



INTERNATIONAL AGRICULTURE

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The two papers included in the International section of this December issue of the **NACTA Journal** are excellent examples of the kind of papers which it is hoped many NACTA members will submit. Any NACTA member who has something in the international area to share with **NACTA Journal** readers is cordially invited to do so by means of a peer-reviewed published article.

International Assignments

Factor Influencing Faculty Willingness to Accept

Robert Perez and Leroy Rogers
Introduction

Colleges of Agriculture are becoming increasingly involved in international development projects. Finding competent faculty willing to undertake an international assignment is a major undertaking. An improved understanding of factors which are important to a person's decision to accept an international assignment will provide useful information for recruitment. Accordingly, agriculture faculty from the Pacific Northwest land-grant universities were surveyed to determine those factors important to their decision to accept or reject assignment on an international project.

Methods

A sample of 886 College of Agriculture personnel at Washington State University, Oregon State University, and the University of Idaho, were surveyed. An 86% rate of useable responses was obtained from the three universities. Five point Lickert-type scales were used to elicit the respondent's current willingness to accept a short (4-6 weeks), medium (6-12 months) and long term (18 months-2 years) assignment. A second series of questions elicited the respondent's perceptions of the importance of various aspects of personal-family living and general work conditions on their decision to accept a foreign assignment.

Results

Analyses of respondent's willingness to undertake foreign assignments on technical assistance projects

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are presented in Table 1. The extreme left column labeled "total population" presents the arithmetic mean on the five point Lickert scale of the respondents' indicated willingness to accept assignments of varying length. The remaining columns indicate willingness to participate according to selected demographic variables.

Faculty were quite willing to participate in short-term assignments (4.04). They were less interested in assignments of medium- or long-term duration. However, the responses indicate the existence of a substantial pool of faculty willing to participate in assignments of varying lengths. Approximately 80% of the resident instructional faculty indicated they would be "willing" or "definitely willing" to participate in a short-term assignment. Thirty-eight percent indicated they would be willing to take a medium-term assignment, and 26% indicated they would be "willing" or "definitely willing" to participate in a long-term project.

The presence of minor children in the home had only a modest effect on willingness to participate in medium-term assignments and had no effect on willingness to take either short- or long-term assignments. The achievement of tenure by the individual failed to affect significantly willingness to participate while spouse's employment had only a modest effect on willingness to participate in a long-term assignment. Sex proved to be a significant predictor of willingness to participate in both medium- and long-term assignments. In both cases, females were more willing to participate than were males.

The ability to speak a foreign language and previous international experience were the most potent demographic predictors. Those able to speak a foreign language were significantly more willing to participate on short-, medium- and long-term assignments. Similarly, those with previous international experience were more willing to take part in projects of all lengths. Presence of previous international experience and ability to speak a foreign language were themselves related (Chi Square = 43.55, $p < .0001$). The possibility exists that many of those with an ability to speak a foreign language gained this ability on previous international assignments, suggesting these two factors may not be entirely independent.

Additionally, analyses were performed to identify variables likely to affect participation on international projects. The perceived importance of variables was rated on four-point scales, with values ranging from one (not at all important) to four (extremely important). Items with an average rating of three or greater were considered important. Within the category of personal-living conditions, the spouse's feelings regarding the assignment and the respondent's feelings of personal safety were considered quite important (Table 2). Fifty-seven percent of the respondents indicated that personal safety was "very important," while 72%

Table 1. Influence of Demographic Factors on Willingness of Faculty to Accept Foreign Assignment (1 = definitely no; 5 = definitely yes)

Length of Assignment	Total Population	Sex		Married		Minors at Home		Spouse Employed		Speak Foreign Language ¹		Have Tenure		Previous International Experience ²	
		M	F	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Short term assignment	4.04 (6.15)	4.04	4.26	4.09	4.00	4.03	4.05	4.08	4.06	4.18	3.99	4.08	4.11	4.42	3.95
Medium term assignment (6-12 months)	3.22 (6.16)	3.20	3.57	3.23	3.50	3.17	3.31	3.30	3.15	3.46	3.05	3.24	3.31	3.54	3.15
Long term assignment (18-24 months)	2.61 (6.15)	2.60	2.89	2.61	2.85	2.59	2.64	2.68	2.50	2.91	2.38	2.59	2.75	3.05	2.48

¹Speak any foreign language, regardless of level of proficiency. ²Previous nonmilitary experience providing technical assistance in developing nation. *p < .05; **p < .01; ***p < .005

made a similar statement about the spouse's feelings. Quality of medical care, the opportunity to perform a humanitarian service, cultural enrichment and housing evoked reactions which were only slightly less intense than those mentioned above.

No items related to importance of professional role received an average score of 3.0 or more. Bureaucratic problems, working relations with their colleagues, and working relations with other international consultants were rated as important general working condition factors. The effect of accepting an assignment on achievement of tenure was seen as relatively unimportant by the total sample. However, in a separate analysis the effect on tenure of having accepted a long-term foreign assignment was seen as significantly more important by those who had not yet achieved tenure than by those having tenure.

The responses reported in Table 2 merely indicated perceived importance attached to the various factors. It was unclear whether some of the items were considered an advantage or disadvantage. Where uncertainty existed, the respondents were asked to indicate the level of advantage or disadvantage associated with these factors with a rating of 1 for "great advantage" and 5 interpreted as a "great disadvantage" (Table 3).

The opportunity to work with colleagues from different cultures was considered an advantage and those with prior international experience valued this factor more highly than those without international experience. The emphasis on applied research was considered an advantage by 52% of the respondents. Involvement in project administration was considered a "disadvantage" or "great disadvantage" by 62% of respondents. The tenure issue and working with non-

English speaking colleagues also were considered disadvantages. Those with prior international experience were significantly more concerned about tenure, but less troubled with the issue of working with non-English speaking colleagues. Similarly, they attributed less importance to physical climate, personal safety, and the quality of laboratories, library and computer facilities.

The effects of various factors were evaluated in terms of their empirical prediction of expressed willingness to undertake international assignments. Nine derived indices were simultaneously entered into a regression equation predicting willingness to participate (Table 4). The squared semi-partial correlation coefficient indicates the amount of criterion variable variance explained by that index item, controlling for the simultaneous presence of the other variables. It represents the unique contribution of each variable. The standardized regression coefficient indicates the direction of the predictor-criterion relationship. A positive sign indicates that that item is positively correlated with willingness to accept a foreign assignment.

The Importance of Challenge

The derived importance indices jointly accounted for only 18% of the variance in expressed willingness to participate. The relationships of the individual items with the criterion variable, while statistically significant, are quite modest in their accounting for total variance. The most influential predictor of willingness to participate was the importance the person attached to the challenge of conducting their personal and professional lives in an environment using a foreign language (3 percent). Those who attached more importance to that challenge were less willing to participate.

Summary and Implications

A significant number of college of agriculture faculty members at the three Pacific Northwest universities were willing to accept foreign assignments. As noted, 26% of the faculty indicated they would be willing to undertake a long-term assignment. Several items related to personal-family, professional role, and work conditions influenced the willingness of faculty to consider a foreign assignment. Items related to actual living conditions, personal safety and expected interpersonal relations on the job were rated as quite important. These factors reflect the respondent's expectations of the quality of life in an unknown environment. Somewhat less expected was the high degree of importance attributed to both the cultural enrichment flowing from living in a foreign country and to the opportunity to perform a humanitarian service. These were clearly perceived as positive attributes to a foreign assignment, strongly attracting faculty members.

Positive aspects of a foreign assignment were offset by certain negative considerations. Among the **Table 2. Importance of Personal-Family Living, Professional Role and General Working Condition Factors on Willingness to Accept Long-Term Assignments**

Item	Average Score ¹
Personal-Family Living Conditions	
Spouse's feelings	3.56
Personal safety	3.49
Medical care	3.43
Providing of Humanitarian service	3.34
Cultural enrichment	3.19
Housing	3.08
Increased pay	2.83
Conducting affairs in foreign language	2.69
Physical climate	2.62
Quality of schools	2.54
Number of English-speaking persons	2.54
Spouse's job	2.12
Effect on U.S. consulting income	1.99
Professional Role	
Involvement in project administration	2.64
Extent of direct Extension work	2.59
Emphasis on applied vs. theoretical research	2.49
Involvement in teaching foreign graduate students	2.38
General Working Conditions	
Bureaucratic problems	3.32
Working with colleagues from different culture	3.29
Working with other foreign consultants	3.04
Added international perspective to research	2.92
Access to consultant help	2.89
Quality of lab, library, computer, etc.	2.66
Required adaptation of work habits to international conditions	2.38
Effect on tenure	2.33
Participation in governance of home department	1.90

¹Importance rating: 1 = not at all important; 4 = extremely important.

Table 3. Relative Advantage/Disadvantage Associated with Selected Factors Importance in Acceptance of Long-Term Foreign Assignments (1 = great advantage; 5 = great disadvantage)

Item	Total Pop.	Average Score International Experience	
		Yes	No
Working with colleagues from different cultures	2.24	2.13*	2.27*
Emphasis on applied vs. theoretical research	2.46	2.35	2.49
Involvement in teaching foreign graduate students	2.66	2.53*	2.69*
Required adaptation of work habits to international conditions	2.85	2.73**	2.89**
Conducting affairs in a foreign language	3.08	2.81***	3.17***
Effect on tenure	3.30	3.54***	3.22***
Working with non-English-speaking colleagues	3.36	3.20**	3.42**
Involvement in project administration	3.68	3.55*	3.73*

*p < .05; **p < .01; ***p < .005

negative considerations were: concern over change a faculty member could realistically expect to foster in a developing nation, disruption of the respondent's ongoing research, interruption of contacts with current funding sources and the inability to keep up with technical developments within the scientist's discipline.

Significant differences in importance ratings were observed between those who did and did not have previous experience in a foreign country. Almost without exception, items relating to the actual mechanics of living and working in a developing country were rated as less of a concern by those who had previous international experience. However, they were more concerned about working relations with local colleagues and with the effect of an international assignment on the achievement of tenure. The concerns over evaluation, promotion and tenure policies suggest that a perceived lack of administrative support constitutes a major obstacle to long-term faculty involvement.

The absolute amount of prediction of willingness to participate achieved in the regression analysis was rather low (R² = .18). Nonetheless, the regression analysis provided an interesting, if somewhat tentative, perspective on the perceived relative importance of various factors associated with work in developing nations. The ability to carry on one's affairs in a foreign language and humanitarian-cultural enrichment emerged as the most important predictors. The concern about one's ability to conduct affairs in a foreign language suggests that language training constitutes an important component in attempts to facilitate faculty involvement.

Table 4. Prediction of Willingness to Participate in Long-Term International Assignment by Importance Indices.

Index Factors	Squared Semi-Partial Correlation Coefficient	Standard Regression Coefficient ¹
Language	.03**	-.19
Humanitarian/cultural	.03**	.18
Interpersonal relations	.02**	.17
Living conditions	.01*	-.12
Income	.01*	.14
Spouse	.01*	-.10
Work conditions	.01*	-.13
Professional role	—	
Tenure and home dept.	—	
R ²		.18**

¹+ = willing to participate; - = unwilling to participate.
*p > .01; **p > .005

Agricultural Education In Portugal

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In the recent edition of **Teacher Education in Agriculture**, the role of agriculture teachers in the international scene was examined. It was pointed out that changing global situations are bringing new challenges and opportunities to teachers of agriculture. With the increased emphasis on technical assistance and training related to improved methods for technological transfer, teachers of agriculture are now being recruited on an unprecedented scale for overseas assignments. Therefore, it seems appropriate that educators expand their knowledge of agriculture and educational systems in other countries. This article will provide some insight into agricultural education in Portugal.

Portugal consists of the mainland, the Azores, and the Madeira Islands. Mainland Portugal is divided into two distinct topographical regions by the Tagus River. The Tagus flows into the Atlantic Ocean at Lisbon. The northern part of the country is mountainous with a rainy, moderately cool climate. To the south, the landscape becomes rolling plains with less rainfall and a

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Providing technical assistance in a developing nation is a complex task requiring both social and technical skills. This study demonstrated the existence of a substantial pool of professionals willing to undertake the challenges of this task. Effective participation depends on a complex mixture of individual idealism, cultural and linguistic sensitivity, appropriate administrative and financial support and supportive social circumstances.

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warm climate. The summer is generally hot and dry, becoming drier from north to south and hotter from west to east. Agriculture accounts for approximately 18 per cent of the gross national product in Portugal. Principle agriculture products of the country are small grains, potatoes, rice, winegrapes, olives, and almonds. Portugal has the world's largest cork industry, producing two-thirds of the cork in the world.

The development of agricultural education in Portugal can be linked to its geographical setting and history. Portuguese farmers never developed as an important segment of society. In the early history of the country, farmers were reduced to serfdom. Barbarian invasions that began in the 300's were mainly responsible for this early status of farmers. The Moorish conquest in the 600's and Christian reconquest in the 1100's further disrupted life throughout the country. Through the intervening years, the causes of farmers and agriculture have not advanced.

It was into this geographical and historical setting that education in agriculture was first offered formally in the late 1800's. The initial two agricultural high schools were finally established in 1913. Training at these schools was designed to prepare students for farming. However, few graduates entered farming as their services were needed by the Extension Service and the agricultural industry. It was not until the 1960's that additional schools began to appear. By 1983, agricultural education was being provided in 11 high schools located throughout the country.

The educational system in Portugal consists of four distinct phases — primary school, preparatory school, secondary school, and university and colleges. This