Abstract

This paper presents findings that are part of a larger impact evaluation currently being undertaken on a USDA technical assistance program, the Cochran Fellowship Program. Specifically examined in this study are self-reported participant professional and organizational outcomes that correspond to the Cochran Program objectives. Indicators for the seven outcomes examined were developed and a survey instrument was designed. Cochran Program participants from three counties in the Newly Independent States were the population sample (N = 151). Advantageous to this study is the excellent response rate (98%). The Cochran Program had an impact on participant’s professional and organizational knowledge and skills, attitudes, continued contacts, job changes, organizational changes, and trade-related activities. Governmental, public, and private organizations developing or managing international short-term training programs should find this study useful. Agricultural and extension educators engaged in international development can learn from the findings in designing and evaluating technical assistance programs.
Introduction

Historically, significant resources have been provided for the agricultural sector in developing countries by international governmental and non-governmental agencies (Place, 1998). In the mid 1980’s, the United States increased its’ development efforts in Eastern Europe, particularly the Newly Independent States (NIS) of the former Soviet Union. This increased U.S. assistance continued to grow through the 1990’s, yet slowly transitioned from humanitarian relief and infrastructure development to technical assistance.

Since 1984, the United States Congress had made funds available to the United States Department of Agriculture (USDA) to provide short-term technical assistance training for over 6,064 academics, agribusiness people, agriculturalists, and government officials from approximately 57 developing countries under the Cochran Fellowship Program. Training programs are developed in the United States (U.S.) for selected participants from both the public and private sector with agriculturally related interests in trade, management, marketing, education, policy, and technology transfer. Most programs offer a mixture of technical instruction, practical field observation, and “hands-on” experience. Training is done in groups of five to seven participants by topic, and country or geographic region. The Cochran Program administration expects that, upon their return, the participants will be catalysts for change in their businesses or organizations.

The Cochran Fellowship Program is one of the USDA’s major international technical assistance efforts. Technical assistance can be defined as “any activity that enhances human and institutional capabilities through the transfer, adaptation, and use of knowledge, skills, and technology” (Wallace, 1990). The objectives of the Cochran Program, in general, are to assist middle-income countries, emerging democracies, and emerging market countries to develop their agricultural systems for the food and fiber needs of their domestic population, and to strengthen and enhance agricultural trade linkages with the U.S.

The Cochran Program expanded into the NIS soon after those countries’ independence from the former Soviet Union. The NIS of the former Soviet Union include Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan. Three NIS countries are the focus of this study, Armenia and Georgia that began Cochran Program participation in 1993 and Azerbaijan that began in 1995.

Cochran Program participants have almost always given positive responses about program logistics and subject matter content in end-of-program evaluations; however there has been limited impact evaluation. Such evaluations could verify and possibly quantify the benefits, outcomes, and impacts of the Cochran Program training. And like most other governmental agencies, the need for USDA to validate the Cochran Program increases. Mere enumeration of participants is not sufficient to justify program dollars. Neither should evaluation be based solely on end-of-program information, but rather in relation to the program outcomes based on program objectives. For optimal feedback, participants should be tracked after returning home to their country when they have had the time and opportunity to implement their new knowledge and experiences.
Purpose

The main purpose of the paper is to share information collected from an on-going impact assessment regarding technical assistance provided through the Cochran Fellowship Program. This paper specifically identifies and describes self-reported professional and organizational outcomes that occurred for participants after the training.

Methods and Data Sources

A three-part questionnaire instrument was designed and developed to collect data for the study based upon Cochran Program mandated objectives and past evaluation reports (Infanger & Reed, 1996, Hoffstrom & McDaniel, 1996). Part one contained questions relative to participant information. Part two contained questions relative to participant reaction to the training. Part three had questions about professional and organizational outcomes that occurred for participants after the training. The questions were of a quantitative nature, with specific response choices. Many questions had a scale of choices to provide more precise responses.

The questionnaire was validated for content and face validity by a panel of experts in agriculture and extension education. The questionnaire was pilot tested among a group of individuals at The Pennsylvania State University knowledgeable of international agriculture training programs. After suggestions were incorporated the questionnaire was translated into the Russian language. Though Armenia, Azerbaijan, and Georgia each have their own native language translating the questionnaire into three languages and subsequent responses back into English could increase measurement error. In-country Armenia and Georgia contacts were consulted on the use of Russian in the three countries. After translation the questionnaire was checked for face validity by four Russian language experts, two in the U.S. and two in Armenia. The Russian questionnaire was then pilot tested in Armenia by a group of professionals familiar with agricultural education.

An introductory letter to the participants about the study in Russian from the USDA/Cochran Program Washington, D.C. manager was on the inside cover of the questionnaire. A cover letter from the researcher of introduction, instruction, appreciation, implied consent, and confidentiality information in Russian was included in the questionnaire packet. The questionnaire packet also contained an inside return envelope in which to seal the completed questionnaire.

The population for this study (N=151) was Cochran Program participants from Armenia, Georgia, and Azerbaijan. The mail system was not used in these countries because it was determined to be unreliable. Phone calls or other communication with the participants ensured correct contact information and facilitated questionnaire delivery. (Case-in-point, in Armenia approximately 75 percent of participants’ contact information had changed from the initial master list.) Return envelopes containing completed questionnaires were picked-up based on prior arrangement with each participant. Because extensive investigation to locate participants was done and questionnaires were delivered and picked-up the return rate was great. In Armenia and Azerbaijan there was a
100% return rate and in Georgia a 94% return. A total of 148 Cochran Program participants returned the questionnaire (98%).

Returned questionnaires were reviewed and it was determined that respondents provided complete information, which strengthened the data for further analysis. Quantitative data from the questionnaires were coded and then entered into an initial database set in MS Office 2000 Access. The database was later transferred to MS Office 2000 Excel and SPSS version 10 for further statistical analysis.

Results/Conclusions

Seven outcomes had been identified for short-term and medium-term professional and organizational outcomes that could lead to sustained impact. The seven outcomes can be categorized into the influence of the training, changes that occurred after the training, and potential trade development.

- Knowledge and Skills Influenced by the Training
  Participants were asked to indicate the level of influence, on a four-point scale (no influence to high influence), the Cochran Program had on their knowledge and skills. Figure 1 reflects responses of the moderate and high influence the Cochran Program. Over 50 percent of the participants reported the training had high influence on five items. These five items can be divided into two general areas: democratic market economy, and professional and organizational development.

- Attitude Changes from Before to After the Training
  Participants were asked to indicate their attitudes, on a five-point scale (very negative to very positive), about America before and after training. The questions focused on four key areas: American people, American agricultural products, American market economy, and the American business management style. Overall, attitudes about America changed from before to after the training because before the training most participants had reported neutral attitudes in the four key areas.

Figure 2 shows the participants’ combined positive and very positive attitude change about America from before to after training. The greatest attitude change from before to after training when combining positive attitudes was about American people (35%), followed by American products (28%), American management style (28%), and American market economy (27%).
Figure 1: Percent Knowledge and Skills Influenced by the Cochran Program for Participants.

- Understand free market system impact: 12% Moderate Influence, 76% High Influence
- Gain knowledge of US democratic system: 11% Moderate Influence, 75% High Influence
- Learn knowledge/skills that could be shared: 18% Moderate Influence, 58% High Influence
- Improve job abilities: 18% Moderate Influence, 57% High Influence
- Train others with US experiences: 18% Moderate Influence, 50% High Influence
- Improve farm/organization management: 25% Moderate Influence, 42% High Influence
- Influence government policy: 31% Moderate Influence, 19% High Influence
- Create a business or joint venture: 14% Moderate Influence, 28% High Influence
- Privatize a farm or organization: 18% Moderate Influence, 22% High Influence

Figure 2: Percent Before and After Positive Attitudes by Cochran Program Participants About America.

- American market economy: 69% Before, 96% After
- American management style: 67% Before, 95% After
- American people: 60% Before, 95% After
- American products: 61% Before, 89% After

- Continued Contact After the Training

Participants were asked to indicate (yes or no) the type of continued contact they had after training with other program participants and with U.S. individuals, businesses, universities, or government organizations. Overall, a higher percent of participants contacted other participants when compared to U.S. contacts.

A majority of the participants had contact with other participants by corresponding about professional matters (83%), meeting to exchange ideas (79%), receiving business materials (61%), and providing business materials (55%). A smaller percent (39%) reported working with other participants on collaborative projects.
Participants also had contact with new U.S. connections, primarily by corresponding about professional matters (55%). More participants received business materials (49%) though also provided business materials (31%). A smaller percent of participants discussed a new business or joint venture with new U.S. contacts (31%).

- **Job Changes After Training**
  Participants were asked to indicate the degree of job change, on a three-point scale (*no change, moderate change, extensive change*), that occurred after the training. Job change indicators were responsibility increase, job advancement, and salary increase. The greatest change was responsibility increase for 89% of the participants that reported a *moderate* or *extensive change*. The greatest *extensive change* reported was also responsibility increase (61%), followed by job advancement (37%). For salary increase only 23% participants reported an *extensive change*, though 47% had a *moderate change*.

- **Organizational Changes After Training**
  Participants were asked to indicate (yes or no) what organizational changes had occurred for them, their farm, business, or organization since the training. Figure 3 shows reported organizational changes. Overall, three of the five changes would utilize an existing business or organization. One change reported by participants, started own private business, would be entrepreneurial. The fifth change could be professional and organizational as participants reported a move to a better job in another organization. The greatest organizational change reported was offered new products or services (67%).

<table>
<thead>
<tr>
<th>Change</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Offered new products/services</td>
<td>67%</td>
</tr>
<tr>
<td>Expanded operations</td>
<td>47%</td>
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<tr>
<td>Started own private business</td>
<td>33%</td>
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<tr>
<td>Moved to a better job</td>
<td>32%</td>
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<tr>
<td>Started new project/collaboration</td>
<td>29%</td>
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Figure 3: Percent Organizational Changes after the Cochran Program by Participants.

- **Potential U.S. Trade-Related Activities Influenced by the Training**

Participants were asked to indicate the level of influence, on a four-point scale (*no influence* to *high influence*), the Cochran Program had on potential U.S. trade-related activities. Figure 4 reflects responses of *moderate* and *high influence* by the Cochran Program on potential U.S. trade-related activities. The greatest influence of the Cochran Program on trade-related activities, when combining *moderate* and *high influence*, was idea generation (66%). A more concrete
trade activity that was influenced by the training, importing commodities or technologies, followed (60%).
Potential Trade-Related Activities Undertaken After Training
Participants were asked to report (yes or no) what potential U.S. trade-related activities had occurred since their return from training. Figure 5 shows reported potential U.S. trade-related activities undertaken. Overall, participants reported establishment of business communication and collaboration. Concrete trade activity was reported, purchased from the U.S., though at a lower percent (18%).

Educational Importance
Since the Cochran Program is utilized in developing countries to provide technical assistance it is important that this educational opportunity be designed for greatest impact. This study identifies and describes self-reported professional and organizational outcomes by program participants. The research provides a further understanding of the opportunity and value of this type of technical assistance. USDA can use the study in developing future Cochran or other technical assistance
programs. Governmental, public, or private organizations developing or managing international short-term training programs should find this study useful. Agricultural and extension educators engaged in international development can learn from the findings in designing and evaluating technical assistance programs.

References


