% of Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mailing brochures</td>
<td>11</td>
<td>15</td>
</tr>
<tr>
<td>Speaking in schools with large African-American populations</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>On-campus experiences</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Financial aid packages</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>High school guidance counselors</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Internet website</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>African-American churches</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>African-American media</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 15 describes the frequency distribution of the approaches to recruitment by type of institution. An examination of Table 15 reveals a variation in rank of approaches by both the HBCU and the non-HBCU programs. Speaking in schools with large African-American populations is ranked number one (63%)
for HBCU programs. Mailing brochures remains highly ranked as number two (50) for HBCU programs. The approach ranked third most frequently used (38%) by HBCU programs, contacts with high school guidance counselors, is ranked number seven (3%) for non-HBCU programs. Speaking in schools with large African-American student populations is replaced by use of the Internet as the second most frequently used approach for non-HBCUs.
### Table 15: Strategies Frequently used in Agricultural Education to Recruit African-American Students by Type of institution (N = 77)

<table>
<thead>
<tr>
<th>Strategy</th>
<th>HBCU</th>
<th></th>
<th>Non-HBCU</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N = 8</td>
<td></td>
<td>N = 69</td>
<td></td>
</tr>
<tr>
<td>Mailing brochures</td>
<td>4</td>
<td>50</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Speaking in schools with large African-American populations</td>
<td>5</td>
<td>63</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>On-campus experiences</td>
<td>2</td>
<td>25</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Financial aid packages</td>
<td>2</td>
<td>25</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>High school guidance counselors</td>
<td>3</td>
<td>38</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Internet website</td>
<td></td>
<td></td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>African-American churches</td>
<td>1</td>
<td>13</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>African-American media</td>
<td>1</td>
<td>13</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 15: Strategies Frequently used in Agricultural Education to Recruit African-American Students by Type of institution (N = 77)
3. **What strategies were used to retain African-American students in agricultural education programs?**

3A. **What factors were considered primary barriers to retention of African-American students?**

Table 16 identifies barriers to successful retention of African-American students. Examination of Table 16 reveals that lack of student interest in the program area is most often cited (57%) as a barrier to the continuation of African-American students in agricultural education programs. A stereotyped image of agriculture is also prominently (40%) cited as a barrier to retention.
<table>
<thead>
<tr>
<th>Barrier</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of student interest in program area</td>
<td>44</td>
<td>57</td>
</tr>
<tr>
<td>Stereotyped Agriculture image</td>
<td>31</td>
<td>40</td>
</tr>
<tr>
<td>Absence of African-American role models</td>
<td>28</td>
<td>36</td>
</tr>
<tr>
<td>Lack of scholarships</td>
<td>28</td>
<td>36</td>
</tr>
<tr>
<td>Lack of Faculty mentors</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td>Negative institutional climate</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Negative cohort interactions</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Academic program too rigorous</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 16: Recognized Barriers to Retaining African-American Students in Agricultural Education Programs (N = 77)

In Table 17 retention barriers perceived by HBCU programs are recorded in a different priority than that of the non-HBCU programs. The highest ranked (63%) barrier for the HBCU programs was the lack of competitive scholarships. Lack of student interest in the program area remained ranked as number one.
(61%) for the non-HBCUs. Programs from both types of institutions reported the stereotyped image of agriculture as the second major barrier to retention of African-American students.
<table>
<thead>
<tr>
<th>Barrier</th>
<th>HBCU N = 8</th>
<th></th>
<th>%</th>
<th>Non-HBCU N = 69</th>
<th></th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of student interest</td>
<td>2</td>
<td>25</td>
<td></td>
<td>42</td>
<td>61</td>
<td></td>
</tr>
<tr>
<td>Stereotyped “Agriculture” image</td>
<td>3</td>
<td>38</td>
<td></td>
<td>28</td>
<td>41</td>
<td></td>
</tr>
<tr>
<td>Absence of African-American role models</td>
<td>2</td>
<td>25</td>
<td></td>
<td>26</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>Lack of scholarships</td>
<td>5</td>
<td>63</td>
<td></td>
<td>23</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>Lack of Faculty mentors</td>
<td>1</td>
<td>13</td>
<td></td>
<td>12</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Negative institutional climate</td>
<td>0</td>
<td>0</td>
<td></td>
<td>5</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Negative cohort interactions</td>
<td>0</td>
<td>0</td>
<td></td>
<td>4</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Academic program too rigorous</td>
<td>0</td>
<td>0</td>
<td></td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Table 17: Recognized Barriers to Retaining African-American Students in Agricultural Education Programs by Type of Institution (N = 77)
3B. To what extent did agricultural education unit budgets include monies for retention of African-American students?

Table 18 identifies the number of agricultural education programs that provide separate funding for the retention of African-American students, by type of institution. The data revealed that 95% (73) of the programs did not have separate funding for retention of African-American students. Four (5%) of the agricultural education programs responded positively. Of the four positive responses, two programs indicated the percentage of their total retention budget designated to retaining African-American students. One HBCU program reported that 23% of the retention budget was dedicated to retaining African-American students. The responding non-HBCU program indicated that 10% of the retention budget was allocated to retaining African-American students.
<table>
<thead>
<tr>
<th></th>
<th>HBCU N = 8</th>
<th></th>
<th>Non-HBCU N = 69</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
<td>f</td>
</tr>
<tr>
<td>Yes</td>
<td>1</td>
<td>13</td>
<td>3</td>
</tr>
<tr>
<td>No</td>
<td>7</td>
<td>86</td>
<td>66</td>
</tr>
</tbody>
</table>

Table 18: Number of Agricultural Education Programs with Separate Funds for African-American Student Retention by Type of Institution (N = 77)

3C. **Did program units have designate a leader for African-American student retention?**

Table 19 identifies the number of agricultural education programs that have specific personnel designated to activities designed to retain African-American students. The data revealed that 70 (95%) of the agricultural education programs do not have a specific person designated to the retention of African-American
students. Of the four programs that have persons designated for retention activities for African-American students, two are from HBCU programs and two are from non-HBCU programs.

<table>
<thead>
<tr>
<th></th>
<th>HBCU</th>
<th>Non-HBCU</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N = 7</td>
<td>N = 67</td>
</tr>
<tr>
<td>f</td>
<td></td>
<td></td>
</tr>
<tr>
<td>%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>25</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>65</td>
</tr>
<tr>
<td>75</td>
<td></td>
<td>97</td>
</tr>
</tbody>
</table>

Table 19: Number of Agricultural Education Programs with a Designated Person for African-American Student Retention by Type of Institution (N= 74)

Table 20 provides a percentage break down of recruiters by type of institution as well as the percentage of time the retention coordinator is able to devote to the retention effort. Table 20 reveals that 57% (60) of the hours designated to retaining African-American students stems from non-HBCUs.
Table 20: Percentage of Designee’s Time allotted for Retention (N = 4)

<table>
<thead>
<tr>
<th>%Time Allotted</th>
<th>HBCU</th>
<th>Non-HBCU</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td>25</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td>20</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>25</td>
</tr>
</tbody>
</table>

Table 21 further defines attributes of the retention coordinator by detailing selected characteristics. Both (100%) of the retention coordinators from the non-HBCU programs are faculty members, one is African-American, the other is not. Similarly, the HBCU programs report one African-American coordinator and one who is not. The African-American coordinator is a faculty member, while the non-African-American coordinator holds a staff position.
### Table 21: Characteristics of Person Designated to Coordinate Retention Activities for African-American Students by Type of Institution (N = 4)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>HBCU N = 2</th>
<th>Non-HBCU N = 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>African-American</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty</td>
<td>1</td>
<td>50</td>
</tr>
<tr>
<td>Staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-African-American</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff</td>
<td>1</td>
<td>50</td>
</tr>
</tbody>
</table>

3D. What types of efforts were designed and implemented to retain African-American students?

Table 22 identifies those programs that utilize various methods to increase the faculty and staff’s sensitivity and support of African-American students in
agricultural education. The respondents were asked to report all that apply to the program. The top two approaches were very close in reported use. The approach most frequently (39%) used was diversity committees. Faculty development workshops were second with 38% of the programs using that method.

<table>
<thead>
<tr>
<th>Approach</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diversity committees</td>
<td>30</td>
<td>39</td>
</tr>
<tr>
<td>Faculty development workshops</td>
<td>29</td>
<td>38</td>
</tr>
<tr>
<td>Sensitivity training</td>
<td>24</td>
<td>31</td>
</tr>
<tr>
<td>Grant writing for Minority programs</td>
<td>14</td>
<td>18</td>
</tr>
<tr>
<td>Time designated for Minority retention programs</td>
<td>10</td>
<td>13</td>
</tr>
</tbody>
</table>

Table 22: Approaches to Increase Sensitivity and Support of African-American Students (N = 77)
<table>
<thead>
<tr>
<th>Approach</th>
<th>HBCU N = 8</th>
<th>%</th>
<th>Non-HBCU N = 69</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diversity committees</td>
<td>1</td>
<td>13</td>
<td>29</td>
<td>42</td>
</tr>
<tr>
<td>Faculty development workshops</td>
<td>2</td>
<td>25</td>
<td>27</td>
<td>37</td>
</tr>
<tr>
<td>Sensitivity training</td>
<td>1</td>
<td>13</td>
<td>23</td>
<td>33</td>
</tr>
<tr>
<td>Grant writing for Minority programs</td>
<td>3</td>
<td>38</td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td>Time designated for Minority</td>
<td>2</td>
<td>25</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>retention programs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 23: Approaches to Increase Sensitivity and Support of African-American Students by Type of Institution (N = 77)

The difference in ranking of approaches to increase sensitivity by type of institution is presented in Table 23. Although the non-HBCU programs maintained the same rank order, those of the HBCU programs differed. The top ranked approach for HBCU programs was “grant writing for minority programs.” The second highest rank was shared by “faculty development workshops” and “time designated for minority retention programs.”
<table>
<thead>
<tr>
<th>Approach</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic advising</td>
<td>48</td>
<td>63</td>
</tr>
<tr>
<td>Academic orientation</td>
<td>35</td>
<td>46</td>
</tr>
<tr>
<td>Student organizations</td>
<td>34</td>
<td>44</td>
</tr>
<tr>
<td>Early warning</td>
<td>19</td>
<td>25</td>
</tr>
<tr>
<td>Exit Interviews</td>
<td>16</td>
<td>21</td>
</tr>
<tr>
<td>Faculty mentors</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>Faculty, staff and curricular development</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td>Faculty tutors</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>Peer tutors</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>African-American Faculty</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>Learning and academic support</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>Scholarship packages</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>Cultural Activities</td>
<td>10</td>
<td>13</td>
</tr>
<tr>
<td>African-American Counselors</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Small group learning</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Peer mentor</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Summer makeup sessions</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Reduced course loads</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 24: Approaches used to Retain African-American Students (N= 77)
Table 24 presents the frequency ranking of the approaches used by agricultural education programs for the retention of African-American students. Academic advising received a 63% frequency rating which made it the highest ranked approach. The next two highest ranked approaches were rated very closely. Academic orientation received 46% (35 programs) for the second highest rank and student organizations was third highest ranked receiving 44% (34 programs).
<table>
<thead>
<tr>
<th>Approach</th>
<th>HBCU N = 8</th>
<th></th>
<th>Non-HBCU N = 69</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic advising</td>
<td>7</td>
<td>86</td>
<td>41</td>
<td>59</td>
</tr>
<tr>
<td>Academic orientation</td>
<td>7</td>
<td>86</td>
<td>28</td>
<td>41</td>
</tr>
<tr>
<td>Student organizations</td>
<td>6</td>
<td>75</td>
<td>28</td>
<td>41</td>
</tr>
<tr>
<td>Early warning</td>
<td>2</td>
<td>25</td>
<td>17</td>
<td>25</td>
</tr>
<tr>
<td>Exit Interviews</td>
<td>2</td>
<td>25</td>
<td>14</td>
<td>20</td>
</tr>
<tr>
<td>Faculty mentors</td>
<td>3</td>
<td>38</td>
<td>12</td>
<td>17</td>
</tr>
<tr>
<td>Faculty, staff and curricular development</td>
<td>3</td>
<td>38</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Faculty tutors</td>
<td>2</td>
<td>25</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Peer tutors</td>
<td>3</td>
<td>38</td>
<td>9</td>
<td>14</td>
</tr>
<tr>
<td>African-American Faculty</td>
<td>5</td>
<td>63</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Learning and academic support</td>
<td>3</td>
<td>38</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>Scholarship packages</td>
<td>2</td>
<td>25</td>
<td>9</td>
<td>14</td>
</tr>
<tr>
<td>Cultural Activities</td>
<td>3</td>
<td>38</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>African-American Counselors</td>
<td>5</td>
<td>63</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Small group learning</td>
<td>2</td>
<td>25</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Peer mentor</td>
<td>2</td>
<td>25</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Summer makeup sessions</td>
<td>1</td>
<td>13</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Reduced course loads</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 25: Approaches used to Retain African-Americans by Type of Institution (N= 77)
An examination of Table 25, reveals little variation in the top ranking of approaches to retain African-American students by type of institution. At rank four the HBCU programs prioritize the use of African-American faculty and African-American counselors as interventions. The non-HBCU programs show rank variations beginning with rank 10, where scholarship packages receive a higher ranking than when both institution types are combined.

3E. What percentage of the faculty were African-Americans?

Table 26 identifies the number of full-time equivalent (FTE) faculty in agricultural education. The data reveal that the largest number (27%) of the agricultural education programs have one FTE faculty member. The next highest number of FTE in a single agricultural education program is two. There were eight (11%) of the programs that had five or more FTEs faculty in the agricultural education unit.
<table>
<thead>
<tr>
<th>Full-time Equivalent</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1.00</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>1.00</td>
<td>20</td>
<td>27</td>
</tr>
<tr>
<td>1.50</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2.00</td>
<td>16</td>
<td>22</td>
</tr>
<tr>
<td>2.25</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2.50</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>3.00</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>3.80</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4.00</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>5.00</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>&gt;5.00</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>223.45</strong></td>
<td><strong>73</strong></td>
</tr>
</tbody>
</table>

Table 26: Number of Faculty in Agricultural Education (N = 73)

Table 27 provides a count of the individual African-American faculty in agricultural education by position title and type of institution. Of the 32 African
American faculty, 13 (40%) were full professors. Eleven (34%) of the African-American full professors were in non-HBCU programs. Similarly, 11 (34%) of the 14 associate professors were from non-HBCU programs.

<table>
<thead>
<tr>
<th>Faculty Individuals</th>
<th>HBCU</th>
<th>%</th>
<th>Non-HBCU</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Lecturer</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>3</td>
<td>9</td>
<td>11</td>
<td>34</td>
</tr>
<tr>
<td>Professor</td>
<td>2</td>
<td>6</td>
<td>11</td>
<td>34</td>
</tr>
</tbody>
</table>

Table 27: Number and Status of African-American Faculty in Agricultural Education by Type of Institution (N = 32)
3F. How have agricultural education programs modified curricula to embrace African-American contributions to the profession?

Table 28 identifies the number of agricultural education programs that address the contributions of African-Americans to agricultural education by type of institution. Of the programs responding to this item, the majority (52%) of the non-HBCU programs incorporated the contributions of African-Americans to agricultural education, as did all (100%) of the HBCU programs.

<table>
<thead>
<tr>
<th>Response</th>
<th>HBCU</th>
<th>Non-HBCU</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>Yes</td>
<td>8</td>
<td>100</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 28: Number of Agricultural Education Programs with Multicultural Curriculum by Type of Institution (N= 74)
Table 29 identifies and compares the methods used to infuse the contributions of African-Americans to agricultural education by type of institution. The majority (74%) of the programs that provide a multicultural curriculum, rely upon individual faculty to incorporate information pertaining to the contributions of African-Americans to agricultural education. On this item the approaches received the same order of rank from the HBCU and the non-HBCU programs.

<table>
<thead>
<tr>
<th>Approach</th>
<th>HBCU</th>
<th></th>
<th>Non-HBCU</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Infusion decided individually by Faculty</td>
<td>5</td>
<td>12</td>
<td>26</td>
<td>62</td>
</tr>
<tr>
<td>Multicultural strand in all courses</td>
<td>4</td>
<td>10</td>
<td>10</td>
<td>24</td>
</tr>
<tr>
<td>Multicultural agricultural courses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Required</td>
<td>2</td>
<td>5</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Optional</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 29: Approaches to Inclusion of Multicultural Curriculum by Type of Institution (N = 42)

94
3G. Did the number of 1995-96 African-American graduates in agricultural education programs represent an increased percentage of student graduates compared to 1985-86 and/or 1990-91 African-American graduates from the same program?

Data for this question were to be gathered from a series of questions in Section III of the survey instrument. The lead question was printed to read as follows:

What was the total number of graduates and corresponding number of African-American graduates from your undergraduate agricultural education program by the close of Spring session during the following academic years:

The data resulting from this question repeatedly contradicted the administrator’s corresponding responses to the question of number of African-American students in the program. The contradictions continued to the extent that the researcher was compelled to discard the question due to respondent misinterpretation.
CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this study was threefold. First, an attempt was made to ascertain the level of African-American student enrollment in U.S. agricultural education programs and if this level has increased over the past ten years. Second, an effort was made to identify strategies used to recruit and retain African-American students into U.S. agricultural education programs. Third, a comparison was made between agricultural education programs housed at HBCU institutions and non-HBCU institutions in terms of use of strategies to recruit and retain African-American students in agricultural education programs. The study provides agricultural educators, practitioners, and administrators with pertinent data on strategies used by various programs to recruit and retain African-American students into agricultural education.
Research Questions

The following research questions were developed to guide this research investigation:

1. How many African-American students were enrolled in agricultural education programs in the United States (U.S.) during the 1995-1996 academic year?
   A. What percentage of the total 1995-96 agricultural education student enrollment did African-Americans represent?
   B. Did the number of 1995-96 African-American students represent an increased percentage of the total agricultural education student enrollment compared to the African-American student enrollment for 1985-86, 1990-91, or both?

2. What strategies were used to recruit African-American students into agricultural education programs?
   A. What primary markets were targeted for recruitment of African American students?
   B. What factors were considered primary barriers to recruitment of African-American students in agricultural programs?
   C. Did program units designate a leader for African-American student recruitment?
D. To what extent did agricultural education unit budgets include monies for recruitment of African-American students?

E. What was the extent of use of primary strategies to recruit African-American students?

3. What strategies were used to retain African-American students in agricultural education programs?

A. What factors were considered primary barriers to retention of African-American students?

B. To what extent did agricultural education unit budgets include monies for retention of African-American students?

C. Did program units designate a leader for African-American student retention?

D. What types of efforts were designed and implemented to retain African-American students?

E. What percentage of the faculty were African-Americans?

F. How were agricultural education programs modified curricula to embrace African-American contributions to the profession?

G. Did the number of 1995-96 African-American graduates in agricultural education programs represent an increased percentage of African-American student graduates compared to 1985-86, 1990-91, or both?
4. How did historically Black institutions and non historically Black institutions compare on the following factors?

A. Recruitment strategies
   a. Type of strategies used to recruit African-American students
   b. Frequency of which strategy to recruit African-American students is used?

B. Retention strategies
   a. Type of strategies used to retain African-American students
   b. Frequency of which strategy to retain African-American students are used?

Research Design

The design of this study was a descriptive survey. An attempt was made to describe selected demographic characteristics of undergraduate students in U.S. agricultural education programs. Additionally an effort was made to describe selected characteristics of the strategies used to recruit and retain African-American students. Finally, findings between selected programs were compared.
Population

The target population for this study included 92 administrators of undergraduate agricultural education programs at U.S. colleges and universities. Of the 92 programs, 10 were located at Historically Black Colleges and Universities (HBCU) and 82 were at non-Historically Black Colleges and Universities. Due to the accessibility and relatively small number (N = 92) of administrators, this study was conducted as a census.

Instrumentation

The instrument for this study was adapted from the literature by the researcher. The questionnaire entitled “Recruitment and Retention of African-American Students in Agricultural Education Baccalaureate Programs,” was designed to collect data in three different areas: (a) use recruitment strategies, (b) use of retention strategies, (c) student enrollment, and program demographics.

The instrument was determined to be valid by a panel of experts and field test population. Reliability was established using the test-retest method with ten department chairs from the colleges of Food, Agricultural, and Environmental
Sciences, and Human Ecology, who were similar to the research population. The results of the pilot study indicated that there was 89% reliability.

Data Collection

Data were collected by mail questionnaire. An advance letter was mailed to advise the research population of the forthcoming questionnaire. A cover letter, self addressed stamped return envelope, and the questionnaires were mailed March 27, 1997. Incentives for both the administrator and the student records coordinator were included in each mailing in an effort to obtain a higher rate of return. Adhering to the survey procedures outlined in Salant & Dillman (1997), the researcher made four follow-ups, which included: (a) an electronic mail message, (b) a follow-up post card, (c) telephone calls, and (d) a second cover letter, return envelope and questionnaire to all non-respondents. Seventy-seven (91%) usable questionnaires were returned. Therefore, the findings were generalized to the study population.
Data Analysis

The collected data were analyzed using the Statistical Package for the Social Sciences (SPSS PC+). Descriptive statistics of frequencies, ranges, and percentages were used to describe and summarize the data. Rank ordering of frequencies and percentages was used to obtain a comparison between respondent groups.

Summary and Implications of the Findings

Research Question 1

How many African-American students were enrolled in agricultural education programs in the United States (U.S.) during the 1995-1996 academic year? What percentage of the total 1995-96 agricultural education student enrollment did African-Americans represent? Did the number of 1995-96 African-American students represent an increased percentage of the total agricultural education student enrollment compared to the African-American student enrollment for 1985-86, 1990-91, or both?

The majority (56%) of U.S. agricultural education programs had no African-American students enrolled during the 1995-96 academic year. Of those programs reporting any African-American student enrollment, during the 1995-96 academic year, the mean number of African-American students was one. The
enrollment of African-American students in agricultural education was persistent at less than 10% of the total agricultural education enrollment for the 1985-86, 1990-91, and 1995-96 academic years. For each of the three years under investigation, non-HBCU institutions’ enrollment of African-Americans was less than three percent of the total enrollment. The minimum percent for the HBCUs enrollment of African-American students was 83%.

This limited participation of African-American students in agricultural education preparation is extremely disturbing. Although, African-American student enrollment inched up one percent (9%) during the 1990-91 academic year, the percentage returned to the 1985-86 level (8%) by 1995-96. These findings are consistent with discussions by Moore (1994), Whent (1994) and Torre & Dormondy (1995) concerning the critical shortage of African-Americans and other minorities enrolling in agricultural studies.

It is interesting to note that the majority of African-American students in agricultural education are clustered in a small number of institutions. Most (>80%) of the African-American student enrollment in agricultural education programs was reported by the Historically Black Colleges and Universities (HBCU), which constitute 10% of the reporting programs. These findings are in conjunction with the review of literature which indicates that HBCU institutions have been more successful in recruiting and graduating African-American
professionals. Results revealed a negligible (1%) increase in African-American enrollment for agricultural education programs in non-HBCU institutions.

An inadequate number of African-American students enrolled is a problem facing agricultural education. Continuation of current trends in African-American student under-representation in agricultural education combined with the affects of projected changes in U.S. demographics provide a basis for the weakening of the United States’ position as a world leader in the global marketplace.

Research Question 2

What strategies were used to recruit African-American students into agricultural education programs? What primary markets were targeted for recruitment of African-American students? What factors were considered primary barriers to recruitment of African-American students in agricultural programs? Did program units designate a leader for African-American student recruitment? To what extent did agricultural education unit budgets include monies for recruitment of African-American students? What was the extent of use of primary strategies to recruit African-American students?

Agricultural administrators indicated the markets most often targeted for recruiting African-American students were (in rank order) vocational education programs, high school science classes, other departments at their institution, community colleges, and 4-H programs. The comparison between HBCU and non-HBCU institutions showed a difference in priority. The most diverse of the rankings was that of 4-H programs. The majority (63%) of HBCU institutions
frequently targeted 4-H programs, whereas the least number of non-HBCU institutions (17%) ranked 4-H as a frequent target.

It is interesting to note that the priority suggested by these results is not supported by the literature. Mitchell (1993), O’Malley (1992), and Gardner (1991) support methods which include personal contact as the more convincing strategies in student recruitment. Additionally, the literature stresses the need for extended exposure to agricultural careers to dispel the negatively stereotyped "Agriculture" image held by many African-Americans.

Both types of institutions found lack of student interest in the program area and a pre-existing stereotyped image of agriculture the most troubling barrier to recruiting African-American students into agricultural education. The third most prevalent barrier for HBCU institutions was lack of sufficient competitive scholarships, whereas the non-HBCU institutions were plagued more by the absence of African-American role models.

Five (6%) agricultural education programs had an individual designated to lead the recruitment of African-American students. A higher percentage of the HBCU institutions (25%) designated recruiters than did non-HBCU institutions (6%). Similarly, the recruiters from the HBCU institutions reported more time designated to the recruitment function than did those from the non-HBCU institutions. The data also indicated that limited funding was available for recruitment of African-American students. Subsequently, the most frequently used
recruitment strategy was mailing brochures. However, investigation of the data by type of institution showed the majority of the HBCU institutions reported speaking in schools with a large population of African-American students was the top ranked recruitment strategy. Here, as previously stated, the strategies that allow for personal contact acquiesce with the literature (Williams, 1994).

Research Question 3

What strategies were used to retain African-American students in agricultural education programs? What factors were considered primary barriers to retention of African-American students? To what extent did agricultural education unit budgets include monies for retention of African-American students? Did program units designate a leader for African-American student retention? What types of efforts were designed and implemented to retain African-American students? What percentage of the faculty were African-Americans? How were agricultural education programs modified curricula to embrace African-American contributions to the profession? Did the number of 1995-96 African-American graduates in agricultural education programs represent an increased percentage of African-American student graduates compared to 1985-86, 1990-91, or both?

The primary barriers to retention of African-American students reported by agricultural education administrators matched the barriers to successful recruitment of African-Americans into the program. Lack of student interest in program area, stereotyped agriculture image, and absence of African-American role models topped the list of obstructions to retention, regardless of institution type. However, there was a variation in rank order of the remaining barriers.
Non-HBCU institutions cited a lack of student interest as the most frequent barrier. Contrasting that observation was the report from the HBCU institutions that lack of scholarships was the larger obstacle to retention of African-American students.

The majority (95%) of agricultural education units reported a lack of funding for African-American retention. Few (3%) programs profess a designated leader for African-American retention activities. Two (50%) of the persons designated to give leadership to retention activities were the designated leaders for recruitment efforts as well. The two persons who held responsibility for both recruitment and retention were faculty members with a minimum of 10% of the work week allotted for these activities and a 50% maximum time allotted.

The top ranked (39%) approach used to increase awareness of the importance of a supportive climate for African-American students was diversity committees. However, review of the data revealed that diversity committees fell to last place when ranked by HBCU institutions. Grant writing for minority programs was ranked first by the HBCU institutions. The top ranked direct impact strategy for retention of African-American students was academic advising. The majority of HBCU (86%) and non-HBCU (59%) institutions frequently used academic advising. An equal majority (86%) of HBCU institutions also indicated frequent use of academic orientation as a retention strategy.

The data revealed that out of the 73 U.S. agricultural education programs reporting, there was a total of 224 (rounded) faculty FTE. From the responding
programs, 32 members of the faculty were identified as African-American. Upon initial investigation, it may appear that 14% of the agricultural education faculty is African-American. However, it is important to note that the 32 African-American faculty may not equate to 32 FTE. The majority (69%) of the African-American faculty reported were on faculty at non-HBCU institutions. A majority of programs (57%) indicated that their curriculum incorporated the contributions of African-Americans to agricultural education. The preponderance (74%) of those programs depended upon an individual faculty member to infuse instruction pertaining to the contributions of African-Americans to agricultural education into the curriculum.

The findings hold true to the proclamations of the literature. Williams, (1994), Luft (1996), Conciature (1991), and Brodie (1991) state that many institutions are not up to the task of a coordinated retention program. Systematic institutional attention and commitment to research based retention strategies is extremely limited. The level of adjustment required of students includes the classroom, but extends far beyond it. The effective retention program must do the same.
Conclusions, Recommendations, and Need for Further Study

The following conclusions were based on the findings of this study. Given the diversity of our agricultural education programs across the nation, providing a set of specific recommendations that allow universal application is difficult. Therefore, the recommendations resulting from this study may be generalized to U.S. agricultural education baccalaureate program units as they relate to under-represented constituent groups within the program units’ geographic service area.

Conclusion 1

The enrollment of African-American students in agricultural education has made little to no progress in the past 10 years and is unlikely to increase in the future. A number of agricultural education program are limited by program size or service client demographics to make significant contributions to the representative status of African-American undergraduates. Those programs that are capable of making greater contributions to the representative status of African-American undergraduate students do not exhibit the same zeal for a representative student population as expressed in the literature of the mid to late 80s.

Although the actual number of African-American students has increased, the percentage of student enrollment remains fairly constant. Given the projected changes in U.S. demographics, what would appear to be a leveling off of African-
American enrollment is in actuality a widening of the representative gap of
African-American agricultural undergraduates in the United States. The fact that
the percentage of African-Americans in the nation’s population is increasing,
while the percentage of African-Americans studying agricultural education is held
constant at a previously under-representative level, clearly illustrates inequity of
the potential professional population as it relates to the country it serves. The
concept of African-Americans being severely under-represented in agricultural
education is supported by the literature (Bowen, 1994; Lewis, 1994; Luft, 1996;
Moore, 1994; Osborne, 1994; Torres & Dormody, 1995; Whent, 1994)

There is a need for organized on-going recruitment and retention programs
to balance the representation of African-American students in agricultural
education. U.S. agricultural education programs should establish and periodically
update programs designed to recruit and retain African-American and other
minority students.

Target numbers and quotas are often perceived as having a negative impact
in change situations. Yet goal setting is a very important part of planned
improvement and measuring change. Therefore, parallel enrollment (Osborne,
1994) should be used to measure the institutions progress toward equal
representation of its service population. Programs should strive to have enrollment
percentages parallel those of the population it serves.
Conclusion 2

Very few agricultural education programs maintain organized recruitment and retention efforts for African-Americans. Most agricultural education programs do not have individuals assigned the responsibility of recruiting African-American students. Recruitment of African-Americans into agricultural education programs requires special strategies and is vital to the effort to ameliorate the imbalance that currently exists in this profession (Jones, 1993). Equal attention must be given to efforts to retain the new recruits (Conciatore, 1991). Recruitment and retention are so inextricably connected that many of the strategies for one are identical and linked to the success of the other.

The variations in population demographics are not automatically translating to enrollment of African-Americans or other under-represented groups in our nation's agricultural education programs. The recent level of recruitment and retention have not produced the proportional elevation in enrollment needed to correct the under-representation of African-American students in agricultural education. Many programs rely upon their college to recruit students. In contrast, the literature indicates the most effective recruitment programs must be conducted at the program level (Conciatore, 1991).

Methods of recruitment are most often dictated by convenience and individual interest. Programs are not organized to conduct adequate recruitment functions and do not make use of specialized recruitment strategies to recruit
African-American students. The need to actively and creatively recruit African-American students into agricultural education is supported by the literature (Bowen & Moore, forthcoming; Jones, 1996; Talbert & Larke, 1995; Mitchell, 1993; Thompson, 1993).

Successful recruitment and retention of African-American students would be greatly enhanced by increased multicultural training for agricultural educators (Banks, 1994; Luft, 1996; Rodriguez, 1991; Whent, 1994). Rutherford and Ahlgen (1990) stated that an appreciation for the student’s cultural history was crucial for effective learning and teaching to take place. Efforts to recruit and retain African-American students must consider dimensions of the African-American student’s college experience other than academics (Atwater & Lyons, 1994; Jones, 1993; Mitchell, 1993; Wiley, 1991). Results from this study indicate that agricultural education programs personnel are aware that academic rigor is not the primary challenge for the programs’ retention efforts. Torres and Dormody (1995) suggest:

Successful recruiting will depend on our ability to build an environment that attracts diversity, beginning with faculty and staff who welcome and celebrate differences. Through class, student organizations, and departmental social activities and trips, students will become comfortable with each other and with their individual differences. (p.15)

Many agricultural education programs are under the false assumption that African-American students are equipped to choose agricultural education as a
major. Unaware of the vast range of careers accessible through agricultural education, many African-American students are ill equipped to include agricultural education as a valid academic choice. Similar views on the negative effects of lack of agricultural career awareness on African-American student enrollment were found in the literature (Terry, & Gray, 1990; Richardson & Skelton, 1991; Gardner, 1991; Taylor, 1990; Thompson, 1993; Jones, 1996; Henry, 1991).

Recruitment of students does not follow the modern aphorism: “If you build it they will come.” Instead, the literature supports the conviction that it is necessary to learn where they are, “then bring them to it”. Due to the acutely negative view most minorities hold for agriculture, special strategies must be employed to recruit African-American students into agricultural education (Jones, 1993). Exposure to agricultural courses, FFA & 4-H experiences, agricultural education professions, and agricultural education publications, would increase African-American students’ understanding of available careers through agricultural education, thereby increasing the likelihood of successful recruitment and retention of African-American students in agricultural education programs.

There is a need for all agricultural educators and administrators to take ownership in recruiting and retaining a diverse student constituency. The implementation of a marketing approach would be of enormous benefit to agricultural education recruitment and retention efforts. The literature (Boldt & Kingsley, 1992; Reisch, 1984; McCarthy, 1992) has indicated the benefit of the
incorporation of marketing techniques into academic recruitment and retention strategies. These techniques include several phases, one of which contains knowing, locating, and analyzing the target market. Another phase of the marketing technique is to analyze the program, make sure it is current, appropriately appealing, and presented to the proper audience (Kotler, 1982; Pieniazek & Pieniazek, 1995). In addition, the use of marketing techniques calls for commitment on the part of the entire organization (Conciatore, 1991). Priority status of this type of recruitment effort must be recognized and observed from the department chair (academic unit leader) to the most recently employed student worker. A recruitment and retention plan based on a marketing perspective, begins with the mission statement, permeates through the organization’s budget, and to the organization’s norm of personnel conduct. Creating a positive work environment, where people of other cultures and ethnic groups are welcomed and valued becomes the task of every member of the organization.

Although every member of the organization must be committed to maintaining a work environment conducive to recruitment, the function of recruitment must be a central point of coordination. There must be an individual or individuals designated to give leadership and direction to the recruitment (Kotler, 1982; Henderson, 1987). There is a need for agricultural education programs to identify the appropriate personnel to coordinate the units’ efforts to recruit and retain African-American students.
Agricultural education programs should design, develop, and implement a recruitment and retention program that links curriculum, faculty, and students and existing programs with the discipline to the classroom and beyond. A needs assessment should be conducted to determine the unit's strengths and weaknesses related to minority recruitment and retention. Prior to the needs assessment, agricultural education programs should designate a coordinator of African-American student recruitment and retention. It is not necessary for this person to be African-American. More important is the coordinator's genuine commitment to establishing a representatively diverse student enrollment. A successful recruitment and retention program requires commitment and participation from all members of the organization. Therefore, it is necessary to educate all sectors of the academic unit about the serious issues required to establish and maintain a successful recruitment and retention program.

The stereotypical "ag image" presents a general recruiting barrier for agriculture. However, the image problem is compounded as it relates to the recruitment of minority students. Negative associations of agriculture with slavery and dehumanizing labor have been cited as reasons minorities do not pursue agricultural programs of study (Hunte, 1992; Bowen, 1994). The intensely negative view most minorities hold of agriculture requires the use of innovative strategies in recruiting and retaining minority students.
Agricultural education programs should work to establish community-based youth programs such as FFA and 4-H within African-American communities, thereby promoting agricultural career awareness as early in the career development process as possible. These institutions have been helpful for a number of the HBCU institutions and could be beneficial to all institutions seeking to expose more African-American youth to opportunities in agriculture.

Programs should educate all general education advisors and other minority service units on campus concerning career opportunities available through agricultural education. Periodic updates and reviews of career opportunities should be provided to campus advisors and minority service unit personnel. A successful rapport with general education advisors can result in the recruitment of an otherwise unidentified prospect.

Agricultural education programs must maintain a high level of contact with the student beyond enrollment. Agricultural education programs should institute an orientation program for minority freshmen and transfer students. The orientation should help students understand all facets of college life. This program should continue through the first few weeks of the freshmen’s first term, when time management and study skills, and inclusion can be most productive.

Utilize every available resource to: (a) provide African-American students with leadership opportunities and mentor them through the events; (b) form and utilize corporate connections to provide mentors, role model (minority status is not
always a prerequisite), internship, and job placement opportunities; and (c) become active with the National Society of Minorities in Agriculture, Natural Resources and Related Sciences (MANRRS). This society was established on principles that include recruiting minorities (not limited by any ethnic status) into agricultural professions.

**Conclusion 3**

HBCU institutions maintain the vast majority of African-American student enrollment in agricultural education. As in the past, HBCU institutions continue to be the major producers of African-American agricultural scientists, educators, and other professionals (Williams & Williams, 1985).

However, it was perplexing to find the non-HBCU institutions' percentage of African-American student enrollment shows slight increases while the total percentage of African-American students in agricultural education remained constant. Although there is literature concerning increases in African-American enrollment in non-HBCU institutions (Brodie, 1991), the literature does not specifically address the change in percentage of African-American students in agricultural education at non-HBCU institutions.

Rather it is the supposition of the researcher that the percentage increase of African-American student enrollment at non-HBCU institutions is related to the study's data that indicated the majority of African-American agricultural education faculty held positions at non-HBCU institutions. The literature concurs that the
decline in African-American agricultural educator/role models began the decline of African-American students seeking agricultural education as a career (Bowen & Moore, unpublished). Similarly, the literature cites lack of role models as a primary inhibitor to student enrollment in a career field (Jones, 1993; Martin, 1994; Jones, unpublished, 1996). There is a need for an increase in the number of African-American faculty in agricultural education to serve as role models and mentors.

Another probable cause of the slow erosion of African-American student enrollment in agricultural education at HBCU institutions is parallel to the cause of the overall enrollment decline in agricultural studies. Dunkelberge et al. (1981) showed that more African-American students at HBCU institutions were from farm or rural backgrounds than were African-American students attending non-HBCU institutions. With the population of African-American farm families decreasing at a rate in excess of the general farm population, it naturally follows that the HBCU agricultural education enrollment would experience a decline. Therefore, regardless of the fact that HBCU institutions maintain the majority percentage of African-American enrollment in agricultural education, it would behoove the HBCU institutions and the profession for all of the U.S. agricultural education programs to participate in aggressive and proactive strategies to recruit and retain African-American and other minority students.
Recommendations for Further Study

During the course of study each researcher discovers additional questions that require further study. The following recommendations are made for further investigation.

1. An annual study should be conducted to collect data on the progress of recruitment and retention of African-Americans in agricultural education. If increasing the diversity of the agricultural education profession through effective recruitment and retention is an important goal, the profession must be kept abreast of not only what strategies exist, but how, where, and if they are being implemented. The updating of the research will keep the issue of improving the representation of African-American undergraduates in the forefront of the professions’ conscious.

2. A similar study should be conducted utilizing a qualitative paradigm. Program unit personnel can be interviewed to determine what trends emerge from the data. If efficient use of marketing techniques is a goal, individual program needs are an essential factor. In-depth investigation may give light to helpful or harmful factors otherwise unrecognized.

3. Programs should conduct a systematic evaluation study to determine the effectiveness of the recruitment and retention strategies their program employs. If increased recruitment and retention of African-American
students is an important goal, agricultural education programs must learn what strategies are working. It is not enough to have a recruitment and retention process. It is not enough to put the process in continual use. It is not enough to believe that the process is of value. It is necessary to conduct systematic reviews to identify efficient and effective processes, in order to create a representative balance in agricultural education programs.

4. This study should be conducted in other disciplines to investigate the strategies being employed to recruit and retain African-American students. Changes in U.S. demographics dictate changes in our nations’ workforce. If maintaining the U.S. position as a leader in the world market is an important goal, all areas of U.S. education and commerce will be required to be as diverse in human capital as they desire to be in financial capital. Therefore, the need to recruit and retain African-American students in primary fields of study is necessary in every profession in the U.S.

5. A survey of students should be conducted to obtain their opinions and thoughts. Attracting new students begins with discovering what interests those students. Obtain information on what students like about popular courses and why students don’t take courses in agriculture. The stage is then set for matching student interests with facets of agricultural education.

6. A comparison study of successful recruiting programs should be conducted to determine their characteristics. A comparison of successful programs
maybe more likely to generate characteristics of a good program rather than requesting the perceived level of effectiveness from all programs. A set of general characteristics from successful programs could then be applied in other locations to test their effectiveness in differing settings.

7. A study should be conducted to investigate the parallels and variances between undergraduate agricultural education programs and the geographic area they serve. This type of investigation would provide an empirical basis for enrollment goals and assist in quantifying programs’ concepts of critical mass.

8. A similar study should be conducted investigating the status of other people of color. Currently African-Americans are the largest ethnic minority group in the United States. The changes in U.S. demographics indicate a change in that status. Nonetheless, if true diversity is genuinely valued and a desired goal in the U.S. workforce, it is important that all our citizens have equal access and representation in the preparation process.
References


Farm Foundation. (1989). *High school student perceptions of agriculture college majors and careers*. American College Testing Program, Survey Services, Department Research Division. Oakbrook, IL.


Henry, W. J. (1991), Who owns the Problem? Black student retention at the white university. *Black issues in higher education, 7, 24*, 64

124


Washington, B.T. (1901) Up from slavery, new York: Bantam Book


APPENDIX A

DISSERTATION FRAME
Dr. Gordon D. Patterson  
Agricultural Education  
Auburn University  
Auburn, AL 36849-5526  

Dr. Willie J. Cheatham  
P. O. Box 323  
Alabama A&M University  
Normal, AL 35762  

Dr. Carlton E. Morris  
Tuskegee University  
Vocational Building  
Tuskegee, AL 36088  

Dr. Roger T. Huber  
Agricultural Education  
PO Box 210036  
The University of Arizona  
Tucson, AZ 85721  

Dr. Donna Graham  
Agricultural & Ext Ed  
Room 301B  
University of Arkansas  
Fayetteville, AR 72701  

Dr. Kevin Humphrey  
Agricultural Education  
P. O. Box 1080  
Arkansas State University  
State Un, AR 72467  

Dr. James Tollett  
Coordinator Ag Education  
P. O. Box 1418  
Magnolia, AR 71753  

Dr. Linda Whent  
Agricultural Education  
Un of Calif - Davis  
Davis, CA 95616  

Dr. Dennis Hampton  
Agricultural Education  
Cal State University-Chico  
Chico, CA 95926-0310  

Dr. Richard A. Rogers  
Coordinator Ag Education  
Cal State University  
2415 E.San Ramon Ave. M/S 75  
Fresno, CA 93740-8033  

Dr. Flint Freeman  
Ag Education Program  
Cal State Polytechnic Un  
Pomona, CA 91768  

Dr. Glen R. Casey  
Agricultural Education  
Cal Polytechnic State Un  
San Luis Obispo, CA 93407  

Dr. David C. Whaley  
Agricultural Education  
111A Education Building  
Colorado State University  
Fort Collins, CO 80523-1588  

Dr. Alfred J. Mannebach  
School of Education  
Box U-33  
University of Connecticut  
Storrs, CT 06269-2033  

Dr. Richard A. Barczewski  
Dept of Ag & Nat Resources  
Delaware State University  
Dover, DE 19901  

Dr. R. Dean Shippy  
Agricultural Education  
University of Delaware  
Newark, DE 19717-1303  

Dr. Edward W. Osborne  
Ag Ed & Communication  
College of Agriculture  
University of Florida  
Gainesville, Florida 32611  

Dr. Robert R. Bradford  
Agricultural Education  
217 Perry-Paige Building  
Florida A & M University  
Tallahassee FL 32307-4100  

Dr. Maynard J. Iverson  
Coordinator Ag Education  
University of Georgia  
Athens, GA 30602-7162  

Dr. Curtis Borne  
Agricultural Education  
Fort Valley St Un  
P.O. Box 4450  
Fort Valley, GA 31030  

Dr. Frank C. Walton  
College of Education  
University of Hawaii  
Honolulu, HI 96822
Dr. Lou E. Riesenber
Dept of Ag & Ext Ed
University of Idaho
Moscow, ID 83844-2040

Dr. Robert L. Wolff
Ag Ed & Mechanization
Southern Illinois Un
Carbondale, IL 62901

Dr. Leonard A. Harzman
Agricultural Education
Western Illinois Un
Macomb, IL 61455

Dr. Jeffrey A. Wood
Agricultural Education
Illinois State University
Campus Box 5020
Normal, IL 61761-5020

Dr. Jeffry W. Moss
Agricultural Education
328 Mumford Hall
University of Illinois
Urbana, IL 61801

Dr. Jerry Peters
Agricultural Education
1442 Liberal Arts & Ed Bldg
Purdue University
West Lafayette, IN 47907-1442

Dr. Richard J. Carter
Ag Education and Studies
Iowa State University
Ames, IA 50011

Dr. Richard Welton
Kansas State University
363 Bluemont Hall
Manhattan, KS 66506

Dr. David M. Coffey
Dept of Agriculture
Western Kentucky Un
Bowling Green, KY 42101-3576

Dr. Charles Byers
Agricultural Education
University of Kentucky
Lexington, KY 40546-0276

Dr. Michael D. McDermott
Agricultural Education
Department of Agriculture
Morehead State University
Morehead, KY 40351-1689

Dr. Tony L. Brannon
Agricultural Education
Murray State University
P. O. Box 2016
Murray, KY 42071

Dr. Michael F. Burnett
School of Voc Ed
Louisiana State University
Baton Rouge, LA 70803

Acting Chair
Dept of Voc Ed
P. O. Box 10757
Southern University
Baton Rouge, LA 70813

Dr. Terry J. Clement
Agricultural Education
Un of Southwestern LA
P. O. Box 44432
Lafayette, LA 70504-0526

Dr. Shirley P. Reagan
Agricultural Education
Louisiana Tech University
P. O. Box 10198
Ruston, LA 71272-0045

Dr. Arthur Allen
Department of Agriculture
Un of Maryland Eastern Shore
Princess Anne, MD 21853

Dr. William I. Thuemmel
Agricultural Education
431 Hills House North
University of Mass
Amherst, MA 01003

Dr. Kirk L. Heinze
Ag & Ext Ed
408 Agriculture Hall
Michigan State University
East Lansing, MI 48824-1039

Dr. Donald Sargeant
Chancellor
Agricultural Education
University of Minnesota
Crookston, MN 56716

Dr. Edgar A. Persons
Ag Education and Extension
1954 Buford Ave.
University of Minnesota
St. Paul, MN 55108

133
Dr. James Leising  
Agricultural Education  
448 Agricultural Hall  
Oklahoma State University  
Stillwater, OK 74078-0484

Dr. R. Lee Cole  
Dept of Ag Education and General Agriculture  
Oregon State University  
Corvallis, OR 97331

Dr. Edgar P. Yoder  
The Pennsylvania State University  
323 Agricultural Admin Bldg.  
University Park, PA 16802-2601

Dr. Jose A. Villamil Freytes  
Dept of Agricultural Education  
Box 5000  
The University of Puerto Rico  
Mayaguez, PR 00681

Dr. Anthony Mallilo  
Ag and Extension Education  
Rodman Hall  
The University of Rhode Island  
Kingston, RI 02881

Dr. Curtis D. White Sr.  
Clemson University  
Room 109-A Barre Hall  
Clemson, SC 29634-0356

Dr. Clark W. Hanson  
College of Ed and Counseling  
South Dakota State University  
Box 507  
Brookings, SD 57007-0095

Dr. Roy R. Lessly  
Ag and Extension Education  
224 Morgan Hall  
University of Tennessee  
Knoxville, TN 37901-1071

Dr. James N. Butler Jr.  
Agricultural Education  
University of Tennessee  
Martin, TN 38238

Dr. S. Clifton Ricketts  
Agricultural Education  
Middle Tennessee State University  
Box 127  
Murfreesboro, TN 37132

Dr. Ben L. Byler  
Box 5034  
School of Agriculture  
Tennessee Tech University  
Cookeville, TN 38505

Acting Chair  
Department of Agricultural Education  
Tennessee State University  
Nashville, TN 37209

Dr. Glen C. Shinn  
Agricultural Education  
Texas A&M University  
College Station, TX 77843-2116

Dr. Larry Klingbeil  
Agricultural Education Department  
East Texas State University  
Commerce, TX 75428

Dr. Herbert Schumann  
Agricultural Education  
Sam Houston State University  
Huntsville, TX 77341-2088

Dr. R. H. Williams  
Campus Box 156  
Texas A&M University-Kingsville  
Kingsville, TX 78363

Dr. Paul R. Vaughn  
Dept of Ag Education and Communication  
Texas Tech University  
Box 42131  
Lubbock, TX 79409-2131

Dr. Roger D. Perritt  
Department of Agriculture  
PO Box 13000  
Stephen F. Austin State University  
Nacogdoches, TX 75602

Dr. Cecil L. Strickland, Sr.  
Agricultural Education Program  
Prairie View A&M University  
P. O. Box 486  
Prairie View, TX 77446

Dr. Michael Stapper  
Department of Agriculture  
Southwest Texas State University  
San Marcos, TX 78666-4616
APPENDIX B

INSTRUMENT TASK MATRIX
## Instrument Task Matrix

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Survey Instrument Question Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number 1</td>
<td>Section III - 1, 2, 3, 4, 5</td>
</tr>
<tr>
<td>Number 2</td>
<td>Section I - 1, 2, 3, 4, 5</td>
</tr>
<tr>
<td>Number 3</td>
<td>Section II - 1, 2, 3, 4, 5</td>
</tr>
<tr>
<td>Number 4</td>
<td>Comparisons</td>
</tr>
</tbody>
</table>
APPENDIX C

SURVEY QUESTIONNAIRE

RECRUITMENT AND RETENTION OF AFRICAN-AMERICAN STUDENTS
IN AGRICULTURAL EDUCATION BACCALAUREATE PROGRAMS
Recruitment and Retention of African American Students in Agricultural Education Baccalaureate Programs

Comprehensive Vocational Education

The Ohio State University
DIRECTIONS:

PLEASE RESPOND TO EACH OF THE FOLLOWING QUESTIONS AS IT RELATES TO THE ACADEMIC UNIT UNDER YOUR DIRECT ADMINISTRATION.
Section I: Recruitment of African American Students

1. What are the main methods your unit uses to recruit African American agricultural education baccalaureate students? (Check all that apply)

- ___ high school science classes
- ___ vocational education programs
- ___ community colleges
- ___ 4-H programs
- ___ other departments at your institution
- ___ other ________________________________
( Please specify)

2. In your opinion, which of the following are barriers to your academic unit’s ability to recruit African American students? (Check all that apply)

- ___ absence of African American role models
- ___ lack of sufficient number of competitive scholarships
- ___ lack of student interest in program area
- ___ admission’s requirements too limiting
- ___ stereotyped “Agriculture” image
- ___ negative institutional climate
- ___ lack of faculty mentors
- ___ other ________________________________
( Please specify)
3. Does your unit designate a specific person to recruit African American students?

  ___ No
  ___ Yes

  If yes, what portion of his/her time is designated for recruitment activities? _______%

  Is this person African American?
  ___ No
  ___ Yes

  Is this person ___ Faculty
  ___ Staff
  ___ Graduate Assistant
  ___ Other

  (Please specify)

4. Does your academic unit budget include separate funding for the recruitment of African American students?

  ___ No
  ___ Yes

  If yes, what percentage of the total recruitment budget does this represent? _____%
5. Listed below are several strategies that have been used to recruit undergraduate African American students. Please indicate the extent to which each technique or strategy is currently used by your academic unit to recruit undergraduate African American students.

**Key**

1 = Never  2 = Seldom  3 = Occasionally  4 = Frequently

Our academic unit's recruitment strategies include:

<table>
<thead>
<tr>
<th>Extent of Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Speaking in schools with large African American populations about careers in agricultural education.</th>
<th>1 2 3 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishing contacts with high school guidance counselors to generate lists of prospective African American students.</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>Establishing contacts with African American churches to speak about careers and generate lists of prospective students.</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>Offering on-campus experiences specifically targeted for African American students.</td>
<td>1 2 3 4</td>
</tr>
</tbody>
</table>

144
Our academic unit’s recruitment strategies include:

<table>
<thead>
<tr>
<th>Extent of Use</th>
<th>Never</th>
<th>Frequently</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mailing brochures to African American students.</td>
<td>1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>Providing financial aid packages targeted for African American students.</td>
<td>1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>Maintaining a website on the Internet inclusive of African American students.</td>
<td>1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>Placing ads with African American media.</td>
<td>1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>Other __________________________ (Please Specify)</td>
<td>1 2 3 4</td>
<td></td>
</tr>
</tbody>
</table>
Section II:
Retention of African American Students

1. In your opinion, which of the following are barriers to your unit's ability to retain African American students? (Check all that apply)

   ___ absence of African American role models
   ___ lack of scholarships
   ___ lack of student interest in program area
   ___ academic program too rigorous
   ___ stereo-typed "Agriculture" image
   ___ negative institutional climate
   ___ negative cohort interactions
   ___ lack of faculty mentors
   ___ other__________________________________
   (Please specify)

2. Does your academic unit have funds budgeted exclusively for the retention of African American students in agricultural education?

   ___ No
   ___ Yes

If yes, what is the percent of the total retention budget? _____%
3. Does your unit designate a specific person for retention of African American students?
   ____ No ____ Yes

If yes: What portion of his/her time is designated for retention activities? _______%

Is this person African American? ____ No ____ Yes

Is this person ____ Faculty
   ____ Staff
   ____ Graduate Assistant
   ____ Other ________________________
   (Please specify)

Is this the same person identified for African American recruitment?
   ____ No ____ Yes

4. What approaches have been used by your academic unit to increase the faculty/staff's sensitivity to and support of African American students? (Check all that apply)

   ____ sensitivity training sessions
   ____ faculty development workshops
   ____ diversity committees
   ____ time designated for minority retention programs
   ____ grant writing for minority programs
   ____ other ________________________
   (Please specify)
5. Listed below are methods that could be used to retain undergraduate African American students. Please indicate the extent to which each tool is currently used in your program to retain African American students.

Key

1 = Never  2 = Seldom  3 = Occasionally  4 = Frequently

Our academic unit's retention strategies include:

<table>
<thead>
<tr>
<th>Extent of Use</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Never</td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td>Academic advising</td>
</tr>
<tr>
<td>Scholarship packages</td>
</tr>
<tr>
<td>Early warning</td>
</tr>
<tr>
<td>Exit interviews</td>
</tr>
<tr>
<td>Ethnic-oriented, extracurricular and cultural activities</td>
</tr>
<tr>
<td>Faculty, staff, and curricular development</td>
</tr>
<tr>
<td>Learning and academic support Integrative housing</td>
</tr>
</tbody>
</table>

148
Key

1 = Never  2 = Seldom  3 = Occasionally  4 = Frequently

Our academic unit's retention strategies include:

<table>
<thead>
<tr>
<th>Extent of Use</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Never</td>
</tr>
<tr>
<td>Frequent</td>
</tr>
<tr>
<td>---------------</td>
</tr>
<tr>
<td>Academic orientation</td>
</tr>
<tr>
<td>Student organizations</td>
</tr>
<tr>
<td>African American faculty</td>
</tr>
<tr>
<td>Peer tutors</td>
</tr>
<tr>
<td>Faculty tutors</td>
</tr>
<tr>
<td>Faculty mentors</td>
</tr>
<tr>
<td>Peer mentors</td>
</tr>
<tr>
<td>African American counselors</td>
</tr>
<tr>
<td>Reduced course loads</td>
</tr>
<tr>
<td>Summer sessions for makeup</td>
</tr>
<tr>
<td>Small group learning</td>
</tr>
<tr>
<td>Other (Please specify)</td>
</tr>
</tbody>
</table>
Section III:
Agricultural Education Program Information

1. What was the total student enrollment and corresponding number of African American student enrollment in your undergraduate agricultural education program during the Fall session for the following academic years:

<table>
<thead>
<tr>
<th>Total Enrollment</th>
<th>African American Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>1985</td>
</tr>
<tr>
<td>1990</td>
<td>1990</td>
</tr>
<tr>
<td>1995</td>
<td>1995</td>
</tr>
</tbody>
</table>

2. What was the total number of graduates and corresponding number of African American student graduates from your undergraduate agricultural education program by the close of Spring session during the following academic years:

<table>
<thead>
<tr>
<th>Total Graduates</th>
<th>African American Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>1985</td>
</tr>
<tr>
<td>1990</td>
<td>1990</td>
</tr>
<tr>
<td>1995</td>
<td>1995</td>
</tr>
</tbody>
</table>
3. How many full-time faculty are employed in your agricultural education program? _____

Of this number, how many are African American?

_____ Instructors
_____ Lecturers
_____ Assistant Professors
_____ Associate Professors
_____ Professors
_____ Other ___________________________

(Please specify)

4. Does your undergraduate agricultural education curriculum address the contributions of African Americans to agricultural education?

_____ No
_____ Yes

If yes, which of the following approaches is used
(Check all that apply)

_____ multicultural agricultural courses
_____ required? _____ optional?
_____ multicultural curriculum strand found in all courses
_____ multicultural infusion decided individually by faculty
_____ other ___________________________

(Please specify)
5. Please use the space below to elaborate on any of your responses or for any additional comments you would like to make about the recruitment and retention of African American students in agricultural education programs.

THANK YOU FOR YOUR COOPERATION!
Code Number _______

Please return to:
Janice Bell
2120 Fyffe Road
Dean's Office, Room 100
Agricultural Administration Building
Columbus, Ohio 43210-1066
APPENDIX D

PANEL OF EXPERTS
Dr. Marquita Jones  Director  
Department of Agriculture and Natural Resources  
Michigan State University  

Dr. Willie Rawls  Professor  
College of Agriculture  
Southern University  

Ms Karla Hay  Asst Director of Academic Programs  
School of Agriculture-Administration  
Purdue University  

Dr. William Henson  Assistant Professor  
College of Agricultural Sciences  
The Pennsylvania State University  

Dr. Jesse Thompson  Assistant Dean of Academic Programs  
College of Agricultural, Consumer, & Environmental Sciences  
University of Illinois at Urbana-Champaign  

Dr. Michael Scott  Associate Professor  
School of Teaching and Learning, College of Education  
The Ohio State University  

Dr. Jan Henderson  Associate Professor  
College of Food, Agricultural, and Environmental Sciences  
The Ohio State University  

Dr. L. H. Newcomb  Associate Dean, Academic Programs  
College of Food, Agricultural, and Environmental Sciences  
The Ohio State University  

Dr. Kirby Barrick  Director of Academic Programs  
College of Agricultural, Consumer, & Environmental Sciences  
University of Illinois at Urbana-Champaign  

155
APPENDIX E

LETTER TO PANEL OF EXPERTS
Letter to Panel of Experts

Dear

Thank you for agreeing to serve on the panel of experts for my dissertation instrument. I am now in the process of establishing validity for my survey. My study will identify the strategies currently used to recruit and retain African-American students in agricultural education programs nationally. I plan to investigate at the program director level. Those agricultural education Directors, Heads, and Chairs listed in the *Directory of Teacher Educators in Agriculture 1995-1996*, will make up my population. The problem of my study pertains to the use strategies and perception of recruitment and retention of African-American students in baccalaureate agricultural education programs.

Please evaluate the validity of the enclosed questionnaire in the areas listed below:

1. Content Validity
2. Item Clarity
3. Appropriate Language
4. Complexity
5. Format
6. Length
7. Item Bias
8. Appearance

Feel free to write your comments and suggestions on the survey.

A self-addressed, stamped envelope is enclosed for the return of the survey validation information, or you may return the information by fax to (614) 478-5261. Should you have any questions or concerns, please contact me by calling 478-2610 or e-mail Bell.132@osu.edu. Your professional input is greatly appreciated.

Sincerely,

Janice L. Bell
Doctoral Candidate

Michael L. Scott, Ph.D.
Associate Professor
Comprehensive Vocational Education
APPENDIX F

VALIDITY COMMENT FORM
Validity Comment Form

Directions: Please evaluate the attached questionnaire in the listed areas using the space provided. Feel free to make comments and suggestions directly on the survey instrument. Please make sure the questionnaire measures content validity relevant to strategies to recruit and retain undergraduate African-American students.

CONTENT VALIDITY:

ITEM CLARITY:

APPROPRIATE LANGUAGE:

COMPLEXITY:

FORMAT:

LENGTH:

ITEM BIAS:

APPEARANCE:
APPENDIX G

PILOT TEST PARTICIPANTS
APPENDIX H

LETTERS TO PILOT TEST PARTICIPANTS
February 14, 1997

Dear [name]:

I am writing to solicit your assistance in a dissertation research study in the field of Agricultural Education. Specifically, I would like for you to be a part of the pilot test which will enable me to establish reliability for my instrument. Please complete the enclosed instrument and return it to me in the envelope provided or FAX to (614) 478-5261, by Friday, February 21, 1997.

You were selected to be a part of the pilot test because of your administrative responsibilities as head of an academic unit. Please answer the questions as they relate to your program rather than that of agricultural education. I am using the test-retest method to assess reliability. Therefore, you will receive another instrument to complete on Monday, February 24.

The survey in its entirety has been developed to describe the recruitment and retention of African-American students in agricultural education baccalaureate programs. The final version of the instrument will be sent to administrations in agricultural education at various colleges and universities. You can be assured that your responses will be anonymous and will not be reported in any manner to breach confidentiality.

If you have any questions, please call me at (614) 478-2610, or (614) 292-6891. Thank you very much for your assistance. Your input on this project is greatly appreciated.

Sincerely,

Janice L. Bell
Ph.D. Candidate

Dr. Michael L. Scott
Graduate Advisor
February 24, 1997

Dear [name]:

The second instrument to complete the test-retest method of assessing reliability for my study is enclosed. Please complete sections I and II only and return it to me in the envelope provided or FAX to (614) 478-5261, by Monday, March 3, 1997.

I appreciate your willingness to help with the study. The comments you made on the first survey were very useful. The actual study population of agricultural education program administrators is small (N=65) and I wanted to include all of them in the study. Therefore your participation as a program administrator is greatly appreciated.

If you have any questions, please call me at (614) 478-2610, or (614) 292-6891. Thank you very much for your assistance. Your input on this project is greatly appreciated.

Sincerely,

Janice L. Bell
Ph.D. Candidate

Dr. Michael L. Scott
Graduate Advisor
APPENDIX I

APPLICATION FOR EXEMPTION FROM

HUMAN SUBJECTS REVIEW
APPLICATION FOR EXEMPTION FROM HUMAN SUBJECTS INSTITUTIONAL REVIEW BOARD REVIEW 

All research activities that will involve human beings as research subjects must be reviewed and approved by the appropriate human subjects Institutional Review Board, or receive exemption status, prior to implementation of the research.

Principal Investigator: Scott, Michael T.  
Academic Title: Associate Professor  
Department: School of Teaching and Learning  
Campus Address: 200 Welling Engineering 
Co-investigator(s): Bell, Janice T.  
Protocol Title: Recruitment and Retention of African American Students in Baccalaureate Agricultural Education Programs (Doctoral Dissertation)  

* THE ONLY INVOLVEMENT OF HUMAN SUBJECTS IN THE PROPOSED RESEARCH ACTIVITY WILL BE IN ONE OR MORE OF THE EXEMPTION CATEGORIES LISTED ON THE BACK OF THIS APPLICATION.  

** CATEGORY: (Check one or more)  
A. OSURF: Sponsor  
B. Other (Identify) Self-funded  

Office Use: EXEMPTION STATUS:  
Y. APPROVED  
N. DISAPPROVED  
DEC 17, 2002  
Date  
Chairperson  

** Principal investigator must submit a protocol to the appropriate Human Subjects IRB.  

IMPORTANT NOTICE TO INVESTIGATORS: Exempting an activity from review DOES NOT absolve the investigators of the activity from ensuring that the welfare of human subjects in the activity is protected and that methods used, and information provided, to gain subject consent are appropriate to the activity.
APPENDIX J

NOTIFICATION OF STUDY:

ADVANCE LETTER
FIELD(address):  

Dear FIELD(name):  

Within the next few days, you will receive a request to complete a research questionnaire. As part of my dissertation research at The Ohio State University, I am conducting a survey to describe the efforts made by agricultural education baccalaureate programs to recruit and retain African-American students. 

The survey will require a period of concentrated attention. Therefore I ask that you please accept the enclosed serving of herbal tea as a small token of my appreciation. I hope you will enjoy the tea with me (in spirit) as you complete the survey. Your assistance with this project is greatly appreciated. 

Thank you in advance for your help. 

Sincerely, 

Janice L. Bell  
Ph.D. Candidate  

cc:  Dr. Michael L. Scott  
Advisor
APPENDIX K

ELECTRONIC MAIL FOLLOW-UP
Dear Administrator:

About three weeks ago, I wrote to you seeking information concerning "Recruitment and Retention of African-American Students in Agricultural Education Baccalaureate Programs". As of today, I have not received your completed questionnaire. I realize that you maintain a very busy schedule. However, your response is extremely important.

If you have completed and mailed the survey, please accept my sincere thanks. If not, please take a few minutes, complete the survey and return it via mail or fax (614) 478-5261 or (614) 292-1218.

If you did not receive or misplaced your questionnaire or if you have any questions about completing this survey, please contact me via e-mail or telephone. I welcome the opportunity to address your concern.

Sincerely,

Janice L. Bell

Cc: Dr. Janet Henderson
    Research Advisor
APPENDIX L

FOLLOW-UP POST CARD
Dear ______________________  April 18, 1997

About three weeks ago, I wrote to you seeking information concerning "Recruitment and Retention of African-American Students in Agricultural Education Baccalaureate Programs". As of today, I have not received your completed questionnaire. I realize that you maintain a very busy schedule. However, your response is extremely important.

If you have completed and mailed the survey, please accept my sincere thanks. If not, please take a few minutes, complete the survey and return it via mail or fax (614) 478-5261 or (614) 292-1218.

If you did not receive or misplaced your questionnaire or if you have any questions about completing this survey, please contact me via electronic mail or telephone. I welcome the opportunity to address your concern.

Sincerely,

Janice L. Bell
APPENDIX M

FINAL FOLLOW-UP LETTER
May 5, 1997

Dear [name]:

About four weeks ago, I wrote to you seeking your response to a mail survey about recruitment and retention in your agricultural education program. As of today, I have not received your completed questionnaire. I realize that it is often difficult to find the time to participate in these research activities. However, you are one of a select group of individuals who is capable of providing the information I seek.

The purpose of this research is to discover "what is" as it relates to recruitment and retention of African American students at the program level. The compilation of this information can be a resource for our profession as we continue to deal with issues of diversity. I am aware that nationally our agricultural education programs are not uniform. It is therefore essential that your agricultural education program unit is included.

In the event that your questionnaire has been misplaced, a replacement is enclosed. Please take a few minutes to complete and return the questionnaire in the self-addressed stamped envelope provided.

Thank you again for your time and cooperation. It is greatly appreciated.

Sincerely,

Janice L. Bell
Doctoral Candidate

cc: Dr. Michael Scott
Graduate Advisor