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Barbara Elizabeth Burton-Feldott
Iowa State University

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An investigation of the professional integration needs of Filipino advanced degree graduates in agriculture from U.S. land-grant universities

Burton-Feldott, Barbara Elizabeth, Ph.D.

Iowa State University, 1989

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300 N. Zeeb Rd.
Ann Arbor, MI 48106

An investigation of the professional integration needs
of Filipino advanced degree graduates in agriculture
from U.S. land-grant universities

by

Barbara Elizabeth Burton-Feldott

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ABSTRACT

The purpose of this study was to investigate the professional integration needs of a group of returned Filipino agricultural advanced degree graduates from U.S. Land-Grant universities who have been at home in the Philippines for at least one year. Particular attention was directed toward studying the differences between males and females during the process of professional integration, as well as differences based on other demographic variables including degree attained, length of time spent in the U.S., place of current employment, etc. Professional integration, as used in the study, refers to the process of changing from a graduate student in the U.S. to a practicing professional in the home country.

A list of 97 potential subjects was obtained by pooling the information available from a Kansas State University project and from USDA/Office of International Cooperation and Development. A random sample was drawn of 26 subjects to participate in face-to-face interviews, although many of these were not able to be contacted. In all, nineteen subjects were unable to be reached. The data collected consisted of 24 interviews with subjects, and 22 survey questionnaires from the 54 that were mailed. The subjects were questioned about their contacts with the graduating university, opportunities for professional interaction after returning home, opportunities for continuing education, relevancy of the degree program at the U.S. university, and current job responsibilities and job satisfaction. The final result was 46 valid cases that could be subjected to statistical analysis.

The answers on the survey questionnaires and interview schedules were coded into computer data files. The data were analysed using T tests at the .05 level of significance to determine if there were differences between the responses of the subjects grouped by various demographic variables. Findings of significant differences based on subjects grouped by demographic variables in rank order are current employment, length of time spent studying in the U.S., degree attained, marital status and gender.

From the results of these analyses, it appeared that gender did not make a significant difference on any of the aspects investigated relative to professional integration. The analysis indicated that men gave significantly

more positive responses regarding the need for and use of professional journals, although this finding was attributed to differences in the work responsibilities of the predominantly male university employees, versus the requirements of the primarily female government workers.

In fact, the differences in job requirements between government and university employees was the demographic variable that yielded the most findings of significant differences. University employees had a greater need for professional journals, they felt their preparation received through their degrees was more appropriate for their jobs than government employees, and in general, university employees were more well satisfied with their job responsibilities and conditions of employment.

From inquiries about the professional integration needs experienced by the subjects it became apparent that one of the most critical needs was for increased attention toward continuing education. This was mentioned as a need in almost every area of inquiry, and also is one that can be addressed by U.S. universities and participant programming agencies. As a result, one of the main conclusions of the research was that more attention should be directed toward continuing education for returned participants.

CHAPTER I. INTRODUCTION

Study Background

The education of foreign students at U.S. universities is important to
U.S. international relations, the U.S. university campuses where they receive
their education, their home countries, and the individuals themselves. In 1985
alone, there were some 300,000 foreign students enrolled in U.S. colleges and
universities. Many of these foreign students are educated through the process
of participant training, in which developing countries access U.S. educational
resources to prepare their citizens to serve home country development needs.

Over the last 40 years, the education of participants, and particularly
those from developing countries, has been a key element of the foreign
assistance activities undertaken by the U.S. Agency for International
Development (USAID). USAID's participant training program, which
included approximately 12,500 degree and technical participants in 1985, is
based on the concept that the achievement of national self-reliance and
increased per capita income results from the development of available human
resources through opportunities for education, training, and development.

Because this program represents a large monetary investment, totalling
around $150 million dollars in 1983, USAID makes efforts to insure that the
programs for these students closely reflect the interests and needs of both the
U.S. and the home country of the participant (Jenkins, 1983). One subject
matter area that serves a primary need of many developing countries is
agriculture. The education and training of leaders in government and
educational systems is crucial in making progress toward improved income
generation through agricultural enterprises. As a result, many foreign
students are in agricultural disciplines, to the extent that in 1982, 40 percent of
all U.S. graduate degrees in agriculture were awarded to foreign students
(Mashburn and Van de Water, 1984). USAID reports that 28 percent of all
USAID-sponsored participants in degree and non-degree programs in 1985
were in agricultural subject matter areas.

Women students comprise an increasing proportion of the participant
student population. The percent of women participants sponsored by USAID

increased from 15 percent of the total number of participants in 1978 to 20 percent in 1985. This means that of the 12,500 total USAID-sponsored participants in 1985, approximately 2,500 were women, including both degree and technical training program participants. Of this number, USAID reported that ten percent, or about 250 women were in agricultural subject matter areas (USAID, 1985). Clearly their numbers are still small relative to the total training program.

The small number of female foreign agricultural students at present makes it particularly critical to insure that these women are able to contribute to the development of their home countries. In addition, to strengthen the role of women in development, on March 25, 1987, H.R. 1802 was introduced before Congress which includes a provision requiring AID to include at least 40 percent women in all USAID training programs by 1992. This projected increase in women participants further emphasizes the need to assess past experience, and make appropriate recommendations for improvements. To maximize the returns to the student and both governments on this large investment in human resource development, the educational experience provided must prepare the student to participate in the national development process.

Theoretical Background

The concerns and needs of women as they begin to make a contribution in the home country have been characterized as being different than those of men involved in the same process. Many factors related to the professional environment affect females differently than males. These include professional and personal networks, familial and other gender role responsibilities, as well as aspects of the organization in which they are employed such as communication patterns, and the roles and numbers of other female employees (Pigozzi, Barnes-McConnell, and Williams, 1983). This indicates a need for special attention toward the effects of gender on the ability of individuals to make a contribution that is commensurate with their potential.

As the educational experience will vary from individual to individual, the individual provides an appropriate focal point in evaluating this process. The degree of preparation for making a contribution to home country development as experienced by the individual students themselves after they

are employed in their professions provides a useful criterion to evaluate the effectiveness of the training process. These returned students are in an appropriate position to provide evaluation data on the effectiveness of their educational experiences, as they are currently involved in the process of professional integration, uniquely qualifying them to make informed judgments about the various aspects of their educational experiences which may impact their professional integration.

The process of providing an educational experience for participants is often viewed as a series of stages: Training Design and Participant Selection, Program Selection, Admission and Placement, Predeparture, Program Implementation, and Post Training Follow-Up (AUSUDIAP, 1986). Over the past ten years, organizations such as the National Association for Foreign Student Affairs (NAFSA), USAID, The Association of U.S. University Directors of International Agricultural Programs (AUSUDIAP), USDA/Office of International Cooperation and Development (OICD), and the International Science and Education Council (ISEC) have directed much attention toward ways of enhancing the preparation provided for participants, and increasing the relevancy of the educational experience. As a result of this attention, many different types of interventions have been recommended at each stage of the process, in attempting to improve the educational experience of the participant.

Some of these interventions have resulted from the expression of needs by foreign students themselves, based on their experiences as they progress through the various stages of the training process. In a needs assessment conducted by Lee et al. in 1981 on foreign students from developing countries, unmet needs were expressed at all stages of the training process. However, of the top ten needs identified by the 1900 respondents to the questionnaire, four related to the final stage of the training process, Post Training Follow-Up or Re-Entry, or Professional Integration, as it is often termed. Professional Integration, as it is used here refers to the process of

"transition from academic training in the U.S. to a
    professional career in the home country" (Schieffer, 1983, p. 2).

It is a process characterized by a concern with professional re-entry (Hood and Schieffer, 1983).

The four needs related to professional integration identified by Lee, Abd-Ella and Burks (1981) are as follows.

> "- Anticipated need for finding a job appropriate to your
>   training upon returning to the home country.
> - Need for work experience in your field before returning home.
> - Need for training to apply knowledge.
> - Anticipated need for receiving the latest professional
>   materials in the field" (Lee, Abd-Ella, and Burks, 1981, p. 50).

None of these needs was identified by the responding students as being in the most satisfied class, and several of the needs indicated in the least satisfied category relate to the Follow-Up and Professional Integration stage of the training process. That is, none of the needs that were well satisfied related to professional integration, and some needs relative to professional integration were not well satisfied. These include the following.

> "- Need for finding a part time job at the university related
>   to your degree program.
> - Need for work experience in your field before returning home.
> - Need for exchange of visiting professors between
>   universities of your country and those in the U.S."
> (Lee, Abd-Ella, and Burks, 1981, p. 50).

A number of similar issues are identified by Francis Musa Boakari (1986[a]) in a discussion of re-entry in relationship to the U.S. educational experience. Some of the problems given in the discussion include absence of continuing education opportunities, professional isolation, challenges of re-interpretation and adapting skills and expertise to home country situations, and lack of facilities, resources, and current information for research. Others, including Moravcsik (1983) and Dunnett (1983) respectively, address other aspects of problems in making the transition from a student to fulfilling professional responsibilities in the home country. The amount of coverage in the literature indicates that this area deserves close attention.

Problem Statement

Partly as a result of these expressed needs, many universities and organizations concerned with participant training have begun to explore ways

of helping students with the process of professional integration. However, due to time and distances, these can be very difficult and expensive needs to address. To help universities and other concerned organizations target their efforts toward perceived needs, more information is needed about foreign student alumni in their professional careers, and their views on continuing and follow-up needs relative to their experiences in the process of professional integration.

In addition, recent investigations on various special issues relative to women in development have found that the particular needs of women may require attention in order to facilitate their effective participation in the development process. This has been found to be true in terms of women's adjustment to the professional environment encountered during the professional integration process (Pigozzi, Barnes-McConnell, and Williams, 1983). However, further information on the particular professional integration needs of women participants would be useful for universities and participant sponsors in their efforts to address these specific needs.

Work related experiences of the author further confirmed the need for additional information. During two years of employment with USDA/OICD, an agency that programs participants, many co-workers as well as staff from USAID and universities expressed interest in learning more about the effectiveness of the participant training process, especially in terms of participants' ability to perform professionally on return to the home country. Several countries seemed to generate more interest because of the volume of participants or their strategic importance. Included among these for both volume of participants and strategic importance was the Philippines. Filipina participants represent the second largest population of all the nationalities of female participants programmed through USDA/OICD, making the Philippines a priority with USDA/OICD, USAID, and the universities where they are programmed. USDA/OICD's concerns over the continuance of the United State's base rights agreements make it of strategic interest, as well.

This study investigated the follow-up and re-entry adjustment needs experienced by Filipino recipients of advanced degrees in agriculture from U.S. Land-Grant Universities who have been home for at least one year. In particular, the investigation examined needs experienced during the

professional integration process that could be addressed by universities and participant sponsoring organizations. Special attention was directed at determining if there were differences between men and women in their perceptions about these types of professional integration needs. The main questions to be addressed through this study follow.

1. What are the professional integration needs felt by Filipino recipients of advanced degrees in agriculture from U.S. Land-Grant Universities relative to their contact with the university after returning home, opportunities for interaction with professionals in-country, amount and type of continuing education opportunities, relevancy of experiences provided by the universities to current job needs, and satisfaction with their current employment?

2. What is the relationship between expressed professional integration needs and various demographic variables such as gender, age, program of study, field of study, previous work experience, marital status, number of children, years spent studying in the U.S., undergraduate alma mater, when undergraduate degree was received and employer?

3. Are there specific identifiable differences between the needs expressed by men and women returned Filipino participants?

4. What kinds of changes would these participants recommend to help universities and participant sponsoring organizations better address their needs?

Hypotheses

These questions were based on both a review of the literature and the previous work experience of the author as a facilitator of a coordinating council between the U.S. university community and the USDA/OICD, a participant sponsoring agency. The questions formed the basis for a number of specific hypotheses to be tested in the study. Through mailed questionnaires and in-person interviews, data addressing the hypotheses and questions were gathered from a group of Filipino recipients of advanced degrees from U.S. Land-Grant Universities who have been home for at least one year.

The country, the Philippines, was chosen to serve as a case study for several reasons. The names and addresses of a significant number of

potential subjects now living in the Philippines became available. In addition, there was a connection between a significant number of the subjects and the major sponsoring interests, USDA/OICD and Iowa State University's Office of International Programs. The availability of another list of Filipino potential subjects who were participants in a large project between USAID, the Republic of the Philippines and Kansas State University was the final determining factor.

The data collected were used to evaluate whether there are differences in the professional integration process experienced by women versus men subjects in the study. In addition, general needs experienced equally by both sexes were also investigated in an attempt to formulate recommendations for universities and sponsoring agencies to make improvements in this re-entry phase of the participant training process.

The specific hypotheses tested were based on several assumptions about the nature of the professional integration process. These assumptions follow.

1. Satisfaction and success in the process of professional integration, as indicated by previous studies of the follow-up needs of foreign students, (Lee, Abd-Ella, and Burks, 1981) are related to factors including contact with the degree granting institution, contact with other like professionals in-country, interaction with other alumni from the degree granting institution, access to journals, papers, studies and other current resources in the field, and continuing education opportunities.

2. Many returned foreign students serve in roles other than those for which they were prepared in their degree programs. They often participate in technical/scientific degree programs, and are expected to serve in management or administrative position on return home.

3. Certain types of experiences provided during the degree program in addition to the regular academic curriculum are helpful in preparing foreign students for professional responsibilities in management and supervision. Some of these experiences include specific training in management, leadership, and/or supervision, and co-curricular opportunities such as internships and coop experiences.

4. There is a relationship between felt, expressed needs and reality. That is, those needs which foreign students express as being influential in their professional integration process actually do, or would make a difference in the success and satisfaction experienced in their professional integration.

The hypotheses which follow further refine the various differences in the professional integration process that might be experienced by men and women informants in the study.

1. H0: There will be no significant difference between the professional integration needs expressed by Filipina women agricultural majors and those expressed by Filipino men agricultural majors.
H1: There will be a significant difference between the professional integration needs expressed by Filipina women agricultural majors and those expressed by Filipino men agricultural majors.

More specifically, the differences in the professional integration process experienced by women and men will be measured in terms of the following hypotheses.

a. H0: There will be no significant difference between the need for and amount of contact with degree granting institutions indicated by Filipino men and women agricultural majors.
H1: There will be a significant difference between the need for and amount of contact with degree granting institutions indicated by Filipino men and women agricultural majors.

b. H0: There will be no significant difference between the need for and the amount of contact with professionals in-country indicated by Filipino men and women agricultural majors.
H1: There will be a significant difference between the need for and the amount of contact with professionals in-country indicated by Filipino men and women agricultural majors.

c. H0: There will be no significant difference between the need for and the amount of opportunities for interaction with other alumni from their institution indicated by Filipino men and women agricultural majors.

H1: There will be a significant difference between the need for and the amount of opportunities for interaction with other alumni from their institution indicated by Filipino men and women agricultural majors.

d. H0: There will be no significant difference between the need for and the amount of opportunities for access to journals, papers, studies and other current resource materials in their field indicated by Filipino men and women agricultural majors.

H1: There will be a significant difference between the need for and the amount of opportunities for access to journals, papers, studies and other current resource materials in their field indicated by Filipino men and women agricultural majors.

e. H0: There will be no significant difference between the need for and the amount of participation in continuing education opportunities indicated by Filipino men and women agricultural majors.

H1: There will be a significant difference between the need for and amount of participation in continuing education opportunities indicated by Filipino men and women agricultural majors.

2. H0: There will be no significant difference between Filipino men and women agricultural majors in the preparation received in their degree programs and its relevance to their current career responsibilities.

H1: There will be a significant difference between Filipino men and women agricultural majors in the preparation received in their degree programs and its relevance to their current career responsibilities.

In specific, the differences in the preparation in the degree program provided for Filipino men and women agricultural majors will be measured in terms of the following hypotheses.

a. H0: There will be no significant difference between Filipino men and women agricultural majors in the amount of relevant preparation experiences such as training in management and leadership provided in the degree program.

H1: There will be a significant difference between Filipino men and women agricultural majors in the amount of relevant preparation

experiences such as training in management and leadership provided in the degree program.

b. H0: There will be no significant difference between Filipino men and women in the amount of co-curricular preparatory opportunities such as internship and cooperative experiences provided during the degree program.

H1: There will be a significant difference between Filipino men and women in the amount of co-curricular preparatory opportunities such as internship and cooperative experiences provided during the degree program.

Definition of Terms Used in the Research

The following are definitions of terms used in this research project.

Participant Training: Process which allows developing countries to access U.S. educational resources to train their citizens to meet home country development needs (AUSUDIAP, 1986, p. 16).

Participant Trainee: Person from a host country who has been selected to participate in training that is intended to better prepare him or her to contribute to home country development. This term is used interchangeably with participant (AUSUDIAP, 1986, p. 16).

Host Country: Country where development project is being implemented, or from which participant trainees originated as a part of a project. This term is used interchangeably with home country (AUSUDIAP, 1986, p. 16).

Professional Integration: The transition from academic training to a professional career in the home country (Schieffer, 1983, p. 2). This term is used interchangeably with post training follow-up or re-entry adjustment.

Development: As human development is the process by which one's overall personality is enhanced, for society, it refers to the process of developing the collective personality of society. This process requires physical development (material and economic) as well as the development and application of consciousness and faculties (Hague et al., 1977, p. 15).

Foreign Student: A foreign national enrolled at a U.S. institution of higher education (Goetzl and Stritter, 1980, p. 5). This term is used interchangeably with international student. Participants or participant trainees are included as foreign students.

Need: A condition that exists between what is and what should be, or between what is and that which is more desirable. Need is a key instigator of behavior in that it creates a state of disequilibrium ... Thus, a need represents an imbalance, a lack of adjustment or a gap between a present situation or state of being and a new or changed set of conditions assumed to be more desirable... a need always implies a gap (Boyles and Jahns, 1970, p. 61).

Program of Study: Formal academic training through an institution of higher education which meets the requirements for obtaining an academic degree (AUSUDIAP, 1986, p. 16).

Academic Advisor: Faculty member in the participant's academic department who is responsible for designing the participant's training plan or program of study and monitoring progress. Usually the academic advisor also chairs the M.S. or Ph.D. committee and is involved in assisting the student throughout the academic experience and afterward in professional integration (AUSUDIAP, 1986, p. 16).

Major Professor: A faculty member in the participant's academic department who is responsible for chairing the M.S. or Ph.D. committee and guides the student through the research process of the degree program. This person is usually the same as the academic advisor (AUSUDIAP, 1986, p. 16).

Alumni: All individuals who have sojourned on U.S. campuses and who are now practicing professionals in other countries (Rogers, 1983, p. 6).

Job Satisfaction: Measure of an employee's attitude toward the work environment, including attitudes toward job demands, working conditions, pay, employee benefits, friendliness and cooperation of fellow colleagues, employee interpersonal relations, adequacy of communication, security of job and work relations, status and recognition, and opportunity for growth and advancement (Miller, 1977, p. 357).

Network: A network consists of individuals and organizations who are voluntarily linked in a communications web. They serve to link individuals who have common interests and concerns (Pigozzi et al. 1983, p. 48).

Professional colleagues: Professional colleagues are people with similar professional, scientific or scholarly interests (Moravcsik, 1983, p. 30).

Professional Association: Organized group of individuals whose association is based on common careers, areas of interest or expertise (Jenkins, 1985, p. 9).

Continuing Education: All measures of planned learning for men and women after the statutory age for leaving school. It is the process in which a person with a basic education participates in sequential, organized activities intended to bring about changes in information, knowledge, understanding, skills, appreciations, or attitudes (Dunnett, 1983, p. 126).

Practicum: Experience designed for work exposure in the chosen field (Iowa State University, 1983, p. 76). This type of closely supervised training program is for academic credit, with or without compensation (NAFSA, 1982, p. 3). This term is used interchangeably with internship.

Internship: Experience designed for work exposure in the chosen field (Iowa State University, 1983, p. 76). This type of closely supervised training program is for academic credit, with or without compensation (NAFSA, 1982, p.3). This term is used interchangeably with practicum and coop experiences.

Cooperative Experiences: Experiences designed for work exposure in the chosen field (Iowa State University, 1983, p. 76). This type of closely supervised training program is for academic credit, with or without compensation (NAFSA, 1982, p. 3). This term is used interchangeably with practicum and internship.

Design of the Proposed Research

Kansas State University had participated in a project called the Integrated Agricultural Production and Marketing Project (IAPMP), which USAID and the Republic of the Philippines funded between the years of 1977 and 1983. It was a large project, supported by $8 million U.S. dollars and almost twice that many Philippine pesos. The IAPMP included four main emphases. A national policy thrust was intended to enhance the technical skills of national policy analysts, improve agricultural data bases, and increase information needed for decision making. Integrated technology packages were to be developed and tested at Central Luzon State University which would apply to production, processing and marketing of both crops and livestock, and could be adopted for use on small farms. The project emphasized academic training through the upgrading of faculty, curricula and libraries at Philippine universities. Through this thrust, many in the participant population investigated in this study received advanced degree training. The fourth component was extension, in an effort to provide

information and help to small farmers as well as those involved in marketing and processing.

Through the cooperation of the Office of International Agriculture at Kansas State University, data from the IAPMP were made available on approximately 96 Filipino advanced degree recipients, although not all of the participants qualified for the study. The project was contracted between USAID, Kansas State University, and the Republic of the Philippines, but many of the participants attended other universities. Three of the women and one of the men received their degrees from Iowa State University, and were programmed through the Iowa State Office of International Agriculture (Kansas State University, 1984).

Similar data were also available on participants programmed through the USDA/OICD's Division of International Training. OICD's data indicate that women from the Philippines are the second most well represented nationality of women participant M.S. and Ph.D. students from all over the world who are programmed through the USDA. A significant number of Filipino men have been programmed through the International Training Division at USDA/OICD as well.

A list of 97 potential subjects was obtained by pooling the information available from the two sources. From the 97 potential subjects, a stratified random sample of 26 subjects was selected to be interviewed in the Philippines, and the remaining 71 were to be sent questionnaires.

The sample of 26 returned participants to be interviewed consisted of 50% males and 50% females. It was also stratified such that the percentages of M.S. and Ph.D. recipients reflected the M.S. and Ph.D. representation of the population from which the sample was drawn. The 26 subjects to be interviewed were initially contacted by post card. However, upon arrival in the country, it was immediately apparent that few of the subjects had received the card. In addition, many of those chosen to be interviewed could not be located. As a result, 24 interviews were conducted, although they are not necessarily with those originally chosen in the stratified random sample.

When contacted, subjects were asked if they knew where any of the others on the list could be found. Through this process, 19 potential subjects who could not be reached were eliminated. Subtracting the 24 that were

interviewed and the 19 that could not be reached, the original list of 97 was reduced to 54 participants to receive questionnaires. The 54 questionnaires were mailed from downtown Manila, each accompanied by a return postage paid air mail envelope. Of the 54, 22 survey questionnaires were completed and returned for analysis. This resulted in a total of 46 cases to be analyzed for the study.

Analysis of Data

Data from the questionnaires and the interviews were tabulated using T tests at the .05 level on each item to determine if there were significant differences between the responses of men and women returned participants. The additional data collected through the interviews were used to formulate recommendations on where improvements can be made to enhance the probability of success and satisfaction in the professional integration process. Although the recommendations may apply to both sexes, they will be specifically targeted to improve the professional integration experience of women participants. This is particularly crucial since there are fewer well-educated women, and they are viewed as serving in leadership roles for other women in the development process.

Limitations of the Research

The data used in this study were gathered from a small group of Filipino agricultural advanced degree recipients who have been home for at least one year. As a result, the conclusions and recommendations developed from the research may not be generalizable to other participants outside of the study. In addition, the small number of subjects lessens the strength of the statistics that may be appropriately applied to analyze the data.

Significance of Research

The improvement of the professional integration process for both sexes is important to all of the stakeholders in participant training. For the participant, it can make differences in their eventual career attainment, as well as in the satisfaction they derive from their professional responsibilities. For sponsoring organizations such as USAID, successful professional integration of participants can enhance progress toward the mutually derived development goals for the participants' home countries. Programming agencies like USDA/Office of International Cooperation and Development have

an interest in the successful professional integration of the participants they have programmed because it represents a partial measurement of the effectiveness of the agency in assisting participants. In addition, programming organizations have a commitment to international development, which is served by the successful professional integration of trained participants. U.S. Land-Grant universities, whose campus environments and financial situations are enhanced by the presence of international students, are concerned with the success of their graduates, both as an indicator of their excellence as an institution of higher education, and as a way of recruiting other participants to their campuses. Obviously, the home country has a stake in the professional integration process of the returned participants, as those chosen to receive sponsored higher education play key roles in the development of the country.

Recommendations are anticipated that will be targeted toward all of the stakeholders in the participant training process. However, particular attention will be directed toward those aspects that can be improved by U.S. universities, organizations and agencies, as well as toward the concerns expressed by returned women participants relative to the professional integration process. This study of the professional integration needs of participants from one particular country may also have relevance for participants from other countries, and especially for returned women participants from other countries.

·   As agriculture is a key development need for many developing countries, skills and training in agriculture are valuable commodities. In many countries, women play primary roles in agriculture. Highly trained returned women participants, particularly in agricultural fields, can serve in important leadership roles for other women engaged in agricultural endeavors, and provide communication links and educational opportunities for women agriculturalists in societies where contact between unrelated members of different sexes is considered inappropriate. Recommended changes which have the potential to enhance the progress of these women in their professional integration, and which lead to improved career performance can help contribute to their country's development goals.

Improvements in the professional integration process may also affect the ability of men in agricultural disciplines to make a contribution to home country development. In the case of both men and women, where the professional integration process can be improved, all stakeholders including U.S. universities, agencies and organizations, the home country and the participants themselves have the potential to benefit.

CHAPTER II. REVIEW OF LITERATURE

Introduction

This chapter provides a review of the literature relating to this study. This will include literature which is basic to understanding the research project. Areas of inquiry covered which have particular relevance to the study, include literature on international development, and the role of women, training and agriculture in the development process, participant training, with particular emphasis on the professional integration phase of that process, as well as relevant background information on the Philippines. Much of the literature available, particularly in the areas of participant training and professional integration is in the form of handbooks and papers based on the practical experiences of professionals in the field.

Women in Development

The section on women in development will cover two areas that are critical as background for this study. The area of women in agricultural development is relevant because it provides some of the basic assumptions that support the concept of having women involved in advanced training in the field of agriculture. In addition, this study relates to the performance of women as practicing professionals. Therefore, background on the professional and employment situation in developing countries in general, and specifically in the Philippines is useful in placing the findings of this research in proper perspective.

Of primary concern in both agricultural development and the employment situation are economics, effectiveness and equality. These are the general concerns which have been most influential in drawing attention toward the issues of women and development. Because women in developing countries, and worldwide as well, represent a major economic force, their contributions to their national economies must be recognized and fostered. For a number of reasons, including their contributions as role models, the situation of sex-separate spheres of communication in some countries, and their knowledge of the real situation for other women in their countries, the involvement of women can enhance the effectiveness of program efforts targeted at other female citizens. The final concern of equality assumes that some things should be done because they are the just and right thing to do.

Because the support that was provided to the subjects came from USAID, it is appropriate to examine the position of the agency with regard to the training of women. In a policy statement, a framework and guidelines are provided for the efforts of USAID to incorporate women into the development process. This statement recognizes the important roles played by women in developing countries in agriculture, water and sanitation, nutrition, private enterprise, and the like, and makes recommendations on ways to best accommodate the development needs that result from women in these roles.

USAID's policy is to consider the actual and potential contributions of women in the implementation of development assistance programs. This would include designing projects which accommodate the roles and functions of women relative to the attainment of project goals. Specific efforts to benefit females are also to be identified for each project. Finally, data that is sex-disaggregate must be collected for use in project monitoring and evaluation.

USAID also implements separate programs targeted at women, where local conditions would make it difficult to address their needs. This would apply to separate institutions, programs, and facilities, where appropriate.

USAID recognizes the contribution of women's productivity to the well-being of the family. The ability of women to contribute economically depends on improved access to resources such as education, information, and employment. As a result, USAID targets relevant educational programs to the females in developing countries. Labor and time-saving technologies which could benefit women and make their work lighter are supported. Through policy reform and demonstration projects, USAID supports efforts to alleviate sex-discriminatory patterns and practices.

USAID also recognizes that because of the traditional responsibilities women hold relative to family welfare, it is important to target them for programs to benefit the family as a whole. Such programs might include health care, sanitation, water quality, nutrition and basic education. It is felt that these investments in human resources will ultimately result in a more well-educated, fit workforce, capable of making a living.

USAID continues to support research in areas such as gender roles, intra-household dynamics in decision-making, income possibilities for women, women's roles in agriculture, fuel and water needs; and female-

headed households. This research is intended to be used to better tailor development programs to meet the unique needs of women.

These policies are based on two basic assumptions. First, because of differences in the status and roles of women, project planners need to be attentive to the ways in which development may have a negative effect on women. The second assumption is that women's development needs are important, because they represent a major influence within the economy.

The research previously conducted has shown a relatively consistent pattern in the ways that women differ from men with regard to development. The pattern is characterized by gender differences in access to and control over needed resources, differences in the benefits from the results of development, and differences in their responses to efforts to foster development.

The primary argument for women in development, however, is economic. Lack of understanding about local gender differences results in inappropriately designed and implemented projects in which the women contributors to the economy fail to benefit. This represents a decrease in the potential results or benefits from the projects, and a lower return on the investment in development.

The policy issues related to women in development include agriculture, employment and income generation, human resource and institutional development, energy and natural resource conservation, and water and health. Of particular relevance to this study are the issues of agriculture and human resources and institutional development. In the area of agriculture, data from around the world have shown that women play important, and often unrecognized roles in agricultural production. However, their contributions in agriculture, particularly among low resource farm families is often significant in the well-being of the household. As a result, women need to have access to agricultural assistance including education, credit, land, and returns for their labor. Further, USAID needs to recognize and address needs related to production such as small animals or food crops, or other operations that involve only women. Better project analysis, using farming systems approaches are advocated to insure women access to needed agricultural inputs to foster development.

Although the Philippines ranks relatively highly in the education level of the female population, human resource development targeted at women is necessary for the development needs of the country. The Filipinas with agricultural education have great potential to contribute to their country's development. USAID, echoing World Bank sentiments, supports the concept that the education of the females in the country is one of the best investments for future welfare and development. Educated mothers are less likely to have children that die in infancy, they are more likely to insure an education for their children, and primary education often leads to further education which enhances income generating capacity.

Women's access to education is often compromised by lack of time due to the multitude of other responsibilities, lack of parental support, lack of schools, lack of programs for re-entry after dropping out, and early marriage. These needs must be addressed through the various educational programs available to achieve increased literacy for women in developing countries.

These policies are being implemented throughout USAID's projects. In projects, the implementation of the policies relative to women in development, gender differences will include notation in USAID project papers, specific strategies will be targeted to the needs of women, and collection of project data so that it can be disaggregated by gender, USAID consultants will be required to address women's issues, more women from developing countries will be involved in projects, and project evaluation will take into account the benefits accruing to women. The USAID Women in Development Office will serve as the focal point for these activities. The office will offer technical support, grant additional funds to address women's needs, gather data and resources on women in development and work in cooperation with other contractors to insure their cooperation. Finally, USAID will support the efforts by other donor organizations and host governments in the area of women in development (USAID, 1982).

USAID's policy paper is supported in Adrienne Germain's discussion on the policy perspectives relative to the needs of rural women. She discusses their importance as agents, and not as mere beneficiaries of development. In addition, she emphasizes the importance of enhancing women's economic capacities in terms of the overall economic development of the country.

Obstacles to the involvement of women in development are identified, including pervasive myths, patterns and practices.

Of particular relevance for this research project is her discussion of the need to enhance women's capacity through education, and the need to involve women at all levels of programs and policy formulation. The discussion underscores the importance of attention to insuring appropriate background education and satisfactory professional integration of these Filipinas, in fostering the development process (Germain, 1976).

In 1979, Elsa Chaney, Emmy Simmons, and Kathleen Staudt together prepared a background paper on women in development for the U.S. delegation to the World Conference on Agrarian Reform and Rural Development, FAO, Rome. Their comments are based on a a review of the literature, and serve to summarize the issues relative to women in development.

The participation of women in development addresses both economic and equality associated concerns. Increasingly, their economic contributions, particularly in agriculture are being recognized as important in the national development process. In agricultural enterprises, women often have control over critical decisions, such as disposal of the product, and they often contribute more labor to the enterprise than men. In nonagricultural employment, women are often viewed as qualified for only menial, low-paying jobs, and are not given credit for the volume of economic activity generated by women entrepreneurs.

Women need to have enhanced opportunities to participate in rural and urban economies, as well as within the home. In many cases, however, the opportunities seem to be shrinking while the obligations are increasing, especially since often men have to seek income elsewhere. This growing burden of responsibility is worsened by their lack of access to land, water, credit, agricultural inputs, lack of appropriate adult and extension education, as well as few alternate employment opportunities.

Of particular relevance for this dissertation is the discussion of male preference in institutional support to farmers, such as in extension, credit, and cooperative membership. In the area of education, women are denied equal access due to assumptions about information sharing within the

household and lack of trained women educators, particularly in societies with sex-separate spheres of communication. In many cases educational programs also do not address needs related to the work responsibilities of women.

Where women are involved in agriculture, the development of skilled women agriculturalists is viewed as crucial to agricultural improvement in the country. Women professional agriculturalists are often more able to communicate with women farmers, and can more easily uncover the educational needs. They also serve as role models for other women, to encourage participation in agricultural leadership roles at various levels. In addition, they can be helpful in insuring that the programs available to women do not lead to further marginalization because they are based on Western ideals of home economics programs, and do not address agricultural education needs.

Because the concerns of women in development are central to development in general, the issues of discrimination in education, unequal access to inputs and facilities, and marginalization must be considered in agricultural development strategies in developing countries. Trained women agriculturalists are important factors in addressing these concerns. To achieve agricultural development, developing countries, including the Philippines, will need to remain attentive to the special needs of women (Chaney, et al., 1979).

In their book, <u>Women in Management Worldwide</u>, Adler and Izraeli have collected articles that relate to women at the management level in both developed and less developed countries. In one of the articles, Adler summarizes the employment situation for women in the Philippines. Although women from elite families do hold high positions, and in spite of the fact that the Philippines Labor Code prohibits discrimination in wages and conditions of employment, only about three percent of the working women held administrative or managerial positions in business or government. In numbers, this represents less than one percent of all of the managerial positions available, in spite of the fact that as of 1976, women comprised about one third of the total Philippine labor force.

In the Philippines, the traditional beliefs about the roles of women in the home and in the work place are common. The strong support for sex-role stereotypes among both men and women has made it difficult for professional women.

Because this study examines women as professionals, it provides evidence which indicates that there is a need to be alert to possible vestiges of these stereotypical beliefs operating during professional integration and throughout the participant training process. In particular, it also provides context for understanding the issues and concerns identified by the women subjects in the research relative to their experiences during professional integration (Adler and Izraeli, 1988).

In direct contrast to the figures given by Adler and Izraeli, the 1986 United Nations World Survey on the Role of Women in Development indicated that women in professional and administrative roles in the Philippines are represented in numbers that compare favorably with most developed countries. In the most recent 1981 figures, this report shows that nearly 60 percent of the working women are in professional, technical and related jobs. In addition, the 1981 data indicate around 24 percent of women in administrative and managerial positions. According to these figures, approximately 84 percent of the women are in non-blue collar jobs. The report does acknowledge that the category of professional, technical and related workers includes certain service sector positions such as nursing and teaching that require education, but are low level in terms of financial returns. Given this situation, it is likely that the high percentages are somewhat artificially inflated in terms of the actual status of the jobs held. However, the general statements do give support to the argument that the representation of women in professional and administrative positions is high in the Philippines (United Nations, 1986).

In view of the two extremes represented by the different reports, it is probable that the true situation lies somewhere in between. In comparison to many other countries, especially in Asia and other developing regions, women in the Philippines do appear to have a relatively high status. In fact, the United Nations report ranks them comparably with the U.S. and other developed countries in terms of women in professional roles. However, given

the range of jobs represented under the professional categories by the U.N. data, many women were included who would be educated, but would still be in low paying jobs such as nursing and teaching.

Swasti Mitter, in her book, <u>Common Fate Common Bond</u>, examines the struggle women face for equal working conditions, and the roots of the problem of inequality worldwide. This discussion relates primarily to women in blue collar jobs, and covers the various grassroots movements that have arisen in response to poor conditions and general injustices throughout the world.

Although this book primarily related to women who were employed in factory and service jobs, the discussion of the Philippine GABRIELA women's movement provided useful information about the climate of opinion associated with working women in the Philippines. The GABRIELA (General Assembly Binding (Women) for Reforms, Integrity, Equality, Leadership and Action) movement is intended to educate and organize action to eliminate the oppression of women. It is comprised of over 70 women's networks, all working toward increased attention to issues of priority concern to working women, such as child care and education.

This movement is not directly associated with this research project. However, the concerns raised and the influence wielded by a feminist movement of this magnitude operating in the Philippines cannot be ignored. Ongoing efforts to eliminate the oppression of women in a society can be viewed as indicative of two things. There is a perception of a problem with the status of women, and there is support for doing something about it. The existence of this type of movement indicates a need to critically examine apparently neutral patterns and practices for the presence of subtle forms of discrimination. It provides a perspective for assessing the results of this study (Mitter, 1986).

Training and Development

An understanding of the role of training in development is necessary in making the case for investing effort in improvements in participant training. Through attention to human resource development, developing countries increase their capacities to address country-identified needs. In this section, the relationship between human resource development and national development is discussed.

In June, 1982, a symposium on the role of the foreign student in the process of development was organized by NAFSA in cooperation with other organizations. The 29 participants in the symposium included professionals in the area of foreign student affairs and representatives from various countries. Hugh Jenkins served as rapporteur, providing a summary of the symposium that was subsequently published by NAFSA.

Through the discussion on the preparation of students to participate in the process of development, two factors which appeared to be significant were the place where the development is to take place, and the field of study. Needs should be considered on a country-by-country basis. This means that technology transfer must be viewed as a series of specific projects designed to meet specific needs in a country. The preparation of students to assume a role in the development process must include coverage of the indigenous physical characteristics and natural resources as well as cultural and religious factors. On return, students must be prepared to face negative attitudes toward the knowledge they have attained, and they also must expect a lack of facilities and equipment. As a result, the returning student may have to be able to create the circumstances under which science can be accomplished at home.

However, the symposium participants agreed that international students need to cover the same basic concepts in the science and technology. Their special needs should be addressed in supplementary courses and practical training experiences in areas such as management and administration. The attendees also recommended that clearly defined and recorded objectives would be useful criteria against which to evaluate the performance of returned students in their roles in the technology transfer process.

As the role of returned international students is primarily concerned with technology transfer, the symposium directed attention to the technology transfer process, particularly between developed and developing countries. There are many barriers to technology transfer. Some are related to rights and patents held by outside concerns that limit the ability of developing countries to use and disseminate some innovations.

Another barrier to change is the resistance of culture. Some technologies are inappropriate, and some must be changed to make them more acceptable. In addition, sometimes efforts are needed to change attitudes toward the new innovations.

In the area of technology transfer, professional isolation and relevance are further barriers. To address these problems, developing countries need to identify areas of industrial and economic activity that are most appropriate to the country. Methods to overcome the problems presented by cultural resistance, isolation, and relevance were developed as a result of the seminar. The recommendations included the following:

1. The technology transfer process needs to be strengthened.
2. International training and education programs in science and technology need improvement.
3. Developing countries need to establish self-sustaining scientific and technical capabilities.
4. To assist in the process, developing countries need to build linkages with individuals and institutions in other countries.
5. Developing countries need to direct attention to the continuing personal and professional development of their human resources.

The concern reflected in this seminar regarding the needs of developing country professionals as key to the development process supports the investigation of continuing education in this research project. Specifically identified concerns such as linkages to developed country institutions and professional isolation were addressed through the research on the Philippines (Jenkins, 1983).

Harry G. Miller addresses the issue of a developing country's needs for adult education to foster development. He indicates that the disparity between the haves and the have nots is one of the common characteristics of developing countries, and that the haves generally are better endowed educationally, and therefore, socially and economically. He examines the relationship between education and poverty, including the effects of malnutrition at an early age, the lack of relevant curricula in rural areas, and the lack of administrative capacity to provide enough educational services as these contribute to the problem of poverty in developing countries. In developing countries, training

for adults is viewed by Miller as crucial, because trained human resources are inadequate to meet the national development needs (Miller, 1982).

Participant Training

The concept of participant training encompasses the entire process from training design and selection of participants through follow-up after the educational experience. Background on participant training is important in providing the context for the focus of this research, which is on the post-training professional integration phase of the process.

The Association of U.S. University Directors of International Agriculture Programs (AUSUDIAP), the professional organization to dedicated to strengthening international agriculture programs at U.S. universities, has had a long-standing concern about the education of sponsored international students in agriculture, or participant training. Participant training is the process used by developing countries to access U.S. educational resources for the development of indigenous human resources. As a part of this concern, a group of professionals who deal with international agricultural students were asked by AUSUDIAP to develop guidelines for the improvement of participant training. It was felt that the adoption of a uniform approach to participant training by sponsoring agencies and institutions of higher education would result in a more smoothly managed educational experience for the participant, and between sponsoring agencies and universities.

The publication first describes the various actors and their roles in the participant training process. The main actors are the host country, the host institution, the sponsor, the participant, the administering university, and the training university. To facilitate coordination, it is essential that all of the actors have a mutual understanding of the responsibilities each must fulfill in the six stages of the participant training process.

The six stages of the participant training process are described, and a checklist is provided of the objectives the actors need to attain in each stage. The participant training process can be divided into the following stages.

I - Training Design and Participant Selection

II - Program Selection

III - Admission and Placement

IV - Predeparture

V - Program Implementation

VI - Post-training Follow-Up

Stage I, Training Design and Participant Selection, is the stage when the training needs for a particular project are determined, and plans are developed to meet the needs. Criteria for selection of participants must be identified, after which participants are recruited and selected.

The objectives identified for Stage II, Program Selection, include developing position plans for the participant on return. This serves as a guideline for preparing training plans for the participants. Other routine tasks are also completed, including gathering needed documents and credentials and taking appropriate tests to qualify for entrance into the desired program.

During Stage III, Admission and Placement, application is made to appropriate contacts at universities. Upon acceptance, admission, registration, housing and other necessary arrangements must be made. Communication must be maintained between all actors in the process to insure proper and smooth execution of the tasks required at this stage.

In Stage IV, Pre-departure, much of the responsibility rests with the administering university, although all actors have roles to play. This university will handle many of the financial arrangements and transactions that need to take place during this stage. Other practically-oriented tasks are included in this stage such as obtaining visas, and passports, getting insurance, and complying with medical requirements. One very important objective is to provide participants with a pre-departure orientation about travel and funding arrangements, regulations affecting participants, project objectives and goals, and information about the universities involved in the training experience.

In Stage V, Program Implementation, responsibilities are shared between involved U.S. universities and the participant. Participants need to have an orientation to the universities involved in programming them, including meeting staff who will be working with the student. Efforts should be made to monitor the progress made by a participant in the program, to

report on progress to various concerns, and to identify special programming needs and opportunities.

Stage VI, Post-Training Follow-Up, is the one that has the most bearing on this research. These objectives for the most part are the responsibility of sponsoring agencies and U.S. universities. Participants should be provided with counseling about re-entry and a pre-departure orientation. A subscription to an appropriate professional journal should be arranged for the participant. Arrangements should also be made to facilitate the participants' return to the home country, including travel plans and re-entry counseling in-country. U.S. institutions involved in participant programming should conduct formal evaluations of each participant's program through survey questionnaires after they have been at home for one to two years (AUSUDIAP, 1986).

Under the auspices of the National Association for Foreign Student Affairs (NAFSA), Mashburn and Van de Water together edited a handbook for academic advisors in agriculture for graduate students from developing countries. It was intended to provide a tool to enhance the effectiveness of the advising process for these foreign students, and to facilitate uniformity of advising provided by universities programming the students. Some of the reasons that resulted in development of the handbook include survey data indicating that foreign students considered their academic advisors to be the key person influencing their education in the U.S., and data showing that foreign students majoring in agriculture placed greater importance on the relevancy of the educational experience than did students in other disciplines.

Planning and selection are key to the development of a comprehensive program for participants. During this stage, academic departments negotiate with sponsoring agencies on policies and procedures, as well as the feasibility of providing for special considerations. At this time, sponsors select candidates based on individual qualifications and on development objectives.

During the pre-admission stage of the training experience, students and sponsoring organizations examine program requirements, and establish a working relationship with appropriate personnel from the university. This is followed by admission, in which efforts are made to tailor a program to meet the student's particular needs, coupled with an evaluation of the student's

preparation for the degree program, including English ability, academic background, and psychological readiness to begin a degree program.

Prior to arrival on campus, it is important to establish communication between all parties involved. Foreign students need timely notification of admission in order to make the necessary arrangements. Other important information needed by the student includes advice on the timing of arrival, housing information, financial information, and the names of contacts at the university.

On arrival, an orientation to the organization of the U.S. university is helpful to the new foreign student. This should also include an orientation to the campus and the community. Another important first step is the selection of an advisor who can be of real assistance to the student. Soon after arrival, the advisor and student should meet and discuss the goals and objectives for the degree program.

The longest stage of the training experience is the term of study in the U.S. During this stage, communication between the student, the foreign student office, the advisor and the sponsor is essential. This communication should facilitate a review of progress, the identification of possible problems, and the identification of opportunities to participate in professional meetings or field experiences. Where possible, students should be encouraged to establish relationships with faculty and other students, and with former students from the home country. These efforts will help to maximize the benefit the student receives from the educational experience.

Certain cultural differences should be considered by academic advisors to international students. Some students may need encouragement to approach advisors and professors, as they may be unaccustomed to this type of relationship at home. Students may also be used to bargaining for grades which may need to be addressed before the student encounters problems. The pattern of learning may also need modification, as many students are used to rote learning and emphasis on theory rather than problem solving. In addition, some students may have specialized prematurely, and therefore resist efforts to broaden their backgrounds.

As research data have shown that practical training experiences were among the least satisfied of their needs, advisors should make efforts to

identify appropriate opportunities for their international students. Although often considered a luxury, practical experience should become an integral part of the educational experience.

The topic chosen for the major research project of an international student should reflect the needs and situations in the home country, where possible. Advisors should be alert to research opportunities through the network of agricultural research centers throughout the world.

Academic advisors should also be involved as the student prepares to return to the home country. The department must be involved in insuring that the degree requirements have been completed, and that departure arrangements have been made.

The attention to re-entry in this handbook is particularly relevant to this research project. Factors identified as helpful in facilitating the experience of transition from student to professional include complementary educational experiences, assistance in the job search, and continuance of contact after the participants have returned. Issues of concern relative to re-entry include conscious planning for return, maintaining contact with U.S. institutions, establishing relationships with professionals at home, accessing opportunities for professional development, and contributing to home country development.

Academic advisors are encouraged to take certain steps to assist the student in the re-entry process. The handbook recommends that advisors encourage students to begin the job search long before returning because it is often a lengthy process. Beginning early would also facilitate appropriate intervention by professors at the university with contacts in the home country.

As professional contact in a developing country may be limited, the academic advisor may be a very important link to the professional agricultural community. Sponsoring agencies and universities may be able to assist in maintaining contact. Advisors should take advantage of any opportunity to visit former students, as well.

Providing follow-up, evaluation and continuing education can present difficulty for academic advisors. At this time, gaps in the education received should be identified and remedied, and updated information provided to the returned student. This should help facilitate the effective participation by the

returned student in home country development (Mashburn and Van de Water, 1984).

<div align="center">Professional Integration</div>

Because the focus of this study is the professional integration process, this part of participant training deserves special attention. This section covers in detail the needs and concerns that are specific to the process of professional integration. Handbook and reports developed by professionals in the field of participant education are covered, as well as the results of a number of selected follow-up studies on the professional integration process. This information was useful in identifying areas of priority need to investigate for this study, and in framing the questions to elicit relevant information from the subjects.

In a study designed to help improve the relevancy of academic programs for USAID participants, Lee et al. surveyed returned foreign students to determine the met and unmet needs relative to their educational experiences. Around 1900 students from 102 different countries responded to the survey questionnaire, representing the nearly 134,000 foreign students at U.S colleges and universities whose foreign student enrollment was 300 or more.

The areas investigated through the questionnaire included needs for general information about the university and its procedures, and also about the necessities of living in the U.S. Needs for certain changes in the academic degree program, such as increased access to advisors and professors, increased flexibility in the requirements to allow credit for experience, and needs related to increasing the relevancy of the educational experience so that the knowledge gained would include international applications and be at an appropriate level for developing countries were also covered. The survey asked about student needs for extracurricular professional activities, such as work experience, as well as questions about needs in the area of money and jobs. Also covered were student needs during the process of being a student in the U.S., about community life in the U.S., and needs for improvements in housing and family situations in the U.S., as well as student interpersonal relationships in the U.S. In the final category anticipated needs related to the conditions when returning home were investigated.

Across all of the categories of need, the students indicated that satisfaction was not as high as they had expected, although most were somewhat satisfied rather than unsatisfied. The respondents felt the least amount of satisfaction regarding needs for practical experience, and anticipated post return needs for salaries, suitable professional opportunities, and facilities. They also expressed lack of satisfaction of needs related to financial support and availability of information to help in the return process. The students indicated high levels of satisfaction in terms of information needs, and also with the probability that they would attain the desired degree.

The data indicated that student satisfaction on specific categories varied with demographic characteristics such as region of origin, major field, type of sponsorship, level of degree pursued, and anticipated job prospects on return. In general, the level of student satisfaction was related to region of origin, command of English, and whether a job was waiting at home.

The results indicated that students perceived unmet needs for practical experience while in the U.S., and anticipated needs for appropriate professional opportunities with commensurate salaries and rewards in the home country on return. However, they also felt that their needs for information were being met relatively well. This could be expected, as the informational needs are among the easiest for a university to address, and those involving practical experiences and professional opportunities at home can be quite difficult.

Recommendations resulting from the research conducted by Lee et al. include the incorporation of internship or practical training experiences into the program of study. Regarding the anticipated needs for appropriate employment opportunities and commensurate rewards on return, it was recommended that sponsoring agencies view the training process as continuing after the student returns home. This would involve universities maintaining professional contact with students, strengthening overseas alumni programs, and providing training to help students prepare for the re-entry process (Lee, 1981).

Using the same data collected through in the survey of around 1900 returned international students described above, Lee and Ray compared students from Iran, Nigeria, Taiwan and Venezuela in terms of the probability

that they would remain in the U.S. after completing their degrees. Their results showed that country of origin had an influence on whether or not they would stay in the U.S. In addition, the home country also affected their reasons for staying.

The reasons students gave for considering remaining in the U.S. included the political situation at home, the ability to find a suitable job at home, an attractive job offer in the U.S., marriage to a U.S. citizen, and the advice of family.

The students were also queried about their anticipated needs on returning home. The needs enumerated included assistance in finding an appropriate job, needs for adequate salary, finding appropriate housing, ability to obtain research funding, access to facilities to implement U.S. training, and access to resources to implement U.S. training.

Generally, country of origin accounted for the majority of the variation in the responses of the students. Iranian students ranked their reasons for remaining in the U.S. as political conflict at home, family member's advice, and marriage to a U.S. citizen. Among Nigerian students the ranking was a job offer in the U.S., marriage to a U.S. citizen, and political conflict at home. Taiwanese students gave family member's advice and a good job offer in the U.S. as reasons for staying in the U.S. Venezuelan students ranked a good job in the U.S. as number one, followed by not being able to find an appropriate job at home, and marriage to a U.S. citizen.

This article is relevant to the study because it addresses students' concerns relative to going back to the home country. Of obvious importance from the results is the area of concern about having a rewarding and appropriate job. In addition, the article also addresses the incidence of marriage to U.S. citizens by international students. This factor ranked highly in the reasons given for not returning to the home country. This factor appeared to be significant among the population of Filipino students originally identified for the study (Lee and Ray, 1987).

Elizabeth M. P. Gama and Paul Pedersen studied a group of 31 returned Brazilian Latin American Scholarship Program of American Universities (LASPAU) scholars to assess the family and professional problems they encountered on return home. From data collected through interviews, the

authors concluded that the returnees did not have many family related
problems, with the exception of a minor amount of value conflict and lack of
privacy. Most of the problems reported were professional in nature.

In the area of family life, females were found to be significantly more
likely to have experienced problems. They reported more difficulties in coping
with family expectations, in value conflicts, and in the area of family
supervision. Similar to the findings for men, women also reported problems
associated with value conflict and lack of privacy.

Men and women alike reported problems with various aspects of their
professional lives. These subjects indicated that they had problems in
adjustment to the limitations of the working environment in the home country
universities, in adjustment to the system, and in adjustment to their role
expectations as professors. A number of the subjects gave lack of facilities and
materials, lack of intellectual stimulation, lack of research opportunities and
lack of time to conduct research as problematic. In addition, there were
complaints about administrative red tape and professional jealousy on the part
of educational institutions.

As a result of these types of concerns reflected in earlier studies, in this
study of returned Filipinos, a number of similar concerns were investigated.
Because the Philippine study concentrated on professional life, the family
related concerns were not as critical, although the responses of the Brazilian
women on family life provided useful insights.

In the area of professional life, the returned Filipino students were also
queried regarding their adjustment to professional roles, the home country
working environment, access to resources and opportunities, and access to
other professionals. The prevalence of these types of concerns appears to
indicate a significant level of need on the part of international students in these
areas (Gama and Pedersen, 1977).

A study of the professional integration needs experienced by a group of
30 female foreign students was conducted by Pamela Stevens. The women
subjects, who originated from Sri Lanka, Kenya, Thailand, Nigeria, India,
Chile, South Korea and Lebanon, responded to a 40 item questionnaire. The
questionnaire covered the field of study in the U.S., academic funding, present
employment, utilization of U.S. training, perceived contribution to home

country development, and maintenance of communications with former U.S. teachers and other professional acquaintances in the U.S. The survey yielded 14 questionnaires for analysis.

The responses indicated that 11 of the 13 professionally occupied subjects had experienced discrimination in some form by their male colleagues. The women also reported problems related to lack of equipment and facilities, professional isolation, problems in making adjustments of theoretical knowledge into practical application, and difficulties in changing from an individual orientation in the U.S. to a family orientation.

The overwhelming responses reported in Steven's study indicated that the statistical results from the Filipino respondents should be examined very critically, particularly in the light of the comments alluding to discrimination. Many of the other concerns raised by the women in Steven's study have been raised by men and women alike in other studies including this one (Stevens, 1980).

Behrooz Saghafi conducted a study of the job satisfaction expected by 400 foreign graduate students attending a large northeastern university. His research examined the effects of personal variables, including sex, age, level of education, field of study, desire to return home, location of undergraduate degree, parent's socio-economic status, length of stay in the U.S., and previous work experiences. In addition, he analyzed the effects of region of origin, political stability, wealth and size of the country. An original questionnaire based on Maslow's Theory of Hierarchy of Needs was used to collect the data.

He found that the students generally had high expectations for job satisfaction on return to their home countries. The most significant factors that appeared to influence student perceptions about expected job satisfaction were region or location as well as political stability of the home country, and the student's desire to return home.

The questionnaire Saghafi used served as background for the preparation of the questionnaire and interview schedule used with the Filipino students. Particularly in the areas of attitudes about current employment and job satisfaction, some of the questions posed by Saghafi provided insights into ways to elicit certain types of information regarding perceptions of job prestige, job security, and feelings of self fulfillment through the job (Saghafi, 1982).

In a follow-up study conducted by Cunningham and Burge, international home economics graduates of land-grant institutions who had returned home (14 subjects), and who had remained in the U.S. (20 subjects) were surveyed to assess their perceptions about their educations. The survey respondents were asked to rate their U.S. education, to make suggestions for improvements, and to indicate how they were using their educations in their home countries.

The majority of the 34 subjects were female, with only 2 males represented among them. They were from 17 different countries. The largest proportion of them had received M.S. degrees (15 subjects), followed by B.S. graduates (10 subjects) and doctoral students (9 subjects). Most of the subjects were married, with only 8 subjects indicating that they remained single.

The results of the study showed that the students who had returned to their home countries rated their educations higher than those that remained in the U.S. Generally the subjects indicated that they were most satisfied with the textbooks and educational materials associated with their degree programs, and least satisfied with academic advisement.

When asked to make suggestions for improvements, subjects who had returned home gave fewer recommendations. The recommendations they did make included making courses more relevant to developing country situations, providing better academic advising with greater attention to student and home country needs, and having more professors who are knowledgeable and interested in developing countries.

Domestic respondents most frequently recommended providing assistance to developing country students to tailor their academic programs to the needs of their countries. These students indicated needs for personal counseling to help adapt to the new culture while a student in the U.S., as well. Like the subjects who had returned home, the domestic respondents also recommended better academic advising to address both student and home country needs. In addition, they indicated needs for professors who were more knowledgeable about developing countries.

When asked about the use of the U.S. education, subjects who had returned home indicated that they were strongly encouraged to use what they had learned in their professional careers. Graduates felt that their U.S.

education increased the respect given them by their colleagues. All of the returned respondents in Cunningham and Burge's study indicated the ability to use at least part of their education. Background information, basic principles, conceptual and theoretical content, and research skills gained through the U.S. education were most effectively applied to home country situations. Class textbooks were viewed as important references. However, the subjects did express the need to adapt much of what was learned to the local situation.

Given the generally positive nature of the responses by both groups of subjects, the researchers concluded that U.S. educations are relevant to the careers available in developing countries. The recommendations made by the subjects were viewed as having potential for impacting changes at U.S. universities to enhance the experiences of international students. The researchers suggest that colleges improve faculty capacity to work with international students by identifying professors with developing country interests and knowledge, and by fostering communication and education to enhance faculty expertise. It was recommended that counseling personnel also receive training to improve their abilities to work with international students.

Many of these changes can be shown to be beneficial for U.S. students, as well. These trained faculty and counselors are better prepared to advise students about careers in development. The improvements in advising could be characterized as beneficial to any student, regardless of country of origin. In addition, this type of association would help in establishing networks among faculty members on international issues (Cunningham and Burge, 1984).

From a number of handbooks and articles primarily aimed at the participant training field, many of the question areas for the study in Philippines were developed. These publications address different concerns relative to professional integration such as professional isolation, continuing education, gender differences, access to resources and facilities, and contact with the graduating university. The following discussion covers these handbooks and articles prepared by professionals in participant training to help other professionals in the field.

Kenneth Rogers discusses the under-utilized potential that results from the lack of efforts to facilitate on-going communication between foreign graduates of U.S. universities and their former professors. Little has been done by either universities or the increasing groups of alumni in foreign countries to foster a network to help address professional needs of both the U.S. and the foreign professionals. These networks can be very helpful in providing advice to students while they are in the U.S. studying, and when they return to the home country.

Rogers' review of the research on this topic lead him to conclude that institutions of higher education that were the most successful at developing alumni networks were those that included anyone who had a connection with the university, not only former students and their professors. Because of the unique problems encountered by foreign students, and to help establish a firm basis for a continuing collegial relationship, academic advisors and/or foreign student advisors and students need to have a good working relationship. Rogers encourages students to maintain contact with people at home to have a feel for the situation there, and to be able to made mid-course corrections should news from home make it necessary. As much as possible, foreign students should begin their participation in professional associations while in school to make acquaintances in the field which may be helpful later.

One difficulty students may encounter in trying to locate alumni from their institutions, is that many universities do not keep current addresses for their alumni. If alumni can be located, however, students should not hesitate to correspond with them before coming home in an attempt to begin the establishment of important professional relationships. It would also be helpful if certain alumni would volunteer to serve in a similar advisory role for future returning students. Another important advisory role that alumni can play is to contact students before they leave home to help prepare them for the educational experience they are about to commence. Students should leave a permanent address with the university alumni office before departing from the university to facilitate any post graduate contact.

Fellow alumni can be particularly useful as the student makes the re-entry adjustment to the professional working environment at home from the life of a student in the U.S. They can provide encouragement and support, as

well as help the new professional become integrated into the appropriate professional networks. As alumni in a country organize, they can assist each other in meeting continuing education needs. With external support from the graduating university, one institution has implemented an alumni outreach program to facilitate leadership development among foreign alumni, improve communication between the university and foreign constituents, and encourage faculty and student involvement in collaborative projects.

Rogers identified many possibilities for improving the professional integration process of foreign students, but concludes that they will require commitment by the institutions and financing by all parties involved. However, because of the many priorities of universities, the initiative to establish an alumni network must come from the alumni themselves. In addition, the concerns raised by Rogers helped to formulate the areas that were probed through the questionnaires and interview schedules. Many of the recommendations made by Rogers were also made by some of the Filipino subjects (Rogers, 1983).

Moravcsik addresses issues related to professional communication networks in developing countries. He observes that productivity in certain scientific and scholarly professions depends on communication with other colleagues. This type of communication is often particularly difficult to achieve in developing countries. Based on this premise, he further describes professional isolation and its effects, and makes recommendations to help overcome this isolation. He also describes linkages and communication mechanisms for interaction among scholars.

He first examines the objectives of communication among professional colleagues. Communication serves the purposes of transmittal of information, stimulation by new ideas, opportunities for critique, facilitation of research collaboration, provides for recognition, and facilitation of cooperation. These functions are vital, particularly to an emerging professional.

Communication linkages for scholars in developing countries differ, depending on whether they are domestic or international. With the majority of new research originating in the developed nations, international linkages tend to be with other scientific colleagues, while domestic linkages would include scientific colleagues as well as users of the research, policy makers, research

managers, and the general constituent population. However, it has been observed in many developing countries that the number of opportunities for contact and communication with scientific colleagues in-country has been inadequate. Communication linkages to facilitate the transfer of research results into practice are also not effective in many developing countries.

Moravcsik recommends needed steps to help address the communication problems encountered by the developing country researcher. During the time that students are in the U.S studying, they need to be aware that these problems will occur when they return, and begin to prepare for them. Developing personal relationships with other students from the home country who will eventually be professional colleagues, as well as forming relationships with U.S. professionals can be an important first step. Faculty and advisors can play a role by helping students realize the importance of this type of involvement, and also by helping them identify appropriate groups with which to affiliate. On returning home, the task of establishing professional relationships when combined with all of the other expectations can be overwhelming. Moravcsik recommends selecting one or two areas of communication and directing attention toward improvement over time. Without access to opportunities for professional interaction, developing country scientists will have difficulties advancing the scientific progress of the country The problems associated with professional isolation were investigated in this study, through inquiries about the subjects opportunities for interaction with fellow professional colleagues and alumni (Moravcsik, 1983).

Pigozzi et al. examines the unique aspects of the professional integration of women from developing countries. Aspects of the professional environment that have particular significance for women were discussed, including marginality, tokenism and individual advancement, as well as other factors significant to women preparing to be professionals while they are in the U.S. The discussion also previews possible future trends, and recognizes progress already made in this area.

In discussing the professional environment, the authors identified a number of component factors, and related them to particular issues of significance to women. Environmental factors that appear to affect the professional integration of women include formal and informal professional

networks, personal networks, family related responsibilities and expectations, as well as factors within the place of employment.

Professional networks are webs of colleagues and institutions in which the communication linkages are based on common work related interests and concerns such as sharing ideas and findings. They provide mutual help and support in professional endeavors. An established professional network can be very helpful in combating the sense of isolation that many professionals experience when they return home to a developing country. This situation has particular significance for the situation of returning female professionals, who may not find many other women in the existing professional networks appropriate to the chosen field. If the obstacles to effective participation in professional networks can be overcome, women professionals may find that professional networks can serve as a way of enhancing credibility and facilitating career development.

Finding other women professionals with similar work related concerns and interests may prove nearly impossible in some developing country situations. For this reason, women may need to rely on personal networks in which the linkages are based on other factors such as shared values and goals. This type of group can be particularly helpful in reducing feelings of isolation that many developing country female professionals experience. Members of this type of group may find support in the area of career development, as they face similar obstacles in the professional environment. Assistance in the field of expertise may also be provided by this type of group through empathetic support and objective input on problems encountered within the discipline.

Many female professionals returning to their home countries after obtaining a degree abroad have experienced difficulties in balancing role expectations between the various familial and personal responsibilities and the career. While these are never easy things to balance, the authors recommend that women begin to think about their responses to these pressures before they return to their home country.

The environment within the organization where a woman works can affect her in her professional integration. Like many men from developing countries, women are often trained in scientific disciplines and expected to perform in managerial roles when they return home. Unlike men, however,

often women's socialization does not provide opportunities to prepare for managerial responsibilities. Understanding these expectations can help women in setting priorities and determining realistic goals.

Patterns of communication within an organization, particularly the informal communication linkages, often exclude women. This is especially true when there are few women in the organization, a situation women from developing countries encounter frequently because educated women in professional roles are in the minority.

Issues discussed in detail by Pigozzi et al. that have significance for women are marginality, tokenism, and individual advancement. Marginality as used here refers to individual feelings related to perceptions of being excluded. Tokenism assigns a representative function to an individual who is a member of a group that differs from the dominant group. Tokens are obvious. Differences between them and the dominant group are often exaggerated, and they are stereotyped. Women in the situation of being a token are encouraged to assess the existing stereotypes, with particular attention toward those that are work-related, and develop strategies for addressing the problems posed by the stereotypes. Marginality, which causes perceptions of a lack of sense of belonging to any group, can cause internal and external conflicts that can have an adverse impact on women in the professional integration process.

From a personal review of strengths and weaknesses and long range goals coupled with an inventory of resources available, women professionals must choose appropriate opportunities for professional advancement. Professional advancement is one area where certain characteristics of marginality can be utilized to advantage, such as the right to be different than the normal rank and file, the responsibilities related to others of the marginal group represented by the individual, and the power associated with being singularly different, and therefore a potential leader.

The time spent studying at a U.S. university in preparation for a career can present particular difficulties for women. Balancing family and school responsibilities can be stressful, as often women bring a wide variety of role expectations from their own cultures related to child care, practical aspects of furnishing a home, and other household responsibilities. However, in the

U.S. they are without the family support system that previously provided back-up assistance in meeting these types of responsibilities. Assistance in these areas is often available through the university international office, or may be found through interaction with other students who have had similar experiences and can provide useful advice. Resolution of family role conflicts can be helpful in allowing the women to fully concentrate on their studies.

Women students from developing countries need to make efforts to maximize the preparation they receive from the educational experience. They need to seek advisors who understand developing country situations, and communicate with the advisors about the variety of roles they will be expected to play on return home. This depends on an understanding of appropriate communication behavior between students and their advisors and professors.

While studying in the U.S., women students from developing countries must keep in mind how they can apply at home what they have learned in their training program. They should take advantage of opportunities to use developing country examples for course requirements, and to conduct research in developing country contexts, especially their own home countries. Doing research at home may facilitate involvement with practicing professionals there, thus paving the way for integration into appropriate professional networks.

In an attempt to obtain as much professional preparation as possible from the years spent studying in the U.S., women should access experiences available through involvement with the community at large. The community may provide opportunities to enhance certain skills in the areas of organization, leadership and public speaking. Through involvement with the greater community, women may find opportunities for practical, work-related experiences that may not be available through the university.

Women from developing countries who return home professionally involved, broadly educated and experienced, and in general well prepared for the situations awaiting them are helping themselves, other women in the country and the country itself. They will enhance the experience of professional integration and advancement for themselves, serve as role models and mentors for those women who follow after, and contribute to the country's development through their own efforts and those of the women they have

influenced. In addressing the specific professional needs of women, this article was particularly relevant as background for this research (Pigozzi et al., 1983).

Stephen C. Dunnett's paper addresses issues related to the continuing education of professionals who have returned to their home countries. He observes that national development goals have led to increased needs for trained human resources. Recent increases in opportunities for education at home, coupled with returning professionals educated abroad have resulted in rapid growth in the numbers of educated professionals in all fields located in developing countries. Given the shelf life of most learned information, continuing education is needed to help these professionals keep current in their fields. Developing countries need to have highly skilled professionals with knowledge that is on the cutting edge in many fields to address the multitude of problems they face. Because many developing country technical and scientific professionals serve in administrative and management roles for which they were not prepared through their education, there is a need for training in areas such as management and leadership.

Prevalent models of continuing education in developing countries are described by Dunnett. For professionals in the public sector, the government usually sponsors training. In some countries planning for continuing education and planning for development are coordinated, although this is lacking in many countries resulting in more fragmented education which meets only short term needs.

The format of educational programs offered in developing countries varies, as it does in the U.S. Part time programs seem to be more effective in developing countries, as it can be done for a lower cost, and participants can still maintain full time work responsibilities.

Training is often provided by newly returned graduates since they have had the most recent exposure to developed country based knowledge. This type of experience can also be useful to the newly returned professional, by providing an opportunity to become acquainted with other professionals in the field.

Dunnett provides practical suggestions for professionals returning to developing countries. Before returning home, students are encouraged to join

appropriate professional societies and develop a network of contacts in the chosen field. They should start a reference library in the field, and arrange to subscribe to appropriate professional journals. Students should identify and contact institutions in both the home country and the U.S. which could provide opportunities for continuing education and exchange experiences to help them keep current when they return home.

Once they have returned, professionals should investigate various sources within the country about continuing education opportunities offered. They should form relationships with foreign professionals in their fields who are located in their country. Efforts should be made to participate in the organization of professional meetings and other gatherings within the home country. They should seek opportunities to return to the U.S. on a regular basis to attend professional meetings. Returned students should try to keep current in the literature in their field, and they should try to keep current with the contacts that they established while attending school in the U.S. (Dunnett, 1983).

Francis Musa Boakari, a student from Sierra Leone studying in the U.S., discusses the problems he encountered during the re-entry process, as experienced by him during a two month vacation to his home country.

He first addresses psychological issues related to re-entry. He describes an identity problem that he experienced. Although he was among his own people, he felt estranged and distanced from them. He felt that both he and they were trying to ensure that he was still one of them. The expectations placed upon him by the members of his small village community were very difficult to meet. At times because of his education, he was expected to serve in a leadership role, yet they still expected some of the courtesies usually exhibited by juveniles.

Certain cultural adjustments that he had made to accommodate the life of a student in the U.S. were not appropriate at home. Living as a "hurrying man" with concerns about time spent and productivity was not harmonious with the system at home in which people do things in a more leisurely manner. While living in the U.S., he had gotten used to looking after himself first. In Sierra Leone, he had to re-accustom himself to thinking about himself as a small part of a larger family that must be considered in every

action. Boakari had trouble with the approaches used to get things done. He had become used to a functional orientation, and had to change to one that was more ritualized and which proceeded with a sense of decorum. His impatience with this less direct approach led his father to comment, " The hurrying man constantly misses the door to his home."

Even language had become a problem. He thought in English now, making it difficult to revert to the mother tongue of Mende. After a few weeks, when fluency had returned, he still was not able to make his speech indistinguishable from other native speakers.

While in the country, he began to critically examine barriers to progress. A cultural sense of fatalism, coupled with a government stricken with terminal inertia, had reduced many of the citizens to complaining without any action. He began to wonder if the same fate would befall returned students, whose idealistic aspirations could be deflated just as those of the previous governments.

He also spoke with several other students who had returned to Sierra Leone after studying abroad, two of whom were females. Although all agreed that their educations were useful at home, they felt that many adaptations were required. In addition, they indicated that they felt their degrees were too specialized for the career opportunities available at home. The returnees were relatively well compensated for their work, but because of family obligations for assistance, they did not benefit personally.

One woman university lecturer in particular, was having trouble establishing credibility with her male colleagues, and the female colleagues felt she was trying to out-do them. The other female, a nurse, did not have as many problems in her career. Both of these women were single, and because they were viewed as "over-educated", their prospects for matrimony were slight. In addition, their parents still exercised authority over them in terms of their relationships with men and their freedom to come and go at will.

As a result of this experience, Boakari recommends visiting home as often as possible while a student to evaluate the distance growing between the student and his or her people, as well as to better refine educational goals and objectives. He also felt it was useful to stay in contact with foreign students who have already returned home. They can be helpful in recommending

practical steps and attitudes that facilitate the re-entry process. A practical training period at the end of the educational experience is also recommended. The recommendations made can be important in helping a student make a smooth transition to the life of a professional at home (Boakari, 1986).

In another article, Boakari specifically examines the relevance of the U.S. education for students from developing countries, providing commentary on advantages and disadvantages of the education received, based on his own experience. It is culturally enriching for the scholar, and also provides opportunities for foreign nationals to appreciate the way of life in the U.S.

To make progress, developing countries need expertise in certain areas such as research and technology, policy formulation, and development training. Boakari and others believe that this expertise can be most effectively provided by trained nationals of the country.

Problems in response to the reentry process were encountered including personal, social, communication, political, educational and professional areas. Personal problems include suffering culture shock in terms of personal identity and in re-adjustment to home lifestyles and values. Some of the adjustments necessary in the social context are changing from an individual to a family orientation, alienation, feeling superior, and resentment because of the lack of good quality services such as telephone. Problems related to language include use of verbal and non-verbal communications that are not understood at home, lack of practice communicating normally in the native language, and lack of colleagues with whom to communicate. Returnees may encounter political problems such as dissatisfaction with the way the government is functioning, and changes in national priorities and policies. Problems related to the education obtained in the U.S. that face many returning international students are the need for adapting expertise gained to the local situation, lack of facilities and resources to do research, inappropriate expectations by colleagues, and lack of continuing education opportunities. The problems viewed as most crucial in the professional field are lack of appropriate job opportunities, inability to communicate the knowledge gained abroad, resistance to change and jealousy by co-workers, lack of recognition of the qualifications held, and professional isolation.

As with many other aspects of development, the above mentioned problems can be more severe for returning women. Well qualified women are generally considered odd, and even threatening by others.

Boakari offers some suggestions to ameliorate some of the problems enumerated. Universities should try to increase awareness about the problems of developing countries through their offerings, and should allow students to do projects of relevance to developing countries, including graduate research in their home countries. Universities should continue and enhance their support services for international students, and should include services such as reentry workshops to help the student prepare for returning home. International student associations on campus also need strengthening. Universities should make efforts to maintain contact with their international graduates abroad, and perhaps through them, attempt to recruit qualified personnel from developing countries to work in support services for the students. More foreign students and professionals educated abroad should be involved in the planning and implementation of the programs of international development assistance agencies. Finally, much of the responsibility rests with the foreign students themselves to maximize the educational experience and the preparation for returning home. They should also try to return home at least one time during their period of study (Boakari, 1986).

Goetzl and Stritter together authored a NAFSA publication on foreign student alumni of U.S. institutions. When a student enrolls, the university assumes responsibility for providing a range of services including maintaining contact after graduation. Foreign alumni become an extension of the university abroad, often serving as both unofficial and official representatives of that institution. Given this situation, a study group organized by NAFSA agreed that universities should be encouraged to promote continued relationships with international graduates, and that the development of a program model to assist campuses would enhance university efforts in this area. The purpose of the project was to assess the amount of involvement that U.S. institutions have with their foreign alumni, review available literature on the subject, and develop a model for use by institutions in establishing a program for their foreign alumni.

To provide an empirical basis for the program model, information was compiled from 70 institutions responding to a questionnaire mailed in August, 1977. The survey results indicated that contacts with foreign alumni were largely limited to campus alumni offices, although there were occasional contacts by academic departments.

Response to the survey indicated that record keeping on addresses of foreign alumni was very sporadic. However, over half of the institutions provide assistance in the formation of alumni clubs abroad and send alumni publications overseas. Foreign alumni seldom are asked to assist in the process of orientation, selection or job placement for other international students. Few institutions provide any assistance in overseas job placement or make efforts to facilitate the return of alumni to campus for continuing education.

These findings served as the basis for the development of a plan to initiate an alumni program. One step that must be taken before initiating a program is to develop a rationale for undertaking such an effort that serves university interests as well as those of the foreign alumni. The five stages of development that have been identified are identification and record keeping, communication, activities and services, program evaluation, and program modification.

To implement these five stages, various actors within the the U.S. institution and overseas will have to contribute to the effort. The list of parties involved include the foreign student office, the alumni office, the registrar, admissions, faculty/academic departments, alumni clubs abroad, foreign students, sponsoring organizations, host families, the U.S. government, foreign governments, and professional associations.

This type of program should be beneficial to both the alumni and the U.S. institutions. Overseas alumni can maintain outreach functions of the university in their home countries, such as recruitment, selection, job placement of graduates, and facilitation of international opportunities for university faculty and staff. The alumni can benefit by having some of their follow-up needs addressed. It is felt that such follow-up has potential for enhancing the functioning of the alumni in professional capacities at home (Goetzl and Stritter, 1980).

NAFSA in cooperation with USAID offered a series of seminars on foreign student issues. One, held in April, 1985 on "Strategies for Professional Integration: Strengthening Private Sector Interaction," brought together professionals in the area of participant programming with representatives of the U.S. private sector. With recent emphasis by the USAID Bureau for Private Enterprise on assistance to the private sector in developing countries, participant training programs have been designed that tap U.S. business expertise and experience. Hugh M. Jenkins prepared the report summarizing the seminar discussions.

Practical training is important in the transfer and application of skills and technology. In a study of foreign student needs conducted by Lee et. al., the students indicated interest but lack of opportunities for participation in practical training.

Seven different programs to help international students gain practical experience were presented to the seminar participants. From these programs, five different approaches to the process of facilitating foreign student interaction with the U.S. private sector were discussed. The approaches addressed were practical training, internships, scholarships, cultural information-sharing, and cooperative education. As a result of the discussion, the following key elements were identified as making a difference in the interaction process:

- Assembling all relevant information to match private sector and foreign student needs.
- Mobilizing resources through contacts.
- Defining benefits and marketing the programs to the U.S. private sector.
- Tailoring programs to individual needs.
- Planning in advance to have all arrangements made prior to the time the student is ready for the practical experience.
- Providing adequate staff to facilitate the effort.
- Supporting the effort with institutional commitment and adequate finances.
- Recognizing and accepting practical experiences as valuable in the educational process.

- Publicizing the program effectively in order to garner
increased support for the program.
- Assessing the program for possible expansion.
- Maintaining contacts at national and international levels
to stay abreast of developments and opportunities.

Although no formal recommendations resulted from the seminar, the guidelines for facilitating effective interactions between foreign students and the U.S. private sector provide advice on the implementation of this type of practical training based on the experience of those who have been responsible for the programs in the past (Jenkins, 1985).

From the information gathered by Lee et al. on the needs of foreign students it became apparent that one of their least satisfied needs was for practical training experiences in the U.S. Under the auspices of NAFSA, the University of Nebraska-Lincoln undertook a project to identify guidelines for the implementation of practical training programs for international students. For the purposes of the study, the three modes of practical training identified were supervised observation, internship, and salaried employment. To provide more specific information, survey questionnaires were sent to selected faculty advisors, academic deans, administrators of international programs, foreign student advisors and foreign students in practical training programs, and sponsored foreign students. From this survey data, a series of principles and role responsibilities were identified that would facilitate the practical training process. The major relevance of this project to my study is the emphasis it places on the need for practical experiences to enhance the preparation of international students for professional responsibilities at home (NAFSA, 1982).

In April, 1986, the International Science and Education Council's International Training Committee collaborated with the Board for Food and Agricultural Development (BIFAD) to present the "ISEC/BIFAD Working Seminar on International Education and Training: A Focus on Relevancy and Support Services." This seminar brought practicing professionals in the field of participant training to present papers, followed by small group discussion to identify possible remedies to problems identified.

One paper presented that has particular relevance for this study is Janet K. Poley's discussion of networking for professional integration, based on six years of experience working with the Tanzania Training for Rural Development Project. The project was financed by USAID for about $11.5 million, and was intended to improve agricultural production and the quality of life through the development of a model rural development training system and improvement of managerial performance at local and national levels. Training provided through the project included the following.

- Degree training for 70 participants
- U.S. technical and managerial short courses for 40 people
- U.S. conducted Training of Trainers short courses for 90 participants
- U.S. and incountry training on audio-visual and microcomputer use
- Village level training for more than 100 villages and more than 5000 village leaders and farmers; and
- On the job training and consultation with managers at all levels

In response to a number of concerns about professional isolation and difficulties of professionals in developing countries in creating conditions that allow them to operate as a professional, attempts were made through this project to foster communication networks to combat these problems. The process began while the participants were in the U.S. obtaining their educations, and was continued after returning to Tanzania.

The concept of networking is first defined as developing a communication system. This system of communication linkages among colleagues can become a powerful force in professional development. One of the Tanzanian professionals noted that it frequently is technical know-who rather than technical know-how that is important in trying to get things done. Through the project, attempts were made to take advantage of the leadership capacities and communication networks already in existence as a way of fostering project goals. In addition, through the structure of the training experiences provided to the 70 participants, the project attempted to develop communication networks and enhance leadership capacities of the group.

The 70 participants were programmed at U.S. universities, primarily in agricultural fields. While in the U.S., all of the participants were gathered during Christmas break for seminars. At least one of the Tanzanian project

employees also attended to update the group on progress and developments with the project.

Through this mechanism, the participants got well acquainted while they were still in school, with the hope that these connections would continue after they returned to Tanzania. Participants studying for degrees were also encouraged to take short courses in management or training methodologies, similar to those offered to colleagues back home. This helped the entire group in providing a common vocabulary and set of concepts.

Although not as fully utilized as the project planners hoped, an in-country research component was available as part of the training experience. Participants were encouraged to conduct their research in Tanzania, and funds were provided for travel by the participant and the academic advisor.

As a result of the efforts to foster networks and build on indigenou' communication linkages, a large number of Tanzanians and many of their contacts and linkages were involved in helping the project progress. In addition to the institutionalization of the project, these connections provided greater influence over personnel placements, joint planning across sectors and organizations, sharing of resources such as computers, journals, and other training materials, re-design of curricula and short courses to better meet participant needs, and improved competency of international consultants on the project (Poley,1986).

The various studies and handbooks provide support for the direction of the research conducted in the Philippines. They served to indicate the potential problem areas and concerns that should be investigated. This information provided the basis for determining what to ask the subjects relative to their experiences during the process of professional integration.

The Republic of the Philippines

Because the setting for this research is the Republic of the Philippines, background information on the country is essential to understanding the context of the results. This discussion includes a brief summary of current issues and problems facing the Philippines, as well as a short discussion of recent socio-political changes. Coverage of these influences on the Philippines is relevant, as they have impacted the experiences of the returned participants in the study. In addition, a review is provided of the report from the Philippine

development project under which many of the subjects in the study received their advanced degrees. This report also discusses the conditions and needs relative to agriculture that the project attempted to address. Many of the participant subjects in this study are the end result of this project. They represent the anticipated solutions to the problems the project was intended to ameliorate. In essence, many of the subjects are the solution.

The monograph, Six Years in the Philippines, documents the progress of the Integrated Agricultural Production and Marketing Project (IAPMP) undertaken by USAID, Kansas State University, and the government of the Philippines. It was under the auspices of this major project that many of the subjects in this study were sent for advanced degree training in the U.S.

The project was supported by $8 million U.S. dollars, and around twice that many Philippine pesos. It involved a host of organizations, including USAID, Kansas State University, the University of the Philippines at Los Banos, Central Luzon State University, and various agencies within the Philippine Ministry of Agriculture. Project activities involved 70 consultants and around 60 full time equivalents or person years of work.

The ultimate goal of the project was to impact food production and the economy of the Philippines. The project was intended to help the Philippines with consultants, training, and in buying commodities and equipment to improve production and marketing by small farmers. In transferring this technology, the project attempted to establish a land-grant philosophy and model into the agricultural system in the Philippines.

Agriculture is important to the Philippines, employing around half of the total paid work force. Agriculture provides about two thirds of the country's export earnings, and supports one third of the total economy. Philippine agricultural enterprises are varied, and include production of rice, soybeans, sorghum, vegetables, livestock, poultry and fish.

This project's four main thrusts were targeted at crucial sectors within the agricultural system. The national policy thrust was to improve the skills of the policy analysts and decision-makers, and improve the agricultural data bases, information and computer capabilities available to help make decisions. In the technology transfer thrust of the project, integrated technological packages were to be developed and tested. Efforts would then be made to have

these innovations adopted by the small-scale farmers. In the academic thrust, faculty, curricula and libraries at Philippine universities were to be upgraded. As a part of this thrust, nearly 300 Filipinos received training, with 215 short course participants, and around 90 who received advanced degree training. The fourth thrust of the project was in improving the extension systems to deliver this useful new information to small-scale farmers.

The impacts that could be assessed at the time of the publication of the project report included the transfer of a land-grant philosophy and model to the Philippine agricultural sector. Continued improvement in production, marketing and distribution for small farms was also noted as a result of the efforts of the professionals trained through the project. Improved systems of data collection on production and distribution have been established, as well. A Food and Feed Processing Center at Central Luzon State University was made possible through loans secured by the government of the Philippines under the project. A number of improvements were made in the university programs and facilities in agricultural subject matter areas to support continued agricultural development. This included establishing several new graduate programs, improving libraries, enhancing and increasing course offering in several disciplines, and conducting short courses for cooperatives and agribusinesses. Finally, the extension system fostered under the project had spread in some form to all of the provinces. However, when the project ended, only around five percent of the small-scale farmers had adopted the technology packages that were being promoted by the extension system.

With the complexity of Philippine agricultural production, this type of multi-pronged approach was necessary to have any impact. Because the project goals were formulated by the Filipinos and because the Philippine government has an economic investment in the project, it is anticipated that the project impacts will continue into the future. There is also potential that the influence of the participants, many of whom are subjects in the study, will extend throughout the university and government agricultural community, makind it possible to more effectively apply their expertise in the task of agricultural development. In fact, the results of this study directly relate to the assessment of the achievement of one of the project's goals, to strengthen

agriculture in the universities to better meet the needs for expertise in the Philippine agricultural sector.

A pervasive problem in the Philippines is poverty and low productivity in agriculture. The participants trained under the sponsorship of USAID are intended to help ameliorate these problems. These problems on a global basis were covered as a part of the U.S. 88 Voter Education Project, in which the International Education Coalition in association with the Roosevelt Center for American Policy Studies prepared study materials on the U.S. and international concerns. Groups of citizens were selected to participate in the project, which involved reading the materials prior to a meeting in which the main issues were discussed, and recommendations were made by the group. These recommendations were shared with political leaders in Washington, as representative of the opinions of informed American citizens in response to specific problems.

One of the issue papers addressed poverty, and used the Philippines as a case study. Poverty is a dominant and pervasive characteristic of developing countries, and it affects life in areas such as health, population, and migration. These issues in developing countries also impact on the United States.

Poverty is generally defined in terms of GNP per capita, although this figure does not address the disparity that often exists in the distribution of wealth within a country. These figures also do not address the impact of poverty on human lives.

Hunger is one of the impacts. Impoverished people often do not have enough money to purchase adequate food. It is estimated that some 34% of the Third World population does not have sufficient food to lead a productive working life. Poor, undernouished people are often plagued by a host of diseases, and cannot afford adequate health care. In women from developing countries the problem is compounded by frequent pregnancies. Population control is another critical health issue that is related to high infant mortality, and limited access to family planning options.

Migration to cities or to other countries is often seen as a solution in response to these problems at home. This creates intolerable urban living conditions in many developing countries. Refugees to other countries often put

extreme demographic and economic pressures on the countries to which they migrate.

These factors do have impacts on the United States. Poverty and low economic growth have adversely affected markets for U.S. exports. Many of the developing countries have huge debts to U.S. banks, which they have difficulty repaying. Poverty has an influence in increasing political instability, which presents problems for the U.S. in regions that are strategically important to U.S interests. The health problems of the these countries do not recognize borders, and can easily infect U.S. populations. The amount of emigration to the U.S. from developing countries has resulted in increased competition for jobs, racial tensions, and increased demand for U.S. social services.

Because of some of the unique aspects of the Philippines, it was selected as a case study. The Philippines has about 55 million people living on 7,100 islands, in a location that is very strategically important to the U.S. The U.S.-Philippine relationship was initiated in 1898, when U.S. naval forces ended over 300 years of Spanish rule. At that time, the Philippines became a U.S. colony under a policy which was designed to develop increasing control by a popular self government.

In this early period, the leadership was assumed by the illustrados, a powerful, educated elite with values and political feelings that were more closely linked to colonial Spain than to democratic America. These early, post-independence governments were characterized by political corruption, nepotism, economic inequality and poverty that continued through the Marcos government.

This was the situation inherited by Corazon Aquino when she came to power in 1986. Her attempts to implement reforms have often been complicated by many factors, including an on-going Communist movement, repeated coup attempts by military personnel with tenuous loyalty to the Aquino administration, residual support for the Marcos government, a heavy debt burden, and extreme poverty and underdevelopment throughout the country.

The Filipino people are divided by ethnicity, language, religion and class. There are eight major languages and 75 ethnolinguistic groups

represented within the country. The majority of the population (85%) are Catholic, with ten percent who are Moslem, and five percent who are Buddhist or practice tribal religions. Although there are still religious tensions, partly based on the violence associated with the Moro National Liberation Front's unsuccessful guerilla war in the late 1960s and 1970s for Moslem autonomy in the south, these are considered as less serious than the other more pressing problems.

One of the most substantial threats to political stability affecting Marcos' declaration of martial law in 1972, and Aquino's current efforts to consolidate power is the strength of the Communist movement, the New People's Army (NPA). There are estimates that the NPA has 20,000 full-time fighting rebels, and has established political bases in at least 20 percent of the 41,000 villages in the Philippines. The NPA is popular because of widespread problems associated with poverty, bureaucratic corruption and feudalism in rural areas, which represented deep rooted problems that must be addressed by the Aquino administration. In addition, the NPA opposes the U.S. military presence at Clark Air Force Base and Subic Bay Naval Station, which the Aquino government is unlikely to change due to the strategic and economic benefits that are derived from this presence.

One of the most difficult problems to address is the distribution of wealth. The Filipino elite class of wealthy and usually landed families, to which Corazon Aquino herself belongs, comprise two percent of the population, and earn about 55 percent of the nation's income. Proposed government priorities in land reform, agriculture, and raising rural incomes are expected to meet with opposition from the elite class, as well as problems of bureaucratic inefficiencies, and support for the NPA. This combination of impediments may make these proposals difficult to implement.

The remainder of the population consists of a small middle class and the very poor. About three fourths of the Filipinos live below the national poverty threshold (about $1000 per annum for a six person household), with a 1985 GNP per capita income of $600. Efforts to improve rural living standards through agriculture have not succeeded, partly due to poor agricultural production between 1976 and 1985. Overall national income has fallen ten percent since 1983, and per capita agricultural production growth rate fell by

one percent in 1985. In addition to financial difficulties, the Philippines has an annual population growth rate of 2.7 percent, which is the highest in Southeast Asia. In the face of these problems, many Filipinos have chosen to emigrate to the U.S. From 1961 to 1984, an average of 26,400 Filpinos came to the U.S. annually.

Some of the problems discussed in the U.S. 88 paper have implications for this research. Given the problems in agriculture in the Philippines, it is apparent that work is needed. It would seem to be a good time to have a freshly educated cohort of agricultural experts. However, if they are not well integrated into the political process and policy making institutions, their influence will not be felt. This situation also makes it especially critical that all of the agricultural experts available are able to work to their utmost capacities. Successful professional integration would facilitate more efficient use of the available human resources.

A brief description of the political realities in the government is relevant, as well. A few of the government employees made veiled references to the fact that they could not be sure about the future of their jobs, due to the fact that they had held government positions in the Marcos administration. In the shift in administrations, much reorganization took place, and some subjects reported related difficulties in the jobs they obtained after returning from their studies in the U.S. (US 88 Voter Education Project, 1988).

National Geographic author, Arthur Zich, covered the change in regimes from Marcos to Aquino in 1986, following the departure of Marcos. The Marcos regime began in 1965, when he was elected in the hopes that he would address the chronic economic and social problems of the Philippines. He was re-elected in 1969 despite growing corruption and an ever increasing gap between the rich and poor people. Under Marcos, the economy grew, but the government revenues also increased. Crime fell, but this was coupled with a loss of individual freedom by the people. Growing opposition to the Marcos government gained strength following the assassination of Benigno Aquino, a political reformer against the Marcos regime.

In November 1985, during the trial of a high level Marcos official for the murder of Aquino, Marcos, who was in failing health, ordered an election. As the campaign progressed, it was clear that Mrs. Corazon Aquino, wife of the

assassinated Benigno Aquino, led the opposition. The election, which was held in February 1986, was characterized as grossly unfair, in spite of the observer team sent by the U.S. government to help ensure open elections. The votes were counted by two different firms, one which found Marcos the winner, the other finding Corazon Aquino the winner. Most believe that the election resulted in Mrs. Aquino as the winner. However, Mrs. Aquino marshalled the support of the Philippine people, invoking a political demonstration in which thousands were in the streets of Manila.

Marcos did not perceive this movement as a threat, although many of his military staff members had defected to Aquino's side. Marcos ordered tanks against the rebels, but the troops refused to advance on the rebels who were armed with flowers and rosaries. As a final attempt to salvage his presidency, Marcos offered to participate in a coalition government in which he would serve as president. The response to this request was that Marcos must step down, and that he should be cautious, as he was in danger from his own staff. Following this, Marcos departed from the Philippines.

The new president, Mrs. Aquino, is from one of the wealthiest families in the Philippines, and has degrees from U.S. universities. In her policy to lead a moral government through example, she has won the support of the church, armed forces and the middle class. She has also managed to maintain good relations with both Japan and the U.S. These strengths will be needed to address the many problems she has inherited.

As of 1986, the foreign debt of the Philippines was around 27 billion dollars, of which the interest had not been paid since 1983, the last year the country made money. Almost 75 percent of the Filipinos live below the poverty level of $1000 per annum. Inflation has also devaluated the currency, a problem which is especially noticeable in Manila. Unemployment in Manila had increased to more than 20 percent.

The greatest threat to Aquino is the Communist insurgency. In 1986, the New People's Army (NPA), the military wing of the Communist Party of the Philippines (CPP) included over 20,000 rebels. The NPA is active in all 74 provinces, and has used violence to subdue local officials who disagree with them. This strength has lead some U.S. experts to predict that the Philippines may be under Communist rule in the next ten years. The NPA espouses the

belief that the democracy established in the Philippines is a Marcos democracy from which only the rich and U.S. imperialists benefit.

Although the NPA promotes the idea that it represents all of the Filipinos, the many factors which divide them make this very difficult. The Filipino people represent over 75 ethnolinguistic groups. They are predominantly Malay in origin, although Chinese and Spanish ancestry is also prevalent. However, it is the mestizos, usually of Malay and Chinese or Spanish origin, who hold most of the power in the country. They comprise around two percent of the population, and make 55 percent of the total personal income in the Philippines. Interestingly, many of the young leaders of the NPA are drawn from the prosperous middle class.

The Filipinos also vary widely in religious preferences and values. There are around 85 percent Catholics, and less than ten percent Muslims. In 1973, the Muslim secessionist war in Mindanao proved costly for the Philippines, around $50 million dollars a year, as well as the commitment of a considerable amount of military assistance. It also had human costs, as at least 50,000 people were killed and nearly half a million were displaced.

What binds the Filipinos together is a strong sense of "barangay", which means village or boat. This concept places a high priority on family unity, a concept which is strengthened by the Spanish tradition of compadrazgo, in which godparents are assigned to attend to the well-being of their godchildren. The Filipinos perceive kinship ties down to fourth cousins and feel family obligations toward these distant relatives.

Although there have been attempts to develop industry in the Philippines, many projects, such as a nuclear power plant have been costly failures. Some of the earlier failures have been attributed to the personal profits that Marcos gained from the enterprises.

Sugar production, which had once earned around 20 percent of the export dollars, has declined in importance due to policies of the Marcos administration. Producers abandoned sugar production, resulting in at least 250,000 sugar workers losing their jobs. The planters feel that Marcos and his friends mismanaged and systematically looted the system until it was no longer viable.

Under Marcos in 1973-74, 500,000 acres of timber, accompanied by the right to build a pulp mill were made available to a corporation headed by one of his friends. In 1986, the Development Bank of the Philippines held around $200 million dollars in debt to the non-operational mill. Due to protests of the local people regarding the disturbance of the ancestral spirits in these forests, the NPA came in and provided assistance by sabotaging the construction and operation of the pulp mill. The plant was forced to close down.

These are a few of the many problems facing the Aquino administration. Although not the primary focus of this article, it is clear that there is a problem with chronic malnutrition, inadequate food and other agricultural and agriculturally related problems. This is true, in spite of the fact that the Philippines is self-sufficient in rice production due to high yielding varieties introduced during the last 20 years. These problems further underscore the need for skilled human resources to meet the development needs of the country. The article also helps in providing background on the milieu in which these development needs exist (Zich, 1986).

The topics covered in this review of literature provide support, background and rationale for the research undertaken in this project. The discussion of women in development provides support for examining the special needs experienced by women during the professional integration process. In addition the body of information regarding women in development highlights the need to ensure the equitable and effective involvement of women at all levels of society in the achievement of national development goals. A short discussion was also provided on the need for education and training to supply the skilled human resources needed for national development. This was followed by a discussion of the participant training process, which further supported the concept of education as an integral part of national development. In addition, this section described the participant training process, as well as identified problems and needs associated with participant training. The professional integration phase of participant training received special attention because this was the focus of the research. This section covered the needs and problems specifically associated with the experience of international students during the professional integration process. In addition, the effects of unmet professional integration needs, and the effects of satisfactory

professional integration in terms of national development were also discussed. It was mostly from the body of literature on professional integration that the questions for the interview schedule and survey questionnaire were drawn. The final section gave background data on the Philippines. This was necessary because this is the home of the research subjects, and it is the national development of the Philippines to which these participants are expected to contribute. The change in government, in particular, was cited by several subjects as impacting on their careers. Background information on the Philippines provides the context in which to place the needs and experiences of the subjects.

Together, this background information served as the basis for developing the research proposal that was executed. The following chapter describes the research methods used to collect data addressing the issues of the professional integration of this group of returned Filipino students.

CHAPTER III. RESEARCH METHODOLOGY
Introduction

In this chapter, a description is provided of the research method used to investigate issues relative to the professional integration process of Filipinos who received advanced degrees in agriculture from U.S. Land Grant Universities, and who have been home for a least one year. In particular, the investigation examined needs experienced during the professional integration process that could be addressed by universities and participant sponsoring organizations. Special attention was directed toward determining if there were differences between men and women in their perceptions about these types of professional integration needs. The main questions to be addressed through this study follow.

1. What are the professional integration needs felt by Filipino recipients of advanced degrees in agriculture from U.S. Land-Grant Universities relative to their contact with the university after returning home, opportunities for interaction with professionals in-country, amount and type of continuing education opportunities, relevancy of experiences provided by the universities to current job needs, and satisfaction with their current employment?

2. What is the relationship between expressed professional integration needs and various demographic variables such as gender, age, program of study, field of study, previous work experience, marital status, number of children, years spent studying in the U.S., undergraduate alma mater, when undergraduate degree was received and employer?

3. Are there specific identifiable differences between the needs expressed by men and women returned Filipino participants?

4. What kinds of changes would these participants recommend to help universities and participant sponsoring organizations better address their needs?

Study Design

The research design used to gather data addressing the questions raised in the study was a survey, augmented by in-person interviews. A questionnaire and a parallel interview schedule were developed by the

principal investigator (Appendix A). The majority of the questions was based on both a review of the literature and the previous work experience of the researcher as a facilitator of a coordinating council between the U.S. university community and the USDA/OICD, a participant sponsoring agency. The section of questionnaire and interview schedule on job satisfaction was loosely based on the Morse Indexes of Job Satisfaction (Miller, 1977).

The questions formed the basis for a number of hypotheses about the differences between men and women in the professional integration process. More specifically, hypotheses were formulated on the gender differences relative to factors of professional integration both during and after the educational experience. The investigation covered gender differences in perceptions about preparation for the career during the educational experience, including courses taken outside the major such as leadership, computer science and management, and outside work or internship opportunities. In addition, factors investigated relative to the return to the home country include contact with degree granting institutions, contact with other professionals and alumni at home, and access to resource materials and literature, as well as continuing education opportunities. Finally, the investigation examined factors associated with job satisfaction to determine if there were differences between male and female subjects. Job satisfaction is, after all, a critical measure of a successful professional integration process.

Description of the Sample

A list of 97 possible subjects was compiled by combining the names of qualifying Filipinos from both USDA/OICD and from the Kansas State University project. Those qualifying as subjects were Filipino participants who had received advanced degrees in an agriculturally related discipline from U.S. Land-Grant Universities, and who had been back in the Philippines for at least one year. A random sample of 26 potential interviewees was drawn, consisting of 50 percent women and 50 percent men. In addition they were selected such that the percentages of M.S. and Ph.D. recipients paralleled the percentages of recipients of these degrees present in the original population of 97 potential subjects.

Instrumentation

Two instruments, a survey questionnaire and an interview schedule, were developed by the principal investigator. The survey questionnaire contained 44 numbered question items, and the interview schedule contained 43, although many questions had sub-items. There were 146 question items in the interview schedule and 102 in the questionnaire. However, both instruments were structured so that respondents could skip entire sections that did not apply to their experience. Copies of both are provided in Appendix A. The two instruments paralleled each other, although the interview schedule specifically provided for comments relative to every area of inquiry. Survey respondents were encouraged to make comments if they wished, and a final question was added to the questionnaires by hand just prior to mailing which asked for general comments or recommendations relative to the entire training and re-entry experience.

Many of the questions asked on the questionnaire and the interview schedule were based on review of the literature on professional integration, as well as the areas of interest indicated by the funding agencies in their work with international students. The major concerns identified were categorized and framed into question items by the principal investigator. To gather information about job satisfaction, questions were developed by the researcher based on areas of inquiry in the Morse Indexes of Job Satisfaction (Miller, 1977).

In the first section of both instruments, pertinent demographic data, as determined by the principal investigator, were collected. Next subjects were asked about the amount and degree of contact with their alma maters, including contact with academic advisors, major professors, alumni offices, international offices, and any other types of university contacts that took place after returning home. Subjects were then asked about the amount and degree of opportunities for networking, after they had returned to the Philippines, through contact with professional colleagues and alumni from their institutions. This section was followed by a section about opportunities for continued professional development, including formal courses, professional conferences, journals, and any other types of continuing education efforts. Questions in the next section covered perceptions about the relevancy of their

educational experiences in the U.S., specifically addressing perceptions of relevancy relative to classes in the major, classes outside the major, and practical or internship type experiences. The questions about the respondents' employment and their satisfaction in this regard were based on the Morse Indexes of Employee Satisfaction. The Morse instrument measures job satisfaction in terms of feelings related to four areas, the content of the work, belonging to the work group,the employing organization, and pay and job status. These four areas and some of the specific associated question items were used to frame the questions eliciting feelings about the current position, as well as a general job satisfaction (Miller, 1977).

Likert type scales were also developed by the principal investigator which would provide an appropriate range of answers to the questions posed in the interview schedule and the questionnaire. The four items in each of the scales represented a gradient of degrees, which ranged from low to high. The four scales developed were intended to measure relative importance, amount of time, usefulness, and adequacy. The scales used can be found in Appendix B.

The program of study committee of the principal investigator reviewed the survey questionnaire and interview schedule first. Their suggestions were included, and the instruments were sent to USDA/OICD for approval. Following approval, both instruments were pretested prior to administration to the study population. Five Filipino graduate students at Iowa State University received the questionnaire by mail, and were asked to complete it. They were asked to contact the principal investigator with comments. As no comments were made, the principal investigator contacted the students. The suggestions they made were incorporated into the questionnaire. Following a similar procedure, the interview schedule was administered to two Filipino graduate students. Again, revisions were made, based on their recommendations on the wording of the interview questions.

Data Collection

The potential interviewees were contacted initially by post card to inform them about the project. However, on arrival in the Philippines, it was apparent that only a few of the post cards had reached the subjects, due to problems with the mail and the addresses available for the subjects. Further,

it was discovered that many of those in the random sample could not be located. Therefore, it became necessary to begin the step of making initial contacts after arrival in the the Philippines. When contacted, inquiries were made about the location of others on the list. Through this process, 19 potential subjects were eliminated as they could not be located. As a result, during January 1988, interviews were conducted with 24 Filipinos, although they were not necessarily those selected in the original random sample.

The original list of 97 was reduced to 54 subjects to receive questionnaires through elimination of the 24 who were interviewed, and the 19 who could not be located. The 54 questionnaires were mailed from downtown Manila, accompanied by stamped, self-addressed air mail envelopes in which to return the completed responses. Of the 54 survey questionnaires mailed, 40.74 percent or 22 were returned. The combination of both interviews and questionnaires provided 46 cases of data for analysis in the study, which represents 47.42 percent of the initial study population. The breakdown of subjects who were interviewed versus subjects who submitted mailed questionnaires by gender and place of employment is illustrated in the following table.

Table 3.1 - Data Collection Method Used by Gender and Current Employment

INTERVIEW SCHEDULE		QUESTIONNAIRE	
University Employees		University Employees	
Males	Females	Males	Females
9	4	13	3
Government Employees		Government Employees	
Males	Females	Males	Females
2	9	3	2
Employment Unknown		Employment Unknown	
Males	Females	Males	Females
0	0	0	1

Analysis of Data

Data from the questionnaires and the interviews were coded and entered into a microcomputer. This data base was transferred through WYLBUR to the mainframe for statistical analysis using the revised Statistical Package for the Social Sciences (SPSS-X) (SPSS, Inc., 1988). The data were tabulated using T tests at the .05 level on each item to determine if there were significant differences between the responses of men and women subjects. This same process was repeated to determine if significant differences existed in responses to the questions, based on differences in the other demographic variables. In addition, frequencies were calculated for all appropriate data items, and crosstabs were run on gender by age and gender by degree attained. Further discussion on the data analysis associated with this research project is provided in the following chapter.

CHAPTER IV. ANALYSIS OF DATA

Introduction

In this chapter, the results of the statistical analyses that were used with this data set are discussed. This discussion will include coverage of relevant demographic characteristics of the subjects, followed by the results of the tests of significance that were used to address the research hypotheses. Additional analyses will also be discussed that were not necessarily associated with the stated hypotheses, but which provided interesting issues for consideration relative to the professional integration process.

The data available for analysis came from 46 valid cases, including 24 completed interviews and 22 returned questionnaires. The 46 cases comprised 47.42 percent of the original population of 97 Filipino recipients of advanced degrees in agriculture from U.S. Land-Grant Universities who have been home for at least one year. While this percentage of the total was acceptable, the small number of cases limited the types of statistical analyses that could be appropriately applied to the data, as well as the conclusions that could be drawn.

Demographic Characteristics of the Subjects

The following discussion will summarize the demographic findings, although some additional demographic information is available in Appendix C. The 46 cases were comprised of 13 male and 14 female M.S. degree recipients, totalling 27 M.S. degrees, or 58.7 percent. The remaining cases, doctoral degree recipients (19), comprised 41.3 percent of the total, and included 14 males and 5 females. In a total breakdown by gender, there were 58.7 percent males (27), and 41.3 percent females (19). The 46 subjects ranged in age from 29 to 60 years old, although ages 35 and 36 were the most common, each with 13 percent (6) of the subjects. This information is graphically illustrated in Tables 4.1 and 4.2.

Table 4.1- Degree Attained by Gender

SUBJECTS	M.S. Degrees	Ph.D. Degrees	TOTAL
Males	13	14	27
Females	14	5	19
Total	27	19	46

Table 4.2 - Distribution of Subjects by Age

Value (age)	Frequency	Percent	Cummulative Percent
29	3	6.5	6.5
30	2	4.3	10.9
31	4	8.7	19.6
32	3	6.5	26.1
33	2	4.3	30.4
34	2	4.3	34.8
35	6	13.0	47.8
36	6	13.0	60.9
37	2	4.3	65.2
38	1	2.2	67.4
39	3	6.5	73.9
40	1	2.2	76.1
41	1	2.2	78.3
42	2	4.3	82.6
43	1	2.2	84.8
45	1	2.2	87.0
46	2	4.3	91.3
48	1	2.2	93.5
52	1	2.2	95.7
58	1	2.2	97.8
60	1	2.2	100.0
	46	100.0	

A majority, (36) of the subjects were married. This represents 78.3 percent of the total. Nine subjects, (19.6) percent were single, and one subject (2.2 percent) was separated.

The numbers of children reported by the subjects ranged from none to seven, although they were distributed relatively equally between zero, one, two and three children. No children was the most frequent response (11), with 23.9 percent. Ten subjects (21.7 percent) reported three children, followed by 19.6 percent (9) with one child and 17.4 percent (8) with two children. Six subjects, (13.0 percent) reported four children, and one subject each, (2.2 percent) had 5 and 7 children. This information is also provided in the following table.

Table 4.3 - Distribution of Subjects by Number of Children

Value (number)	Frequency	Percent	Cummulative Percent
0	11	23.9	23.9
1	9	19.6	43.5
2	8	17.4	60.9
3	10	21.7	82.6
4	6	13.0	95.7
5	1	2.2	97.8
7	1	2.2	100.0
	46	100.0	

The degrees held by the subjects were from 18 different U.S. Land-Grant Universities. As might be expected, however, 39.1 percent (18) were graduated from Kansas State University. The second largest group of alumni graduated from Cornell University, with four alumni, (8.7 percent), and third largest were Auburn University graduates at 6.5 percent (3). Two subjects each, (4.3 percent), attended Missouri State University, Iowa State University, University of Wisconsin, University of Arkansas, and Michigan State University. One subject, (2.2 percent) was graduated from Oklahoma State University, University of Florida, North Carolina State University, Mississippi State University, Oregon State University, University of Nebraska, Colorado State University, Purdue University and University of Minnesota.

The subjects majored in 17 different disciplines. The most frequent academic major was Agricultural Economics, with 45.7 percent (21) who studied it. Four of the subjects, (8.7 percent), majored in Fisheries and Aquatic Biology. Tied for the third most common major were Agricultural Engineering, Food Science, Grain Science, International Agricultural Development, Animal Science and Crop Production, each with 4.3 percent (2) of the total. The remaining majors of Weed Science, Natural Resource Economics, Plant Breeding, Zoology, Poultry Science, Seed Science, Forestry, Horticulture and Resource Development attracted one student each, (2.2 percent).

The length of time spent by the subjects studying in the U.S. ranged from 9 to 72 months. Twelve subjects, (26.1 percent) spent 24 months studying in the U.S. The next most frequent amount of time was 18 months, which was given by 21.7 percent (10) of the respondents. Six of the subjects spent 36

months at U.S. universities, or about 13.0 percent of the subjects. The rest of the subjects were distributed relatively homogeneously, with one to three represented in each of the other reported numbers of months. A summary of this information is available in Table 4.4.

Table 4.4 - Degree Attained by Time Spent in the U.S.

Time in U.S.	M.S. Degree	Ph.D. Degree	TOTAL
GE 25 Months[a]	0	19	19
LT 25 Months[b]	27	0	27
Total	27	19	46

[a] Greater than or equal to 25 months
[b] Less than 25 months

Five of the subjects (11 percent) reported two periods of study in the U.S. Of these five, three spent 12 additional months, and one each spent 24 and 36 additional months.

When subjects were asked what year they returned from their educational experiences in the U.S., their responses ranged from 1978 to 1987. In 1983, the most subjects returned to the Philippines, with 28.3 percent (13) returning. This was followed closely by 1982, in which 21.7 percent (10) returned home. In 1981, 13.0 percent (6) returned, and 10.9 percent (5) returned in 1979. Three returned in 1980, at 6.5 percent, and the same was true for 1984. The rest of the years represented had one subject returning, (2.2 percent), or in one instance, 1986, two subjects returned(4.3 percent).

The question about previous work experience asked subjects to select from no experience to one year, one to three years of experience, four to six years, and over six years. In addition, they were also asked to indicate if they had taken two degrees in the U.S., which were separated by a period of work in the Philippines. All 46 of the subjects had previous professional work experience before undertaking training for an advanced degree, although one subject reported having less than one year of experience. Nineteen, (41.3 percent) had one to three years of prior experience, and 37.0 percent (17) had over six years of previous work experience. Four to six years was the next most common, with 15.2 percent (7) of the subjects.

In two instances, subjects reported working and returning to the Philippines before going back to the U.S. to complete another degree. One subject (2.2 percent) reported one to three years of work before the first trip to the U.S., and another period of one to three years of work between the degrees. The other subject also reported two periods of previous work experience, each exceeding six years.

Information about the current employment of the subjects indicated that 62.22 percent (28) worked at a university, and the remaining 37.78 percent (17) of the group were government employees. There was one case of missing data. Of the government employees, 16 worked for the government of the Philippines, and one had moved to India and was working for an intergovernmental organization there. Half of the 28 university employees worked at the University of the Philippines, Los Banos, and the other 14 were employed by Central Luzon State University, Munoz. A table of the actual job titles of the subjects is available in Appendix C.

Males in the study were more well represented in the category of university employment, and women were more prevalent in the government employment category. Of the men, 81.5 percent (22) were employed at the two universities, and only 18.5 percent (5) of the men worked in government service. On the other hand, 63.16 percent (12) of the women subjects worked for the government, versus only 31.58 percent (6) who were employed at one of the universities. Similarly, of the 28 subjects who were employed at universities, 78.57 percent (22) were men, and 21.43 percent (6) were women. This is in contrast to the 17 government employees, in which 29.41 percent (5) were men, and 70.59 percent (12) of all of the government employed subjects were women.

Table 4.5 - Place of Employment by Gender

SUBJECTS	University	Government	TOTAL
Males	22	5	27
Females	6	12	18
Total	28	17	45

Data Composition

There were 46 valid cases from which data were used, although some of the cases contained missing data for certain items, and these were excluded from the individual analyses. The various Likert type scales used in the instruments were converted into numeric codes, with the number "1" corresponding to the low end of the scale and the number "4" corresponding to the high end of the scale. The scales used are provided in Appendix B.

Statistical Analyses

Using SPSS-X, two-tailed T tests of statistical significance were run on each of the questions to determine if there were significant differences at the .05 level between subjects grouped by the various demographic variables. Whether the pooled variance T formula or the separate variance T formula was used depended on the probability of F. If a significant difference in the variance for the two groups was found with a probability of F at less than or equal to .05, the separate variance T formula was used (Thomas et al., 1983).

Although the stated hypotheses to be addressed in this study concerned observable differences between males and females relative to the professional integration process, some interesting differences also became apparent between subjects grouped according to demographic characteristics other than gender.

Hypotheses

The first hypothesis indicated that there was no significant difference between the professional integration needs expressed by the female subjects in the study and the male subjects in the study. This general hypothesis was followed by a set of hypotheses that were intended to measure specific differences in the professional integration process that relate to the experience after returning home to the Philippines. The general hypothesis was accepted based on the acceptance of the more specific hypotheses. The sub-hypotheses will each be treated separately in the following discussion, and will serve as a basis for further elaboration on the acceptance of the first general hypothesis.

The hypothesis was accepted that there was no significant difference between the need for and amount of contact with degree granting institutions indicated by Filipino men and women subjects. None of the questions relating to contact with the university showed significant differences in the answers

given by males and females. The types of contact specifically queried were contacts with academic advisors, major professors, alumni offices, international students/international agriculture office, and any other male or female contacts still located at the graduating university.

It was hypothesized that there was no significant difference indicated by Filipino men and women subjects in the study between the need for and the amount of contact with other professionals in country. This was also accepted, due to lack of significant differences on the basis of gender between the responses given to these questions.

The hypothesis was accepted that there was no significant difference indicated by Filipino men and women returned participants in their need for and amount of opportunities for interaction with other alumni from their institution. No significant differences were detected between men and women subjects in their answers to questions in this area of inquiry.

It was hypothesized that there was no significant difference between men and women subjects in the need for and the amount of opportunities for access to journals, papers, studies and other current resource materials in their field. This hypothesis was accepted, despite a significant difference (p <.05) on the basis of gender in response to a question on the perceived importance of professional journals to professional development (Table 4.6). None of the other questions on the use of professional journals showed significant differences between men and women. In addition, this finding of a significant difference may have been related to the fact that more males were employed at universities where journals are a more necessary part of the work responsibilities, and the majority of females worked for the government.

Table 4.6 -   Importance of Professional Journals
             (F (26,16) = 2.84, p <.05)

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
Males	27	3.926	.474	2.12	.045
Females	17	3.470	.800		

(Scale - 1=Of little importance; 2=Somewhat important; 3= Important;
4= Of great importance)

This explanation for the differences detected between the perceptions of men and women on the usefulness of journals in professional development was also supported by two findings of statistically significant differences (p <.05) between government and university employees in their use of journals (Tables 4.7 and 4.8). Government employees indicated that their need to use journals in their jobs was less than the need expressed by university staff members. Similarly, the subjects in government service perceived journals as less useful in fulfilling the responsibilities of their jobs than was indicated by university employees.

Table 4.7 - Frequency of Need to Use Professional Journals for the Job
$(F(15,27) = 6.68, p < .05)$

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
Govt.	16	4.437	.814	-2.15	.046
University	28	4.892	.315		

(Scale - 1=Never; 2=Once a year; 3=Every 6 months;
4=More often than every 6 months)

Table 4.8 - Usefulness of Journals in Professional Development
$(F(15,27) = 1.46, p < .05)$

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
Govt.	16	3.312	.602	-2.81	.008
University	28	3.786	.499		

(Scale - 1=Of little use; 2=Somewhat useful; 3=Useful;4=Of great use)

The job responsibilities of university employment, such as research and teaching, may have created a greater need for the use of journals than the program management and administrative roles required in government service. Differences in job responsibilities between government and university employees were apparent in the following summaries of the descriptions the subjects gave of their positions.

Government employees:

- I am an Assistant Director, Bureau of Agricultural Statistics.

- I am in charge of supervising priority research areas,
  and seeing to it that research results are disseminated,
  especially to farmers. I monitor production, especially
  on particular commodities, and supervise the linkage between
  the farmer and processor, and farmer cooperatives and their
  linkages to big companies.

- I am a Plans and Programs Advisor, Department of Agriculture
  and Chair of an interagency group on cereals and food grains.
  I lead a group in the analysis of performance of rice and
  corn industries, supply and demand.

- Executive Assistant to Under Secretary for Operations in the
  Regional Operations Division of the National Agriculture and
  Fisheries Council (NAFC), Department of Agriculture. I'm in
  charge of regional management, see that projects are implemented,
  make recommendations for action to Under Secretary, and am in
  charge of a bilateral program financed by FAO and the Germans
  on integrated pest management.

- Statistician, NAFC, Department of Agriculture. I work on
  implementing and executing foreign assistance projects,
  that is, commodity assistance projects. The commodities
  are fertilizers and pesticides.

- I work as an Executive Assistant, NAFC. My job involves
  local councils. I monitor and plan local council activities,
  serve as secretary for conventions and conferences, prepare
  minutes, conduct field inspections, interview farmers, and
  assist in the preparation of local council budgetary
  framework.

- Assistant Project Director, Accelerated Agriculture Production
  Project, Department of Agriculture. I administer the project, handle a
  market information service, and serve as a liaison between
  the Government of the Philippines and USAID, where the project
  funds originate.

University employees:

  - My title is Assistant Professor of Economics, UPLB. My
    responsibilities are teaching and research, although training
    is also a minor part.

  - Professor of Agricultural Economics, CLSU. I do 75 percent
    teaching and 25 percent research.

  - I am an Assistant Professor at UPLB. I am responsible for
    research, extension and teaching, and also training programs
    for students from other countries.

  - Associate Professor, Fisheries ... 40 percent teaching, 55
    percent research, and five percent administration, but most
    of my time is spent in research.

  - Assistant Professor, Agricultural Economics, UPLB. Teaching
    graduate courses, and advising M.S. and Ph.D. students in marketing
    and price analysis.

  - Instructor, Agricultural Economics at UPLB. I work in teaching,
    extension and research, and occasionally serve as a resource for
    training programs.

University employed subjects tended to have more comments about their
need for and use of professional journals, as well. Five subjects reported that
they needed journals in their everyday responsibilities of university teaching
and research. The essence of some of the other comments made by university
employees relative to journals follow.

  - Some journals the university library should have. There is a
    need for more support for library systems.

  - Request for journals by academic department, rather than
    centralize them for the entire university.

  - Institutions should provide journals and technical papers to
    universities to avoid duplication of research, which
    is a waste of money.

- Complementary copies should be provided to university libraries, and in exchange, locally developed research reports will be sent to the journals.

These comments reflected a concern with the accessibility of journals on the campuses, and the availability of journals in the particular field of specialization. Although some of the government employees did indicate interest in journals, they did not make definite recommendations to improve a perceived problem situation.

It was hypothesized that there was no significant difference between Filipino men and women subjects in the need for and the amount of participation in continuing education opportunities. This hypothesis was also accepted, based on the fact that there were few significant differences found between the responses of males and females on questions relating to continuing education opportunities. There were two exceptions to the finding of no differences, and these were related to inquiries about formal academic classes after the degree. Male subjects indicated that formal academic classes after the degree were both significantly more useful and more adequate ($p < .05$) than women subjects (Tables 4.9 and 4.10). Although these findings were considered in the decision to accept the hypothesis, they were not thought to be influential enough to permit rejection. Since both male and female subjects indicated that formal academic classes after returning to the Philippines were not very important in their professional development, the two cases of differences associated with this particular means of professional improvement did not appear to contribute enough influence to reject the hypothesis.

In addition, it was thought that this difference may again have been attributed to the relatively larger proportion of men who worked at the university compared to government employment where women were in the majority. This would permit more of the men subjects to have access to the classes offered at the university. Participation in classes after the degree may have also influenced the opinions of the men regarding their importance in professional development. The opportunities for government employees to participate in formal classes may have been limited and inconvenient.

Table 4.9 -   Usefulness of Formal Classes After the Degree
(F (26,17) = 3.43, p < .05)

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
Males	27	1.333	1.797	2.41	.020
Females	18	.333	.970		

(Scale - 1=Of little use; 2=Somewhat useful; 3=Useful;4=Of great use)

Table 4.10 -   Adequacy of Opportunities for Formal Classes After the Degree
(F (26,17) = 3.53, p < .05)

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
Males	27	1.111	1.553	2.34	.024
Females	18	.278	.826		

(Scale - 1=Inadequate; 2=Barely adequate; 3=Adequate;4=Very adequate)

The hypothesis was accepted that there was no significant difference between Filipino men and women in the preparation provided through their degrees in the areas of management and leadership. This area was investigated under the broader umbrella of relevance of the degree program. Specific questions were asked about classes both in the major and other outside classes covering concepts related to management and leadership.

The hypothesis was accepted stating that there was no significant difference between Filipino men and women subjects in the amount of co-curricular preparatory opportunities such as internship and cooperative experiences provided during the degree program. In particular, the questions covered internship, cooperative, and practical work experiences provided as a part of the degree program. Significant differences did not appear between the responses given by men versus women subjects on the questions that explored co-curricular preparatory opportunities.

All of the sub-hypotheses underpinning the main hypothesis were accepted. The first instance of possible rejection regarding the need for and use of professional journals was explained as due to differences between the needs of university and government employees rather than based on gender differences. The second possible case of rejection regarding formal academic classes after the degree was also accepted because neither men nor women

seemed to feel that these classes were important or necessary in their professional development. This was evident because of the low means derived from both groups in the section of questions about formal classes after the degree. This finding also appeared to be associated with differences in university and government employment. For these reasons, the main hypothesis was accepted. No statistically significant differences became apparent through this study between the in-country professional integration needs experienced by Filipino men and women.

The next general hypothesis to be tested through the research stated that there was no significant difference between Filipino men and women subjects in the preparation provided in their degree programs and its relevance to their current career responsibilities. This general hypothesis was also accepted because all hypotheses in the set of specific sub-hypotheses were accepted. The sub-hypotheses, intended to measure particular aspects of preparation during the educational experience in the U.S., were accepted. Further discussion on the acceptance of this general hypothesis will follow the treatment of the two sub-hypotheses.

It was hypothesized that there was no significant difference between men and women Filipino subjects in the amount or relevant preparation experiences such as training in management and leadership provided during the degree program. This hypothesis was accepted despite finding a statistically significant difference ($p < .05$) between men and women subjects regarding their perceptions on the usefulness in professional development of academic coursework taken for the major (Table 4.11).

Table 4.11 - Usefulness of Major Classes in Professional Development
($F(26,17) = 1.13$)

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
Males	27	3.815	.483	2.09	.043
Females	18	3.500	.514		

(Scale - 1=Of little use; 2=Somewhat useful; 3=Useful;4=Of great use)

Again, because the preponderance of Filipino men subjects were employed by universities, and most of the women subjects were in government service, this difference was believed to have resulted from differences between the needs of government versus university employees. This belief was supported by two related findings of statistically significant differences (p < .05) between government and university employees (Tables 4.12 and 4.13). Subjects who were university employees were more likely to feel that the classes they completed for their majors were both more useful and more adequate in terms of their professional responsibilities on returning to the Philippines. This alluded to a more direct relationship between university responsibilities and preparation provided through an academic degree program.

Table 4.12 - Usefulness of Major Classes in Professional Development
$(F(15,28) = 1.20, p < .05)$

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
Govt.	16	3.437	.512	-2.59	.013
University	29	3.827	.468		

(Scale - 1=Of little use; 2=Somewhat useful; 3=Useful;4=Of great use)

Table 4.13 - Adequacy of Major Classes in Professional Development
$(F(15,28) = 1.48, p < .05)$

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
Govt.	16	3.125	.619	-2.29	.027
University	29	3.517	.509		

(Scale - 1=Inadequate; 2=Barely adequate; 3=Adequate;4=Very adequate)

The next sub-hypothesis stated that there was no significant difference between the amount of co-curricular preparatory opportunities experienced by male subjects versus female subjects in the study. Because none of the questions addressing these issues yielded significant differences in the responses given by men and women subjects, this hypothesis was also accepted.

Based on the acceptance of the supporting hypotheses, the general hypothesis was accepted that there was no significant difference between Filipino men and women subjects in the preparation received in their degree programs and its relevance to their current career responsibilities. The finding of a statistically significant difference ($p < .05$) between men and women subjects in their perceptions regarding the usefulness and adequacy of the academic courses completed for the college major appeared to be related to differences in the work responsibilities of university and government staff members.

This conclusion was also supported by a long history of concern relative to the participant training process. A set time limit has usually been imposed on participants to complete their degrees. As a result, these international students may only have had time to take classes that were specifically required in the major discipline. Often, in response to country-identified development needs, their studies have concentrated in scientific disciplines, leaving little opportunity to undertake coursework in other areas or participate in co-curricular experiences. On return to the home country, participants have often been expected to serve in administrative or program management roles, without the benefit of appropriate preparation, such as training in leadership, management, program development and administration.

This situation may also have been reflected in the responses from the subjects indicating that what they learned in classes for their majors was less than useful or adequate in terms of preparation for their current responsibilities. This would be likely to be more true for government employees, who were expected to fulfill management and administrative roles. University employees may have had management and administrative roles, but more generally were doing research and teaching in the discipline they studied in the U.S. The main themes of some of the comments made by the subjects that support this assumption follow.

Government Employees:

> - I should have taken more courses in extension and technology transfer, given my responsibilities. Research courses were more appropriate for those working at universities.

- The agency should know what they intend for the employee
  when they return so the degree applies to
  the career responsibilities.

- We do talk a lot about agricultural economic issues
  at the National Agriculture and Fisheries Council
  where I can use my major field of marketing,
  but most of my work is in managing rural finance programs.

University Employees:

- I am teaching classes that are the same as my major,
  marketing and product analysis, so I can apply what I learned.

- I am better prepared to teach because of what I learned in
  my discipline.

In total, there were four questions in which statistically significant differences ($p < .05$) were found between responses given by male versus female subjects. Given the large number of items in this study (146 on the interview schedule and 102 on the questionnaire), gender was not found to have an effect on the professional integration process. Several reasons could be identified to explain the situation, including the fact that historically, women have not had secondary roles in the Philippines. In 1985, International Labor Organization statistics indicated that the Philippines had the largest proportion of women in professional and technical occupations of any country in the world. The country was also highly ranked in terms of women in administrative and managerial professions (United Nations, 1986). The lack of significant differences may also have been a result of the small sample size or the relatively small number of females represented in the sample (41.3 percent).

Additional Findings from the Study

In addition to T tests for significant differences in the responses to the questions between men and women, a number of other demographic variables were also tested. In rank order based on the number of findings of significant differences the variables were current employment (government or university), time spent in the U.S. (less than or more than or equal to 25 months), marital status and degree attained (M.S. or Ph.D.) tied for fifth, gender and year returned (before or after 83) tied for sixth, and previous work

experience (less than or more than or equal to 4 - 6 years) was last. Evidently, other demographic variables beside gender seemed to have significant effects on aspects of the professional integration process. The findings covered in the following discussion were selected because of their apparent strength of influence in terms of the professional integration process.

Current Employment

One of the most striking findings of this study was the degree of difference observed between university and government employees. There were 15 questions where significant differences (p <.05) were found between government and university staff members. This variable yielded by far the most cases of statistically significant differences.

Interestingly, questions relating to contact with the international students or international agriculture office at the graduating university seemed to prompt significantly different responses from government versus university employees. Government employees indicated that they ranked contact with the international students/agriculture office as statistically (p <.05) more important, more frequent, more useful and more adequate than was indicated by the ratings university employees gave (Tables 4.14, 4.15, 4.16 and 4.17).

Table 4.14 - Importance of International Office in Professional Development
($F_{(6,22)} = 10.18$, $p < .05$)

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
Govt.	7	3.143	.378	3.95	.000
University	23	2.000	1.206		

(Scale - 1=Of little importance; 2=Somewhat important; 3= Important; 4= Of great importance)

Table 4.15 - Frequency of Contact with International Office
$(F(15,26) = 3.39, p < .05)$

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
Govt.	16	2.312	1.662	2.34	.030
University	27	1.259	.903		

(Scale - 1=Never; 2=Once a year; 3=Every 6 months;
4=More often than every 6 months)

Table 4.16 - Usefulness of Contact with International Office
$(F(14,27) = 3.89, p < .05)$

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
Govt.	15	1.467	1.506	2.85	.011
University	28	.286	.763		

(Scale - 1=Of little use; 2=Somewhat useful; 3=Useful;4=Of great use)

Table 4.17 - Adequacy of Amount of Contact with International Office
$(F(13,26) = 3.54, p < .05)$

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
Govt.	14	1.286	1.437	2.50	.023
University	27	.259	.764		

(Scale - 1=Inadequate; 2=Barely adequate; 3=Adequate;4=Very adequate)

From the statistics above, it appeared that there was a stronger
relationship between the graduating university international office and
employees in the government. However, several factors made this appear to be
idiosyncratic to the situation at the time in the Philippines. Both Kansas State
University and Cornell University had on-going projects in the Philippines
which required visits by various university staff members. Kansas State
University had the largest proportion of graduates among the subjects at 39.1
percent (18), followed by Cornell with 8.7 percent (4). Staff members from the
international students or international agriculture office would be logical
candidates for the visits, as was indicated by some of the comments from the

subjects. The projects involved the Government of the Philippines, which would make government employees more convenient to reach.

Although University of the Philippines, Los Banos, employees reported visits by Kansas State University staff members, this was not as prevalent at Central Luzon State University, Munoz. Perhaps both the fact that the graduating university's relationship was with the Government of the Philippines, and proximity affected these findings. Most of the government offices and employees were located in Manila, which would facilitate contact. The University of the Philippines, Los Banos was about a one and one half hour drive from Manila, and Central Luzon State University, Munoz was about four hours away from Manila by car.

This explanation partly accounted for the differences between university and government employees in their responses regarding the frequency and adequacy of contact with the international students/agriculture office. It does not address differences in perceptions regarding the importance and usefulness of contact with this office. This situation might be due to the fact that increased contact might have had more influence on an individual's career, and therefore importance and usefulness would be perceived to be greater.

The explanation may also account for the significant difference (p <.05) found between university and government employees in their perceptions on the frequency of contact with their major professors (Table 4.18). Again, government employees reported a greater frequency of contact, possibly because subjects available in Manila would be easiest to reach.

Table 4.18 - Frequency of Contact with Major Professor
$(F(15,27) = 29.75, p < .05)$

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
Govt.	16	.437	1.031	2.02	.050
University	28	.036	.189		

(Scale - 1=Never; 2=Once a year; 3=Every 6 months;
4=More often than every 6 months)

More positive responses by government employees on questions about contact with international offices and major professors may have also been associated with greater feelings of need on the part of government employees. Perhaps greater difficulties were encountered in the professional integration process of government employees. This may have elevated their perceptions of the importance and usefulness of these contacts as they attempted to cope with the difficulties. Evidence addressing the difficulties experienced by government-employed subjects follows.

The second major area of inquiry where significant differences (p <.05) were found between university and government employees relates to job satisfaction. The responses of university employees indicated that they felt more job security in their positions, and that they had greater feelings of accomplishment or success as a result of their job responsibilities (Tables 4.19 and 4.20). On the other hand, government employees felt that their opportunities to contribute to the policy making process in the country were more adequate than university employees (Table 4.21).

Table 4.19 - Adequacy of Job Security in Current Position
$(F(15,28) = 1.95, p < .05)$

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
Govt.	16	2.875	.885	-2.82	.007
University	29	3.517	.634		

(Scale - 1=Inadequate; 2=Barely adequate; 3=Adequate;4=Very adequate)

Table 4.20 - Adequacy of Job in Providing Feelings of Accomplishment
$(F(15,28) = 1.02, p < .05)$

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
Govt.	16	2.625	.806	-2.61	.012
University	29	3.276	.797		

(Scale - 1=Inadequate; 2=Barely adequate; 3=Adequate;4=Very adequate)

Table 4.21 - Adequacy of Job in Providing Opportunities for
Contribution To Policy Making Process in the Country
$(F(15,28) = 1.64, p < .05)$

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
Govt.	16	3.375	.806	2.18	.035
University	29	2.724	1.032		

(Scale - 1=Inadequate; 2=Barely adequate; 3=Adequate;4=Very adequate)

Some of the negative feelings about job security expressed by government employees appeared to be related to on-going re-organization efforts. When asked the title of their position, and where they worked, many government employees began their responses by asking whether the principal investigator wanted to know about the present, past or future, similar to the responses summarized immediately below.

> Who knows what I'll be doing, or where? Nobody knows what job to give me.

> Now I'm a Technical Assistant, Bureau of Agrarian Reform.
> I used to be a Policy Analyst.

> Now I am a Senior Marketing Analyst working generally in the Agricultural Marketing and Statistical Analysis Division.
> In the new set up I think I will head a specific unit,
> with responsibility for a specific project.

Two questions on contact with female professionals in the country yielded significant differences (p <.05) between the responses of university and government employees (Table 4.22). Government employees indicated that they placed greater importance on contact with female Filipina alumni from their graduating institution than the importance attributed by university employees. Government employees also reported a greater frequency of contact with female Filipina professional colleagues since returning home (Table 4.23).

Table 4.22 - Importance of Contact with Female Filipina Alumni
(F (11,24) = 3.82, p < .05)

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
Govt.	12	3.167	.577	3.30	.002
University	25	2.240	1.128		

(Scale - 1=Of little importance; 2=Somewhat important; 3= Important;
4= Of great importance)

Table 4.23 - Frequency of Contact with Female Professional Colleagues
(F (15,25) = 9.38, p < .05)

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
Govt.	16	4.875	.500	2.33	.026
University	26	4.115	1.532		

(Scale - 1=Never; 2=Once a year; 3=Every 6 months;
4=More often than every 6 months)

This finding may have reflected the relatively larger proportion of the women subjects working in government service, as discussed before. The majority of the government employees questioned had neighboring offices, which would facilitate interaction. In fact, some of the subjects interviewed who worked for the government had back-to-back desks. During in person interviews, two of the women government employees who were Cornell alumni reported that the female alumni of Cornell used to have parties every Friday night. These were primarily social functions, although the women indicated that employment-related ideas and information were shared.

Given the number and kinds of differences discovered between university and government employed subjects, it appeared that the responsibilities and expectations between the two varied greatly, as did other aspects of the working conditions. While not a surprising finding, it may have implications for the future in programming participants, in terms of identifying experiences which will best prepare them for the roles they will be expected to fill.

Time Spent Studying in the U.S.

The amount of time spent studying in the U.S. ranged from 9 months to 72 months, although about 59 percent of the subjects reported time amounts of 24 months or less. Twenty-four months was often the amount of time allowed by sponsoring agencies for the completion of an advanced degree. Due to the large numbers of comments regarding a desire for more time to study in the U.S., T tests were calculated to investigate the possible effects of having more than the standard time allowance in the U.S. to prepare for professional responsibilities. Subjects were placed into two groups according to the amount of time spent studying in the U.S. One group contained subjects who spent less than 25 months in the U.S, and the other contained subjects who spent 25 months or more in the U.S. From this analysis, significant differences (p <.05) were found between the two groups in their answers to 11 questions.

Of the 11 questions, there was a cluster of significant differences found between the two groups in their responses to questions associated with job prestige, amount of authority, feelings of accomplishment and self fulfillment related to the job, and opportunities to contribute to the formulation of organizational methods and goal (Tables 4.24, 4.25, 4.26, 4.27, 4.28, and 4.29). Subjects who spent more than two years in the U.S. generally gave more positive answers in these areas. Based on the assumption that the majority of individuals who spent more than two years pursuing an advanced degree were doctoral candidates, the differences found may have reflected differences in doctoral versus master's degree recipients.

Table 4.24 - Adequacy of Job Prestige from Outside of the Organization
(F(17,26) = 1.57, p < .05)

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
Time GE 25 Months[a]	18	3.722	.461	3.76	.001
Time LT 25 Months [b]	27	3.111	.577		

[a] - Time spent in the U.S. at college greater than or equal to 25 months
[b] - Time spent in the U.S. at college less than 25 months
(Scale - 1=Inadequate; 2=Barely adequate; 3=Adequate;4=Very adequate)

Table 4.25 - Adequacy of Job Prestige from Inside of the Organization
(F(17,25) = 1.34, p < .05)

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
Time GE 25 Months	18	3.556	.616	2.13	.039
Time LT 25 Months	26	3.115	.711		

(Scale - 1=Inadequate; 2=Barely adequate; 3=Adequate;4=Very adequate)

Table 4.26 - Adequacy of Job in Providing Authority
(F(17,26) = 1.03, p < .05)

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
Time GE 25 Months	18	3.389	.608	2.48	.017
Time LT 25 Months	27	2.926	.616		

(Scale - 1=Inadequate; 2=Barely adequate; 3=Adequate;4=Very adequate)

Table 4.27 - Adequacy of Job in Providing Feelings of Self Fulfillment
$(F(15,25) = 1.97, p < .05)$

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
Time GE 25 Months	17	3.588	.507	3.53	.001
Time LT 25 Months	26	2.884	.711		

(Scale - 1=Inadequate; 2=Barely adequate; 3=Adequate;4=Very adequate)

Table 4.28 - Adequacy of Job in Providing Feelings of Accomplishment
$(F(17,26) = 1.11, p < .05)$

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
Time GE 25 Months	18	3.611	.698	4.31	.000
Time LT 25 Months	27	2.667	.734		

(Scale - 1=Inadequate; 2=Barely adequate; 3=Adequate;4=Very adequate) ·

Table 4.29 - Adequacy of Job in Providing Opportunities for
Participation in the Formulation of Organizational
Methods and Goals
$(F(17,26) = 1.88, p < .05)$

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
Time GE 25 Months	18	3.333	.907	2.06	.046
Time LT 25	27	2.852	.662		

(Scale - 1=Inadequate; 2=Barely adequate; 3=Adequate;4=Very adequate)

Another interesting set of findings was associated with differences
between subjects spending more than two years in the U.S. and those who
spent two years or less in their feelings about contact with both male and
female colleagues. Subjects who spent two years or less in the U.S. gave
statistically more positive answers (p <.05) regarding their perceptions of the
adequacy of opportunities for contact with female colleagues and with male

colleagues (Tables 4.30 and 4.31). They also were more positive about the importance of contact with male professional colleagues in the Philippines (Table 4.32).

Table 4.30 - Adequacy of Contact with Female Professional Colleagues
$(F(14,24) = 1.53, p < .05)$

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
Time GE 25 Months	15	2.133	1.302	-2.62	.012
Time LT 25 Months	25	3.120	1.054		

(Scale - 1=Inadequate; 2=Barely adequate; 3=Adequate;4=Very adequate)

Table 4.31 - Adequacy of Contact with Male Professional Colleagues
$(F(14,25) = 2.61, p < .05)$

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
Time GE 25 Months	15	2.400	1.121	-2.48	.022
Time LT 25 Months	26	3.192	.694		

(Scale - 1=Inadequate; 2=Barely adequate; 3=Adequate;4=Very adequate)

Table 4.32 - Importance of Contact with Male Professional Colleagues
$(F(14,25) = 4.20, p < .05)$

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
Time GE 25 Months	15	2.733	1.033	-2.88	.006
Time LT 25 Months	26	3.423	.504		

(Scale - 1=Of little importance; 2=Somewhat important; 3= Important; 4= Of great importance)

Perhaps the differences in feelings about contact with colleagues between the subjects grouped by the amount of time they spend studying in the U.S. was related to an increased need for security by the group that spent less

time in the U.S. This conjecture was based on the knowledge that the division between the two amounts of time roughly corresponded to the division between M.S. and Ph.D. recipients, as well as the finding that M.S. recipients seemed to encounter more career-related problems than Ph.D. recipients, as is discussed later. Individuals who may have been deemed by their peers as less well prepared, and who may have also felt less well prepared than those who had completed doctoral degrees may have relied on contact with both male and female colleagues in coping with the difficulties associated with the professional integration process.

Degree Attained

The assumption that the differences shown immediately above were related to differences in the experiences of M.S. versus Ph.D. recipients was supported by similar findings of differences between these two groups in some of the same areas. Subjects who had attained doctoral degrees gave more positive responses than the M.S. recipients to questions about job prestige inside and outside the organization, adequacy of the job in providing feelings of self fulfillment and accomplishment, and adequacy of opportunities for participation in the determination of organizational methods and goals (Tables 4.33, 4.34, 4.35, 4.36, and 4.37).

Table 4.33 - Adequacy of Job Prestige Outside of Organization
($F(25,13) = 1.42, p < .05$)

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
M.S.	26	3.154	.613	-2.17	.036
Ph.D.	14	3.571	.514		

(Scale - 1=Inadequate; 2=Barely adequate; 3=Adequate;4=Very adequate)

Table 4.34 - Adequacy of Job Prestige Inside of Organization
($F(24,13) = 1.09, p < 05$)

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
M.S.	25	3.040	.676	-2.39	.022
Ph.D.	14	3.571	.646		

(Scale - 1=Inadequate; 2=Barely adequate; 3=Adequate;4=Very adequate)

Table 4.35 - Adequacy of Job in Providing Feelings of Self Fulfillment
$(F(24,13) = 2.14, p < .05)$

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
M.S.	25	2.920	.759	-2.54	.015
Ph.D.	14	3.500	.519		

(Scale - 1=Inadequate; 2=Barely adequate; 3=Adequate;4=Very adequate)

Table 4.36 - Adequacy of Job in Providing Feelings of Accomplishment
$(F(25,13) = 1.09, p < .05)$

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
M.S.	26	2.692	.788	-2.86	.007
Ph.D.	14	3.428	.756		

(Scale - 1=Inadequate; 2=Barely adequate; 3=Adequate;4=Very adequate)

Table 4.37 - Adequacy of Job in Providing Opportunities for
Participation in the Determination of
Organizational Methods and Goals
$(F(25,13) = 1.25, p < .05)$

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
M.S.	26	2.846	.675	-2.50	.017
Ph.D.	14	3.428	.756		

(Scale - 1=Inadequate; 2=Barely adequate; 3=Adequate;4=Very adequate)

These findings of significant differences related to job satisfaction between M.S. and Ph.D. recipients and between subjects who spent two years or less in the U.S. and those who spent more than two years in the U.S., may have implications for decisions on what degrees are necessary for what positions, and what education is necessary for country development needs.

Marital Status

Significant differences (p < .05) were found based on marital status in seven questions. However, in this study the majority of the subjects (78.3 percent) were married, which meant that the single group was very small. Significant differences between married and single subjects were found on two

questions related to perceptions about academic classes after the degree (Tables.4.38 and 4.39). Married subjects gave more positive responses to questions on the importance and usefulness of formal classes after the degree, although these findings could not be explained.

Table 4.38 - Importance of Formal Classes After the Degree
$(F(1,31) = 2.41, p < .05)$

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
Single	2	2.000	1.414	-2.07	.046
Married	32	3.406	.911		

(Scale - 1=Of little importance; 2=Somewhat important; 3= Important; 4= Of great importance)

Table 4.39 - Usefulness of Formal Classes After the Degree
$(F(8,35) = 00, p < .05)$

Groups	Number	Mean	S.D.	T-Value	2-Tailed Probability
Single	9	.000	.000	-2.04	.047
Married	36	1.167	1.699		

(Scale - 1=Of little use; 2=Somewhat useful; 3=Useful;4=Of great use)

As a result of the analyses of these data, none of the null hypotheses regarding gender differences in the professional integration process were rejected. There were isolated cases of significant differences between the subjects grouped by gender, but these were not sufficient to influence the results of the tests of the research hypotheses.

Findings of significant differences (p <.05) between subjects grouped by variables other than gender seemed to indicate that these other factors may have had as much or more influence on the professional integration process. In particular, the amount of time spent studying in the U.S. and degree attained seemed to have a greater impact than gender on the professional integration process. Whether an individual was employed by the government or the universities seemed to have a major impact on the professional integration process, as well.

Analysis of Comments

The discussion that follows is an attempt to analyze, interpret and summarize the subjects' verbal and written comments in response to the questions posed during interviews and on the questionnaire. Partly due to the structure of the interview schedule used, more comments were elicited from the subjects that participated in interviews as opposed to those who responded to the written questionnaires. While the analysis did not utilize statistical measurements, the categorization and frequency counts were useful in developing conclusions about the information gathered in an open-ended format. These data were also very useful in addressing research questions one and four regarding perceived professional integration needs, and recommendations for improvements.

The subjects were asked for their perceptions during the professional integration process. The inquiry was focused on aspects of professional integration that could be affected by efforts on the part of universities, government agencies and sponsoring organizations. The categories of professional integration concerns covered with the subjects included needs related to contact with the graduating university, needs related to networking and feelings of professional isolation, needs for continuing education, perceptions about the preparation provided through the degree program, and needs related to the current job situation and job satisfaction.

Contact with the Graduating University

The subjects were questioned about their contacts with various persons and offices at their alma maters. Specifically, they were asked about contact with academic advisors, major professors, alumni offices, international students/international agriculture offices, as well as any other men or women with whom they are still in contact. They gave a number of interesting and useful comments in response to this area of inquiry, which are discussed next.

<u>Academic advisors and major professors</u>

Many of the subjects reported contact with their academic advisors after they returned to the Philippines. For the most part, academic advisors and major professors were the same person, so comments about these two important points of contact with the university will be covered together.

At least six of the subjects (four men and two women) had personal contact with their academic advisors and/or major professors after returning home to the Philippines, often in the form of a Christmas card. In two instances, the subjects indicated that the contact was both personal and professional in nature.

There were at least 13 reports of professionally oriented contacts with academic advisors or major professors. The nature of these contacts included assisting in the completion of the requirements for the degree, providing recommendations for entrance into advanced degree programs, and providing resource materials. A number of comments by the subjects indicated that they felt that the assistance they received in the areas of possible study, research and funding opportunities was especially useful to them. In addition, three subjects made recommendations regarding the need for assistance from their academic advisors and major professors in getting involved in educational and research opportunities. Similarly, at least five subjects reported a need for assistance in keeping up-to-date with the latest developments and current research topics in their fields

Six of the subjects said that they had consulted with their academic advisors/major professors regarding the projects and programs that were included in their job responsibilities. Several of these comments reflected concern regarding the quality of their work as professionals in both research endeavors and program implementation.

Consulting, and providing information about current developments and opportunities were the main areas of contact mentioned by the subjects. Often the need for consultation was accompanied by an interest in having the major professor or academic advisor evaluate the research or program efforts of the subjects. This appeared to reflect feelings of professional isolation, and insecurity about the ability to fully function as a professional, in terms of their abilities to access needed information about educational and research opportunities.

During the interviews, several of the subjects made recommendations on ways they felt that academic advisors and/or major professors could help address these needs. One of the subjects recommended the implementation of formal contracts to facilitate this consulting relationship between former

students and their major professors. He indicated that this type of feedback would be very useful in helping the new professional feel more confident about performing the responsibilities required in the job. Two subjects felt that visits by major professors or academic advisors would help by providing an opportunity for an update on current developments, as well as for consulting and answering questions. Two subjects requested that the university send lists of recent university publications in their major fields, and at least five wanted more information on research and funding opportunities.

Alumni office

One point of contact that was frequently mentioned was the alumni office. At least five of the subjects had been contacted by the alumni office to follow up on their progress and what they were doing in their careers. This was often accompanied by a request for a current address. There were four reports of contact with alumni offices in the form of newsletters, a reunion announcement, and solicitation for donations for the university. Through the alumni office, one subject was able to obtain the address of a classmate she needed to reach about resource materials.

Interestingly, seven recommendations were made by women subjects regarding ways that alumni offices might be of greater assistance to them, while there were only three such comments from men. Three of the subjects were interested in a newsletter detailing current university activities. One man indicated that a newsletter was available, but a subscription was too expensive. Three women subjects reported a need for a directory of current addresses of other graduates to facilitate contact, and for reference if there were needs for consultants. One man and one women wanted information about educational opportunities on advanced degree and post-doctoral assignments. Interest was also expressed in information about current publications available through the university, as well as resources in the field of interest.

International students/international agriculture office

Contact with the international students/international agriculture office was primarily conducted by mail, although there were three instances of reported visits by a representative from the office. Most often reported were letters covering both personal and professional topics. In one case, there had

been an unsuccessful attempt to collaborate on a project, although the subject stated that the university was not in any way responsible for the failure.

The needs expressed by the subjects relative to the international students/international agriculture offices were similar to the ones described for alumni offices and academic advisors and major professors. Continued interest surrounded various types of information, including announcements for training, graduate programs, and research and funding opportunities. Five subjects also indicated a need for updated information in their major fields.

Not surprisingly, many of the recommendations concerned the expressed needs for more information. Three of the subjects indicated a need for a newsletter to provide updates on both current events at the university, as well as opportunity leads. In addition, seven women and three men specifically recommended that international students/international agricultural offices provide on-going information on opportunities for training, employment, and research. One subject recommended using the international students/international agriculture office as a dissemination mechanism for the research results of former international students. Another man, who was employed at a university, said that there was a need for continual updates on the requirements for graduate students. This information was needed by professors as they assist in the placement of students who are trying to obtain advanced degrees. One woman also suggested that the office serve as a mechanism for the implementation of continuing education in the form of short courses offered in the Philippines. These courses would use Philippine examples and address current needs that became apparent after returning to the home country.

Other contacts at the university

The subjects were asked about contacts with any other males or females still located at their graduating university. In their responses they cited contacts with a variety of individuals. Five female subjects and one male subject reported contact with a female student, followed by three men and three women who were in touch with male faculty members. Female professional university staff members were noted by one male and one female subject.

While a number of these contacts were only social, most had both personal and professional implications. These informal contacts were noted as particularly useful in providing new articles and research results by four subjects. One woman reported that a Filipina student in the U.S. agreed to receive her subscription to a professional journal, and forward it to her in the Philippines. This measure was helpful in insuring that the journal arrived. Through contact with a faculty member, a man said he was able to facilitate the participation by a Filipino colleague in a short course opportunity. Another man had obtained a needed equation and other technical papers on grain science through contact with a male faculty member at the university.

Four women and one man viewed student and faculty acquaintances at the university as potential sources of information on opportunities for research and continuing education. Their recommendations included efforts to provide announcements for research and education opportunities, research reports, duplicated articles, and lists of new university research reprints. The subjects felt that both students and faculty at the university were in positions of availability which would allow them to assist in providing the resources and information.

Networking

The subjects were also questioned regarding their access to professional networks and opportunities for professional interaction with colleagues. They were asked about the nature and usefulness of these types of contact in their professional development. Specifically addressed were contact with male and female alumni of their graduating university in the Philippines and also contact with male and female professional colleagues in the same field. They were also asked to make recommendations on ways that fellow alumni and colleagues could assist in the process of professional integration.

Contact with male and female alumni

In response to questions about contact with alumni and colleagues, nine of the subjects questioned (five males and four females) indicated that the nature of their relationships with male and female alumni were the same, and twelve of the subjects (five males and seven females) stated that their relationships with male and female colleagues were the same. However, it is interesting to note that the responses to these two question areas yielded the

most comments that specifically referenced perceptions of gender differences relative to various types of professional interaction.

Eleven subjects reported their contacts with both male and female alumni as both personal and professional. Working together was one of the most commonly cited forms of alumni interaction, followed by parties and professional meetings and conferences. At least four alumni mentioned belonging to local chapters of their alumni associations, which held regular social gatherings such as Christmas parties, picnics, and football parties. It appeared the Cornell Club of the Philippines and Auburn University's alumni association were the most organized and active of the alumni groups.

When asked about the perceived usefulness of this interaction, nine subjects noted the exchange of ideas and information about new developments. Four subjects said that fellow alumni had been the source of information about employment or educational opportunities. Several also mentioned that the fact that other alumni were in different areas of specialization, which was perceived as a barrier to professional collaboration. In contrast, three subjects felt that there was a need to establish professional networks to help facilitate contacts across disciplinary lines. One male said he expected networks to develop, although this has not happened.

In response to a question about recommendations on ways fellow alumni could be of assistance in the professional integration process, five subjects felt that regular reunions should be organized to maintain contact. Two recommendations were made regarding the need for up-to-date lists of alumni in the country and their addresses to facilitate contact. Similarly, three subjects felt that networks should be organized. Two recommendations made by women concerned help in the initial adjustment process. One suggested providing an orientation seminar to help with the adjustment early in the professional career. Another woman felt that fellow women alumni should assist in providing advice and counsel during the period of adjustment in terms of helping new returnees with important decisions and general moral support. Four people recommended that efforts should be made to involve fellow alumni in research and other opportunities.

Contact with male and female professional colleagues

In their discussion of professional colleagues, the greatest number of responses indicated that interaction with men and women colleagues was the same. Both personal and professional contacts were mentioned, although seven of the responses indicated working together as the primary source of contacts. Professional meetings and conferences were noted three times as sources of contacts with colleagues, and three responses cited exchange of ideas.

Seven subjects gave the sharing of new developments, ideas and solutions to problems as a major benefit from interaction with colleagues. There were six reports in which the complementarity of disciplines made contact with colleagues useful in carrying out professional responsibilities. Six subjects also noted that these contacts were useful in learning about opportunities for employment and research.

Related to the continually surfacing need for access to opportunities, seven subjects (five women and two men) recommended that colleagues assist each other in making the connections needed for increased involvement in research, educational, and employment opportunities. There were two recommendations by women related to the establishment of organized professional networks. One woman specifically suggested the implementation of a newsletter and a formal organization to maintain contact. Another woman recommended the initiation of an agricultural economics network for women.

The most frequently given response about interaction with colleagues and alumni was that men and women were treated the same. However, as previously discussed, the responses to questions about contact with male and female alumni and male and female professional colleagues contained a number of references to perceptions of gender differences related to the process of professional integration. To illustrate the range of gender-related sentiment, the following summary of comments by the subjects is provided.

Comment about alumni by a male subject:

> Females tend to be more diligent. They are better suited for research work. They have the patience for lab work.

Comments about alumni by female subjects:

> I am more in touch with women alumni. We are closer, as we are in similar fields, so we can fill each other in on the latest developments. We share ideas and help with access to the results of research.

> Most women alumni of Cornell are in the same boat, or a worse situation than I am. I can discuss problems more easily with women. Men Cornellians are not too open to women that are doing well. They are considered too outspoken.

> I get together with women alumni more. Women Cornellians used to get together once a week on Friday.

Comments about colleagues by male subjects:

> Female colleagues are very helpful. The women tend to be more frank and sincere. In genetics projects most of my colleagues are females.

> There is greater convenience in working with men. Men can leave, and they can go on field trips. Men are freer, less restricted.

Comments about colleagues by female subjects:

> I have no problems working with males. They are very cooperative.

> Perhaps the females should establish a women's agricultural economics network.

These comments appeared to reflect some differences in the ways that males and females interact. The females seemed to be more comfortable in interaction with other females, and there was evidence of active efforts to have opportunities for interactions with other female colleagues and alumni. This was also apparent in the comment about a need for an agricultural economics

network for women. On the other hand, two comments by the men indicated that they characterized their interactions with women differently than their interaction with other men. This characterization was reflected in the comment about women's abilities for laboratory work, and in the comment about the ability of women to travel for professional responsibilities.

Continuing Education

In the literature, continuing education figured prominently as one of the ways of coping with the problems presented during the professional integration process. In this study, the continuing education needs of the Philippine participants were given attention because it is one possible way that universities, U.S. sponsoring agencies and developing country governments can intervene to facilitate professional integration. Specifically, the subjects were queried regarding formal classes taken after the degree, conferences and professional association meetings, journals and resources, and any other types of continuing education opportunities.

Classes since the degree

Participation in formal classes after the degree was not very common. Six of the subjects did report beginning Ph.D. programs, although none of them still remained in their programs at the time that they were interviewed. Various reasons were given to explain why they had not completed the degree program, although lack of funds was mentioned by three of the subjects. In addition, four people reported taking computer classes after receiving their degrees.

Both types of formal classes were viewed as useful. Subjects were less specific on why classes in their majors were useful to them than they were about computer classes. Computer training was also one of the most frequently made recommendations regarding formal classes as a form of continuing education.

A number of recommendations was made about formal classes. As might have been expected, four people recommended the implementation of computer training for returned professionals. Two subjects also wanted advanced classes in their particular majors. One person advocated taking as many classes as possible while in the U.S. at the university, because the opportunities were limited after returning home.

Other comments also described limits to opportunities for participation in formal classes. Because a doctorate is considered a terminal degree, one subject reported not being allowed to participate in classes. The expense of taking classes was also cited as a problem by three subjects, and one indicated that things have improved since his university has begun to pay for computer classes for faculty members. Another subject suggested that offering classes after office hours would facilitate participation by people who worked full time.

Conferences and professional meetings

All of the subjects questioned reported participation in conferences and professional association meetings, usually of a technical nature. A large proportion of the subjects (14) noted participation in conferences and meetings both in the Philippines and abroad. Only nine people indicated that they had only attended these events in the Philippines. The subject matter covered in the conferences varied from post harvest technology, and extension to the economics of fertilizers. Frequently, however, agricultural economics-related topics were cited.

Ten people felt that conferences and professional meetings were useful to them in their professional responsibilities by increasing their knowledge base. Seven specifically mentioned a need to keep up on new developments as one of the most important aspects of conference attendance. Networking and getting to know other professional colleagues was mentioned by six subjects as one of the benefits of conferences and professional meetings. Four people indicated that conferences provided opportunities for presenting research results, and two also said that attendance enhanced their ability to conduct research. Professional advancement was given by two subjects as one of the reasons for participation in conferences. Two individuals said they felt it was useful to be able to share and compare experiences with other Asian countries.

Not surprisingly, the most commonly given recommendation was to provide more funding to support attendance at professional meetings and conferences, and particularly for participation at meetings abroad. Eleven people reported this as a barrier to participation. A related concern elicited from four people was the need for employers to allow attendance at professional meetings on official time, and for them to support the expenses of the participant. Unless specifically invited to conferences, some of the subjects

had problems with their employers not giving them leave from work, and supporting the cost.

A recurrent theme underlying many of these recommendations, and specifically noted by three subjects was that international conferences were better. These three felt that the research was more up to date in Western countries. In contrast, two subjects recommended sponsoring more localized conferences on a smaller scale. In a similar vein, one subject indicated that there was a need to involve more new and junior professionals in the conference planning process. One woman also recommended that more information on conferences would be helpful in determining what to attend.

Journals and resource materials

Access to journals and resource materials was considered a part of continuing education in this research project. These resources serve to provide technical information on an on-going basis, and are commonly used by professionals as a way of keeping current in their field. Because of the large number of agricultural economics majors among the subjects, many of the journals cited as useful were in this field, published both in the U.S. and the Philippines. A number of subjects mentioned how helpful it was to have an introductory journal subscription provided by the sponsor through their training contract. However, none of the subjects questioned felt able to afford to maintain the subscription, after the sponsored one expired. There was also a general feeling that having your own subscription was superior to using journals available from other colleagues or from libraries and reading rooms.

Five subjects reported using journals and resources in executing their job responsibilities in research and teaching. Access to research results was cited by three subjects as an important function of journals. Three people said that these resources were helpful in keeping up-to-date in their field. Three people also reported that journals were useful in identifying potential solutions that could be applied to Philippine problems. One person used journals to find appropriate foreign assignments and requests for grant proposals.

The most commonly given recommendations concerned the perceptions that journals are too expensive for most Filipino professionals to afford on a personal basis, and that they are even a burden for libraries and other public sources. At least six people felt that journal subscriptions should be available

to to developing country libraries free or at reduced or subsidized cost. A recommendation made by four subjects was that an annotated bibliography or abstracts were needed to help potential subscribers choose the most appropriate journals. Three subjects advocated that their universities acquire more than one subscription of certain journals, and that at least one of these should be located in the department, rather than in the central library. Three subjects expressed concern that the journals were out-of-date by the time they arrived. One person said that university library holdings needed to be computerized for ease in access.

Other continuing education opportunities

A variety of educational experiences was elicited from the subjects when they were asked about their participation in other types of continuing education in which they had participated. Seven mentioned short courses, four subjects listed local seminars at the university, three noted computer workshops, and observation trips were indicated by two of the subjects.

The improved use of computers in research was one of the more frequently given benefits of the educational experiences. One person indicated that these continuing education experiences were helpful in getting re-acquainted with the situation in the Philippines after being gone for three years, and another mentioned that the comparison of the Philippines with other Asian countries was helpful. Four of the subjects felt that these experiences assisted them in keeping up to date in their field.

Recommendations regarding other continuing education experiences included a need for more training during the career. At least three people felt that a refresher training course would be helpful in providing intellectual stimulation and maintaining a positive attitude. Five people recommended providing more computer training for professional staff members. Four subjects recommended an increase in funding for continuing education of developing country participants. Three people also indicated that there was a need to have more information about continuing education opportunities.

Recurrent themes in the discussion about continuing education include the need for training in computer science, the need for increased funding, and concern about staying current in the discipline. This is an area where both universities, governments and sponsoring agencies can make an impact. It

also has great potential for tailoring the educational experience to the needs of the job, as it can be implemented while working and the job needs are known.

Relevancy of the Degree Program at the University

Because of the potential to affect professional integration, the study investigated subjects' perceptions about the relevance of the educational experiences that were a part of their degree programs. Specifically covered in the area of inquiry were perceptions of the relevance of formal academic classes for the major, the relevance of other classes outside the major such as computer science and management, and the relevance of any practical or co-curricular activities such as internship or practicums.

Formal academic classes for the major

The subjects participated in a variety of classes for their degree programs, covering the area of specialization as well as more general subjects such as technical writing, statistics and computer use. In five cases subjects reported having experiences outside of the classroom as a part of their programs of study, including study tours, practicums and farm visits.

The subjects in the study reported their major classes as useful in many different ways. However, there were at least six women who reported that they could not fully use what they had learned in their major in their current jobs, including two who said that they had been able to use more of their background in a previous job. In contrast, eight people indicated that what they learned in their major classes was applied in research efforts carried out as a part of their job responsibilities. Four people specifically mentioned that their major classes were helpful as they performed teaching responsibilities, and in at least two cases, the subjects were teaching classes that were similar in subject matter to those they had taken as students. Four subjects noted using what they had learned in college in the everyday work responsibilities, without giving specific details on how this was useful. Three subjects reported using what they had learned in their extension work. One subject cited the scientific approach to problem solving and research as the main benefit of what he learned in graduate school in terms of performing his job.

It is not surprising that the most common recommendation elicited concerned a need to modify what is taught in U.S. universities to make it applicable to developing country situations. Ten subjects, including six males

and four females felt that developing country examples and situations should
be included in the major curriculum in order to adequately prepare their
students for the realities at home. Four subjects recommended assessing
career plans at the start of the educational experience so that the classes can
prepare the student for the intended work responsibilities. Of these four, only
two were women, which is interesting, because women subjects were the ones
who complained that they could not use what they had learned in college in
their jobs. Three women advocated taking as many classes as possible while at
the university. One man and one women indicated needs for classes in areas
such as research methodology and statistics, which would have more general
application versus the specialized nature of increasingly advanced classes in
the major field.

<u>Other classes outside of the major</u>

The subjects indicated that they had a number of opportunities to
participate in classes that were not strictly in their majors. The most common
of these, with 14 reports, were classes in computer use. This was followed by
three reports by women who had participated in management classes. Other
types of classes noted included statistics, economics, soil science,
administration, research methodology, technical writing and speech.

In discussing the usefulness of these classes outside of the major field of
specialization, there were six comments which primarily addressed computer
use and statistics. There were two indications that classes outside of the major
in the areas of computer science and statistics had been useful in support of
the primary work responsibilities. Three comments related to the fact that the
computer system taught in college was different to that available in the
Philippines, and the knowledge gained through the classes could not be used
at home. In contrast, two subjects also indicated that the system they learned
about was different than what was available in the Philippines, but they had
been successful in transferring the knowledge.

It is interesting to note that the recommendations relative to both classes
in the major and outside classes seemed to concentrate on the basics. Only two
comments were made about a need for more advanced information in the area
of specialization, versus five subjects who advocated more computer use
classes, and five who felt a need for classes in management. Other types of

classes mentioned by one or two subjects include statistics, policy analysis, leadership, technical writing, public speaking, public relations, extension rural sociology and technology transfer. For the most part, these types of classes would be generally applicable to many different categories of job responsibilities. Six people made recommendations to take all the classes possible while at the university. Two subjects advocated providing more time for the degree program to allow participation in classes outside the major. Two people also indicated that class prerequisites were barriers to participation in classes outside of the major field of specialization.

Internships, practicums and cooperative experiences

Ten subjects reported that they had opportunities for practical experiences as part of their degree programs, including one internship which was a part of an earlier degree program in the Philippines. In that case, the subject worked on a case study of cooperatives in the Philippines. Two of the subject reported working as research associates, one with the Experiment Station, and one worked in economics on commodity flow. Two subjects also cited study tours in the U.S. when questioned about this type of practically oriented experience. One woman had taught marketing in the U.S. for a short period of time. Reports of practical working experiences included one man who had operated the Kansas State University feed mill, one man who had assisted with research on catfish farms in the U.S., one man who had worked in community development in a town in Colorado, and one man who assisted with management training provided for American Indians.

The advantages and benefits the subjects felt that they derived from these experiences included increasing practical skills and problem solving skills. Two subjects cited the opportunity to view classroom learning in the real world as a beneficial aspect of the program in which they participated. Interestingly, two subjects also reported gaining experience and knowledge in working cross-culturally and in handling minority group problems. One man indicated that he gained a clearer understanding of the linkage between research and extension through his experience, and one woman who had taught felt that this helped her in current teaching responsibilities.

The most commonly made recommendation regarding practical educational experiences concerned the need for more opportunities to

participate. At least five males and seven females felt that more of these types of opportunities should be made available to international students. Work with the U.S. Department of Agriculture was mentioned by two men and three women as a useful preparation experience for their job responsibilities. Four subjects recommended providing opportunities for students to work with professionals in their field. Four people also noted that the time allowed for study would need to be increased to permit students to participate in practicum or internship experiences. Three subjects advised that additional funding would be necessary to undertake these types of experiences. Three people also recommended that opportunities to work on a farm in the U.S. would be useful. Two subjects advocated part time practical work experiences while in graduate school. One suggested this as a part of a scholarship program, and the other felt it would be helpful to be involved in a development project on a part time basis while a graduate student. At least two people also felt that these experiences should not be limited to only the best students. Other types of experiences suggested by the subjects included working with extension programs in the U.S., and interning with organizations involved with agricultural credit and marketing.

Current Employment

The subjects reported being engaged in a variety of positions. A listing of the job titles is provided in Table I, Appendix C. The jobs of the 29 university employees were the most homogeneous and predictable, in comparison to the more diverse nature of the positions assigned to government staff members. Most university employees reported responsibilities which included teaching, research, and extension. A few had additional administrative or program management duties, as well.

The responsibilities described by the 16 government employees varied widely. However, many of the jobs could be generally characterized as requiring program management and administrative skills, accompanied by a general background in an agricultural discipline. A few subjects were involved in research activities, as was especially prevalent among employees of the Philippine Department of Agriculture's Bureau of Agricultural Statistics (BAS). Extension responsibilities were also noted, as many of the government

employees worked directly with farmers for some portion of their responsibilities.

Probably one of the most frequent comments about the job related to perceptions that the job responsibilities did not utilize the knowledge and skills gained through the participant training experience. This was particularly true for government employees, and a majority of the government employees were women. Several factors partly explain this situation. The factors include a lack of understanding of what preparation is necessary for certain jobs, and in some cases a lack of a definite plan for future employment. It seemed that there was a relatively clear understanding of what preparation is necessary for university employment, and the academic orientation of many degree programs could be utilized in an academic setting. However, the government jobs were much more varied in nature, necessitating more skills acquired outside of the narrowly focused traditional agricultural degree programs.

Summary

The statistical analyses, as well as the analysis of the comments provide evidence on which the conclusions and recommendations of this study were based. The finding of a lack of differences based on gender in the professional integration process experienced by these subjects, coupled with those areas where differences were found had implications for the conclusions and recommendations drawn from the analyses of these data. The data provided in the comments were used to support and clarify the results of the statistical analyses, as well as to generate some additional conclusions and recommendations. The resulting conclusions and recommendations are covered in the following chapter.

CHAPTER V. DISCUSSION, RECOMMENDATIONS AND CONCLUSIONS

Discussion of the Research Project

A number of concerns have surrounded the process of participant training. Through this process, U.S. sponsoring agencies and universities assist developing countries by providing training to meet their human resource development needs. Some of the concerns identified by developing countries, sponsoring agencies, universities, and the students themselves include the student happiness and adjustment while in the U.S., the relevance of the educational experience for home country needs, as well as the satisfaction and contributions of individuals as they return to their home countries and careers. Recently, interest in the area of participant training has centered on professional integration, or the transition process through which a student in the U.S. becomes a professional in the home country. Satisfactory professional integration could be considered the ultimate measure of the effectiveness of participant training, as the main objective of participant training is to provide skilled human resources to serve in needed professional roles in the home country.

The primary purpose of this study was to determine if there were observable differences between men and women returned Filipino participants in their experiences during process of professional integration. In addition, the research was intended to identify measures that these participants indicated were helpful during that process, with particular attention to the professional integration needs expressed by women. This information was gathered to help universities and sponsoring organizations target their efforts in addressing expressed needs.

The focus on differences between male and female participants, as they returned to their home country after studying for advanced degrees, was based on concerns raised in the literature on participant training, professional integration and women in development. These concerns were also reflected in the continued attention toward the particular needs of women by agencies such as USAID and USDA/OICD, as well as universities and organizations such as the National Association for Foreign Student Affairs.

The focus on participants from one country was intended to help control for the variability introduced by the home country situation. The Philippines

was chosen for reasons of convenience and interest. Filipino students were well represented among the numbers of international students who were programmed through USDA/OICD and Iowa State University, two major supporters of the research. The Philippines also happened to be the country where the names of a relatively large population of participants could be located.

Through information made available by both Kansas State University and USDA/Office of International Cooperation and Development, a list of 97 participants was compiled, all who had received advanced degrees in agriculture from U.S. Land-Grant universities, and who had been home in the Philippines for at least one year. Twenty-four from this list participated in face-to-face interviews conducted in the Philippines by the principal investigator. Nineteen from the list could not be located. The remaining 54 participants were sent questionnaires. Twenty-two of these were completed and returned, for a total of 46 cases.

It should be remembered, however, that there were characteristics about the Philippines that made it slightly atypical in comparison to other developing countries. Throughout the modern era, the Philippines has had a history of women serving in professional and leadership roles, and currently ranks very highly in terms of total number of professional women in comparison to other countries in the world (United Nations, 1986). These characteristics had to be considered in evaluating the research results from this project.

In addition to the caveat above, the small number of cases limited the types of statistical analyses that could be applied to the data. Similarly the relatively small number of women in the study (19) has affected the conclusions that could be drawn regarding their particular professional integration needs, as well as the differences that could be detected between the needs expressed by men versus women subjects in the study.

The research questions addressed through this study were the following.

    1. What are the professional integration needs felt by Filipino recipients of advanced degrees in agriculture from U.S. Land-Grant Universities, relative to their contact with the university after returning home,

opportunities for interaction with professionals in-country, amount and type of continuing education opportunities, relevancy of experiences provided by the universities to current job needs, and satisfaction with their current employment?

2. What is the relationship between expressed professional integration needs and various demographic variables such as gender, age, program of study, field of study, previous work experience, marital status, number of children, years spent studying in the U.S., undergraduate alma mater, when undergraduate degree was received, and employer?

3. Are there specific identifiable differences between the needs expressed by men and women returned Filipino participants?

4. What kinds of changes would these participants recommend to help universities and participant sponsoring organizations better address their needs?

The questionnaire and interview schedule used to collect data for this study were intended to address these questions. The two instruments paralleled each other, although the interview schedule specifically asked for comments relative to every area of inquiry. Survey respondents were encouraged to make comments if they wished, and a final question asked for general comments or recommendations relative to the participant training experience. For the majority of the questions, a range of four appropriate answers was provided, and the responses were translated into numbers based on a Likert scale with "1" corresponding to the low end answers and "4" corresponding to the high end answers. The instruments can be found in Appendix A, and the various scales used are provided in Appendix B.

The research questions formed the basis for a number of specific hypotheses which were intended to identify differences between males and females in their perceptions about various aspects of the professional integration process. In the statistical analyses, T tests were calculated for each of the questions on the two instruments to determine if there were significant differences ($p < .05$) between the responses of men and women. Additional T tests were also performed to detect significant differences between individuals grouped according to other demographic variables, including age,

marital status, degree attained, current employment, and amount of time spent studying in the U.S.

Summary of the Findings

Generally, no major significant differences between the perceptions of men and women regarding the professional integration process became apparent through this study. No significant differences were found between men and women in their need for and amount of contact with degree granting institutions. The subjects were specifically questioned regarding contact with academic advisors, major professors, alumni offices, international students/agriculture offices, and any other official or unofficial contacts remaining at the graduating university.

The subjects were questioned about their access to professional networking opportunities, including contact with fellow alumni and contact with professional colleagues. None of the questions on networking opportunities yielded significant differences between the responses given by men and women.

The subjects were asked about their need for and access to current resource materials such as journals and papers. Although access to journals was ranked as more important by the male subjects than by the female subjects, this difference appeared to stem from the differing job responsibilities required of the primarily male university employees versus the government employees, who were mostly female.

Perceptions about other types of continuing education opportunities such as formal academic courses, professional association meetings, and conferences were investigated, as well. Males indicated that they felt opportunities for participation in formal classes after the degree were more adequate than noted in the responses of the female subjects. Males also felt that the classes were more useful to them.

In general, formal classes did not appear to play a significant role in continuing education, and neither men nor women rated it very highly on any scale. However, again, it was likely that there were opportunities for formal classes at the universities, which may not have been as available to government employees. Participation would be likely to influence feelings about importance. It seemed likely that men had greater access to formal

classes through their university employment than the women who were predominantly employed by the government.

All of these null hypotheses were accepted that specified particular differences between males and females in the home country experience. Based on this, the general hypothesis was accepted that there was no significant difference found between Filipino males and females in their perceptions of their professional integration needs related to their experiences after returning home. However, there were isolated findings of significant differences $(p < .05)$ between the responses of males and females. These findings together did not seem to be influential enough to permit rejection of the null hypotheses, and additional research would be necessary to further clarify the significance of the differences detected.

Analyses were also performed to determine if there was a significant difference between males and females in the perceived relevancy of the preparation provided during the degree program. No difference was found, and the null hypothesis was accepted. This acceptance was based on the acceptance of two supporting hypotheses, in which no significant differences were found between the responses of men and women subjects. The questions specifically addressed perceptions about university classes in the major, opportunities for participation in relevant preparation experiences such as training in management and leadership, and opportunities for co-curricular preparatory experiences such as internships.

The men felt that the classes taken for their majors were more relevant to their job responsibilities than was evident by the feelings of the females. Again, given the distribution of men and women in government and university employment, this difference appeared to be associated with the fact that classes in the major were more directly related to the responsibilities of university employees, which is where most of the male subjects worked. On this one question where a significant difference was found, a determination was made that it alone was not sufficient to permit rejection of the null hypothesis.

As previously discussed, the lack of differences may have been related to the particular situation associated with the status of women in the Philippines. Professional women have been a fact of life in the Philippines for a long time, and this may have influenced the treatment the women subjects

received on returning home, and hence their perceptions about their experiences during the professional integration process. The lack of differences may also have been the result of the small number of female respondents in the study, which did not permit more sophisticated statistical analyses.

The Research Questions

Each of the four main research questions posed in this study will be treated in the following discussion. Question three on gender based differences will be covered first, as this area represents one of the primary interests of the study. Question two will follow, in which the differences in professional integration needs between subjects grouped by variables other than gender will be explored. Questions one and four will be treated together, as they complement each other. Question one asks what professional integration needs were expressed, and question four asks for recommendations to address the needs. They were covered last because the responses to question one and four provided a basis for some of the recommendations proposed as a result of this research.

Question Three

The findings discussed previously provided a basis for addressing research question three. Question three asked if specific differences could be identified between the needs expressed by men and women returned Filipino participants. Although there were four interview/questionnaire items in which significant differences were found between the needs expressed by the men and women subjects, the null hypotheses were all accepted. However, a number of comments were made which specifically referenced perceived gender differences, as illustrated in the following list. It was also interesting to note that more women subjects made comments about perceived gender differences

Comments by male subjects are summarized as follows :

> Female colleagues are very helpful. The women tend to be more frank and sincere. In genetics projects most of my colleagues are females.

I work together with women for the work I'm doing now, but my
training is in cereals and feed grains, and there are few
females in this discipline.

There is greater convenience in working with men. Men can leave,
and they can go on field trips. Men are freer, less restricted.

At one time there was definite discrimination against single
women because so many went to the U.S. to study and married
Americans. They did not return to their previous employers.

Comments by female subjects are summarized as follows:

I am more in touch with women alumni. We are closer, as we are
in similar fields, so we can fill each other in on latest
developments. We share ideas and help with access to
the results of research. - 3 similar comments

Because better employment is available, I would have gone
on for a Ph.D., but it was not in my contract. Most of
us (women) can only get M.S. degrees.

Most women alumni of Cornell are in the same boat, or
a worse situation than I am. I can discuss problems more
easily with women. Men Cornellians are not too open to
women that are doing well. They are considered too outspoken.

I have little contact with women outside of the university or
from other institutions.
I get together with women alumni more. Women Cornellians used
to get together once a week on Friday.

Because of my field, I am more in contact with male colleagues.

We (women) have discussion and exchange ideas on policies,
future directions, and applicable strategies for agricultural
development.

In contrast to the comments above, at least five male subjects and seven
female subjects said that they treated colleagues of the opposite gender in the
same way. These comments were consistent with the results of the statistical
analyses.

Through this study, generally it appeared that women were more comfortable interacting with other women professionals, and the same was true for men and male colleagues. However, the differing conditions and situations associated with government versus university employment seemed to have more influence than gender on the professional integration needs perceived by the subjects. Regardless of gender, the subjects who worked for the universities were more satisfied with their preparation and subsequent adjustment to their professional responsibilities. They had more positive responses to questions about the professional integration process.

These findings together served to identify another potential problem area. From this study, it appeared that university jobs were more desirable and carried more potential for prestige and job satisfaction. In general, university staff were more likely to have received Ph.D.s and government staff were more likely to hold M.S. degrees. The preponderance of men holding these more desirable university positions may have reflected a bias in the system.

Males in this study also held the majority (73.68 percent) of the doctoral degrees. Perhaps women were less likely to be selected to participate in advanced degree training leading to a Ph.D., and therefore, were less likely to have appropriate preparation to compete for the more desirable university jobs. This was also evident in the comments made by some of the subjects relative to the existence of discrimination against women in the selection process for participant training opportunities.

The following comments allude to the existence of a bias in the system. Interestingly, this includes the essence of remarks made by a male subject, and the second represents a comment by a female.

> At one time there was definite discrimination against single women because so many went to the U.S. to study and married Americans. They did not return to their previous employers.

> Because better employment is available, I would have gone on for a Ph.D., but it was not in my contract. Most of us (women) can only get M.S. degrees.

Women may have been viewed as a greater risk in the participant training process because of the numbers that married in the U.S. and did not return to the Philippines. There was evidence that this was present in the research population. Reports by subjects indicated that at least five women of the original list of 96 subjects had married American citizens, and remained in the U.S. Placing women in M.S. degree programs would have represented less of a risk, because less resources would be involved.

Summary

While these issues did not originate in the professional integration process, they had the potential to profoundly influence it. The selection and subsequent programming of participants seemed to have affected their placement on returning to the Philippines. This indicated a need for a more thorough investigation of the participant training process from the beginning, with a focus on the final results, the attainment of satisfactory professional integration by participants as they return to their home countries.

In response to question three, few differences became apparent through this research between male and female subjects in their perceptions about their professional integration experiences. Alternate explanations were given to address those four questions where significant differences (p < .05) were found between the responses of men and women. It was possible that the paucity of findings of significant differences between men and women was related to the small number of subjects (46) and in particular, the small number of women subjects (19). This finding may also have reflected the relatively high status of women's roles in the Philippines. However, the research findings did point toward some potential problem areas of gender differences associated with the participant training process, and perhaps with the employment process in the Philippines. Further research would be necessary to substantiate and clarify these issues.

Question Two

Question two explored the relationship between demographic variables other than gender and professional integration needs. In reviewing the differences between the responses of subjects grouped by various other demographic variables, a decision was made to cover only those variables where there were relatively large numbers of findings of significant

differences (p <.05). Specifically, the variables were current employment, length of time spent studying in the U.S., degree attained, and marital status.

Current employment

Whether a subject was employed with one of the universities or the government seemed to have made the greatest difference in professional integration, based on the findings of this study. There were 15 questions where significant differences were found between government and universities employees, which was the most number of differences attributed to any variable. A number of comments supported this finding, as well.

It appeared that the participant training process, in general, was more suited to the preparation and satisfaction of university employed subjects. Subjects employed at the two universities also seemed to be more satisfied with the conditions and responsibilities of their jobs. In particular, university employees responded more positively to questions regarding the adequacy of job security, and the adequacy of the job in providing feelings of accomplishment. In comments made by the subjects, frustration was often expressed by the government employees regarding their jobs, and their future employment prospects. University employees often made very positive comments about their job responsibilities and job security. The evidence provided in the statistical analyses and the comments led to the conclusion that university employed subjects were more satisfied with their jobs than the subjects who worked for the government.

In addition, when compared to government employees, university employees were more likely to have given positive responses relative to the adequacy and usefulness of what they learned in college classes for the major. University employees tended to feel that their classroom preparation was more directly related to their careers, and they indicated a higher degree of satisfaction with aspects of their jobs.

University employees also indicated that journals were more important to their jobs, and that they needed to use them more frequently than was evident in the responses of government employees. Through the investigation of the needs for resource materials such as journals, the comments and recommendations of university employees also identified the lack of available journals as a problem, and a potential barrier to professional integration. As

this did not appear to have been perceived as a major issue by government employees, perhaps efforts should be targeted toward support for university libraries and other means of making background resources more readily available to the university employees that need them.

In contrast, more positive responses were given by government employees relative to contact with international offices and major professors at their alma maters. Statistically significant differences (p <.05) were found on questions covering the perceived importance, frequency, usefulness and adequacy relative to contact with the international students/international agriculture office at the university. These findings may have been associated with greater needs experienced by the government employees during professional integration. Comments from government employees indicated that they were often discontent with the positions they held, with their preparation for the position responsibilities, with utilization of their backgrounds in the position, and with job security. Perhaps the discontentment lead to greater need for contact that represented familiarity, security, and encouragement, as they attempted to cope with stressful aspects of their jobs.

Convenience and proximity also provided plausible explanations for the differences between university and government employees in their perceptions about contacts with international students/international agriculture offices and major professors. Nearly 50 percent of the subjects were graduated from two universities, Kansas State University and Cornell University. Both of these institutions had on-going development efforts in the Philippines, which had involved travel by various representatives of the international students/ international agriculture offices and agriculture faculty. Government employees, who were located in Manila, would be much more accessible to visitors from the U.S. universities. Increased frequency of contact would be more likely to lead to perceptions of greater importance and usefulness. The combination of these factors may have resulted in the findings of significant differences (p < .05) between government and university employees regarding their perceptions about contact with the international offices and major professors at their universities.

The responses of government employees were significantly different from the responses of university employees in their perceptions about the importance of contact with female alumni and the frequency of contact with female professional colleagues. Government employees gave more positive responses to both questions. Again, proximity may have been responsible. The majority of the subjects who worked in government service were female (70.59 percent), and many of them knew each other well. Their desks and offices were often within walking distance, and sometimes even within touching distance. Given the nature of government assignments, which often required employees to work together in planning and implementing programs, the women in government service had many opportunities for professional collaboration as well as social interaction with other women.

While women subjects who worked at the universities had opportunities for professional collaboration with other women, many commented that most of their peers in the field were males. Although the two universities were not very large, transportation by jeepney was often required between many of the departments on the campuses. The differences observed between university and government employees in perceptions about contacts with female alumni and colleagues probably resulted from the combined influences of these factors.

The finding of this magnitude of difference between the government and university employment had implications for the participant training process. From this research project, it appeared that university employment could generally be characterized as more satisfying in terms of the work responsibilities and the preparation for the job. University employees also tended to be more satisfied with the working conditions and job security

A majority of the university staff members held Ph.D. degrees which seemed to influence job placement and respect from colleagues. Women subjects were also less likely to possess doctoral degrees, which may have reflected a problem in the identification and selection of individuals to receive advanced degrees. As previously mentioned, the fact that the majority of the subjects who were employed at the two universities were males may imply that women were not given equitable opportunities to compete for these more desirable jobs.

In addition to this consideration, the findings highlighted a recurrent problem in the participant training system, which involved providing training that was appropriate to the expected work responsibilities. With participants who were destined for university employment, the preparation received through the degree training seemed to be satisfactory in terms of their ability to fill the responsibilities expected in the job. This situation may have resulted from a clearer idea of what constituted appropriate background for employment with the university. Teaching classes and conducting research in a similar field to the Ph.D. major would have provided more opportunities to directly use the knowledge gained through the degree.

However, for many of the jobs available in the government, it would have been more difficult to identify the necessary training. This was particularly true, where the job responsibilities changed from those originally intended for the participant, or where it appeared that plans for future employment were completely lacking. The government employees indicated that unless they specifically worked in research in their field, they had few opportunities to use the background provided in the major discipline. They were more likely to have been involved in collaborative projects that required management, program development, and administrative skills, along with a general grounding in an appropriate agricultural discipline.

Based on this finding, it appeared that several measures would be necessary to address this situation. The academic orientation of most disciplines at both M.S. and Ph.D. levels left many of the government employees unprepared for significant portions of their everyday work responsibilities. Perhaps some type of augmented degree program would be more suitable to the job. This might include opportunities for classes outside the major in areas such as management and administration. Internship or cooperative work experiences with both public and private concerns in the U.S. might also provide some of the background needed in program development, program implementation, and administration, allowing participants to gain background and experience in these areas. The comments of the subjects supported this as there were recommendations to provide practical experience at private financial credit firms, as well as internships with various agencies in the U.S. Department of Agriculture.

A solution which may prove more cost effective in the long run is the implementation of appropriate M.S. degree programs at indigenous universities. The two universities visited, as well as several others in the Philippines offered advanced degree programs, including some doctoral programs. However, comments made by the subjects indicated that there was a feeling that degrees attained at Philippine universities were not equal in value to degrees from American institutions. This perception would need to be addressed before M.S. degrees attained at home became a viable alternative solution. Other problems associated with indigenous degrees include the expense and time required to build indigenous institutions capable of conferring quality advanced degrees. Also, the breadth of offerings may not be as great as the variety available elsewhere. The advantages to providing M.S. level training at home include lower cost per individual participant, opportunities for remaining employed while studying for the degree, and local Philippine problems could provide the basis for educational examples and applied research experiences.

Length of Time Studying in the U.S.

Statistical analyses were also performed to determine if there were differences between participants grouped according to the length of time they had spent at college in the U.S. The subjects were grouped according to whether they had spent more than or less than two years in the U.S. A division was made at two years because this was frequently the amount of time allotted by sponsoring agencies for a participant to complete an advanced degree. For the most part, students who were allowed to continue their studies beyond 24 months were doctoral candidates. Statistically significant differences ($p < .05$) were found between the two groups in the responses to 11 interview or survey questionnaire questions.

From this study, it appeared that spending more than two years in the U.S. had an influence on the feelings of the subjects about their jobs. Those who spent longer than 24 months gave more positive responses to questions about job satisfaction than the subjects in the group that spent 24 months or less in the U.S. Statistically significant differences ($p < .05$) were found between the groups on feelings about the adequacy of the prestige of the job, both inside and outside of the organization, the adequacy of the job in the amount of

authority permitted, the adequacy of the job in providing feelings of self fulfillment and success, and the adequacy of the job in providing opportunities to participate in organizational decision-making.

If the longer length of time does include mostly recipients of doctoral degrees, perhaps the differences between the two groups associated with feelings about the job are related to differences in the status of individuals with M.S. versus Ph.D. degrees. This would not be surprising, as a Ph.D. was often a required credential for the more challenging and desirable positions.

These differences may also reflect a difference on the part of the subjects in terms of their feelings about their preparation for the job. Perhaps those subjects that had the opportunity to stay longer in the U.S. gained enough additional preparation to make them feel more confident about performing the role expected of them as a professional. For those employed at the universities, the more direct relationship between the degree and the career may also have had an effect.

The subjects who were in the U.S. for two years or less gave significantly more positive responses (p < .05) regarding the importance and adequacy of contact with male professional colleagues, and the adequacy of contact with female professional colleagues. This difference may have reflected an increased need by the group that spent less time in the U.S. for the security of association with peers. Again, based on the assumption that the two amounts of time roughly divided the group into M.S. and Ph.D. recipients, this may have indicated that M.S. degree recipients encounter more difficulties during professional integration. The differences may also have reflected the fact that many of the M.S. graduates were employed in the government, where the work was more collaborative than the work of the university employees, many of whom held Ph.D. degrees.

Degree Attained

In a related finding, significant differences (p < .05) were found between M.S. and Ph.D. recipients in their responses to seven questions. It was interesting to note that subjects with doctoral degrees gave significantly more positive responses to five questions related to job satisfaction. Ph.D. holders were more positive in their perceptions about the adequacy of job prestige inside and outside of the organization, the adequacy of the job in providing

feelings of self fulfillment and success, and the adequacy of the job in providing opportunities to participate in organizational decision-making.

This closely corresponded with the differences found between subjects who had spent more than two years in the U.S., and those who spent less time at U.S. universities. It may also have been related to the differences in job satisfaction noted between university and government employees. There would have been a very close correspondence in the group membership between subjects selected by degree, length of time in school, and current employment. It appeared that those subjects who had been in the U.S. longer had Ph.D degrees, and most of the university employed subjects held doctoral degrees. The employees who worked for the university tended to be more positive in their perceptions about the job and job satisfaction. This pointed toward a situation in which obtaining a Ph.D. degree qualified an individual for more university employment opportunities, which appeared to represent the most desirable jobs available. From the subjects' point of view, and for other reasons as well, it appeared that it was most desirable to be selected to participate in a Ph.D. program.

Perhaps this has implications for the goals of sponsoring agencies, in terms of selection and support for sponsored M.S. degree programs. Perhaps more emphasis needs to be shifted toward sponsoring Ph.D. programs, accompanied by the development of indigenous M.S. programs. To maximize the development of the human resource potential available, support for indigenous M.S. programs may allow more people in the Philippines to obtain M.S. degrees, while preparing some of them for doctoral degree programs abroad. This would also facilitate the strengthening of indigenous Ph.D. programs into the future.

Marital Status

Significant differences (p < .05) were found between the responses of married and single subjects on seven questions. However, 78 percent of the subjects were married, far out weighing the subjects who were still single. Married subjects gave more positive responses to questions on formal classes after the degree. Subjects who were married felt more positively than the single subjects about the importance, usefulness and adequacy of the opportunities for formal academic classes after the degree. As no relevant

comments were made by either married or single subjects, any explanation would be speculative on why this cluster of positive responses may have occurred.

Summary

In answer to research question two, there are areas of identifiable differences between subjects grouped according to a number of variables. Analyses were conducted on the differences between subjects grouped according to gender, degree, marital status, length of time spent in the U.S, current employment, length of time in the Philippines, and previous work experience. Those variables that appeared to make a difference in rank order, were current employment, length of time spent in the U.S., degree attained and marital status.

According to the study, subjects working at one of the universities, who had Ph.D. degrees, and who had spent two years or more in the U.S. gave more positive responses about their job satisfaction. It is of interest to note that a majority of the better-employed and integrated subjects were males. In particular, their responses were positive concerning their perceptions of prestige associated with the position, both inside the organization and outside of the organization, their perceptions about the adequacy of the job in providing feelings of accomplishment and self fulfillment, and the adequacy of the job in providing opportunities to contribute to organizational decision-making. Perhaps Ph.D. recipients were employed in the most desirable jobs, which were primarily located in the universities. Perhaps M.S. degree recipients were frustrated because they possessed a certain level of advanced skills and knowledge, but they were not qualified enough to permit them to compete for more challenging and desirable jobs. The fact that men held most of the Ph.D. degrees and women held most of the M.S. degrees may imply a problem in the participant selection process.

Question One and Question Four

Research questions one and four will be treated together. Question one asks what are the professional integration needs perceived by the subjects, and question four covers recommendations made by the subjects for improvements to address perceived problem situations or enhance the educational experience. Not all of the findings were based on the statistical analyses.

Some of them became apparent through the comments made by the subjects during the interviews and on the questionnaires. The subjects were questioned on categories of concern that were considered the most easily impacted by universities, government, and sponsoring organizations. The categories included needs related to contact with the graduating university, needs related to networking and feelings of professional isolation, needs for continuing education, perceptions about the preparation provided through the degree program, and needs related to the current job situation and job satisfaction.

Contact with the Graduating University

Needs

In terms of contact with the graduating university, the statistical analysis indicated that the perceptions of government versus university employed subjects were significantly different in regard to contact with the international students/international agriculture office. The perceptions of government employees were found to be significantly more positive than those of the university employees, although this was partly explained as due to the increased opportunities for interaction available to government employees. Government employees ranked their interactions with the international students/international agriculture office as more important, more frequent, more useful and more adequate than was indicated by the university employees.

This would appear to indicate that the frequency of contact and interaction influences perceptions of needs for contact. The exchange of information, social interaction, and consulting that took place during the interaction between the government employees and representatives of the international students/international agriculture office were helpful, and were viewed as important to the government employees. In other words, perhaps the university employees would have given more positive responses, if they had been permitted the amount of interaction and contact that was available to the government employees. This type of interaction appeared to be significant in terms of its perceived usefulness in the professional integration process, as evaluated by those in government service who were in a position to take advantage of the opportunities available for contact.

The inquiry about contact with the graduating university specifically covered academic advisors, major professors, alumni offices, international students/international agriculture offices and any other types of contacts. The comments of the subjects indicated a continual need for various types of information, including information about research, educational and other types of opportunities, as well as resource materials. They viewed all points of contact with the university as potential sources of this type of information, although there was generally more interest expressed in contacts associated with the major department or discipline. Some interest was expressed in general news of university events, as was particularly evident in the responses to inquiries about the alumni office. However, recommendations to this office primarily concentrated on needs for information to assist in professional development, such as opportunity leads and up-to-date resources in the chosen field.

Generally, there was a strong interest in maintaining contact with the graduating university. This may also have reflected feelings that there were fewer opportunities and a scarcity of current resources available in the Philippines, as well as the presence of a bias which placed more importance on information and resources materials with a Western origination. In addition, these types of needs indicated concern with access to needed current resources and information regarding research and educational opportunities. This information was viewed by the subjects as important to maintaining and improving professional performance.

Recommendations

Several recommendations are proposed to address this general area of needs. Universities may need to coordinate their outreach efforts if they wish to maximize the use of resources and also meet the need for information that is specific to the discipline. Perhaps a general alumni newsletter is needed which is augmented by contributions developed at the college level. The college level submissions could provide specific information on new developments, as well as leads on research and educational opportunities, and could be targeted to recipients who had graduated from a particular college. This is still a rather broad audience, but to produce newsletters specific to graduates of various departments would be prohibitively expensive, except on an individual

departmental basis. However, due to the cost involved in implementing a newsletter, and the fact that most Filipino subjects appeared to be unable to . afford subscriptions, funding from sponsoring and governmental organizations may be required. From the point of view of organizations that are concerned with the successful professional integration of their sponsored participants, such an investment would make sense, in terms of maximizing the potential for success of an already large investment in the development of human resources.

A number of universities have established programs in which international alumni help serve as an outreach of the university in the identification and initial advising of participants. Perhaps this mentoring relationship could be strengthened through a commitment on the part of the student who has received assistance to make information available on current resources, and leads on research and educational opportunities accessible to the alumnus back in the home country. These exchanges could be formalized and supported by providing mechanisms to facilitate access to the information and funding the associated postage and duplication, and perhaps labor costs.

A number of subjects were especially interested in having oversight visits from certain representatives of the university to evaluate their performance, and to consult and advise on their programs. This need for contact appeared to be stronger when the subjects had experienced interaction with experts from their universities and had taken advantage of the opportunity for consultation, as was the case with subjects employed with the Philippine government.

Perhaps universities need to utilize appropriate faculty members to make some of the foreign visits that would normally be reserved for representatives of the alumni office. These faculty members could be asked to help in the process of organizing alumni associations, as well as to visit former students to offer advise and assistance.

With proper coordination, this type of visitation may be able to be coupled with other project consulting or teaching responsibilities to further justify the expense of the visit. Another promising option is to involve the visiting experts in providing continuing education to professionals in the country. The visitors

could give seminars or workshops in their areas of expertise and also consult with former students.

This type of experience would be beneficial to the various visitors in enhancing their knowledge of developing country situations. As providers of future education to students from developing countries, this could prove invaluable. These visits in-country would give a greater understanding of the people and their needs, facilitating enhanced advisor-advisee or major professor-student relationships for future international students. This is important because major professors and academic advisors are in positions to influence the quality of the educational programs of their international students. To date, many of the efforts to increase the relevancy of the degree programs of international students have been the result of concerned education professionals who have the chance to gain a fuller understanding of the situation through visits to developing countries.

Sponsoring organizations may also wish to consider supporting this type of follow-up activity, particularly in situations where there are sufficient graduates in a given location to make a visit worthwhile. This could be based on a merit system. That is, after a faculty member had supervised a certain number of advanced degree programs for international students from a particular country or region within a certain amount of time (e.g., major professor for ten Filipino students in five years), the individual would be provided the opportunity to make a follow-up visit to the country to assess the progress of the students and provide consulting assistance and recommendations for improvements. This type of follow-up could be integrated into the training section of development contracts, as a part of the evaluation effort. The representatives could be required to collect a small amount of standardized data from the sponsored graduates they visited, which could be compiled for a particular country or region, or on an international basis to evaluate the effectiveness of the participant training in provided needed human resources.

Networking

Needs

Through the statistical analysis it became apparent that government employees gave more positive responses regarding the frequency and

importance of contact with female alumni. The government employees, who were primarily women, commented that they collaborated with female colleagues on projects and programs for work, and also engaged in social activities together. This close association appeared to be partly due to proximity, as the government employees were mostly located within easy walking distance of each other, with many working in the same building or same office with a number of other female professionals. In contrast, many of the women at the university were more remote from each other, requiring transportation by jeepney to commute between offices. Another factor which may have been positively influencing the responses of women working for the government was the nature of the working responsibilities of jobs in the government and the universities. The responsibilities of research and teaching were often conducted relatively independently, although assistance from others was sometimes required. Government employed women reported routinely working on advisory councils, extension programs and government research in collaboration with other female colleagues.

Another interesting finding from the statistical analysis was the differences in perceptions about networking with male and female colleagues that were detected between subjects who were in the U.S. for less than two years, and those who had been in the U.S. for two years or more. Those who had been in the U.S. at college for less than two years gave more positive responses regarding the adequacy of contact with female professional colleagues and the adequacy and importance of contact with male professional colleagues in the Philippines. This division of the subjects based on length of time at the U.S. university roughly corresponds to the division in the subjects between M.S. and Ph.D. recipients. Given that there was some evidence to indicate that M.S. degree recipients had greater difficulties in the professional integration process, these differences may have related to a greater need for contact and commiseration to help this group of subjects cope with the professional integration process.

The comments of women indicated perhaps a greater need for support during the initial adjustment process. Interest was expressed in the establishment of an all women's professional network, as well as a desire for assistance during the transition process. Specifically, they felt a need for other

women colleagues to make efforts to provide advice and counsel to newly returned women graduates, and a need was expressed for an orientation seminar to help new professionals get started in their careers.

There were comments from both men and women that indicated that they characterized their interactions with male and female colleagues in the same way. However, there were also a number of comments which detailed perceptions of differences about interactions with the opposite gender. Generally, it appeared that women in the study felt more comfortable interacting with other women, although they also had professional and personal relationships with male colleagues. This was also true for men, who indicated a slightly greater ease in interaction with other men, but also mentioned interaction with women colleagues for both professional and social purposes.

Men, particularly in their comments, indicated some differences of treatment of women colleagues. A few women noted that they did not feel as free to talk to male colleagues as they were with females, and also that men were not capable of understanding their situation. The comments made by the men concentrated on perceived gender differences in reference to the fulfillment of various aspects of job expectations.

From the comments made by both men and women, it appeared that Cornell University and Auburn University had the most active alumni organizations in the Philippines. This did not appear to be related to the size of the population of alumni, as Kansas State University had the most graduates in the study population, although these alumni did not seem to have as much activity as the organized alumni groups.

In general, many of the comments about interaction with fellow colleagues and alumni related to a need for access to information on research and educational opportunities. Subjects looked to other professional colleagues and alumni of both sexes as potential sources of information. Some of the subjects further elaborated on this need for information, advocating the establishment of a newsletter or communication network to help maintain contact and facilitate the flow of this needed information.

Although the situation may be unique to the Philippines, it appeared that a significant amount of professional networking opportunities were

available to professionals, and the opportunities were not limited by gender. Males and females interact on both personal and professional levels, although there was a slight preference expressed for contact with colleges of the same gender, especially on personal matters.

Recommendations

To enhance opportunities for interaction among professionals, several recommendations are provided. Regularly providing address lists of alumni of the university to all known graduates in the country may facilitate contact. Universities may need to direct attention toward keeping up to date address lists if they wish to provide assistance in this capacity. In addition, participants need to keep in mind that they have a responsibility to keep the university addresses current if they wish to continue to have contact.

Similarly, several subjects specifically mentioned a need for a newsletter or other communication mechanism to help facilitate contact among professional colleagues and alumni. Implementing a newsletter would also help address the continually expressed need for up-to-date information and opportunity leads. As previously discussed in the section on contact with the graduating university, this type of newsletter could be managed from the university, and supported by sponsoring agencies. It could include a general information section, followed by more specific information provided at the college level. This would allow subjects to have access to the information they desire in their fields. A newsletter could also be used to keep graduates informed on each other's progress. Updates from graduates could be solicited for inclusion in the newsletter. This type of information may stimulate contact by colleagues who have read the article and have an interest in the work of the featured participant.

Some subjects indicated a desire for class reunions, which could help foster professional networks, in spite of the fact that the initial meetings were social in nature. As many universities already make efforts to organize alumni groups in foreign countries, perhaps they need to direct more attention toward this type of activity, and in particular toward follow-up activities and maintaining contact after the event.

The establishment of a professional network for females was suggested by one of the subjects. A formalized network could be assisted by the university

and sponsoring agencies by providing addresses, funds for postage and communication, and staff support to get started. However, it would be difficult for the universities and sponsors to undertake the establishment of many of these remote networks, which points toward a need to have local participants provide the leadership for such an effort.

Another recommendation made by female subjects was that fellow alumni in the country should provide assistance to newly returned graduates during the adjustment process. To address these needs, this particular recommendation could be implemented in conjunction with the support network or mentoring system previously described to help maintain contact with the university. Alumni from a given university could be enlisted to help in the selection and orientation of new participants. These participants could in turn serve as a communication point with the alma mater while they are in the U.S. at school. When they return, perhaps the same alumnus who helped them initially could serve as a mentor, providing assistance with the re-entry process, as well as continued association and assistance later in the career.

This really proposes to establish a mentor-mentee relationship prior to attendance at the U.S. university. There are benefits to this relationship for both parties. New professionals have someone they can rely on for help and assistance, both before and after their degree training. The professionals that serve as mentors would benefit by having a contact at the university who has an obligation to keep the mentor up to date on university news, and to provide information about research and educational opportunities at the university.

To implement such a system would require cooperation by both universities and sponsoring agencies. The sponsoring agencies such as USAID are instrumental in the identification and selection process of participants. This process would need to be structured to facilitate the use of professionals in the country. However, the universities have the most vested interest in recruiting new students and fostering alumni relationships. They would need to keep their network of mentors informed on entrance requirements, changes in degree programs and other developments which would affect placement of students.

Another frequent recommendation concerned the establishment of organized professional networks, including a specific recommendation for a

women's agricultural economics network. Given the difficulties of long distance intervention by the universities and sponsoring agencies, and the already full schedules of most of the subjects, perhaps these networks should be fostered through the support of continuing education efforts. Through participation in group continuing educational experiences, participants have opportunities to meet others with similar interests.

Perhaps the most impact on various aspects of professional integration needs, including perceived needs for interaction with colleagues, can be achieved through increased support for continuing education. This is a role where universities and sponsoring organizations can make a contribution, both in terms of financial support, and provision of expertise and staff support for the organization of the educational experiences.

Continuing Education

Needs

Almost universally, the subjects reported unmet needs in the area of continuing education. This is one area where many comments and recommendations were made, which may reflect the level of concern. A need for financial support was expressed by many subjects. Needs related to access to information about continuing education opportunities were also cited. From the data, it appeared that the subjects were more likely to prefer continuing education in the form of conferences and professional association meetings over formal classes and seminars. Another area of particular concern was the need for continuing education to keep them abreast of current developments in their fields originating from the U.S. or other Western countries. Journals were also utilized in maintaining professional competence, but there were differences in the pattern of journal usage between groups of subjects.

Needs related to access to journals and papers were investigated under the broad category of continuing education. This is because journals do represent one form of information dissemination mechanism that can be utilized by practicing professionals in the field. The statistical analyses regarding journals and papers yielded significant differences (p <.05) between males and females in their perceptions about the importance of professional journals. Males were more positive about the importance of journals in the

professional integration process. This finding was explained as actually reflecting differences in the perceptions of government staff members, who were mostly female versus the primarily male university employees. The differences in needs expressed by the two groups appeared to be due to differences in the job expectations of government and university employees.

This finding was supported by statistical results of significant differences (p <.05) between university and government employees in their perceptions of frequency of need and usefulness of journals in professional development. The responses of university employees were found to be significantly more positive.

The comments made by the subjects in this area supported this finding. Apparently, because of the nature of the research and teaching responsibilities required of university employees, they perceived greater needs for journals to assist them in their work. Concern was expressed regarding needs to make journal more accessible within the university, and regarding the scarcity of these resources.

Male subjects were more positive about the usefulness and adequacy of opportunity for formal classes after the degree, although even their responses did not indicate that they placed very much importance on formal classes in their continuing education. The difference noted may also have been the result of the fact that more males worked for universities, where formal classes would be more easily available. Since the majority of the female subjects were employed in government service, opportunities for formal classes may have been less accessible to them than what would be available through the universities. Both males and females probably felt similar needs for classes after the degree, but males were more likely to be in positions of access.

In a related finding, statistical calculations indicated that married subjects gave more positive responses to questions about the adequacy and usefulness of formal classes after the degree. However, from the information available, it appeared that this form of continuing education was not particularly important in general. In addition, the majority of subjects (78.3 percent) were married, which may have affected the results because of the vastly different sizes of the groups. No explanation became apparent on this finding of statistical significance.

In their comments, the subjects indicated that they had encountered barriers to participation in formal classes. These included the cost of formal classes, the fact that subjects with doctoral degrees are not allowed to take classes because Ph.D.s are a terminal degree, and the lack of class offerings available after working hours. Several subjects also reported that they had started attending classes leading to Ph.D.s from Philippine universities, but had to quit, usually for financial reasons. Many subjects also specifically cited a need for formal classes in computer use to help them fulfill the responsibilities of their jobs.

A number of needs were expressed when subjects were asked about their perceptions about conferences and professional meetings. The subjects felt that these types of continuing education opportunities were needed to help keep them current in their field, and to foster the establishment of networks of professional colleagues. Professional conferences were felt to provide needed opportunities for the presentation of research results which could lead to professional advancement.

There were responses from the subjects that indicated needs for increased support for participation in international conferences and professional meetings. In this case, support means both financial support and personnel policies which allow leave time to facilitate participation in these meetings. There were also responses in which subjects indicated a need for more localized information, and several specifically said it was helpful to be able to make comparisons with development in other Asian countries.

Recommendations

Attention directed toward continuing education has great potential for assisting returned participants during the process of professional integration. The educational experiences provided could be tailored to the particular expressed needs related to performance of the job. In addition, it is a need that universities and sponsoring agencies are well-equipped to address, with the potential to make a real impact on the satisfactory professional integration of the participants.

Participants recommended that universities, sponsoring organizations and their own government increase the financial support for continuing education. This type of expenditure does make sense in that it enhances the

quality of an already substantial investment in human resources. They also suggested the establishment of a system for accessing information from universities and sponsoring agencies on continuing education opportunities as well as sources of support for continuing education. Some of this type of information could be made available through a newsletter from the university, as previously described. In addition, participant sponsoring organizations may wish to consider providing information on a regular basis to returned participants about continuing education that they are supporting throughout the world.

A cluster of needs related to formal classes could be addressed through the implementation a single comprehensive program. Universities, with support from sponsoring agencies, could increase their efforts to provide formal classes in-country, in the form of intensive short courses. These classes could be available on both a credit and non-credit basis. Credit would be granted from the U.S. university and transferable to indigenous degree programs. This would assist those who were trying to get advanced degrees, as well as open up opportunities for participation to subjects with terminal degrees.

Because computer classes seemed to attract the most interest, they could serve as the pilot effort. The computer training could be a component of project contracts, coupled with the acquisition of needed hardware and software. A team of computer experts and trainers from the university under contract could go to the country and give classes on computer use. The classes could be held in several different locations, and during non-working hours to facilitate participation. This would also have the advantage of preparing the students to use the actual computer systems to which they have access, reducing the need for the transfer of computer skills learned during college to different and unfamiliar systems. Although some of the subjects reported being able to make the transition to a new system without assistance, there were also comments that learning to use a different system without training had been a problem. Other subjects could be offered as well, based on a needs assessment of the professionals in the country.

Another recommendation to address continuing education needs is to facilitate the development of local conferences and professional association

meetings. Using newsletters and other available communication mechanisms, funding agencies could publish announcements of requests for proposals for indigenous professionals to plan and implement continuing education. Proposals would be reviewed on a competitive basis, and the best would be funded. The professionals would be given a budget, and allowed to plan a conference which addresses locally expressed needs. The budget could be used to provide staff support needed in organizing the continuing education, to fund resource people from other countries, as well as to defray expenses to keep it affordable for the target audience.

It is recognized that a number of such follow-up activities do take place in a variety of disciplines. However, the findings of this study indicated that needs in this area were far from completely satisfied. One subject advocated that sponsoring organizations provide funding for continuing education at the same level as the funding for participant education in the U.S. While this may be unrealistic, it does imply a need for reallocation of available resources to give more attention to continuing education.

Relevancy of Degree Programs at U.S. Universities

<u>Needs</u>

The needs expressed by the subjects varied in terms of their perceptions of the preparation provided through the degree program to fulfill their job responsibilities. One critical factor in the variation was the nature of their current jobs. This was reflected in the statistical analyses in two ways. Statistically significant differences were found between men and women in their feelings about the usefulness of classes taken for the major, with men giving more positive responses. Given that most of the government employees were women, and most of the university staff were men, this finding appeared to be related to the statistically more positive responses given by university employees relative to perceived relevance of classes in the major in preparation for the career. Similarly, university-employed subjects were more positive about the usefulness and adequacy of the classes taken for the degree program. This again points toward a closer fit between traditional degree programs and academic responsibilities.

In their comments, the subjects supported these statistics, with much discussion by government employees about their inability to fully utilize their

background, in contrast to the feelings expressed by university employees who indicated that they were often teaching and doing research in their major disciplines. Government employees had greater needs for preparation in the areas of management, administration, and program planning than was noted by the university staff members. Although some subjects were able to study in these support areas such as computer science, the majority only had time to participate in more narrowly focused classes to fulfill their degree requirements.

The comments of the subjects regarding the relevance of university classes indicated a need for additional preparation in more generally applicable subjects, such as computer science and management. In general, the feeling was that participants should take advantage of the time at U.S. institutions, and take all the classes possible. One problem which surfaced in relation to taking a variety of classes concerned the fact that prerequisites often prevented participants from attending the extra classes in which they were interested.

Another frequent comment was that the classes at U.S. universities need to use more developing country examples. Some of the current developments in the various major fields had little application in a developing country setting.

The subjects also indicated a need for more practical learning opportunities as a part of their degree programs. Those who had participated in internships or other practicums felt that the experience had been helpful to them, although only ten subjects reported such experiences. There were several comments that the practical experiences had been helpful in adapting the knowledge gained at the university to practical use, particularly in the home country.

A finding of the study that relates to the degree program was the differences in perceptions between recipients of M.S. versus Ph.D. degrees. In the study population there were 27 M.S. degree graduates, comprised of 13 males and 14 females, and 19 doctoral degree graduates, consisting of 14 males and 3 females. From this distribution, it was apparent that males held the majority of Ph.D. degrees.

One of the more interesting findings was the relationship between the degree held and certain measures of job satisfaction. Ph.D. recipients were more positive about the adequacy of job prestige inside and outside of the organization, the adequacy of the job in providing feelings of self fulfillment and accomplishment, and adequacy of the job in providing opportunities for participation in the determination of organizational goals and decisions. Because of this potential to influence the ultimate satisfaction of the participants, perhaps there is a need to concentrate the training resources available on the acquisition of Ph.D. degrees. This would be accompanied by a need to identify alternatives to meet the needs that were previously addressed through participation in M.S. degree programs.

The majority of the Ph.D. recipients worked for the universities. These data, coupled with additional findings related to the differences between university and government employees, led to the conclusion that university employees were more well satisfied with their jobs, as will be discussed further in the next section. However, this assumption also provides a necessary basis for proposing that the participation of women in training experiences needs to be critically examined for the possibility of of a bias in the identification and selection of students for M.S. and Ph.D. programs. The relatively lower level of job satisfaction experienced by the government employees, who were primarily women M.S. recipients, may be evidence of the results of earlier practices in the participant training process which have a major disparate impact on the satisfactory professional integration of women.

Some of the comments made by the subjects also alluded to a bias in the system, which resulted in more females receiving M.S. degrees, and more males receiving doctoral degrees. Investing in the education of women was viewed as risky, because they were more likely to marry U.S. citizens and remain in the U.S. Placing women in M.S. degree programs represented less of a risk, because fewer resources were involved. Given the relationship of the degree earned to job satisfaction, this could certainly have implications for the professional integration of women. This may have lead to the situation where women were disadvantaged by their lack of access to the level of training that would qualify them for the more satisfying and desirable jobs. There is a need

for further investigation into the selection process for participants to ensure that these women are not the victims of discrimination.

It should also be recognized, that M.S. degree recipients, in general, appeared less satisfied with their educational experiences and with the usefulness of the degree in terms of the professional career. They seemed to have more difficulties in professional integration, as evidenced by the significantly more negative responses given by subjects with M.S. degrees regarding various measures of job satisfaction.

All of these findings on the perceptions of the relevancy of the degree program led to the conclusion that we have been able to do a relatively adequate job of training university employees, the majority of whom were Ph.D. graduates. The participant training process seemed better suited to preparing those who were destined for university employment. This was probably partly due to a clearer understanding of the nature of the expectations on university staff members, as well as a more direct relationship between the academic orientation of many degree programs and the academic responsibilities associated with university careers.

Obviously there are still problems with the relevancy of the degree program which affect university and government employees alike, such as a need for more developing country applications, the need to take as many classes as possible, the interest in classes outside of the major discipline, and need for practical experiences. In addition, the finding relative to a possible gender bias in participation in advanced degree programs indicates a need for further investigation.

Recommendations

The incorporation of developing country examples and applications into the classes in the U.S. was recommended by a number of the subjects. Being in the U.S. for the extended period of time, even the citizens of developing countries tend to forget what it is like, and the difficulties of transferring the knowledge and skills gained at the university to the situation in the home country.

The subjects also recommended that universities and sponsoring organizations help facilitate participation in classes outside of the major. This may require extending the time allowance to permit participation in these

classes. There are added expenses in extending the time allowed, but given the investment already made in that individual who wants to round out a knowledge base, a few more months of support does not seem that costly.

It is interesting that most of the subjects expressed interest in taking additional classes that have more general applicability such as computer science, management, administration and technical writing, as opposed to becoming more knowledgeable in their major fields. To give students the opportunity to take some of these outside classes may require relaxing the prerequisites for students from developing countries. Perhaps they could be offered to these students on a audit basis so that the knowledge could be acquired, but there would not be a risk of damaging the student's grade point average by a poor grade in a class for which she/he was not well prepared.

The students also recommended providing more opportunities to participate in internship or practical work experiences. In fact, five of the subjects specifically indicated a desire for practical experience working for the USDA. Since the USDA is actively involved in programming participants through its Office of International Cooperation and Development, this would not seem like a difficult connection to make, especially for participants who were programmed through USDA/OICD. To facilitate these types of experiences would also require a longer period of time in the U.S.

One recommendation that has potential to address a number of these needs is to involve graduate students from developing countries in the development projects being undertaken by the university. This could provide part time employment for the student, as well as practical experience. It would also be useful in serving as a constant reminder of the nature of the situation in developing countries, allowing the student to better determine what background from the degree program will be useful at home. Such involvement might also provide opportunities for research, enhancing the relevance of the students' M.S. or Ph.D. research in terms of the situation at home. If the project was with the country of origin, the experience would be even more relevant. Based on the assumption that most developing country participants were practicing professionals at home, and the fact that they have a wealth of inside knowledge that experts in the U.S. might lack, this involvement could be quite beneficial to the project as well.

Another approach that may prove cost effective in the long run is to develop indigenous institutions which are capable of conferring quality M.S. degrees. It is recognized that institution building is a long term and costly process, but given the foundations already in existence in indigenous universities, it may be a feasible way of enhancing job performance and satisfaction. Through the improvement of indigenous universities, professionals could obtain an M.S. degree while still employed at home. Following this, M.S. graduates would then be eligible to apply for support for Ph.D. programs at U.S. universities. In the long run, the M.S. programs may evolve into quality Ph.D. programs, providing even more opportunities for obtaining advanced degrees.

Initially, this would not require the establishment of a fully developed capacity to confer M.S. degrees, as the programs could be supplemented with classes taught as short courses by visiting U.S. experts. As previously described, these short courses could be held after office hours to facilitate participation. Using U.S. experts for some of the coursework may also be helpful in appeasing those who feel that Western science and education is superior in quality to that available in the Philippines. The credit hours to be applied to the M.S. program could be available either from the U.S. institution represented by the teacher or from indigenous institutions. This would also allow the targeting of the available resources for participant training to Ph.D. programs abroad. More people would be able to obtain M.S. degrees, and would therefore be qualified for application to Ph.D. programs. The evolution of quality M.S. programs into Ph.D. programs provides additional potential for the future.

Current Employment and Job Satisfaction

Needs

In this study, the place of current employment appeared to be the most significant factor in affecting the needs expressed by the subjects relative to perceptions about job satisfaction, and satisfaction with the preparation provided through the participant training process. In comparison to subjects in government service, university employees were more positive about various aspects of job satisfaction and their professional integration. The training process seemed better able to prepare the subjects who were destined for

university employment. The majority of the subjects worked for the universities (62.22 percent), and of these university employees, the majority (81.5 percent) was male. As a result, the subjects who had the most positive perceptions about their participant training experience and subsequent employment tended to be university employees and were also more likely to be males.

Through the statistical analysis, one of the areas where different needs became apparent between was in expressed needs about access to journals and current resources. University employees indicated a higher frequency of need to use journals and resources, and also that they were more useful in terms of professional development. This difference reflected some of the differences in the general responsibilities associated with government versus university jobs. The responsibilities of university employment, such as research and teaching seemed to create a greater need for the use of journals, than the program management and administrative roles required in government service.

The information gathered through the comments supported this conclusion. In describing their responsibilities, university employees tended to give a succinct variation on the traditional Land-Grant mission, teaching, research and extension. On the other hand, government employees had much more varied responsibilities, that in general could be characterized as either program management and administrative or, in a few cases, research. The discussion by the two groups about journals and other resources also indicated differences in their perceptions of needs. The comments of university employees conveyed more concern relative to having access to journals in a convenient location, and to having access to up-to-date journals in particular disciplines.

Another interesting statistical finding concerned the relationship of the international students/international agriculture office at the university and current employment. Government employees were more positive about the importance, frequency, usefulness and adequacy of contact with the international students/international agriculture office. They also indicated a greater frequency of contact with major professors at the graduating university. From the statistics it appeared that there was a stronger relationship between the subjects in government service and the international

students/international agriculture office than the tie between these offices and subjects working for the universities. The increased importance and usefulness indicated by government employees relative to this contact may have resulted from an increased need for assistance, coupled with more opportunities to access assistance from this source.

Government employees, because of their location in Manila, were more likely to have contact with representatives from U.S. universities because in this instance, both Kansas State University and Cornell University had projects with the government of the Philippines. Frequency of contact would be likely to affect opinions of the usefulness and importance of the contact. However, the strength of the need may also be just as influential in determining importance and usefulness. In other words, although there were more opportunities for government employees to benefit from visits by representatives of their U.S. universities, based on data about their level of job satisfaction, they may have been experiencing greater needs for advice and assistance from respected sources during the professional integration process, as well.

In the statistical analysis, another area of differences in the needs of government and university employees was found related to job satisfaction. University employees indicated that they felt more job security and greater feelings of accomplishment than was apparent from the government employees. However, government employees responded that they had more opportunities to contribute to the policy making process in the country.

In the case of measures of job satisfaction, the comments provided more conclusive information. Government employees could be characterized as having a great many negative feelings about their jobs, some of which were related to on-going reorganization efforts within government service, as well as the transition from the Marcos to the Aquino administration. Government employees expressed greater job security needs, and greater dissatisfaction with the participant training experience in providing appropriate preparation for their jobs. They were also more likely to feel that their skills were underutilized and that they had been given positions that were beneath their qualification level. With the exception of a lack of opportunities to contribute to the policy making in the country, and dissatisfaction with the salary, which

was common to both university and government employees, those employed at the two Philippines universities indicated a relatively high degree of satisfaction with their jobs and their job responsibilities.

Recommendations

Because the focus of this study was professional integration, a great number of recommendations were made by the subjects relating to job satisfaction and performance, which were viewed as two major criteria for evaluating professional integration. Where these recommendations could be related to various areas of inquiry, they were categorized and treated accordingly. However, there are still some recommendations that relate specifically to the job and job satisfaction.

In two instances, the nature of the current employment made a difference in the recommendations to address perceived needs expressed by the subjects. University staff were more concerned about their access to journals and other current papers and resources. This was evident in the statistical analysis, as well as in the comments. In numbers alone, university employees registered more recommendations to improve a perceived problem situation relative to access to these resources. Many of the university employees indicated that they would like to have their own subscriptions, but that they are too expensive to maintain after the participant scholarship subscription has expired. They also recommended that their employers subscribe to more than one copy of well-utilized journals, and that they make copies available in decentralized locations such as the campus departments and reading rooms. They also recommended the establishment of a system that would ensure that journals arrived in a timely fashion. Many felt that the selection of journals available in the university library was too limited, and journals were lacking that they felt were important in their particular areas of expertise.

University employees indicated a higher frequency of need to use journals and resources, and also that these resources were more useful to them in professional development. These differences reflected some of the differences in the job responsibilities associated with university employment versus government employment. University staff were more likely to need journals and resources to conduct research and teach classes. Given that this need did not appear to be as critical for government staff, perhaps resources in

support of journal subscriptions and libraries should be allocated accordingly. This is not to suggest eliminating support for journal subscriptions for all returned participants, but that additional support should be targeted toward universities, where the need appears most critical.

In addition, from the responses, it appeared that university staff felt that the preparation they received at U.S. universities was quite adequate, while government staff felt that they were not as well prepared for their careers. This difference appeared to relate to the differences in job responsibilities. The academic orientation of degree programs provided preparation that was more appropriate for implementing academic responsibilities. In some cases, university staff were teaching classes in their major field from college. This direct relationship between college and employment resulted in the feelings on the part of the university staff that their preparation was very adequate in terms of allowing them to fulfill their professional responsibilities.

For government employees, the relationship between their degrees and their jobs was not as direct. While the background provided through the degree program was not considered a detriment, it often did not cover subject matter areas needed by government staff. Their background over prepared them in their specific scientific discipline, which they were often unable to use on the job, unless they worked in research. At the same time, they received little or no preparation for key aspects of their jobs such as program planning, management and administration.

This source of potential frustration led several of the government employees to recommend closer examination of the training provided for them. Perhaps an augmented degree program is needed, which emphasizes practical internships and classes outside of the major agricultural field. Background in agriculture was apparently necessary for most of the government employees in the study, but this need was accompanied by other needs for skills in management, administration and program planning.

Another approach that may prove cost effective in the long run is to develop indigenous institutions which are capable of conferring quality M.S. degrees in appropriate disciplines such as Public Administration or Adult and Extension Education. It is recognized that institution building is a time-consuming and expensive process, but given the foundations already in

existence in indigenous universities, it may be a feasible way of enhancing job performance and satisfaction. Through the improvement of indigenous universities, professionals could obtain an M.S. degree while still employed at home. Perhaps this education could be augmented with short courses, internships or practicum experiences abroad. Following this, M.S. graduates would then be eligible to apply for support for Ph.D. programs at U.S. universities, or could participate in Ph.D. programs at home as they develop.

Initially, this would not require the establishment of a fully developed capacity to confer M.S. degrees in the targeted disciplines, as the programs could be supplemented with classes taught as short courses by visiting U.S. experts. The degrees granted could include disciplines that would provide appropriate background for those destined for government employment, as well as allow those destined for university employment to begin their Ph.D. programs. As previously described, these short courses could be held after office hours to facilitate participation. The credit hours to be applied to the M.S. program could be available either from the U.S. institution represented by the teacher, or from indigenous institutions. This would also allow the targeting of the available resources for participant training to Ph.D. programs abroad. More people would be able to obtain M.S. degrees, and would therefore be qualified for application to Ph.D. programs.

By concentrating on certain degrees, this type of program would allow government employees to get their M.S. degrees in disciplines that would provide adequate preparation for their jobs, such as public administration or management. In addition, it would still prepare many of the students to continue studying for a Ph.D. degree. This may help facilitate movement of employees from the less satisfactory government jobs to the more fulfilling university jobs, leaving the government jobs to be filled by entry level employees, those who are place-bound, or those who enjoy their government jobs.

In order to tailor the educational experience to meet the job needs, a clearly defined plan for employment following the education is needed. Knowing what the job will be, or at least generally what background is necessary can help the students, programming agencies, and universities in structuring the educational experiences to address anticipated needs. A plan

for employment should be developed during the selection process, and the plan should be executed to insure maximum utilization of the educational background obtained in preparation for that job. To help insure that the plan is carried out, U.S. universities, sponsoring agencies, and especially home governments need to provide assistance in placing the returned participants in appropriate positions.

Conclusions and Recommendations for Further Research

A number of conclusions became apparent from the study, and some of these were associated with clear directions for additional research. However, the conclusions drawn did not all relate to gender differences in the professional integration process. Some addressed the participant training process in general and its relationship to future employment. Some of the conclusions were also specific to the experience of professional integration, and some related to other phases of the participant training process. These conclusions were based on general impressions derived from the data, as well as the statistical analyses. They represent the larger picture which emerged from a general long distance overview of the findings of the research.

Generally, it appeared from the study that the participant training process is much better suited to providing background for those destined for university employment. The degrees received from U.S. universities seemed less relevant for those who had government jobs. The academic orientation of most degree programs seemed to be best suited to the preparation of academicians. University jobs were more predictable, with responsibilities focused in the areas of research, extension and teaching. Government job responsibilities were more diverse, and less predictable, both in terms of the background required, and in terms of the ability to know what the job would require before undertaking the educational experience. Government employees expressed needs for more generalized experiences, and did not seem to have as much direct use for the advanced level of background provided through their graduate degrees in agriculture. They expressed needs for classes in areas such as management, administration and program planning. Many university employees indicated a direct application of their college classes in their professional responsibilities. University employees also tended to have a higher degree of job satisfaction, which may also be related to

their preparation to fulfill the job responsibilities. This would appear to indicate that attention is needed to determining what kind of background is appropriate to a given type of employment.

A more in-depth study of the kinds of skills and background needed to adequately fulfill the responsibilities of both government and university jobs would be helpful in identifying educational experiences to meet the respective needs. In particular, however, research is needed which concentrates on the background requirements necessary for the various classes of government jobs.

In addition, it appeared that certain demographic characteristics were associated with a greater degree of job satisfaction. These were subjects with Ph.D. degrees and subjects who were working at universities. Interestingly, the majority of the subjects with Ph.D. degrees, and the majority of university staff members were males. This situation has resulted in the following observation. It appeared that having a Ph.D. degree led to better job opportunities with the universities. Better job opportunities were more likely to result in increased job satisfaction, which could be considered the ultimate measure of successful professional integration. Given this scenario, if women hold the majority of the M.S. degrees, which qualifies them for the less desirable government jobs, they could be considered as experiencing less satisfactory professional integration than their male colleagues.

A possible explanation for this situation is that women were perceived as representing a greater risk. There were indications in the comments that educating women was viewed as a potential loss of resources, as they often married U.S. citizens and remained in the U.S. This was, in fact, true of a number of the female subjects originally identified for this research project. In attempts to mitigate this situation, women may have been programmed into M.S. degree programs, which would minimize the potential losses if they did not return to the Philippines. In this situation, in essence, women are disadvantaged in the participant selection process, which does not allow them to obtain the background necessary for the more desirable jobs. If this explanation is accurate, although it is not necessarily caused by factors in the professional integration process, it has the potential to greatly influence it.

To substantiate this, further research would be necessary which focuses on the participant selection process in the Philippines. This would include a comparison of the placement of equally qualified males and females to determine if women were selected for M.S. programs in spite of having appropriate background to complete a Ph.D. degree. Further research on a larger population would also be useful to certify that there are significantly more male Ph.D graduates employed at universities and more female M.S. graduates working for the government. However, it is equally possible that this situation is the result of the fact that government employees, who were more likely to be female, were targeted for M.S. degree programs, and university employees, of whom the majority were male, were sent for Ph.D. level training.

In addition, to address a potential problem situation already in existence, more research on the various factors of job satisfaction involved in government versus university employment may be useful. Research in this area might lead to some restructuring of the less satisfactory jobs to make them more acceptable, as well as identify differences in the background needed to fulfill the responsibilities of both types of employment. Professional integration would be enhanced as a result of improved job satisfaction, and also because there would be fewer employees who were over-qualified for their job expectations.

The length of time on the job may have also provided some interesting insights in the area of job level, expectations and satisfaction. No information was obtained on subjects to allow this analysis, although subjects were asked how long they had worked before they left to study in the U.S. Analyses based on differences in this variable did not yield any reportable results.

Another aspect that may have proved interesting, but could not be investigated with the data collected through this study, is the differences in participation in networks, job level and job satisfaction in relation to socio-economic class of the subjects. Given the historically based social class system in the Philippines, factors of class and status may have had an impact on professional contacts and job situation

A final general, but not surprising conclusion relates to the need for continuing education. Men and women alike expressed needs and desires for

more continuing education opportunities. In fact, this area was one that was most commonly mentioned as being unsatisfied. Continuing education has the potential to address needs expressed in the other categories of the research, including contact with the graduating university, networking, inadequacies in the degree program, and job performance and satisfaction. To help provide opportunities for contact with the graduating university, faculty from the various graduating universities could be employed to provide continuing education as a part of a long term contract package for participant training and continuing education. Getting former participants together to attend continuing education experiences would provide opportunities for networking, and perhaps lead to increased collaboration in the future. Continuing education could be used to meet needs that were not addressed through the degree program, so that the participants could feel that their preparation was adequate for the expectations placed upon them. And, adequate preparation, including the fine tuning that could be provided through continuing education after the participants know the expectations of their jobs, would be likely to lead to enhanced job performance and satisfaction.

Given the already significant amount of resources invested in the participants, it only makes sense to provide the additional support that would enhance their effectiveness. With the current capabilities to provide education via satellite, continuing education could be provided at a relatively reasonable cost per person using this technology. On going continuing education of various types, including local opportunities for advanced degrees, appeared to have the greatest potential for enhancement of the experience of professional integration.

To make certain that the type of continuing education provided would meet the various needs, additional research would be necessary. This might include a needs assessment which would permit the formulation of specific recommendations for continuing education offerings, in terms of content, format and process. With the magnitude of unmet continuing education needs expressed, this type of research would be cost effective in helping education providers target their efforts toward priority areas of concern.

Additional research on a larger population would be useful to determine if the conclusions drawn from this study are accurate. These conclusions, of

course, only apply to the returned Filipino participants in the study, although they do provide useful hints regarding the needs and concerns of other Filipino participants. Furthermore, to generalize these results to returned participants from other countries would require research on those countries specifically, or comparative research that cuts across a number of countries. Again, however, these research results may provide some direction for further inquiry.

It should also be said that most of the subjects appreciated the opportunity to obtain an advanced degree at a U.S. university, in spite of the number of identified concerns and problems. Most were also glad to have had the opportunity to live in another culture, and felt that experience to be very valuable. Only a very few expressed any indications that they regretted having been a participant, and these few tended to be the ones who were the most unsatisfied with their current job situation. As a result, it would appear that what happens after returning home has an effect on the participants' perceptions of the entire training process, which only further underscores the importance of attention to the professional integration phase of the process. In addition, the overwhelmingly positive opinions regarding the opportunity to obtain advanced degrees at U.S. institutions gives a vote of confidence to the continuation and strengthening of participant training, particularly if some minor adjustments could be made to enhance the experience.

Few of the results of this research are surprising or unusual. Although some of the specifics may have been somewhat unexpected, most of the results serve to underscore concerns and problems that have long been identified in association with the participant training process. Given the apparent agreement with a number of earlier studies (Boakari, Lee, Pigozzi et al., and Saghafi), the results of this research seemed reasonable. In addition the results support the concept that the efforts that are currently underway by universities, sponsoring agencies and other countries to address participant training concerns and needs have been in an appropriate direction. As a result, this study is useful in reaffirming that past efforts have been on target, and in encouraging the continuation of the same, with minor mid-course corrections. What is certainly clear is that there is a continuing need to remain attentive to participant training concerns, with the ultimate benefit

being well-prepared professionals to fill the human resource needs of developing countries.

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ACKNOWLEDGMENTS

APPENDIX A

DATA COLLECTION INSTRUMENTS USED

INTERVIEW SCHEDULE
AN ASSESSMENT OF THE PROFESSIONAL INTEGRATION OF RETURNED PARTICIPANT AGRICULTURAL MAJORS FROM THE PHILIPPINES

1. Age ? _____

2. Program of Study?   Masters   Doctoral

3. Field of Study (Major)?_____

4. Previous Work Experience before education in the U.S.?
   None   1 to 3 years   4 to 6 years   Over 6 years

5. Marital status?   Single   Married   Divorced

6. Number of children? _____

7. Number of years studying in U.S.?_____

8. When returned to the Phillipines?_____

9. Where did you get your undergraduate degree?_____

10. When did you receive your undergraduate degree?_____

11. AMOUNT AND DEGREE OF CONTACT WITH DEGREE GRANTING INSTITUTION - QUESTIONS

    11A. Since returning home, how often have you had contact with your degree granting institution?
Never   Once a Year   Every 6 Months   More often than every 6 Months

12. ACADEMIC ADVISOR - QUESTIONS
    12A. How important in your professional development do you feel that contact with your academic advisor is?
Of little importance   Somewhat important   Important   Of great Importance

    12B. Since returning home, how often have you had contact with your academic advisor?
Never   Once a Year   Every 6 Months   More often than every 6 Months

If the answer to Question Number 12B is NEVER, please skip to Question 12H.

    12C. If yes, what has been the nature of contact with your academic advisor?

    12D. Is your academic advisor male or female?   male   female

    12E. How useful has the contact been with your academic advisor in your professional development?
Of little Use   Somewhat Useful   Useful   Of great Use

    12F. If useful, in what way has the contact with your academic advisor been useful?

    12G. How adequate do you feel the amount of contact with your academic advisor has been in terms of your
professional development?
Inadequate   Barely Adequate   Adequate   Very Adequate

    12H. What recommendations would you make to your academic advisor on ways he/she could be of greater assistance
to you in your professional career? How could your academic advisor be more useful to you?

13. MAJOR PROFESSOR - QUESTIONS

   13A. How important in your professional development do you feel that contact with your major professor is?
Of little importance   Somewhat important   Important   Of great Importance

   13B. Since returning home, how often have you had contact with your major professor?
Never   Once a Year   Every 6 Months   More often than every 6 Months

If the answer to Question Number 13B is NEVER, please skip to Question 13H.

   13C. If yes, what has been the nature of contact with your major professor?

   13D. Is your major professor male or female?   male   female

   13E. How useful has the contact been with your major professor in your professional development?
Of little Use   Somewhat Useful   Useful   Of great Use

   13F. If useful, in what ways has the contact with you major professor been useful?

   13G. How adequate do you feel the amount of contact with your major professor has been in terms of your professional development?
Inadequate   Barely Adequate   Adequate   Very Adequate

   13H. What recommendations would you make to your major professor on ways he/she could be of greater assistance to you in your professional career? How could your major professor be more useful to you?

14. ALUMNI OFFICE - QUESTIONS

   14A. How important in your professional development do you feel that contact with your alumni office is?
Of little importance   Somewhat important   Important   Of great Importance

   14B. Since returning home, how often have you had contact with your alumni office?
Never   Once a Year   Every 6 Months   More often than every 6 Months

If the answer to Question Number 14B is NEVER, please skip to Question 14G.

   14C. If yes, what has been the nature of the contact with your alumni office?

   14D. How useful has the contact been with your alumni office in your professional development?
Of little Use   Somewhat Useful   Useful   Of great Use

   14E. If useful, in what ways has the contact with your alumni office been useful?

   14F. How adequate do you feel the amount of contact with your alumni office has been in terms of your professional development?
Inadequate   Barely Adequate   Adequate   Very Adequate

14G. What recommendations would you make to your alumni office on ways they could be of greater assistance to you in your professional career? How could your alumni office be more useful to you?

15. INTERNATIONAL STUDENTS/INTERNATIONAL AGRICULTURE OFFICE - QUESTIONS

15A. How important in your professional development do you feel that contact with your international students/agriculture office is?
Of little importance   Somewhat important   Important   Of great importance

15B. Since returning home, how often have you had contact with your international students/agriculture office?
Never   Once a Year   Every 6 Months   More often than every 6 Months

If the answer to Question Number 15B is NEVER, please skip to Question 15H.

15C. If yes, what has been the nature of contact with your international students/agriculture office?

15D. Is your contact there male or female?   male   female

15E. How useful has the contact been with your international students /agriculture office in your professional development?
Of little Use   Somewhat Useful   Useful   Of great Use

15F. If useful, in what ways has contact with your international students/agriculture office been useful?

15G. How adequate do you feel the amount of contact with your international students/agriculture has been in terms of your professional development ?
Inadequate   Barely Adequate   Adequate   Very Adequate

15H. What recommendations would you make to your international students /international agriculture office on ways they could be of greater assistance to you in your professional career? How could your international students/agriculture office be more useful to you?

FILIPINO ALUMNI FROM YOUR INSTITUTION IN COUNTRY - QUESTIONS

16. FEMALES - QUESTIONS

16A. How important in your professional development do you feel that contact with female Filipino alumni of your institution is?
Of little importance   Somewhat important   Important   Of great Importance

16B. Since returning home, how often have you had contact female Filipino alumni of your institution?
Never   Once a Year   Every 6 Months   More often than every 6 Months

If the answer to Question Number 16B is NEVER, please skip to Question 16G.

16C. If yes, what has been the nature of the contact with female Filipino alumni of your institution?

16D. How useful has the contact been with female Filipino alumni of your institution in your professional development?
Of little Use   Somewhat Useful   Useful   Of great Use

16E. If useful, in what ways has contact with female Filipino alumni of your institution been useful?

16F. How adequate do you feel the amount of contact with female Filipino alumni of your institution has been in terms of your professional development?
Inadequate   Barely Adequate   Adequate   Very Adequate

16G. What recommendations would you make to other female Filipino alumni institution on ways they could be of greater assistance to you in your professional career? How could female Filipino alumni of your institution be more useful to you?

17. MALES - QUESTIONS

17A. How important in your professional development do you feel that contact with male Filipino alumni of your instition is?
Of little importance   Somewhat important   Important   Of great importance

17B. Since returning home, how often have you had contact male Filipino alumni of your institution?
Never   Once a Year   Every 6 Months   More often than every 6 Months

If the answer to Question number 20B is NEVER, please skip to Question 20G.

17C. If yes, what has been the nature of the contact with males Filipino alumni of your institution?

17D. How useful has the contact been with male Filipino alumni of your institution in your professional development?
Of little Use   Somewhat Useful   Useful   Of great Use

17E. If useful, in what ways has the contact with male Filipino alumni of your institution been useful?

17F. How adequate do you feel the amount of contact with male Filipino alumni of your institution has been in terms of your professional development?
Inadequate   Barely Adequate   Adequate   Very Adequate

17G. What recommendations would you make to other male Filipino alumni of your institution on ways they could be of greater assistance to your in your professional career? How could male Filipino alumni of your institution be more useful to you?

OTHER CONTACTS AT YOUR UNIVERSITY - QUESTIONS

18. OTHER FEMALE CONTACTS AT YOUR UNIVERSITY - QUESTIONS

18A. How important do you feel that contact with other female faculty, staff and/or students is to your professional development?
Of little importance   Somewhat important   Important   Of great importance

18B. Since returning home, how often have you had contact with other female faculty, staff and/or students at your university?
Never   Once a Year   Every 6 Months   More often than every 6 Months

If the answer to Question Number 18B is NEVER, please skip to Question 18H.

18C. What positions do the females with which you have had contact hold at the university?   student?   faculty?   etc.?

18D. If yes, what has been the nature of the contact?

18E. How useful in your professional development has the contact been with other female faculty, staff and/or students at your university?
Of little Use   Somewhat Useful   Useful   Of great Use

18F. If useful, in what ways has the contact with other females at your university been useful?

18G. How adequate do you feel the amount of contact with other female faculty, staff, and/or students at your university has been in terms of your professional development?
Inadequate   Barely Adequate   Adequate   Very Adequate

18H. What recommendations would you make to other females at your university on ways they could be of greater assistance to you in your professional career?   How could other females at your university be more useful to you?

19. OTHER MALE CONTACTS AT YOUR UNIVERSITY - QUESTIONS

19A. How important do you feel that contact with other male faculty, staff and/or students is to your professional development?
Of little importance   Somewhat important   Important   Of great importance

19B. Since returning home, how often have you had contact with other male faculty, staff and/or students at your university?
Never   Once a Year   Every 6 Months   More often than every 6 Months

If the answer to Question Number 19B is NEVER, please skip to Question 19G.

19C. What positions do the males with which you have had contact hold at the university?   student?   faculty?   etc.?

19D. If yes, what has been the nature of the contact with other males at the university?

19E. How useful in your professional development has the contact been with other male faculty, staff and/or students at your university?
Of little Use   Somewhat Useful   Useful   Of great Use

19F. If useful, in what ways has the contact with other males at your university been useful?

19G. How adequate do you feel the amount of contact with other male faculty, staff, and/or students at your university has been in terms of your professional development?
Inadequate   Barely Adequate   Adequate   Very Adequate

19H. What recommendations would you make to other males at your university on ways they could be of greater assistance to you in your professional career? How could other males at your university be more useful to you?

AMOUNT AND DEGREE OF CONTACT WITH PROFESSIONAL COLLEAGUES - QUESTIONS

20. FEMALE PROFESSIONAL COLLEAGUES - QUESTIONS

20A. How important in your professional development do you feel that contact with female professional colleagues in your field is?
Of little importance   Somewhat important   Important   Of great Importance

20B. Since returning home, how often have you had contact with female professional colleagues in your field?
Never   Once a Year   Every 6 Months   More often than every 6 Months

If the answer to Question Number 20B is NEVER, please skip to Question 20G.

20C. If yes, what has been the nature of contact with female professional colleagues in your field?

20D. How useful in your professional development has the contact been with female professional colleagues in your field?
Of little Use   Somewhat Useful   Useful   Of great Use

20E. If useful, in what ways has the contact with femalee professional   colleagues been useful?

20F. How adequate do you feel the amount of contact with female professional colleagues in your field has been in terms of your professional development?
Inadequate   Barely Adequate   Adequate   Very Adequate

20G. What recommendations would you make to female professional colleagues on ways they could be of greater assistance to you in your professional career? How could female professional colleagues be more useful to you?

21. MALE PROFESSIONAL COLLEAGUES - QUESTIONS

21A. How important in your professional development do you feel that contact with male professional colleagues in your field is?
Of little importance   Somewhat important   Important   Of great Importance

21B. Since returning home, how often have you had contact with male professional colleagues in your field?
Never   Once a Year   Every 6 Months   More often than every 6 Months

If the answer to Question Number 21B is NEVER, please skip to Question 21G.

21C. If yes, what has been the nature of contact with male professional colleagues?

21D. How useful in your professional development has the contact been with male professional colleagues in your field?
Of little Use   Somewhat Useful   Useful   Of great Use

21E. If useful, in what ways has the contact with male professional colleagues been useful?

21F. How adequate do you feel the amount of contact with male professional colleagues in your field has been in terms of your professional development?
Inadequate   Barely Adequate   Adequate   Very Adequate

21G. What recommendations would you make to male professional colleagues on ways they could be of greater assistance to you in your professional career? How could male professional colleagues be more useful to you?

AMOUNT AND TYPE OF CONTINUING EDUCATION OPPORTUNITIES - QUESTIONS

22. FORMAL ACADEMIC COURSES - QUESTIONS

22A. How important in your professional development do you feel formal academic courses after the degree are?
Of little importance   Somewhat important   Important   Of great Importance

22B. Since returning home, how often have you participated in formal academic courses ?
Never   Once a Year   Every 6 Months   More often than every 6 Months

If the answer to Question Number 22B is NEVER, please skip to Question 22G.

22C. If yes, what has been the nature of the academic courses?

22D. How useful in your professional development have the formal academic courses after the degree been ?
Of little Use   Somewhat Useful   Useful   Of great Use

22E. If useful, what academic courses have been useful?

22F. How adequate do you feel the amount opportunities for formal academic courses after the degree have been in terms of your professional development?
Inadequate   Barely Adequate   Adequate   Very Adequate

22G. What recommendations would you make on courses that could be of assistance to you in your professional career? What types of courses would be more useful to you?

23. PROFESSIONAL CONFERENCES - QUESTIONS

23A. How important in your professional development do you feel professional conferences are?
Of little importance   Somewhat important   Important   Of great Importance

23B. Since returning home, how often have you participated in professional conferences?
Never   Once a Year   Every 6 Months   More often than every 6 Months

If the answer to Question Number 23B is NEVER, please skip to Question 23G.

23C. If yes, what has been the nature of the professional conferences?

23D. How useful in your professional development have the professional conferences been ?
Of little Use   Somewhat Useful   Useful   Of great Use

23E. If useful, in what ways have professional conferences been useful?

23F. How adequate do you feel the amount opportunities for professional conferences have been in terms of your professional development?
Inadequate   Barely Adequate   Adequate   Very Adequate

23G. What recommendations would you on professional conferences that could be of assistance to you in your professional career? What types of professional conferences would be more useful to you?

24. PROFESSIONAL JOURNALS

24A. How important in your professional development do you feel access to professional journals in your field is?
Of little Importance   Somewhat Important   Important   Of great Importance

24B. Do you have access profesional journal in your field at your place of employment ?   Yes   No

24C. Do you subscribe to any professional journals in your field? Yes   No

24D. If yes, what journals are available to you?

24E. Since returning home, how often have you needed to use professional journals in your field in your professional responsibilities?
Never   Once a Year   Every 6 Months   More often than every 6 Months

If the answers to both Question 24B and 24C are NO'S, please skip to Question 24I.

24F. How useful in your professional development have professional journals been ?
Of little Use   Somewhat Useful   Useful   Of great Use

24G. If useful, in what ways have professional journals been useful? .

24H. How adequate for your professional development do you feel the journals in your field to which you have access have been?
Inadequate   Barely Adequate   Adequate   Very Adequate

24I. What recommendations would you make on ways professional journals could be more accessible to you for use in your professional career?

25. OTHER CONTINUING EDUCATION OPPORTUNITIES

25A. How important in your professional development do you feel other types of continuing education are?
Of little importance   Somewhat important   Important   Of great Importance

25B. Since returning home, how often have you participated in other types of continuing education opportunities
?
Never   Once a Year   Every 6 Months   More often than every 6 Months

If the answer to Question Number 28B is NEVER, please skip to Question 28G.

25C. If so, what has been the nature of the other types of continuing education opportunities ?

25D. How useful in your professional development have other types of continuing education opportunities been ?
Of little Use   Somewhat Useful   Useful   Of great Use

25E. If useful, in what ways have other types of continuing education been useful?

25F. How adequate do you feel the amount opportunities for other types of continuing education have been in terms of your professional development?
Inadequate   Barely Adequate   Adequate   Very Adequate

25G. What recommendations would you make on ways continuing education could be of greater assistance to you in your professional career? What types of continuing education would more be useful to you?

RELEVANCY OF DEGREE PROGRAM AND COLLEGE EXPERIENCES TO PROFESSIONAL RESPONSIBILITIES

26. FORMAL COLLEGE CLASSES IN THE MAJOR FIELD FOR THE DEGREE PROGRAM - QUESTIONS

26A. How important in your professional development do you feel what you learned in college classes in your major for your academic degree program is ?
Of little importance   Somewhat important   Important   Of great Importance

26B. How useful in your professional development has what you learned in college classes in your major for your academic degree program been?
Of little Use   Somewhat Useful   Useful   Of great Use

26C. If useful, in what ways has what you learned in your college classes in your major been useful?

26D. How adequate do you feel what you learned in college classes for your academic degree program has been in terms of your professional development?
Inadequate   Barely Adequate   Adequate   Very Adequate

26E. What recommendations would you make on ways your college classes in your major could be of greater assistance to you in your professional career? What types of classes in your major would be more useful to you?

27. OTHER CLASSES

27A. How important in your professional development do you feel classes outside your major in subjects such as management, leadership, supervision, computer use, and/or others are?
Of little importance   Somewhat important   Important   Of great importance

27B Did you have the opportunity to take classes outside your major, in subjects such as managment, leadership, supervision, computer use, and/or others (specify)?   Yes   No
If yes, circle all that apply, and/or list others please.

If the answer to Question Number 27B is NO, please skip to Question 27F.

27C. How useful in your professional development has what you learned in these type of classes such as management, leadership, computer use, etc. been?
Of little Use   Somewhat Useful   Useful   Of great Use

27D. If useful, in what ways have these type of classes been useful?

27E. How adequate do you feel the opportunities to learn about subjects outside of your major area, such as management, leadership, computer use, supervision, etc. were in terms of your current professional development?
Inadequate   Barely Adequate   Adequate   Very Adequate

27F. What recommendations would you make on ways classes outside the major that could be of assistance to you in your professional career? What types of classes would be more useful to you?

28. PRACTICAL / INTERNSHIP AND/OR COOP. WORK EXPERIENCES

28A. How important in your professional development do you opportunities for practical/internship and/or cooperative work experiences related to your career are?
Of little importance   Somewhat important   Important   Of great Importance

28B. Did you have the opportunity participate in practical/internship and/or cooperative work experiences?   Yes   No
If yes, briefly describe the experience please.

If the answer to Question Number 28B is NO, please skip to Question 28F.

28C. How useful in your professional development has what you learned in your practical/internship and/or cooperative work experiences been?
Of little Use   Somewhat Useful   Useful   Of great Use

28D. If useful, in what ways has your practical/internship experience been useful?

28E. How adequate do you feel the opportunities to participate in practical/internship and/or cooperative work experiences were in terms of your current professional development?

28F. What recommendations would you make to on ways practical/internship experiences could be of greater assistance to you in your professional career? What types of practical/internship experiences would be more useful to you?

CURRENT POSITION

29. What is your current occupation (job title)?_____

30. What organization or company do you work for?_____

31. Briefly describe your work responsibilties.

32. How adequate do you feel your job security is in the position you currently hold?
Inadequate   Barely Adequate   Adequate   Very Adequate

33. How adequate do you feel the salary is in your current job?
Inadequate   Barely Adequate   Adequate   Very Adequate

34. How adequate do you feel the prestige provided by your job is outside the organization?
Inadequate   Barely Adequate   Adequate   Very Adequate

35. How adequate do you feel the prestige provided by your job is inside of the organization?
Inadequate   Barely Adequate   Adequate   Very Adequate

36. How adequate is your job in terms of the amount of authority it provides? ·
Inadequate   Barely Adequate   Adequate   Very Adequate

37. How adequate is your job in terms of providing a feeling of self fulfilllment? (the feeling of being capable and using abilities and potential)
Inadequate   Barely Adequate ˙ Adequate   Very Adequate

38. How adequate is the amount or responsibilty connected with your job?
Inadequate   Barely Adequate   Adequate   Very Adequate

39. How adequate do you feel the fringe benfits provided through your job are?   (benefits such as hospital insurance, paid vacation, sick leave, etc)
Inadequate   Barely Adequate   Adequate   Very Adequate

40. How adequate is your job in terms of providing accomplishment or success?
Inadequate   Barely Adequate   Adequate   Very Adequate

41. How adequate is your job in terms of providing opportunities for participation in determination of organizational methods, procedures and goals?
Inadequate   Barely Adequate   Adequate   Very Adequate

42. How adequate is your job in terms of providing opportunities to contribute to the policy making process in your country?

THE END - AND THANK YOU VERY MUCH FOR YOUR PARTICIPATION.

QUESTIONNAIRE
AN ASSESSMENT OF THE PROFESSIONAL INTEGRATION OF RETURNED PARTICIPANT AGRICULTURAL MAJORS FROM THE PHILIPPINES

Please circle the response that most closely describes your experience, or where appropriate, fill in the blanks. After completion, return the questionnaire using the airmail envelope provided. Thank you.

1. Sex?   Male   Female

2. Age ?   _____

3. Program of Study?   Masters   Doctoral   Highest Degree Attained?_____

4. Field of Study (Major)?_____

5. Previous Work Experience before education in the U.S.?
   None   1 to 3 years   4 to 6 years   Over 6 years

6. Marital status?   Single   Married   Separated

7. Number of children?   _____

8. Number of years studying in U.S.?_____

9. When returned to the Phillipines?_____

10. Where did you get your undergraduate degree?_____

11. When did you receive your undergraduate degree?_____

12. AMOUNT AND DEGREE OF CONTACT WITH DEGREE GRANTING INSTITUTION

    12A. Since returning home, how often have you had contact with your degree granting institution?
Never   Once a Year   Every 6 Months   More often then every 6 Months

13. ACADEMIC ADVISOR
    13A. How important in your professional development do you feel that contact with your academic advisor is?
Of little importance   Somewhat important   Important   Of great Importance

    13B. Since returning home, how often have you had contact with your academic advisor?
Never   Once a Year   Every 6 Months   More often than every 6 Months

    13C. Is your academic advisor male or female?   male   female

If the answer to Question Number 13B is NEVER, please skip to Question 14.

    13D. How useful has the contact been with your academic advisor in your professional development?
Of little Use   Somewhat Useful   Useful   Of great Use

    13E. How adequate do you feel the amount of contact with your academic advisor has been in terms of your professional development?
Inadequate   Barely Adequate   Adequate   Very Adequate

14. MAJOR PROFESSOR - Same person as academic advisor? ___ Yes ___ No? If yes, please skip to question number 15.
    14A. How important in your professional development do you feel that contact with your major professor is?

Of little importance   Somewhat important   Important   Of great importance

14B. Since returning home, how often have you had contact with your major professor?
Never   Once a Year   Every 6 Months   More often than every 6 Months

.14C. Is your major professor male or female?   male   female

If the answer to Question Number 14B is NEVER, please skip to Question 15.

14D. How useful has the contact been with your major professor in your professional development?
Of little Use   Somewhat Useful   Useful   Of great Use

14E. How adequate do you feel the amount of contact with your major professor has been in terms of your professional development?
Inadequate   Barely Adequate   Adequate   Very Adequate

15. ALUMNI OFFICE

15A. How important in your professional development do you feel that contact with your alumni office is?
Of little importance   Somewhat important   Important   Of great Importance

15B. Since returning home, how often have you had contact with your alumni office?
Never   Once a Year   Every 6 Months   More often than every 6 Months

If the answer to Question Number 15B is NEVER, please skip to Question 16.

15C. How useful has the contact been with your alumni office in your professional development?
Of little Use   Somewhat Useful   Useful   Of great Use

15D. How adequate do you feel the amount of contact with your alumni office has been in terms of your professional development?
Inadequate   Barely Adequate   Adequate   Very Adequate

16. INTERNATIONAL STUDENTS/INTERNATIONAL AGRICULTURE OFFICE

16A. How important in your professional development do you feel that contact with your international students/agriculture office is?
Of little importance   Somewhat important   Important   Of great Importance

16B. Since returning home, how often have you had contact with your international students/agriculture office?
Never   Once a Year   Every 6 Months   More often than every 6 Months

16C. Is your contact there male or female?   male   female

If the answer to Question Number 16B is NEVER, please skip to Question 17.

16D. How useful has the contact been with your international students /agriculture office in your professional development?
Of little Use   Somewhat Useful   Useful   Of great Use

16E. How adequate do you feel the amount of contact with your international students/agriculture has been in terms of your professional development ?
Inadequate   Barely Adequate   Adequate   Very Adequate

FILIPINO ALUMNI FROM YOUR INSTITUTION IN COUNTRY

17. FEMALES

17A. How important in your professional development do you feel that contact with female Filipino alumni of your instition is?
Of little importance   Somewhat important   Important   Of great Importance

17B. Since returning home, how often have you had contact female Filipino alumni of your institution?
Never   Once a Year   Every 6 Months   More often than every 6 Months

If the answer to Question Number 17B is NEVER, please skip to Question 18.

17C. How useful has the contact been with female Filipino alumni of your institution in your professional development?
Of little Use   Somewhat Useful   Useful   Of great Use

17D. How adequate do you feel the amount of contact with female Filipino alumni of your institution has been in terms of your professional development?
Inadequate   Barely Adequate   Adequate   Very Adequate

18. MALES

18A. How important in your professional development do you feel that contact with male Filipino alumni of your instition is?
Of little importance   Somewhat important   Important   Of great Importance

18B. Since returning home, how often have you had contact male Filipino alumni of your institution?
Never   Once a Year   Every 6 Months   More often than every 6 Months

If the answer to Question number 18B is NEVER, please skip to Question 19.

18C. How useful has the contact been with male Filipino alumni of your institution in your professional development?
Of little Use   Somewhat Useful   Useful   Of great Use

18D. How adequate do you feel the amount of contact with male Filipino alumni of your institution has been in terms of your professional development?
Inadequate   Barely Adequate·   Adequate   Very Adequate

OTHER CONTACTS AT YOUR UNIVERSITY

19. OTHER FEMALE CONTACTS AT YOUR UNIVERSITY

19A. How important do you feel that contact with other female faculty, staff and/or students is to your professional development?
Of little importance   Somewhat important   Important   Of great Importance

19B. Since returning home, how often have you had contact with other female faculty, staff and/or students at your university?
Never   Once a Year   Every 6 Months   More often than every 6 Months

If the answer to Question Number 19B is NEVER, please skip to Question 20.

19C. What positions do the females with which you have had contact hold at the university?   student?   faculty? etc.?

19D. How useful in your professional development has the contact been with other female faculty, staff and/or students at your university?

Of little Use   Somewhat Useful   Useful   Of great Use 184

19E. How adequate do you feel the amount of contact with other female faculty, staff, and/or students at your university has been in terms of your professional development?
Inadequate   Barely Adequate   Adequate   Very Adequate

20. OTHER MALE CONTACTS AT YOUR UNIVERSITY

20A. How important do you feel that contact with other male faculty, staff and/or students is to your professional development?
Of little importance   Somewhat important   Important   Of great Importance

20B. Since returning home, how often have you had contact with other male faculty, staff and/or students at your university?
Never   Once a Year   Every 6 Months   More often than every 6 Months

If the answer to Question Number 20B is NEVER, please skip to Question 21.

20C . What positions do the males with which you have had contact hold at the university? student? faculty? etc.?

20D . How useful in your professional development has the contact been with other male faculty, staff and/or students at your university?
Of little Use   Somewhat Useful   Useful   Of great Use

20E. How adequate do you feel the amount of contact with other male faculty, staff, and/or students at your university has been in terms of your professional development?
Inadequate   Barely Adequate   Adequate   Very Adequate

AMOUNT AND DEGREE OF CONTACT WITH PROFESSIONAL COLLEAGUES

21. FEMALE PROFESSIONAL COLLEAGUES

21A. How important in your professional development do you feel that contact with female professional colleagues in your field is?
Of little importance   Somewhat important   Important   Of great Importance

21B. Since returning home, how often have you had contact with female professional colleagues in your field?
Never   Once a Year   Every 6 Months   More often than every 6 Months

If the answer to Question Number 21B is NEVER, please skip to Question 22.

21C. How useful in your professional development has the contact been with female professional colleagues in your field?
Of little Use   Somewhat Useful   Useful   Of great Use

21D. How adequate do you feel the amount of contact with female professional colleagues in your field has been in terms of your professional development?
Inadequate   Barely Adequate   Adequate   Very Adequate

22. MALE PROFESSIONAL COLLEAGUES

22A. How important in your professional development do you feel that contact with male professional colleagues in your field is?
Of little importance   Somewhat important   Important   Of great Importance

22B. Since returning home, how often have you had contact with male professional colleagues in your field?
Never   Once a Year   Every 6 Months   More often than every 6 Months

If the answer to Question Number 22B is NEVER, please skip to Question 23.

22C. How useful in your professional development has the contact been with male professional colleagues in your field?
Of little Use   Somewhat Useful   Useful   Of great Use

22D. How adequate do you feel the amount of contact with male professional colleagues in your field has been in terms of your professional development?
Inadequate   Barely Adequate   Adequate   Very Adequate

AMOUNT AND TYPE OF CONTINUTING EDUCATION OPPORTUNITIES

23. FORMAL ACADEMIC COURSES

23A. How important in your professional development do you feel formal academic courses after the degree are?
Of little importance   Somewhat important   Important   Of great Importance

23B. Since returning home, how often have you participated in formal academic courses ?
Never   Once a Year   Every 6 Months   More often than every 6 Months

If the answer to Question Number 23B is NEVER, please skip to Question 24.

23C. How useful in your professional development have the formal academic courses after the degree been ?
Of little Use   Somewhat Useful   Useful   Of great Use

23D. How adequate do you feel the amount opportunities for formal academic courses after the degree have been in terms of your professional development?
Inadequate   Barely Adequate   Adequate   Very Adequate

24. PROFESSIONAL ASSOCIATION MEETINGS AND CONFERENCES

24A. How important in your professional development do you feel professional association meetings are?
Of little importance   Somewhat important   Important   Of great Importance

24B. Since returning home, how often have you participated in professional association meetings?
Never   Once a Year   Every 6 Months   More often than every 6 Months

If the answer to Question Number 24B is NEVER, please skip to Question 25.

24C. How useful in your professional development have the professional association meetings been ?
Of little Use   Somewhat Useful   Useful   Of great Use

24D. How adequate do you feel the amount opportunities for participation in professional association meetings have been in terms of your professional development?
Inadequate   Barely Adequate   Adequate   Very Adequate

25. PROFESSIONAL JOURNALS

25A. How important in your professional development do you feel access to professional journals in your field is?
Of little importance   Somewhat important   Important   Of great Importance

25B. Do you have access profesional journal in your field at your place of employment ?   Yes   No

25C. Do you subscribe to any professional journals in your field? Yes No

25D. Since returning home, how often have you needed to use professional journals in your field in your professional responsibilities?
Never   Once a Year   Every 6 Months   More often than every 6 Months

If the answers to both Question 25B and 25C are NO'S, please skip to Question 26.

25E. How useful in your professional development have professional journals been ?
Of little Use   Somewhat Useful   Useful   Of great Use

25F. How adequate for your professional development do you feel the journals in your field to which you have access have been?
Inadequate   Barely Adequate   Adequate   Very Adequate

26. OTHER CONTINUING EDUCATION OPPORTUNITIES

26A. How important in your professional development do you feel other types of continuing education are?
Of little importance   Somewhat important   Important   Of great Importance

26B. Since returning home, how often have you participated in other types of continuing education opportunities ?
Never   Once a Year   Every 6 Months   More often than every 6 Months

If the answer to Question Number 26B is NEVER, please skip to Question 27.

26C. If so, what has been the nature of the other types of continuing education opportunities ?

26D. How useful in your professional development have other types of continuing education opportunities been ?
Of little Use   Somewhat Useful   Useful   Of great Use

26E. How adequate do you feel the amount opportunities for other types of continuing education have been in terms of your professional development?
Inadequate   Barely Adequate   Adequate   Very Adequate

RELEVANCY OF DEGREE PROGRAM AND COLLEGE EXPERIENCES TO PROFESSIONAL RESPONSIBILITIES – Questions here refer specifically to your graduate degree program undertaken in the U.S.
27. FORMAL COLLEGE CLASSES IN THE MAJOR FIELD FOR THE DEGREE PROGRAM

27A. How important in your professional development do you feel what you learned in college classes in your major for your academic degree program is ?
Of little importance   Somewhat important   Important   Of great Importance

27B. How useful in your professional development has what you learned in college classes in your major for your academic degree program been?
Of little Use   Somewhat Useful   Useful   Of great Use

27C. How adequate do you feel what you learned in college classes for your academic degree program has been in terms of your professional development?
Inadequate   Barely Adequate   Adequate   Very Adequate

28. OTHER CLASSES

28A. How important in your professional development do you feel classes outside your major in subjects such as management, leadership, supervision, computer use, and/or others are?
Of little importance   Somewhat important   Important   Of great importance

28B Did you have the opportunity to take classes outside your major, in subjects such as managment, leadership, supervision, computer use, and/or others (specify)?   Yes   No
If yes, circle all that apply, and/or list others please.

If the answer to Question Number 28B is NO, please skip to Question 29.

28C. How useful in your professional development has what you learned in these type of classes such as management, leadership, computer use, etc. been?
Of little Use   Somewhat Useful   Useful   Of great Use

28D. How adequate do you feel the opportunities to learn about subjects outside of your major area, such as management, leadership, computer use, supervision, etc. were in terms of your current professional development?
Inadequate   Barely Adequate   Adequate   Very Adequate

29. PRACTICAL / INTERNSHIP AND/OR COOP. WORK EXPERIENCES

29A. How important in your professional development do you opportunities for practical/internship and/or cooperative work experiences related to your career are?
Of little importance   Somewhat important   Important   Of great Importance

29B. Did you have the opportunity participate in practical/internship and/or cooperative work experiences?   Yes
No
If yes, briefly describe the experience please.

If the answer to Question Number 29B is NO, please skip to Question 30.

29C. How useful in your professional development has what you learned in your practical/internship and/or cooperative work experiences been?
Of little Use   Somewhat Useful   Useful   Of great Use

29D. How adequate do you feel the opportunities to participate in practical/internship and/or cooperative work experiences were in terms of your current professional development?
Inadequate   Barely Adequate   Adequate   Very Adequate

CURRENT POSITION

30. What is your current occupation (job title)?_____
31. What organization or company do you work for?_____

32. Briefly describe your work responsibilties.

33. How adequate do you feel your job security is in the position you currently hold?
Inadequate   Barely Adequate   Adequate   Very Adequate

34. How adequate do you feel the salary is in your current job?
Inadequate   Barely Adequate   Adequate   Very Adequate

35. How adequate do you feel the prestige provided by your job is outside the organization?
Inadequate   Barely Adequate   Adequate   Very Adequate

36. How adequate do you feel the prestige provided by your job is inside of the organization?
Inadequate   Barely Adequate   Adequate   Very Adequate

37. How adequate is your job in terms of the amount of authority it provides?
Inadequate   Barely Adequate   Adequate   Very Adequate

38. How adequate is your job in terms of providing a feeling of self fulfilllment? (the feeling of being capable and useing abilities and potential)
Inadequate   Barely Adequate   Adequate   Very Adequate

39. How adequate is the amount or responsibilty connected with your job?
Inadequate   Barely Adequate   Adequate   Very Adequate

40. How adequate do you feel the fringe benfits provided through your job are? (benefits such as hospital insurance, paid vacation, sick leave, etc)
Inadequate   Barely Adequate   Adequate   Very Adequate

41. How adequate is your job in terms of providing accomplishment or success?
Inadequate   Barely Adequate   Adequate   Very Adequate

42. How adequate is your job in terms of providing opportunities for participation in determination of organizational methods, procedures and goals?
Inadequate   Barely Adequate   Adequate   Very Adequate

43. How adequate is your job in terms of providing opportunities to contribute to the policy making process in your country?
Inadequate   Barely Adequate   Adequate   Very Adequate

Please return the questionnaire to:

Barbara Burton
111 Curtiss Hall
Iowa State University
Ames, Iowa, U.S.A.   50011

A self-addressed airmail envelope has been provided for the questionnaire.

Thank you for your participation in this research.

APPENDIX B

SCALES USED TO MEASURE RESPONSES

SCALES USED TO MEASURE RESPONSES

1	2	3	4
Never	Once a Year	Every 6 Months	More Often than Every 6 Months
Of Little Importance	Somewhat Important	Important	Of Great Importance
Of Little Use	Somewhat Useful	Useful	Of Great Use
Inadequate	Barely Adequate	Adequate	Very Adequate

APPENDIX C

TABLE OF JOB TITLES BY GENDER AND CURRENT EMPLOYMENT

Job Titles by Gender and Current Employment

MALES	FEMALES
University Employees: Total = 28	
Asst. Professor, Ag. Econ - 3	Asst. Professor, Ag. Econ - 3
Asst. Professor, Resource Econ	Instructor, Ag. Econ.
Professor, Ag. Econ - 2	Asst. Professor, Aquaculture
Instructor, Ag. Econ.	Management Specialist, Conferences
Asst. Professor, Aquaculture	
Instructor, Fisheries	TOTAL = 6
Director, Aquaculture Center	
Asst. Professor, Agronomy - 3	
Asst. Professor, Pest Mgt., & Zoology	
Asst. Professor, Ag. Mechanics	
Asst. Professor, Ag. Engineering	
Asst. Professor, Animal Science - 2	
Asst. Professor, Poultry Science	
Professor, Grain Science	
Asst. Prof., Grain Science,	
Dean of Students	
TOTAL = 22	
Government Employees: Total = 17	
Chief, Planning Service, PDNR****	Deputy Executive Director, NAFC*,PDA
Area Manager, NAFC, PDA*****	Researcher, Dairy Products, PDA
Plans and Programs Advisor, NAFC	Asst. Director, Govt. Agency
Program Officer, Intergovt., India	Chief, Tech. &n Training, NAFC
Chief Economist, BAS***, PDA	Executive Asst., NAFC
TOTAL = 5	Asst. Project Manager, AAPP**, PDA
* - NAFC - Nat. Ag. & Fish Council	Sr. Marketing Analyst, BAS, PDA
** - AAPP - Accel. Ag. Prod. Proj.	Technical Asst, BAR******, PDA
*** - BAS - Bureau of Ag. Statistics	Asst. Chief, Research Div., BAS
**** - PDNR - Phil. Dept. Nat. Res.	Executive Asst., Regional Operations,
***** - PDA - Phil. Dept of Ag.	Statistician, Asst. Chief, NAFC, PDA
****** -BAR - Bur. Agrarian Reform	Chief, Division of Ag. Services, NAFC
	TOTAL = 12

APPENDIX D
CORRESPONDENCE

Post Card Used for Responses after the Initial Contact with Subjects

___Yes I will participate in an interview
___No I am not willing to be interviewed

My home address is:
Name:_____
Address:_____
_____
_____
_____
PHONE #:_____

Office Address is:
_____
_____
_____
_____
PHONE #:_____

I am not available
on the following dates
in January 1988.

January 1988

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

Please X out dates not
available.

Cooperative Extension Service

Iowa State University *of Science and Technology*   *Ames, Iowa 50011*

Administrative Offices
Curtiss Hall
Telephone 515-294-9610

DATE: December 17, 1987

TO: Returned Participant Trainees

FROM: Barbara E. Burton

SUBJ: Participation in a follow-up study on in-country needs and current career progress

As you may be aware, many of the universities that you attended and programming agencies such as U.S. Agency for International Development and U.S. Department of Agriculture/Office of International Cooperation and Development have directed much recent attention toward the process of professional integration of participant trainees. They are interested in enhancing their effectiveness in helping graduates function better in their careers when they return home. This might include maintaining contact, providing for continuing education needs, modifying degree experiences to enhance relevancy, etc. However, to help them target their efforts toward felt needs of returned participants, the universities and agencies are interested in knowing what the graduates feel their needs are, having experienced the process of returning home and assuming their careers. This information will be used to help them improve the relevancy of their programs while students are here in the states, as well as increase their effectiveness in providing appropriate follow-up support to graduates when they return to their home countries. Your participation in this study can help provide useful information in these areas.

I would like to introduce myself. I am Barbara Burton, a PhD candidate at Iowa State University in Adult and Extension Education. I will be conducting this study for my dissertation, under the sponsorship of Iowa State University, USDA/Office of International Cooperation and Development, and the National Association for Foreign Student Affairs.

I would like ask you to participate in an in-person interview for about two (2) hours during the month of January, 1988. I will be traveling to the Philippines and will make arrangements to meet with you at an appropriate location that is convenient for you. If you would be willing to participate in such an interview, please return the enclosed postcard, indicating your home and office address and telephone, and when you can be available to be interviewed. I will contact you by telephone as soon as I arrive in the Philippines to establish a specific date, time and place to meet. If you would not be willing to participate in such an interview, I would appreciate it if you would please return the enclosed postcard, and indicate this, as well. I would greatly appreciate it if you would return the postcard as quickly as possible, and if you would return it to me via airmail. I will gladly reimburse you for the cost of the postage, should I have the opportunity to meet with you.

Thank you very much for your time and effort on this project. I hope it will lead to improved training experiences for future students.

Cooperative Extension Service

Iowa State University *of Science and Technology*

Ames, Iowa 50011

Administrative Offices
Curtiss Hall
Telephone 515-294-9610

DATE: January 13, 1988

TO: Returned Participant Trainees

Barbara E. Burton

FROM: Barbara E. Burton

SUBJ: Participation in a follow-up study on in-country needs and current career progress

As you may be aware, many of the U.S. universities that you attended and programming agencies such as U.S. Agency for International Development and U.S. Department of Agriculture/Office of International Cooperation and Development have directed much recent attention toward the process of professional integration of participant trainees. They are interested in enhancing their effectiveness in helping graduates function better in their careers when they return home. This might include maintaining contact, providing for continuing education needs, modifying degree experiences to enhance relevancy, etc. However, to help them target their efforts toward felt needs of returned participants, the universities and agencies are interested in knowing what the graduates feel their needs are, having experienced the process of returning home and assuming their careers. This information will be used to help them improve the relevancy of their programs while students are here in the states, as well as increase their effectiveness in providing appropriate follow-up support to graduates when they return to their home countries. Your participation in this study can help provide useful information in these areas.

I would like to introduce myself. I am Barbara Burton, a PhD candidate at Iowa State University in Adult and Extension Education. I will be conducting this study for my dissertation, under the sponsorship of Iowa State University, USDA/Office of International Cooperation and Development, and the National Association for Foreign Student Affairs.

I would appreciate it if you would fill out the attached survey questionnaire and return it to me in the envelope provided. Your participation in this project is voluntary, and there are no consequences for refusal to answer the entire questionnaire or specific questions within it. As you examine the questionnaire, it appears quite long. However, in many cases, where information does not pertain to your experiences, you are asked to skip ahead, shortening the number of questions considerably. Please answer as honestly as possible, circling the response that most closely describes your experiences, or filling in the blanks, where appropriate. Your responses will be kept confidential.

Thank you very much for your time and effort on this project. I hope it will lead to improved training experiences for future students. Should you be interested in information regarding the results of the study, please indicate this as you return your questionnaire.

APENDIX E

APPROVAL FOR THE USE OF HUMAN SUBJECTS

INFORMATION ON THE USE OF HUMAN SUBJECTS IN RESEARCH
IOWA STATE UNIVERSITY
(Please follow the accompanying Instructions for completing this form.)

198

(1.) Title of project (please type): A Comparison of the Professional Integration of Returned

Male and Female Agricultural Major Participants From the Philippines

(2.) I agree to provide the proper surveillance of this project to insure that the rights and welfare of the human subjects are properly protected. Additions to or changes in procedures affecting the subjects after the project has been approved will be submitted to the committee for review.

| Barbara E. Burton	12/21/87	*[signature]*
Typed Named of Principal Investigator	Date	Signature of Principal Investigator

111 Curtiss Hall	294-1365
Campus Address	Campus Telephone

(3.) Signatures of others (If any)   Date   Relationship to Principal Investigator

Robert L. Crom   12/21/87   Dean, Coop. Extension Service

(4.) ATTACH an additional page(s) (A) describing your proposed research and (B) the subjects to be used, (C) indicating any risks or discomforts to the subjects, and (D) covering any topics checked below. CHECK all boxes applicable.

☐ Medical clearance necessary before subjects can participate

☐ Samples (blood, tissue, etc.) from subjects

☐ Administration of substances (foods, drugs, etc.) to subjects

☐ Physical exercise or conditioning for subjects

☐ Deception of subjects

☐ Subjects under 14 years of age and(or)   ☐ Subjects 14-17 years of age

☐ Subjects in institutions

☒ Research must be approved by another institution or agency
        has been

RECEIVED DEC 21 '87 GRADUATE COLLEGE ISU
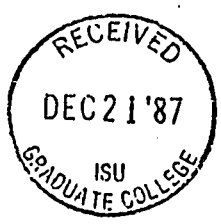
(5.) ATTACH an example of the material to be used to obtain informed consent and CHECK which type will be used.

☐ Signed informed consent will be obtained.

☒ Modified informed consent will be obtained.

(6.) Anticipated date on which subjects will be first contacted:

	Month	Day	Year	
	12/	29/	87	and 1/9/88

Anticipated date for last contact with subjects: 2   10   88

(7.) If Applicable: Anticipated date on which audio or visual tapes will be erased and(or) identifiers will be removed from completed survey Instruments:

Month   Day   Year

(8.) Signature of Head or Chairperson   Date   Department or Administrative Unit

[signature]   12/21/87   Cooperative Extension Service

(9.) Decision of the University Committee on the Use of Human Subjects in Research:

☒ Project Approved   ☐ Project not approved   ☐ No action required

George G. Karas	12/22/87	*[signature]*
Name of Committee Chairperson	Date	Signature of Committee Chairperson

A Comparison of the Professional Integration of Returned Male and Female
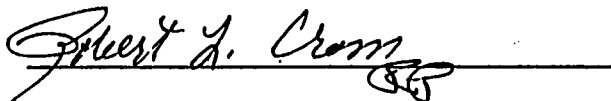Agricultural Major Participants From the Philippines

In this project data will be collected from returned Filippino agricultural
majors that attended U.S. Land Grant Universities to determine if there are
significant differences between males and females as they undergo the process
of professional integration, or returning home from their degree programs to
enter careers. Data will be collected using two different methods, as follows.

1. Interview - Of the 96 potential subjects, approximately 26 will be contacted
to participate in in-person interviews. The initial contact with these individuals
is a postcard, to be followed up by a telephone call when the Principal Investigator
reaches Manilla. A copy of the Interview Schedule is attached.

2. Survey Questionnaire - Those not involved in in-person interviews from the
list of 96 potential subjects will receive survey questionnaires. These will be
mailed in country, with return postage provided. A copy of the Survey Questionnaire
is attached.

Also provided is a list of the potential subjects to participate in the research.
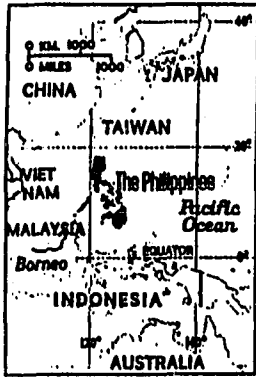
Barbara E. Burton
Principal Investigator

Robert L. Crom
Dean and Director, Iowa Cooperative Extension Service

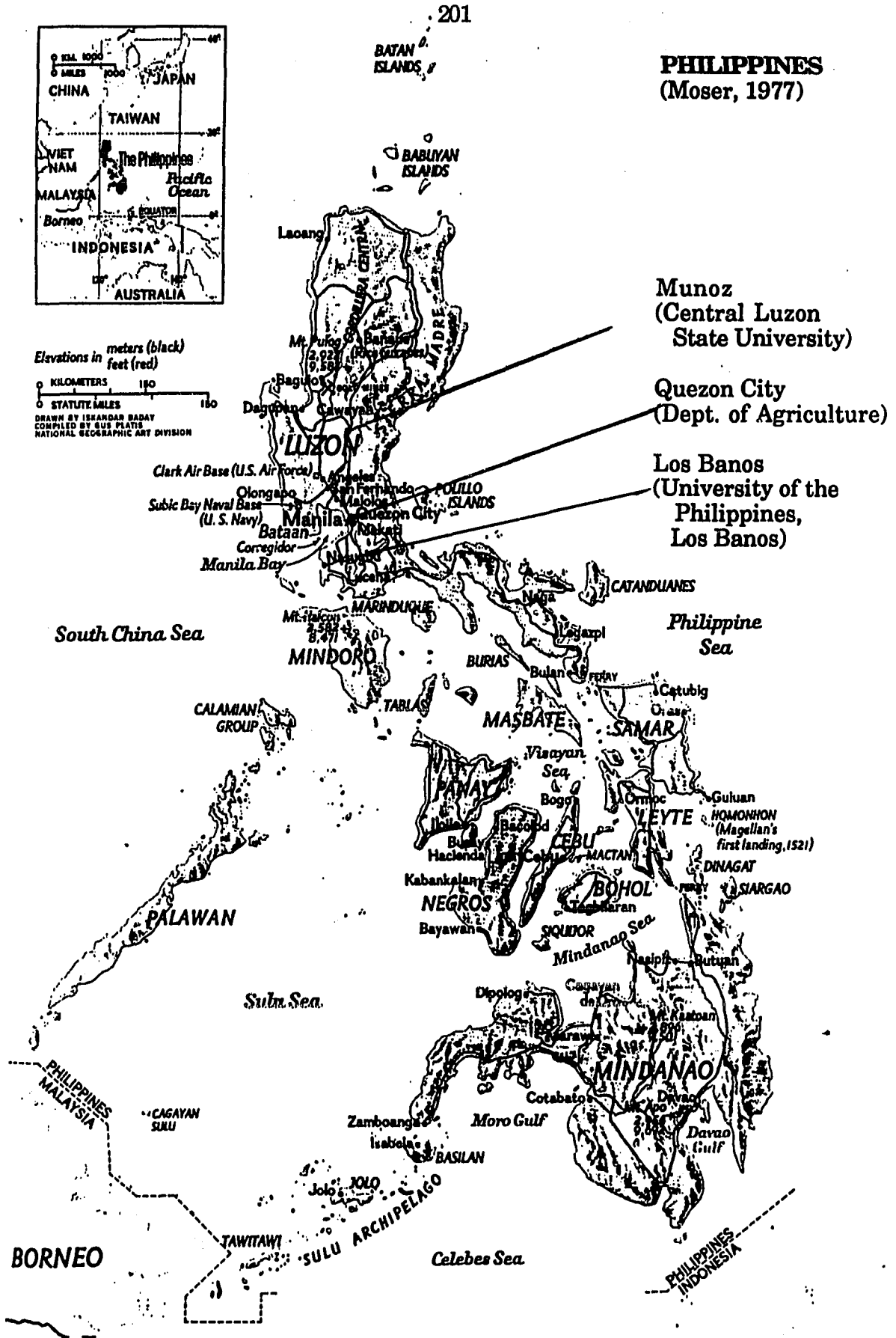# APPENDIX F

MAP OF THE PHILIPPINES

PHILIPPINES
(Moser, 1977)

Munoz
(Central Luzon
   State University)

Quezon City
(Dept. of Agriculture)

Los Banos
(University of the
   Philippines,
   Los Banos)