

ACCOUNTABILITY AND THE COOPERATIVE EXTENSION SERVICE: AN EMERGING ROLE FOR RURAL SOCIOLOGY¹

Howard Ladewig
Texas Agricultural Extension Service, Texas A&M
University System

Introduction

Rural sociologists holding membership in the Southern Association of Agricultural Scientists have long been recognized for their contributions to research in many areas including demography, agriculture, and community. Traditionally outnumbered -- but never outmanned -- this meeting of rural sociologists has grown from a step-sibling of agricultural economics to a regional society of rural sociologists.

One reason for the growth of this group, as with any professional society, is the quality of ideas proffered by the membership. A second reason is a communality that has not been unduly affected by either critical discussants or the growing rigors accompanying the conceptual and statistical demands of today's research efforts. A third reason is that this meeting site has nurtured many of the research designs created to address relevant issues. It is for these reasons also that I feel confident when I propose a design that requires nourishment -- a system of accountability for the Cooperative Extension Service.

There are several reasons why the membership, individually and collectively, should turn its attention to this effort. First, the relevancy of Extension programs to meet the needs of today's society is becoming increasingly questioned. One writer contends that the best way to bankrupt a rancher or farmer is to have him apply current agro-economic extension advice (Savory 1985). Another reports that it is difficult to comprehend when less than 5 percent of our total population is involved in agriculture, that an organization as large as Extension Service still exists to assist in the educational needs of rural America. He contends that it may be time for a change within Extension, and that elimination of the entire program may be of benefit to all taxpayers (Herrick 1985). It appears that the Reagan administration and others do not fully understand the role of Extension in areas outside of agriculture and also in urban America. They have consistently proposed major cuts in federal support for the Agricultural Extension Service. While future accountability efforts may in fact verify this recommendation, a decision of such magnitude made in the absence of adequate evidence of organizational effectiveness will have dramatic consequences on both the land grant university system and the citizens of this nation. I might also remind you that if Extension today, perhaps research tomorrow.

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Second, there is a growing debate about the overall purpose of the Cooperative Extension Service. Some believe that the role of the county agent has become more of an information broker and program organizer than an educator. Others content that the primary role of the agent should be technology transfer and that many county agents have become technologically obsolete, making it impossible to perform the technology transfer function (Feller et al. 1984). Still others argue that the restriction of Extension programs to technology transfer is a narrow reactive response. What is needed is a proactive thrust that includes programs that provide people with the knowledge and management skills required to cope with a rapidly changing social, economic, and political environment (Boone 1985).

A third reason for the membership to consider a system of accountability is that rural sociology not only has its roots in social action, it is uniquely qualified to help Extension overcome limitations of past accountability efforts. Two such limitations encountered in most efforts to measure consequences are that extension has had difficulty in precisely measuring change as a consequence of education, and there has been both lack of sufficient data and a refined conceptual framework to adequately measure social and economic consequences of Extension programs (Secretary of Agriculture 1980:viii).

I recognize that I am asking for nourishment of a design from a group who may have had limited involvement in Extension programming-evaluation efforts. Further, I am aware that some of you may not have had a fruitful experience in past interaction with Extension staff. However, I believe that the stakes at hand cannot be garnered without a cooperative effort of both disciplines and institutions of the agricultural complex. I further believe that rural sociology can and should be a lead discipline in this venture.

Given the challenge at hand, this address will identify barriers that must be overcome for rural sociologists to be involved, describe factors affecting past accountability efforts, and identify ways to improve future efforts. In essence, my goal is to further the dialogue on the conceptual and methodological requirements necessary for the construction of an accurate and reliable system of accountability. One note of caution: Given the financial and budgetary constraints facing legislators today, I hope the dialogue is brief.

Barriers

One barrier affecting this discipline's involvement in the development of a system of accountability for Cooperative Extension Service is that few rural sociologists presently are involved in evaluation research of Extension programs. As such, Extension administrators are not familiar with the breadth of qualifications possessed by members of the discipline.

Second, rural sociologists often have ignored the political constraints present in the political environment

in which most evaluation research findings are debated. Many of us have assumed that by providing facts, evaluation research can assist in the decision-making process. Weiss (1975), however, points out that decisions that occur in a political context affect this assumption in three ways.

1. Policies and programs are the result of political decisions and are subject to pressures that arise out of the political process.
2. Evaluation evidence has to compete for attention with other factors that carry weight in the political process.
3. Evaluators have a political stance.

Evaluators who ignore the political constraints of special interests, institutional power, and protective layers of alliances may confront the decision maker with troublesome information and may put the decision maker in a position that is politically unviable.

A third barrier relates to past contributions of evaluation efforts. Gordon and Morse (1975) found less than half of impact evaluation efforts which they examined to be methodologically rigorous. As a consequence, Extension administrators may be skeptical of anyone's ability to develop an accurate and relevant system of accountability for Cooperative Extension Service.

In sum, there are those who believe that past contributions of rural sociology and other social sciences to the evaluation efforts of Cooperative Extension are less than impressive. As a consequence, future cooperative efforts must establish the values of inputs from external groups in the building of an effective and objective system of accountability.

Failure of past efforts

Cooperative Extension Service has a long history of "helping people to help themselves." Unfortunately, county Extension agent success in demonstrating program accomplishments through evaluation has been somewhat limited. Not only have many Extension evaluations encountered difficulties in measuring program impact, the results of some studies have been misinterpreted. The Citizens Review Panel (1980), responsible for critiquing a national evaluation of Extension programs, expressed a deep concern that because of insufficient and sometimes misleading data, Congress could draw the wrong conclusions about the usefulness of Extension programs.

One reason for the past shortcomings is a lack of understanding by Extension of the purpose of impact evaluation. According to Rossi et al. (1979:16), impact evaluation attempts to assess the extent to which a program causes changes in the desired direction in the target population.

Over the years, several classical models have been used by Cooperative Extension in evaluating the impact of its programs. Patton (1978:13-14) describes two such models.

1. Charity model: Program intentions are worthy, and since some changes are probably occurring in some

- people, the program is judged to be successful.
2. Pork barrel model: Strength and leverage of the program's constituency dictates the level of success the program enjoys.

A third model which has guided many Extension evaluations is the "Shotgun model": Shoot a broad pattern and claim what falls. In other words, if only one program is in existence and the people who are within reach of the program make changes, then the program should be given credit for the changes made.

Classical evaluation models provide information useful in the political environment. As such, they have served Extension very well because most on-going educational programs have good intentions, serve a constituency that is both influential and willing to support Extension programs in the political arena, and historically have been a primary source of organized educational information (particularly in agricultural production). Such models, however, have limited utility in today's environment of budget restraints, expensive program alternatives, and increasingly complex problems.

A second reason for the limited success of past evaluation efforts is offered by Patton (1980) who contends that there is no single Extension program (treatment) to be studied. This is because every county and every state designs subject-matter educational programs differently. Given the diffused nature of Extension programs, it is Patton's belief that evaluations of national programs typically disguise more than they reveal. He explains (1980, p. 73):

When a standardized data-collection format is imposed upon thousands of local projects across the country and data collected in this standardized fashion is aggregated across the country, the result is more myth than reality...When national programs are implemented at the local level, the variations that result are so complex and so tied to local circumstances that no standardized format and no scheme of aggregation can reasonably represent and do justice to that complexity and those multitudes of adaptations.

While not all agree with Patton's interpretation of the generality of Extension programs, there is agreement on the importance of specifying program processes to be evaluated. Rossi et al. (1979), for example, have found that a large proportion of programs that fail to show impacts are really failures to deliver interventions (programs) in ways specified. The authors list three potential failures:

1. Little or no program is deliverable to the clientele.
2. The wrong program is delivered.
3. The program is uncontrolled, unstandardized, or varies across target populations.

A third reason for past failures is the inability of Extension staff to establish theoretical linkages between program subject matter and proposed changes by the target

population. Without documentation of constituent problems, goal accomplishments have little meaning. Unfortunately, few Extension programs have been exposed to an evaluability assessment prior to implementation of the program. According to Wholey (1977) such a procedure should provide answers to the following questions:

- a. Are the objectives stated in measurable terms?
 - (1) What is the program supposed to accomplish?
 - (2) What evidence is needed to determine if success has been obtained?
- b. Are the assumed causal relationships testable (can the observed effect be attributed to a particular set of activities and to no other variables)?

Future efforts

It is the position of this address that a systems approach utilizing evaluation research methods is essential if Extension Service is to accurately determine "what difference did it make that Extension was involved?" Further, the development of a system of accountability for Cooperative Extension Service is a challenge that cannot be fully met without a cooperative effort of both disciplines and institutions of the agricultural complex. Finally, it is proposed that rural sociology is uniquely qualified to be the lead discipline in this venture.

It should be noted that neither a systems approach nor the use of evaluation research methods are new to Cooperative Extension Service. Byrn (1959) and others have long advocated the use of the scientific approach in providing facts as a basis for making decisions, drawing conclusions, or forming judgments about the organization and conduct of Extension work. What is new, however, is a proposal for a cooperative effort in the development and application of evaluation research methods for Extension accountability.

Four procedural requirements are necessary if this accountability system is to be developed. The first requirement is a model of Extension programming. If Patton's (1980) assessment (there is no one Extension program) is correct, then it will be most difficult to use evaluation research technology in determining "what difference did it make that Extension was involved?" If programs are that varied, then state level Extension evaluations have little meaning and county level assessments are not comparable. On the other hand, if there are major activities necessary for Extension to carry out its mission, these activities could provide the foundation upon which a systems approach to evaluations can be built.

The second requirement is that on-going programs must be monitored to determine whether the delivery of services is consistent with program design specifications. The monitoring of programs generally is referred to as "formative" evaluation and can be divided into two components -- target population and the delivery of services.

Target population: Rossi et al. (1979) point out that a

program requiring persons to learn new procedures, change existing habits, or take instructions may have difficulty in attracting target groups to the program. Therefore, those who do volunteer to participate are different from those who do not volunteer. Formative evaluation attempts to obtain data on participants, eligible nonparticipants, and dropouts in order to better understand the selection process.

Service delivery: A second area of focus is the delivery system of the program. Two important elements of delivery system are access and specifications of services or activities (Rossi et al 1979). Access is concerned with the strategy used to provide the services or activities to the appropriate target population. The importance of establishing the specificity with which an Extension educational program has been delivered cannot be overemphasized. The conduct of formative evaluation to help establish this specificity can provide the following information:

1. characteristics of participants and nonparticipants,
2. types of educational activities and subject matter content delivered to participants,
3. intensity of educational activities offered to different types of participants, and
4. reactions of participants to activities and subject matter offered.

In sum of this second requirement -- without information about actual program operations, decision makers are limited in their ability to interpret performance data or to improve program functioning. If one can develop the conditions necessary for impact evaluation, one can more effectively address the causal question, "Does the implemented program lead to the desired outcomes?" That is, do the educational activities of Extension educational programs cause or effect attitudes, knowledge, skills, or changes in practices of those who participate in Extension educational programs?

The third requirement for the development of an accountability system is that appropriate evaluation research designs should be implemented by individuals who have knowledge of the strengths, limitations, and appropriateness of the designs; otherwise the evaluation results could provide insufficient or misleading information and thereby influence others to draw wrong conclusions about the effectiveness of Extension programs.

Two types of evaluation designs are available for use in determining whether a change occurred in the target audience: designs that estimate change and designs that measure change and attempt to explain the cause of the change. In the past, an estimate of changes made by clientele has proven satisfactory to Extension accountability efforts. Today, however, accountability efforts must be in a position to control for causes of changes such as those that have been identified by Campbell and Stanley (1966):

1. Some would have made the change anyway.
2. Long-term trends mask program accomplishments (inflation).

3. Short-term events influence accomplishments (weather).
4. Those who participate in Extension programs are volunteers. As such they possess personal characteristics which may differ from nonparticipants.
5. The program influenced the participants to make changes.

To make the adjustments necessary to link program activities to changes made by the target population requires implementation of such research designs as the following (Rossi et al. 1979):

1. Randomized design. Every person in the target audience has the same chance as any other person to be selected to participate either in the program or in a control group that does not receive the same program. In other words, different groups receive different programs or receive the same programs on a delayed basis.
2. Constructed controls. Persons who do not participate in the educational program, but who are similar to those who do participate, are compared to the participants. Control groups may be established through individual or aggregate matching. Individual matching, generally, is preferred.
3. Statistical controls. Use of multivariate analysis techniques to measure accomplishments of programs that have been in operation for several years. The reliability of the measure is established statistically. Cross-sectional studies often are used to provide such measures.
4. Reflexive controls. Many Extension programs contain long-range goals and are carried out with the same clientele for several years. Such programs allow participants to serve as their own reflexive controls. The procedure, referred to as time-series design, requires that individuals be measured for at least three points in time. It is recommended, but not required, that the first measurement point be before or early in the implementation phase.

The fourth requirement for accountability is that Extension staff must have a better understanding that impact evaluation results are used primarily to determine program existence and alternatives. Too often staff equate program existence with job security and, therefore, tend to be threatened when they perceive the survivability of a program in question. In support of program emphases, Rossi et al. (1979:171) list several uses of impact evaluation results:

1. Program personnel can identify the mix of specific program activities that have the greatest likelihood of affecting program participants.
2. Administrators can use the results to document the worth of program and organizational efforts to funding groups.
3. Policy makers can use impact evaluations to defend their decisions in the face of persistent

competition for funds and the political pressures of various partisan interest groups.

In essence, if accountability information is to be collected, procedures for its use by decision makers must be implemented.

Conclusion

In this era of budget restraints, complex problems, and expensive alternatives, legislators and landgrant university system decision makers will be faced with difficult decisions. These decisions will be made with or without evidence of organizational effectiveness. This august group could provide the leadership necessary to the development of an organized system of accountability. Specifically, members of this group, individually or collectively, should consider becoming involved in one or more of the following activities:

1. Serve as a sounding board for applied research designs. I emphasize the word "Applied" because evaluation researchers live in an imperfect world and must adjust designs to meet existing conditions.
2. Examine appropriate models for Extension programming. From your perspective, what should be the purpose, scope, and role of Cooperative Extension Service? What are the conceptual linkages between Extension program delivery and behavioral changes made by Extension clientele?
3. What types of accountability indicators should be collected by Cooperative Extension?
4. Increase the interaction between research sociologists, Extension sociologists, and Extension evaluation researchers.

In conclusion, the evaluation research skills of some of us who are responsible for Extension accountability methodology may be limited. Also, we may not know who to go to for constructive -- and I emphasize constructive -- advice. In addition, Extension evaluation research and that performed by those of you with research assignments do have one thing in common -- trying to explain human behavior. I believe the membership of this group can help on both those points. Finally, if we choose not to cooperate in this effort, we could be condoning the reaching of conclusions in the absence of accurate and relevant information. No serious student of the discipline would be permitted such license. Should no less be asked of our administrators and legislators?

References

- Boone, Ed
1985 "Guest Editorial." **Southern Region Extension Staff Development Newsletter** 1:1-3.
- Byrn, Darcie, editor
1959 **Evaluation in Extension**. Topeka, Kansas: H. M. Ives and Sons.

- Campbell, D., and J. C. Stanley
1966 **Experimental Designs for Research.** Chicago: Rand McNally.
- Citizens Review Panel
1980 **Evaluation of Economic and Social Consequences of Cooperative Extension Programs. Appendix 1.** Science and Education Administration, U. S. Department of Agriculture. Washington, D. C.: U. S. Government Printing Office.
- Feller, Irwin, Lynne Kaltreider, Patrick Madden, Dan Moore, and Laura Sims
1984 **The Agricultural Technology Delivery System. Volume 5, Overall Study Report: Findings and Recommendations.** University Park: The Pennsylvania State University, Institute for Policy Research and Evaluation.
- Gordon, G., and E. V. Morse
1975 "Evaluation Research." Pp. 339-361 in A. Inkeles, J. Coleman, and N. Smelser, eds. **Annual Review of Sociology,** volume 1. Palo Alto, California: Annual Reviews Inc.
- Herrick, John
1985 **Animal Nutrition and Health.** 40 (June-July):32.
- Patton, Michael
1978 **Utilization - Focused Evaluation.** Beverly Hills, California: Sage Publications.
1980 "Truth or Consequences in Evaluation." **Education and Urban Society** 13:59-74.
- Rossi, P., H. Freeman and S. Wright.
1979 **Evaluation: A Systematic Approach.** Beverly Hills, California: Sage Publications.
- Savory, Allan
1985 **Livestock Weekly** (November 14):25.
- Secretary of Agriculture
1980 **Evaluation of Economic and Social Consequences of Cooperative Extension Programs.** Washington, D. C.: U. S. Government Printing Office.
- Weiss, C. H.
1975 "Evaluation Research in the Political Context." Pp. 13-26 in E. L. Struening and M. Guttentag, eds. **Handbook of Evaluation Research.** Beverly Hills, California: Sage Publications.
- Wholey, J. S.
1977 "Evaluability Assessment." Pp. 39-56 in L. Rutman, ed. **Evaluation Research Methods: A Basic Guide.** Beverly Hills, California: Sage Publications.