

**FARMER ATTITUDES TOWARD
THE COOPERATIVE EXTENSION SERVICE IN ILLINOIS:
A BASIS FOR COMMUNICATION STRATEGY**

**THESIS FOR THE DEGREE OF Ph. D.
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ROBERT ALLISON JARNAGIN**

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By

Robert Allison Jarnagin

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ABSTRACT

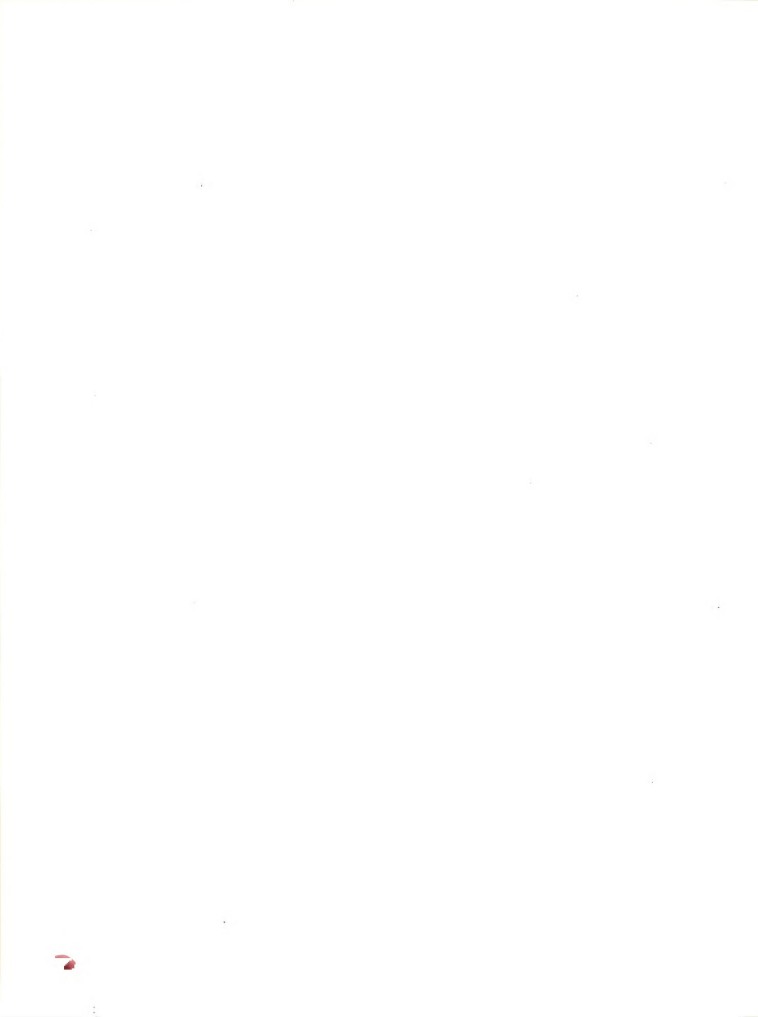
FARMER ATTITUDES TOWARD THE COOPERATIVE EXTENSION SERVICE IN ILLINOIS: A BASIS FOR COMMUNICATION STRATEGY

by Robert Allison Jarnagin

Administrators of the Cooperative Extension Service in Illinois have been concerned that this highly successful educational system is being regarded as obsolete by too many of its most important clientele group--the commercial farmers of the state. They want to know what these farmers think of Extension people and programs.

This study was designed to provide evidence upon which Extension administrators could plan communication strategies with this commercial farmer audience. We assume that people can communicate more effectively with others the more they know what attitudes these others have toward what they want to communicate about. In this study, we assessed attitudes of Illinois commercial farmers toward (1) the impersonal, institutional aspects of the Cooperative Extension Service, (2) the more personal attitudes toward county farm advisers and state Extension specialists, and (3) the place of Extension as a source of agricultural information.

We used Stephenson's Q-technique with a structured sample of 60 Illinois commercial farmers scattered throughout 10 counties of the state. We chose six farmers in each of the sample counties, two under 35, two middle-aged, and two over 55. Two were located close to the county seat, two at medium distance and two farther away. We tried to choose two in each county who we thought had favorable attitudes toward Extension, two with unfavorable attitudes



and two with neutral attitudes.

Q-technique is particularly useful in this study, because it provides us with relatively few basic patterns of Illinois commercial farmers' attitudes. These patterns describe to us well enough the different attitude patterns of farmers whom Extension administration must communicate with. We also used the same technique to have the farmers tell us which sources of agricultural information they consider most reliable. We believe that such knowledge of source will also help administrators plan their communication strategies for this particular audience.

Focused interviews with 25 selected commercial farmers resulted in a set of attitude statements about the Extension Service that we edited and printed on IBM cards. The first set of attitudes toward Cooperative Extension contained 44 statements, the second toward advisers and specialists 40 statements, and the third toward reliable sources 45 statements.

The 60 respondents were asked to sort each set of attitude statements in a quasi-normal distribution pattern ranging from the statements with which they most disagreed on the left to those with which they most agreed on the right. These sorted cards then were submitted to correlation and factor analysis by a high-speed electronic computer. Weighted rankings were used to produce individual item arrays of the statements in each sort. Sample farmers were assigned to types according to these weighted rankings.

Results of the analysis showed three distinct types of Illinois commercial farmers on the basis of their attitudes toward both the



Cooperative Extension Service and their sources of agricultural information. Factor analysis showed only one major type of farmer attitudes toward the county farm advisers and state specialists, plus scattered individual divergent patterns. The important attitude statements described the characteristics of each type. In general, the study showed a very favorable pattern of attitudes toward Cooperative Extension and its personnel, and its place as a reliable source of agricultural information.

Farm advisers in the 10 sample counties were asked to sort the statements as they thought the "typical" farmer in their county would sort them, and again as they would want the "ideal" farmer to sort them. Seven administrators and five district agricultural supervisors also were asked to sort the cards on the basis of what they would like the "ideal" farmer to think of Extension and its aspects. Results show that the sample farmers are much more like the "ideal" sort of advisers, administrators and supervisors than they are like the "typical" farmers.

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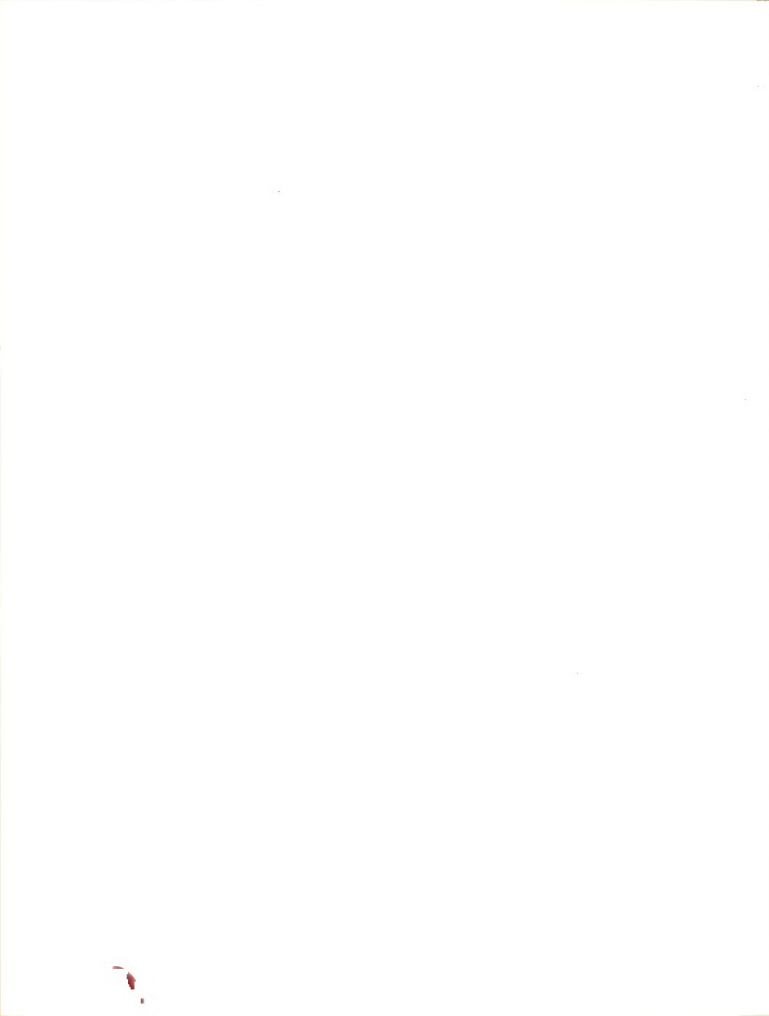


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CHAPTER I

INTRODUCTION

Agricultural college editors in recent years have become increasingly interested in the characteristics of their various audiences. It is their editorial responsibility to disseminate among these audiences information about new and better farming practices based on the research of the agricultural experiment stations at the land-grant colleges and universities. Administrators of the Cooperative Extension Service in each of the states share this interest, since dissemination of information is by law the primary responsibility of the Extension Service.

Not too many years ago, the problems in information dissemination were fairly simple and direct. The college editors spent much of their time hiring and educating writers and broadcasters who could interpret the results of agricultural and home economics research and put them into the form of newspaper articles, radio manuscripts, and publications that could be understood by most of the farm people in their respective states. Today, however, the situation has changed. The educational and economic level of the farm population has increased, the social system has become more complex, and the responsibility of the Cooperative Extension Service has broadened to include many new facets of both this changing rural and urban life than simply how to farm or to cook or to sew better. The kinds of information with which Extension has to deal have also become more complex--particularly in the area of technical agriculture.

A more complex social system means changes in the composition and characteristics of the audiences for Extension information. Thus, the problems of the editors have become more complex. One of the most pressing problems has been better understanding of the various audiences for Extension informational efforts. It has become increasingly difficult to give a clear answer to the question, "Precisely who makes up the audiences of Extension and what are their characteristics?"

This study is designed to learn more about one specific audience for the educational programs of the Illinois Cooperative Extension Service. This audience--Illinois commercial farmers as defined by the U. S. Census--consists of some of the crucial decision-makers for Extension education in the state. Among this group are farmers whose attitudes toward the Extension Service make a difference--in support of educational programs, legislative objectives, financing, and organizational efforts. The principal problems to be explored in the study are: (1) to find out what the attitudes of this group are toward the Illinois Cooperative Extension Service, (2) to learn why they have these attitudes, and (3) to point out how these attitudes might affect Extension educational programs within that group.

Theory upon which this study is based says that an individual's attitudes toward anything are based upon his past experiences with it. This study will employ an empirical investigation into the nature of these attitudes. From the results of the study we will sort the target audience into typologies which reflect the range of attitudes toward the Extension Service. The study will show how understanding what these attitudes are and their distribution among Illinois commercial farmers can provide insights into alternative choices for action by Extension administrators.

Conceptual Framework

The Illinois Cooperative Extension Service wants to make its educational programs more effective among its various clientele groups. Since its educational programs involve various aspects of the communication process, it follows that any new information this study can elicit concerning the communication process among its clientele groups may help Extension administrators organize and direct more effective programs. This study proceeds from the following assumptions:

1. Illinois commercial farmers, as the primary clientele group, will express attitudes toward the Illinois Cooperative Extension Service which reflect their past experiences with the various aspects of Extension.

2. The pattern of these attitudes make up the "image" which Illinois commercial farmers hold toward the Extension Service.

3. An individual's expectations affect his perception of and behavior resulting from any communication contact with the Extension Service.

From a practical standpoint, this study can provide valuable information to Extension administrators. First, it will give them a basic understanding of how one of their primary audiences feels toward their organization and why that audience holds those attitudes. This understanding may suggest to the administrators steps they could take to create conditions for changing those attitudes they feel need to be changed. A part of the study will be developed to show administrators the communication system within which Extension's educational efforts are disseminated to its audiences, and the channels within which communication breakdowns and misunderstanding can occur.



(See Figure 8 for a diagram of this system.)

This study will describe the various types of persons who make up the Illinois commercial farmer audience. It will use Q-sorts of attitude statements from which Q-blocks will be developed to determine the proportions of commercial farmers with various patterns of attitudes toward the Illinois Cooperative Extension Service. Q-technique will also suggest reasons why these particular persons hold these attitudes. We will use factor analysis to identify the farmer typologies.

We will investigate: (1) the range of attitudes toward the Cooperative Extension Service organization, (2) toward its staff members, and (3) the place of Extension as a source of better farming information.

Commercial farmers are but one of the clientele groups of the Illinois Cooperative Extension Service. Others include 4-H Clubs and other youth groups, Home Economics Extension Associations, marketing cooperatives, agricultural industries representatives, and many similar groups. This study may indicate to Extension administrators methods of learning more about the attitudes of these groups toward Cooperative Extension Service with the ultimate goal of increasing communication effectiveness with them, too.

Specific objectives of the study are: (1) to study the various attitudes of Illinois commercial farmers toward Extension Service, (2) to construct typologies of farmers based on their attitudes toward Extension, and (3) to provide Extension administration with information about one specific client group that may affect the communication strategies they may plan for that group in the future.

CHAPTER II

THEORETICAL BACKGROUND

The Cooperative Extension Service of the University of Illinois wants to make its educational efforts as effective and efficient as possible. Any management, to function most efficiently, must have effective channels of communication open to all components of its system. Management must also have a basic understanding of the process of interpersonal communication and how it influences behavior within the system.

Wiener (34, p. 16) contends that control lies in communication. When we impart any control to the actions of another person, we must communicate with him. In much the same way we control machines by giving them orders. We give different kinds of messages to men and machines, and we have different problems of control between them. But the essential pattern is the same--the sender is aware that an order has gone out and that a signal of compliance or non-compliance has been received. Administrative officials, Wiener says, whether of a government or a university or a corporation, should take part in a two-way stream of communication, and not merely in one descending from the top. Otherwise, they may find that they have based their policies on a complete misconception of the facts that their underlings possess.

Communication Behavior in Organizations

Cooperative Extension administrators in Illinois believe that some farmers regard the Extension organization as the most reliable source of information about better farming methods, and that some farmers

regard their county farm adviser and the state Extension subject matter specialists as the top authorities on better farming methods in the state. The administrators think that not enough farmers believe these things, so that the Cooperative Extension educational programs are not as effective as they might be. The administrators want to know: (1) what is the level of attitudes of Illinois commercial farmers toward the Illinois Cooperative Extension Service and its personnel, and (2) what steps they might take to improve this "image." By image we mean a focused set or pattern of attitudes, beliefs and opinions toward (1) the Cooperative Extension Service as an institution or organization (impersonal sources of attitude formation), and (2) the persons who represent the organization--state Extension specialists and county farm and home advisers (personal sources of attitude formation).

Cooperative Extension administrators in Illinois want to know if their educational program is considered obsolete by this important commercial farmer audience, whether this program is geared to satisfy their present needs, and whether the farmers believe that they are getting value received for the money they spend to support Extension's educational system. They want to know also if the organization's service is satisfactory to farmers; if not, why not; and what they can do to improve it.

Answers to questions such as these require first an analysis of the communication network within which Cooperative Extension conducts its educational programs. This analysis starts with a model of the Extension communication system, which will help to locate the information gatekeepers, and the sources of misinterpretation and misunderstanding within the system. Research has shown that value orientations, expectations, reference groups and personality factors all affect communication behavior. Analysis of the communication system will show administration the source of commercial farmer images toward their

organization. On the basis of insights into communication behavior uncovered by the analysis, the administration may design changes in organizational structure, new information and educational campaigns, and further evaluation procedures to make their system more effective and productive.

This study requires a model of the recipient system (clientele groups) as well as a model of the source system (Cooperative Extension Service). A model of the system will help the investigator answer such questions as: "What is the pattern of information flow between the Cooperative Extension Service and the clientele group under study (Illinois commercial farmers) within which individual attitudes affect response to Extension's activities?", and "How do clients derive their satisfactions or dissatisfactions with the source organization?"

Wilkening (35, p. 48) reports recent studies which suggest that one of the main problems of agency workers is that of gaining acceptance of the role in which they view themselves. Most Extension workers are not entirely happy that farmers see Extension's role as a source of recommendations for solving specific problems as they arise. Rather, Extension workers would like to be known as educators, and to spend more of their time teaching basic principles in depth. Extension administration supports this point of view and is willing to spend any effort necessary to change the farmer perception of the Extension worker's role from that of performing only an advisory service to that of being a professional educator of the latest farming methods on a whole-farm, maximum-resource-use basis.

As Lionberger points out (15, p. 42), most new information about better farming practices comes from public and private research centers or progressive farmers. "Any communicator in the line of diffusion from the source of origin to the final destination of the message is in a position to exercise some control over what is communicated,



how, and in what form. Farmers who serve as communicators may evaluate what they pass on to others, and incorporate positive or negative recommendations. They may also make a new idea, belief or practice locally acceptable by putting their stamp of approval on it."

Diffusion research has shown (15, p. 47) that farmers use Extension agents mostly at the evaluation and trial stages of the adoption process. Agents head the list for early adopters in general and as sources of information for all adopter groups about the special qualities and use of such complex practices as soil and water management. "The fact that such agencies ordinarily are designed to render other services to farmers, as well as disseminate information, tends to strengthen their position as information sources," Lionberger says.

Emery and Oeser (7, p. 29) report that it is known that additional information does not necessarily change attitudes which are determined by many factors; nor will it necessarily affect the selectivity towards exposure displayed by many farmers (11).

Working out a model of the Cooperative Extension Service communication system (see Figure 8) will help Extension administration better assess the alternatives for action when it receives information from clientele groups and from sources within its own organization. Churchman, Ackoff and Arnoff (4, p. 74) say that the first thing to be determined about an organization in operations research is the existing structure of the communication network. Boulding (2, p. 103) says that we should study carefully the ways in which organizational communication networks affect the distribution of images of roles and the value structures of the individuals concerned. This is the only way we can understand the decision-making process. Morse and Kimball (21) and Hall (8) say that



operations research is a scientific method of providing executive departments with a quantitative basis for decisions regarding operations under their control.

System analysis is useful to administration in the solution of "executive-type" problems, say Churchman, et al (4, p. 14). They say that so-called executive-type problems revolve around the strategies and tactics for optimizing the use of resources. The principal resources of Cooperative Extension are personnel and information. In general, the procedure of system analysis in operations research involves formulating the problem to be analyzed, constructing a model of the system under study, deriving solutions from the model, testing the model and the solutions derived from it, establishing controls over the solution, and implementing the solution. In this study, we will not go into the development of mathematical or numerical solutions to be derived from the model, as in operations research. However, we will develop the system model to help Extension administration more accurately predict how changes in the system may affect its overall effectiveness.

It is often the case that insights into communication blocks, gatekeeper activity, and superfluous channels only become apparent when the researcher has a system model before him to delineate the channels of information flow. A model is never more than a partial representation of reality (4, p. 190). Its primary function is explanatory rather than descriptive. Many times it is obviously more advantageous to manipulate a model than the "actual" system itself, and thus evaluate possible changes in a process. We should remember that the use of a model as a process evaluator is not unidirectional. Especially in evaluating a communication process,

information continuously becomes available by which to evaluate the model. The model and the process can be used to evaluate each other. No model is ever perfect, because our knowledge about that which is modeled is always less than complete.

Wiener (33) and Deutsch (6) both have pointed out that communication and control are essential processes in the functioning of an organization. Their definition of cybernetics includes the view that all organizations from cells in an organism through machines in an automatic factory or an electronic communication network and human beings in social groups all follow the essential processes of communication and control in their operation. Churchman, et al, (4, Ch. 4) give a systematic analysis of the construction of and uses for a model thought of as a group of elements tied together through their communication with each other.

Attitude Formation and Change

Transmission and presentation of Extension's body of knowledge to its intended audiences requires communication efforts of various sorts. Members of the Cooperative Extension Service staff must conduct their educational efforts within some "set" of attitudes and expectations on the part of their clientele groups of individuals. This set of attitudes and expectations directly affects the differential response to Extension's educational efforts. An explication of how commercial farmer attitudes and expectations affect their differential responses will indicate to Extension administrators how they can make their educational efforts more effective.

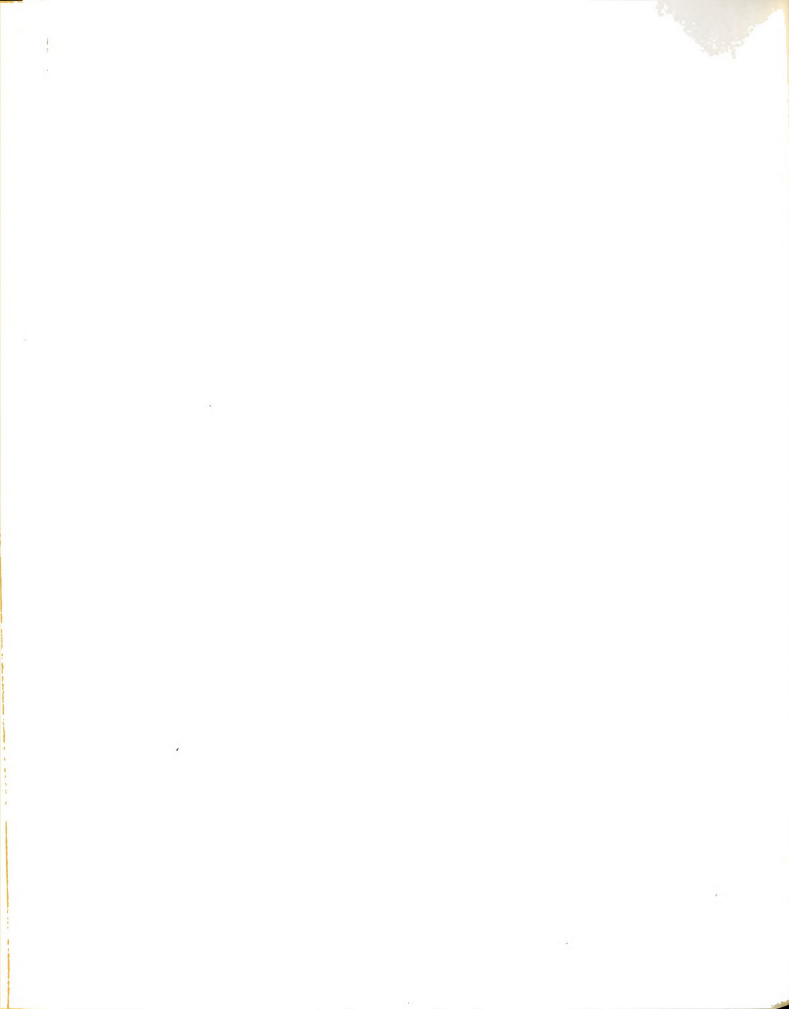
Attitudes are important for Extension to be concerned about. One example is to be found in the study by Hyman, et al, investigating some reasons why information campaigns fail (11). Their evidence

obtained from national samples, indicates that people tend to expose themselves to information which is in agreement with their prior attitudes. Individuals also tend to avoid exposure to information not congenial with their prior attitudes. The authors list five reasons why attitudes do not change with increased information:

1. There exists a hard core of "know nothings" who are extremely hard to reach.
2. People who are already interested acquire the most information.
3. People seek information congenial to their prior attitudes.
4. People interpret the same information differently.
5. Information does not necessarily change attitudes.

Zimmerman and Bauer (39) suggest that personality affects a person's "audience sensitivity." Each individual source remembers information and acts upon it to the extent that he perceives it as congruent with his preconceived attitudes toward it. Boulding (2, p.115) says that we behave in accordance with some image of the consequences of our acts.

George Katona (13, p. 56) says that attitudes are generalized viewpoints with an affective connotation. Attitudes are emotionally colored points of view that may influence behavior irrespective of whether they are based on rational arguments or held without clear awareness of their reasons. Katona says that expectations are a subgroup of attitudes. They, too, are intervening variables which influence behavior. They are those attitudes which represent an extension of the time perspective into the future. He believes that the basic distinction between different kinds of attitudes and expectations is that between stable and enduring attitudes on the one hand and variable attitudes on the other.



Expectation theory says that each individual's experiences with his own world develop within him a "set" or "pattern" of attitudes toward that world. These attitudes, in turn, affect his perception of and behavior toward subsequent experiences. Thus, it seems reasonable to assume that the strength and direction of his expectations toward any event will be a function of his past experiences with that kind of event as he perceives and interprets it, and its relative importance to him under the present circumstances (see Stogdill, 29, p. 62).

Stogdill's definition speaks of an expectation as an isolated event, when an expectation seems more likely to be thought of as one of a series of connected events--as part of the perception process. It seems more accurate to think of an expectation as formed over a series of events, as a subjective prediction rather than a singular response to a particular stimulus. Given a choice from a set of alternatives based on his past experience, an individual will formulate his expectations on the basis of a set of probability estimates that he assigns to each of the alternatives. He chooses his alternative for action from among the various combinations of estimates of probability and desirability of outcome.

Expectations and attitudes of Illinois commercial farmers, which are the concern of this study, are variable because they are influenced by each individual's past experience with either the personal or impersonal aspects of Cooperative Extension, or both. Examples of such experience might include messages in the mass media, meetings, tours, demonstrations, personal visits, telephone calls, or any other of the diverse methods which Extension uses to diffuse its educational information.

Toch and MacLean (31, p. 58) point out that each experience or perception helps to provide man with unconscious expectations or assumptions about reality. We expect the world to behave in accordance with these assumptions. The purpose of perception is to help us cope with the world by assigning meanings to it which can stand the test of subsequent experience. As Boulding says (2, p. 86), "The larger the negative value that we give to uncertainty or to vagueness in our value orientation, the more likely we are to select the familiar and the known; the more likely we are, therefore, to do today what we did yesterday."

Universally shared meanings are the simplest means of communication, Toch and MacLean say, because they require little translation from one person's frame of reference into another's. Sometimes, we may deal with people under the assumption that their perceptions coincide with ours, although in fact differences in past experiences have produced fundamental divergences in outlook. Most failures in communication are due to mistaken assumptions about the correspondence of meanings.

Behavioral science mainly tries to disclose the sources of man's extremely wide range of responses to environmental conditions in the belief that understanding these sources will help him gain more control over himself, his actions and his environment. The basic idea is that human living is one continuous problem-solving situation after another.

Florian Znaniecki is one sociologist who has expressed this "man-the-scientist" point of view (40, p. 152). George Kelly, a psychologist, proposes a concept of "constructive alternativism"

which underlies his theory of personality (14). Since man is always faced with constructive alternatives, which he may explore if he wishes, he need not continue indefinitely to be the absolute victim either of his past history or of his present circumstances.

From this point of view, man is essentially a problem-solving organism who bases his solutions to his own personal problems as he sees them on his private resources of hereditary intelligence and ability, his past experiences, and the fund of knowledge that he has acquired through both the formal and informal processes of learning. Since communication is a characteristic human behavior, it follows that patterns of communication behavior may be studied, experimented upon, modified, and altered as can any other human behavior.

Each Illinois commercial farmer thus lives in his own private world—the universe as he has constructed it and as he sees it. As he goes on about his daily life, he chooses from among alternatives for action and solves his problems as he faces them. His techniques are structured and tend toward consistency (response set or patterned behavior). He makes prolonged efforts to simplify his reactions, to reduce ambiguities and inconsistencies in his actions, and to make his choices more effective and efficient. Out of the vast number of stimuli that impinge on his receptors during the course of a day, he consciously or unconsciously selects a reasonable and usable number to attend to.

From this point of view, each farmer attends to, perceives and responds to the communication stimuli that he does to a large extent on the basis of his expectations about each particular message. As

Robert Bills (1) says, a person behaves in ways which are consistent with his views of the world. As he "sees," so does he behave. How he behaves is consistent with how he sees things, and what he believes is truth for him. It is in this context that we must organize and design our study of Illinois commercial farmers.

Snygg and Combs (25, p. 21) say that each person's perceptual field is responsible for his every behavior. People do not behave according to the facts as others see them, but the way they see them. What governs behavior from the point of view of the individual are his unique perceptions of himself and the world in which he lives, the meanings things have for him.

Stogdill (29) has put together a comprehensive study of expectation theory, even though he confines it to a study of human behavior in groups. He points out that expectation theory has been developed as a branch of learning theory and represents an alternative solution to the same problems with which learning theories are concerned (29, p. 10).

Expectation historically has been a concern of the statistician and the gambler, according to Stogdill. These people have been interested in the probability of uncertain events, just as Znaniecki (40), Kelly (14), and Bills (1) have implied, and Marks (19) and Irwin (12) have tested empirically. Other contributions have been made to expectation theory more recently by workers in the fields of economics, decision theory, learning and perception.

Stogdill refers to the fact that George Kelly (14) bases his theory of personality on the fundamental postulate that "a person's processes are psychologically channelized by the ways in which he

anticipates events." Tolman (32), Mowrer (22), and Rotter (23) view learning in terms of reinforcement of expectation. These theorists believe that expectation is raised by reinforcement and depressed by the experience of failure to effect reinforcement. That is, a confirmed expectation increases the individual's probability estimate that such a successful course of action will similarly result in satisfying outcomes under similar future conditions. This seems to be the same point of view as our earlier hypothesizing, problem-solving motivation for human behavior.

In one of the few references to expectations in communication research, Hovland, Janis and Kelley (9, p. 292) say that an essential difference between instruction and persuasion involves the expectations or anticipations that affect a person's motivation to accept or reject a communication. They propose three types of expectations that operate to increase or decrease the degree of acceptance: (1) expectations of being "right" or "wrong," (2) expectations of manipulative intent (of being impartially advised or of being manipulated by the communicator), and (3) expectations of social disapproval (of being approved or disapproved by others).

Solley and Murphy (26, p. 30) also suggest that man constantly strives to organize and structure his environment, to make order out of chaos (to solve his problems on the basis of the alternatives that his private world offers as he sees them.) Man selectively perceives out of the totality of the available stimuli, and makes his decisions for action on the basis of what his past experience has told him will be most satisfactory for him under the present circumstances (i.e., on the basis of his expectations).

Hypothesis Development

We propose to concern ourselves in this study with hypothesis development, rather than hypothesis testing. As Cattell says (3, p. 21), factor analysis has the peculiarity among scientific investigation tools that it can be profitably used with relatively little regard to prior formulation of a hypothesis. The factor analyst may start with two or three dozen variables and without hypothesis formation arrive at whatever organization or structure is present and what factors or types are at work. A detailed hypothesis is not essential to the design of the experiment. It can test hypotheses, but it is a most useful tool in the behavioral sciences where control is sometimes impossible, where a predictive hypothesis can be as misleading as helpful, where the crucial variables are unknown or not clear, and where the direction of causation is anyone's guess.

Stephenson (27, p. 151) says we should be making discoveries rather than testing our reasoning. He believes that empirical curiosity rather than hypothetico-deductive logic should be the mainspring of behavioral science, as it is of Q-methodology. Q-technique is particularly useful in this study in which we want to isolate useful and meaningful typologies of Illinois commercial farmers. We could offer several general predictive hypotheses about the makeup of these typologies. But we prefer to derive hypotheses from analysis of the Q-sorts, for further studies.



CHAPTER III

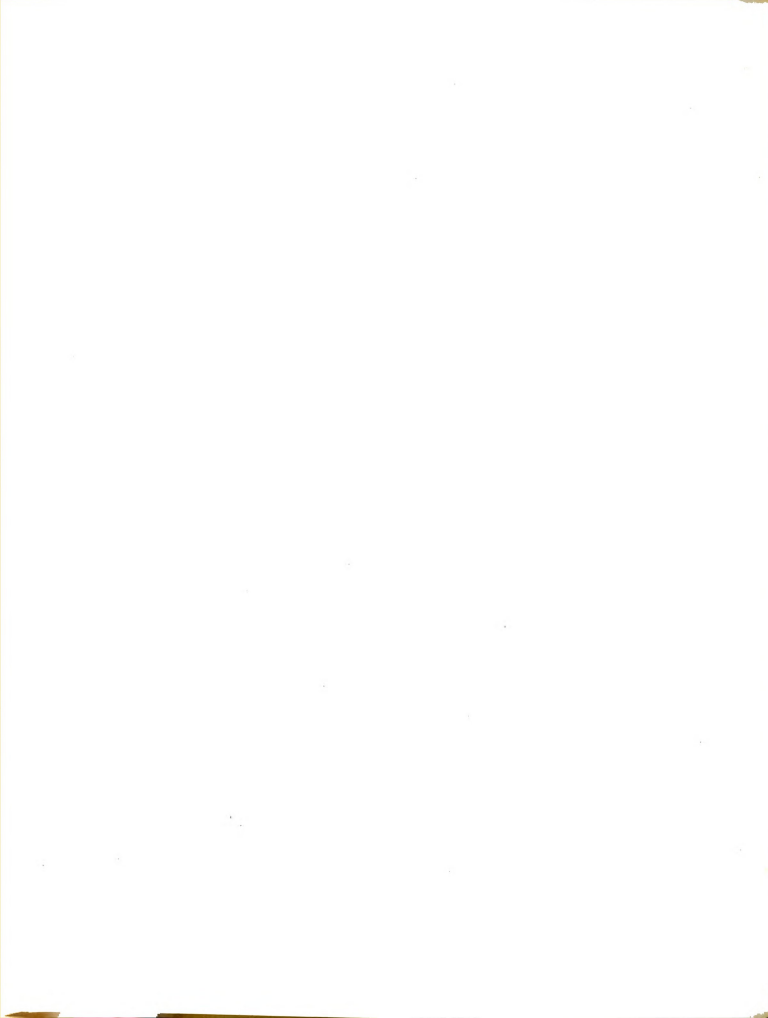
METHOD

Stage 1--Focused Interviews

Inspection of the system model (Figure 8) shows the flow of information among Illinois commercial farmers and the Cooperative Extension Service. Information, as defined here, refers to any contact, personal or impersonal, between a commercial farmer and an aspect of the Cooperative Extension Service.

In the study, we are asking a structured sample of Illinois commercial farmers to express their attitudes toward the Cooperative Extension Service. Understanding these attitudes is important for the decision-making processes of Extension administration. Information derived from the study may be used by the administrators to help them formulate communication strategy for reaching their primary clientele groups among the citizens of the state. The study seeks to provide at least one answer to the question: "What kinds of information can research provide that will help administrators choose meaningful alternatives for action?"

The study uses Q-technique in its search for the answer to this question. Statements of attitudes toward the Cooperative Extension Service to be used in subsequent Q-sorts were obtained through focused interviews with a variety of Illinois commercial farmers. Focused interviews at this stage provided statements of subjective experience from this one primary clientele group of the Extension Service. Such interviews are useful as a probing technique. We



wanted to explore the range of potential response to fill out a total pattern of client experiences with aspects of the Cooperative Extension Service that might help determine any individual's "set" of attitudes toward the service. The technique of the focused interview allows the investigator "to arrive at plausible hypotheses concerning the significant items to which subjects respond." (20)

MacLean has this to say (17, p. 34):

"Some researchers are seeking, rather directly, solutions to practical everyday communication problems. In such problem-oriented research, the focused interview is designed for exploratory tasks in determining attitudes and permits the researcher more latitude in question wording and question order than does the usual interview schedule.

"The amount of planning a particular research project requires depends on the level of research appropriate at each stage. At one stage a researcher may be probing, using projective techniques or focused interviews to get relatively few people to express themselves as fully as possible on some subject. Such interviews may provide not only clues on what things may be important for his future study, but may also provide rich materials useful in themselves."

In the first stage of this study, we made focused interviews with 25 Illinois commercial farmers to allow them to express their personal attitudes toward the various aspects of the Illinois Cooperative Extension Service (see Figure 9). Each of the farmers interviewed was selected by the county farm adviser in his county to assure us of a variety of attitudes toward Extension ranging from favorable to unfavorable. Some were good Farm Bureau members, while others belonged to the Grange, the Farmers Union, the National Farmers Organization, or to no farm organization at all. Some were good Extension co-operators, some were not. They represented a variety of ages and kinds of farmers and farming operations.

Not only did the focused interview ask their own opinions about Extension, but it probed for their ideas of what their neighbors think about Extension and what they had heard other farmers in the county say. We continued to probe until we felt that each respondent had covered the range of attitudes that he was familiar with. The advantage of the probe is that it tends to uncover attitudes that are not likely to be expressed without so forcing the respondents to give this special thought and attention to the problem.

The focused interview outline prepared in advance covered the range of anticipated responses, and allowed for unanticipated responses about the nature of contacts and experiences which respondents indicated had an effect on their attitudes toward Cooperative Extension. The focused interviews were continued until it became apparent that we had covered the principal range of response and had reached the point of diminishing returns. That is, we had reached the limit where any further attitudes to be uncovered were not adjudged to be worth additional time and expense for the investigator in this stage of the field work.

Focused interviews were also made with several county farm advisers, assistant state leaders of farm advisers (district supervisors), state Extension specialists, and Extension administrators for their additional points of view on anticipated commercial farmer responses to the subsequent Q-sorts of attitudes toward Extension.

Stage 2 -- Q-Sorts of Attitude Statements

MacLean says further (17, p. 34):

"At another stage the researcher may be using statements gleaned from the first study to get a systematic picture of the variety of ways in which people orient themselves to aspects of the world around them. Typical of work at this stage is the use of 'Q-methodology' to develop a typology of persons..."

Stephenson (28, Ch. 3) has pointed out the problem of sociologists who think of their domain as the science of interviews (10), and who wish to propose their own interpretation of interview reports. In an effort to submit any interpretation to some kind of test involving quantitative measurement if it is to be acceptable, they usually turn to large-sample techniques, using a questionnaire and probability sampling. Questionnaires, however, he says, are designed to deal best with direct questions, and are inadequate in such a complex area as attitude probing. A lawyer, for example, who rarely reads a newspaper may describe himself as "a paragon of all community virtues" and as a great reader on a questionnaire. Use of large-sample methods often is open to serious question.

Selvin (24) doubts the validity of the logic and use of the statistical techniques as applied to questionnaire data. Rhys Williams (38) questions the unstated assumptions in all such survey techniques other than those concerning vital statistics. He asks social scientists to examine again the basic premises of these methods. For example, responses cannot be assumed to be equivalent from different respondents; some people say one thing and do the contrary (5). "People rationalize, project, and make all sorts of psychological twists and turns in their responses to direct questions, wherever their values, beliefs, vanities and hopes are touched upon," says

Stephenson. The real task, as Williams points out, is to offer as precise a description as possible of the phenomenon we seek to understand.

Q-Technique

Stephenson offers the solution of Q-technique to the problem of bringing some control into the field of interpretation of interviews (27). Q-technique consists of making a sort of model of an interview. This is done by giving respondents a set of statements (in this study, about possible commercial farmers' attitudes toward the Cooperative Extension Service) that they can then use to describe their attitudes toward the objective.

Use of punched cards for the sorts practically eliminates human error in data coding and processing. The computer performs much as the researcher does when he sorts sets of statements into types of responses: it correlates each person's description with every other person's and sorts them out, precisely, into any distinct types (called factors) that may be present. Advantage of computer operation, obviously, is that it performs a multitude of calculations very rapidly, making this procedure highly usable. Resulting typologies thus are formed objectively by the computer, not by a reader-analyst of interviews. Interpretation still remains as an individual problem, but the important matter of "what goes with what" has been solved. We know at least what has to be explained. The method does not require the use of large numbers of respondents, or any probability sampling of people. It can be applied to only one person, if need be.

Q-technique is particularly useful for this type of study since, as Stephenson points out (27, p. 5), it enables us to study attitudes, thinking behavior, personality factors, and social interaction patterns, and other things subjective to the individual or objective to others scientifically, without using the formal scales or measuring instruments with which psychology and other behavioral research is familiar. We did not, however, study individual personality factors in this research. Rather, this study uses factor analysis to generalize from group expressions of attitude instead of studying individual differences among a large number of cases.

In contrast to R-technique in which populations are groups of people, the population of this study where we use Q-technique is groups of statements (27, p. 58). As Stephenson says, "Each variate has reference to an operation of a single person upon all the statements in one interactional setting." The forced choice method of Q-technique appears to be highly arbitrary from the R-technique viewpoint. The operation of Q, however, is simple: the subject sorts a sample of N statements into classes, on a quasi-normal frequency basis, which gives a quantitative basis for almost any subjective behavior.

In practice, the subject looks through all the N items and gains a "general" impression about them. Then, he places the items highly positively significant at the high-score end of the distribution and those negatively significant at the low-score end, with items judged to be doubtful or neutral at the center of the distribution. All the statements have to be compared with one another, however loosely. Fine discriminations are not involved for every

item, as would be the case if all N items were ranked. Discrimination is most difficult in the middle classes where the largest proportion of the items are grouped, but the importance of this is minimized by the fact that the end-classes gain most weight in product-moment correlations. Each respondent must follow the same distribution plan.

According to Stephenson, Q-technique supports a wholly different standpoint of "type" psychology than R-technique (27, p. 153). While R-technique has restricted its definition of "type" to mean "a class of persons having a common characteristic or characteristics," Q-technique deals with the definition of "type" as "a person, serving as a characteristic specimen of a class." He concludes that the factors issuing from a small number of variates in Q-technique may define person-types as well as could be done from very large numbers.

Q-Analysis

Major steps in Q-analysis have been summarized by MacLean, Danbury and Talbott (18):

1. Respondents are asked to sort a deck of cards which have items printed on them into a specific number of ranked piles according to a modified normal distribution. The sorting is done on the basis of some criterion; e.g., agree-disagree, belief-disbelief, etc.
2. A matrix of intercorrelations is formed by correlating every person's sort of items with every other person's sort of items.
3. This matrix of correlations is submitted to factor analysis so that persons are variables and items are observations. A principal axis solution is obtained. This is submitted to a varimax rotation which produces orthogonal factors approximating simple



structure. On this basis, a factor represents a grouping of persons around a common pattern of sorting the items. Hence, a factor represents a type of person.

4. Each pattern of sorting the items associated with each factor or type of person is estimated. This is done by weighting each item response of each of the persons most highly associated with a given factor by the degree to which they are loaded on that factor. The higher a person's loading on the factor, the greater is the weight. These weighted responses are summed across each item separately. This produces an item array of weighted responses for each factor in the rotated factor analysis solution selected. The arrays of weighted responses are then converted to z-scores.

5. The arrays of item z-scores are ordered from most accepted to most rejected for each factor. This provides a hierarchy of item acceptance for each factor or type of person.

6. The arrays of item z-scores for each factor are compared by subtraction for each pair of factors. This produces arrays of difference scores for each pair of factors. This provides the basis for differentiating one factor or type of persons from another.

Developing the Q-Sorts

This study uses sets of statements along three dimensions of attitudes toward the Illinois Cooperative Extension Service that were developed from the material gathered in the focused interviews of Stage 1. These dimensions include: (1) the impersonal, institutional aspects of the Extension Service, (2) the personal aspects of Extension through its staff members, and (3) Cooperative Extension's position among sources of agricultural information.

The focused interviews in Stage 1 resulted in a set of 74 different statements of attitude about the Cooperative Extension Service. From these 74 original statements we established 10 categories of attitudes that they logically fell into and arranged them so. These categories include: (1) competence, (2) practicality, (3) effectiveness, (4) value, (5) communication ability, (6) up-to-dateness, (7) impartiality, (8) efficiency, (9) reliability, and (10) friendliness. In addition, the first Q-sort on impersonal attitudes toward the Cooperative Extension Service had an 11th category on aspects of CES organization. To avoid statement bias, we edited them until we had produced two negative and two positive statements within each category for the first two Q-sorts (appendices 4 and 16). Each set of statements thus made up one Q-sort in each of the three dimensions.

Once we had selected and edited the statements for each category, each was typed onto a plain white 3 x 5-inch card and submitted for pre-test to a group of six Champaign County, Illinois, farmers in January, 1964. These farmers were selected for the purpose by the farm adviser in that county to represent a variety of ages, locations, types of farming and estimated prior attitudes toward Extension. Considerable time was spent during each session with these farmers probing to see if they had any additional attitudes in any of the three dimensions, whether the statements were understandable by Illinois commercial farmers, and for their comments on the technique.

On the basis of their critique, the statements received some minor editing. They did not suggest any major changes and thought

that the technique was interesting to do and not too difficult. Each statement was then printed on the back of an IBM card which was pre-punched with standard study information and ready to be put through the computer.

Selecting the Sample

Stage 2 of the study required a relatively small sample of Illinois commercial farmers arbitrarily selected to obtain a wide range of attitude responses to the Q-sorts. The first criterion that we established for the sample selection procedure was geographical distribution over the state to account for possible regional differences among the farmers. The easiest ready-made system was to select even-sized samples of commercial farmers from each of the five Extension districts in Illinois.

The second criterion we established for the system to expose the range of attitudes toward Cooperative Extension was whether or not there had been in the home county of each respondent a history of successful and popular Extension programming. On that basis, we asked each of the five district agricultural Extension supervisors to name one county in his district in which he thought we were likely to find attitudes at the extremely favorable end of the continuum based on good Extension programming. Then we asked him to name another county in his district in which he thought we would likely to find attitudes at the extremely unfavorable end of the continuum based on a history of poor Extension programs over the years. This gave us a total of 10 Illinois counties geographically distributed over the state, five selected to provide us with the possibility

of locating extremely favorable attitudes toward the Cooperative Extension Service, and five in which we were likely to find extremely unfavorable attitudes.

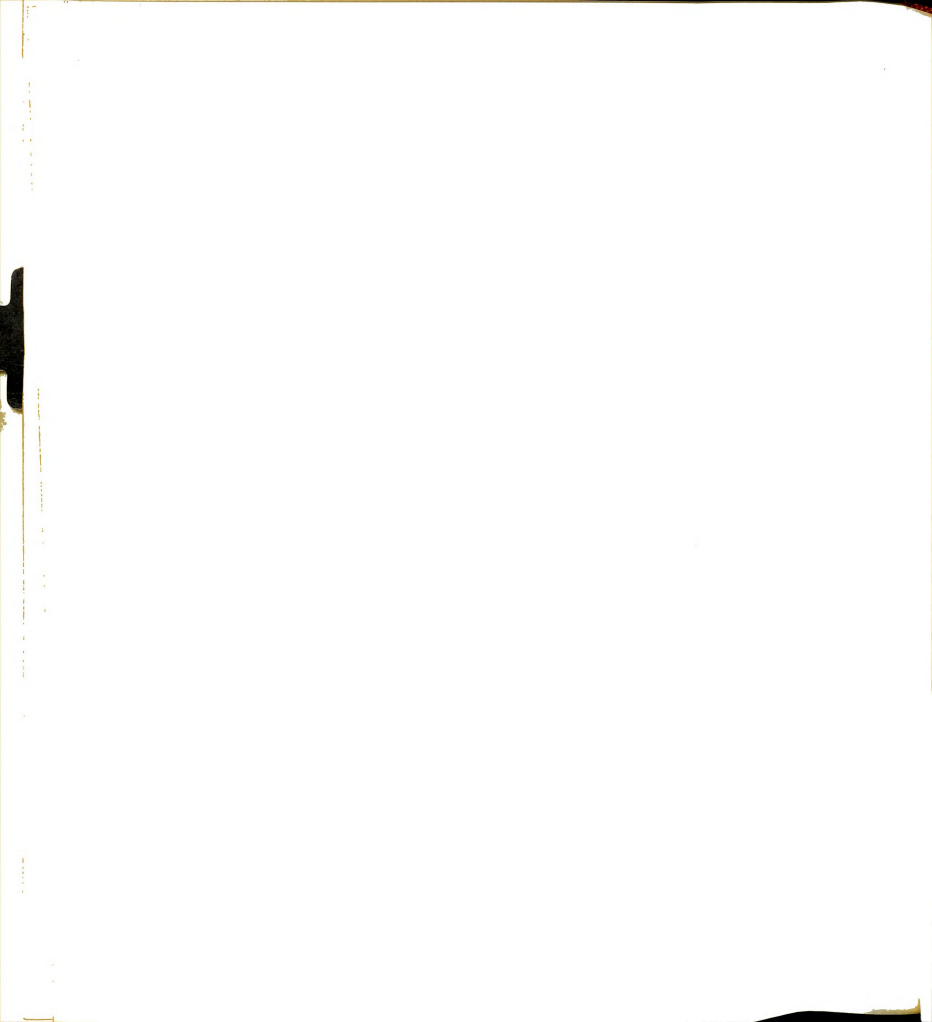
Two other criterion variables that we thought might make a difference in the formation of attitudes toward the CES were: (1) age of the farmer, and (2) the distance that he lives from the county seat or office of the county farm adviser, who is the local county Cooperative Extension Service agricultural representative in Illinois. Final choice of each of the 60 Illinois commercial farmers in the sample was made by the investigator with the help of the county farm adviser in the sample counties and a variety of other people.

In Illinois, the county farm adviser probably knows more about the farmers and farming in his county than almost any other single source. Time that each farm adviser had lived in the sample counties ranged from less than two years to more than 35 years. However, we felt that any biasing of the sample selection by the newest farm adviser not knowing enough about his county farmers to the farm adviser with the longest tenure knowing too much about his county farmers would be balanced over the statewide sample by the range of farm adviser experience.

In selecting each county sample, the investigator worked first with the county farm adviser to locate six farmers who met the established criteria for selection: (1) two whom the farm adviser thought had favorable attitudes toward Extension, two with moderate or neutral attitudes, and two whom he thought might have poor or unfavorable attitudes toward Extension for whatever reasons;

(2) two in the young age group (under 35), two in the middle age range (36-55), and two in the older age group (over 55); and (3) scattered locations over the county to avoid the possibility of contaminating the sample with farmers from the same community with similar attitudes. Of course, we realize that it is possible for next door neighbors to have widely differing attitudes, and therefore we did not rigidly enforce the criteria in some instances. The criterion which had the major influence on the final selection of each farmer was his position in the range of possible attitudes toward Extension. Our main purpose was to expose as many different attitudes as possible along the range from extremely favorable to extremely unfavorable.

Since it is possible that personal bias would enter into sample selection if the farm adviser was the only source of respondent names, we also sought names in each county from other sources who might be familiar with farmer attitudes in that county. We chose farmers to interview on the basis of recommendations by county Farm Bureau insurance agents, professional farm managers, local veterinarians, bankers and bank farm management representatives, soil conservationists, vocational agriculture instructors and other farmers. In one county, we interviewed a farmer whose name we secured from a returned survey form on which he had indicated that he couldn't come in to the county farm adviser's office because he wasn't a Farm Bureau member. We believe that one of the reasons why Illinois farmers may or may not have favorable attitudes toward the Cooperative Extension Service is because they confuse its relationship with Farm Bureau. We tried to expose this misunderstanding by using a separate set of seven questions with all the respondents (see Appendix 2).



It was necessary to set up a time and expense budget for this project. In order to meet this budget, we asked the county farm adviser in each of the counties visited to set up the first day's interviewing schedule, with the rest to be worked out when the investigator arrived. Since we assumed that the farmers whom we chose to give us favorable responses would not be biased by being interviewed in the farm adviser's office or in the county Farm Bureau building, in many cases the interviews were scheduled for those places with the farmers arriving at approximately three-hour intervals. Of the 60 farmer interviews, 35 were made either in the farm adviser's office or in some vacant room in the Farm Bureau building, 22 were made in the respondent's home, and three were made at other places--one in the car when the farmer was found to be out plowing, one in the county abstract office, and one in the farmer's town office where he sells fertilizers. We found many distractions during the home interviews such as small children underfoot, telephones ringing, and curious wives trying to be of help. These were disconcerting to the respondents and caused a different kind of bias, from hurrying through the responses, than doing the sorts in a quiet room in the county Farm Bureau building or in the farm adviser's office. (See Figure 10 for location of respondents' farms).

The schedule set up for the field work called for visits to two counties each week for five weeks during January and February, 1964. The interviews ran from slightly less than one hour to three hours, depending on how long it took each respondent to make his decisions, and how much extra visiting the investigator had to do before the sorts were finished. There were no turndowns, and the only individual

who missed his scheduled appointment was No. 60, who completed his Q-sorts a couple of days later. All respondents were contacted initially by telephone and a set time and date scheduled for each interview. This procedure was necessary so that the 60 interviews could be completed within the time budget allowance. In order to allow travel time within and between counties to maintain the schedule, it was necessary to complete six interviews in each of the two counties each week. During each interview, the respondent was given the three Q-sorts one at a time until he had completed each one. In two instances, missed schedules required that the investigator conduct parts of two Q-sorts at the same time. These were conducted in different rooms and only caused the inconvenience of traveling back and forth between rooms to keep the sorting process moving along.

Q-Sort Procedure

In conducting the Q-sorts, the interviewer asked respondents to arrange the statements in each of the three Q-sorts into 11 piles approximating a quasi-normal distribution ranging from the statements with which he most disagreed on the left to those with which he most agreed on the right. The sets consisted of 44 cards in the first sort, 40 cards in the second, and 45 in the third, a total of 129 statement cards.

To facilitate the selection process, the interviewer asked each respondent first to sort the cards in each Q-sort into two piles, one composed of the statements with which he agreed in general and the other of the statements with which he generally disagreed. He then asked the respondent to place each of the cards in the agree

pile face up in columns on the table and select in order according to the number required on each stack of the sort. For instance, in Q-sort 1 the respondent was asked first to select the two statement cards with which he most agreed, and so on down the ranks until he either had exhausted his pile of agree cards or reached the center pile. Then he was asked to choose the two cards from the other pile with which he most disagreed, and so on in reverse order until all of the cards had been sorted into the piles in the required frequencies. As an example, in Q-sort 1 (opinions about the Cooperative Extension Service) the cards were sorted into the following frequencies:

	Most Disagree									Most Agree	
Rank	1	2	3	4	5	6	7	8	9	10	11
Frequency	2	3	4	4	5	8	5	4	4	3	2 = 44 cards

As Stephenson points out (28, Ch. III-13), each Q-sort is a description of a person's point of view, but in a statistical form ready for handling by a high-speed digital computer. "When he looks over the statements, the individual gives meaning to them by a process of interaction between the statement and his dispositions or preformed ideas...The Q-sample is thus a fund of possible ideas or knowledge that a person can dip into, to represent his own position by interpreting the statements, selecting from them, making identifications with them, subsuming them, and finally indicating his preformations, his preconceptions, and no doubt some ideas he perhaps has had now for the first time."

During the Stage 2 field interviews with the sample of 60 Illinois commercial farmers, the same sets of cards were given to the farm

advisers in each of the 10 interview counties and they were asked to go through the same procedure as their county farmers. We asked the 10 county farm advisers to make two sorts, with one set of cards on the basis of the pattern that he thought a "typical" farmer in his county would have, and the other on the basis of the pattern of attitudes that he would want an "ideal" farmer in his county to have. Following completion of the field work, we asked the five district agricultural supervisors and seven others of the Cooperative Extension Administrative group to go through one complete set of the three Q-sorts. We asked these persons to sort the cards on the basis of what they would like a farmer to have as his pattern of attitudes toward the Cooperative Extension Service, in order to make later comparisons with the way that the county farm advisers would like their farmers to think about Extension.

Use of the Computer

The resulting 92 different sorts (92 X 129 cards = 11,868 cards) were submitted to analysis by the Control Data Corporation 3600 computer at Michigan State University. We asked for simple correlation analysis, factor analysis and weighted ranking analysis on the various sorts. Summary of these analyses will follow in subsequent chapters. The matrix of intercorrelations was as follows:

Table 1 -- Matrix of Intercorrelations

Commercial Farmers	Farm Advisers		Supervisors	Extension Administrators	92 Sorts
1-60 Actual	1-10 Typical	1-10 Ideal	1-5 Ideal	1-7 Ideal	
1		3			
	2				

CHAPTER IV

ATTITUDES TOWARD THE COOPERATIVE EXTENSION SERVICE

Here we will deal with patterns of attitudes of Illinois commercial farmers toward the less personal, more institutional aspects of the Cooperative Extension Service (Q-sort 1). We will analyze the patterns of attitudes toward farm advisers and sources in subsequent chapters.

One Factor

A look at Figure 1 clearly shows that in spite of a sample structured to insure a variety of attitudes, most of the 60 Illinois commercial farmers interviewed fall into one general pattern or type. Appendix 5 shows that all of the farmers except No. 3 had high or fairly high loadings on the first principal axis factor. This single factor accounts for 58 percent of the total variance among the 60 respondents. They agree so well in their attitudes toward Cooperative Extension that 31 of the 44 statements in this Q-sort are consensus items with less than 1.000 standard deviation difference.

Specifically, what are these Illinois commercial farmers in agreement about? What are the most important attitudes that they share together? They most highly agree that a lot of the information that comes from the University of Illinois is of practical use to them. They next most highly agree that the Cooperative Extension Service suggests sound practices that benefit the farmer who uses them, and that when they have a farming problem, they find that they can get the information they need quickly and easily from the Cooperative Extension Service. They highly agree that generally speaking



Figure 1 -- Principal Axis Solution, showing positions of 60 Illinois commercial farmers as determined by the relationships of their patterns of attitudes toward the Cooperative Extension Service.



they find the CES to be about as friendly an organization as they could find anywhere, and that scientists at the College of Agriculture in Urbana give farmers like them a lot of good help.

They also highly agree that information that comes from the CES is honest and can be trusted to be as accurate as possible, that they can rely on CES information, that most smart farmers will try a new practice that is recommended by the CES, and that Cooperative Extension can do its job well only so long as it maintains an office in every county.

These 60 Illinois commercial farmers are almost as one voice in their strong disagreement with the idea that the farmer who knows his business does not really have much need for Extension services like soil testing (Item 1, Appendix 8). They almost equally disagree in unison that most of the so-called Extension experts have read so many books that they cannot talk common sense any more, and that their fathers taught them most of the things they need to know about farming. They highly disagree with the attitude that they don't have much confidence in CES recommendations, and that they get most of their ideas on how to farm better from the Farm Progress Show or State Fair, and not from the CES.

They also disagree with the statements that the CES as part of the University of Illinois doesn't fit in very well with the farmers in their area, that much of the information from the University of Illinois College of Agriculture is too advanced for the average farmer--he is not ready for it, and that written materials from the CES are usually too cold and official for them.

As a group, they are most neutral toward the idea that one of the good things about the Cooperative Extension Service is its close ties with the U.S. Department of Agriculture. They also are neutral toward but slightly in disagreement with the attitudes that CES programs are dictated too much by the U. S. Department of Agriculture, and that most of the information put out by the CES is a review of what they have already heard or read about.

A Different Way of Looking at it

It is apparent from the range of correlations on Factor 2 in the principal axis solution that there is some reason to submit the data to varimax rotation analysis, in spite of the clustering by 59 of the 60 farmers in the sample. However, the first rotation added only five percent to the explained variation, and rotation of additional factors added little more.

Weights were calculated (see weighting schedule in Appendix 7) on 17 persons identified as being highly loaded on Factor I, eight persons as highly loaded on Factor II, and 10 persons who seem to make up a "mixed" group whose correlations are about evenly divided between the two factors (Appendix 6). The scatter diagram around the first varimax rotation may be seen in Figure 2.

Relationships between the arrays for these types may be seen in this table of correlations:

Types	1	2	3
1	1.000		
2	.849	1.000	
3	.598	.784	1.000

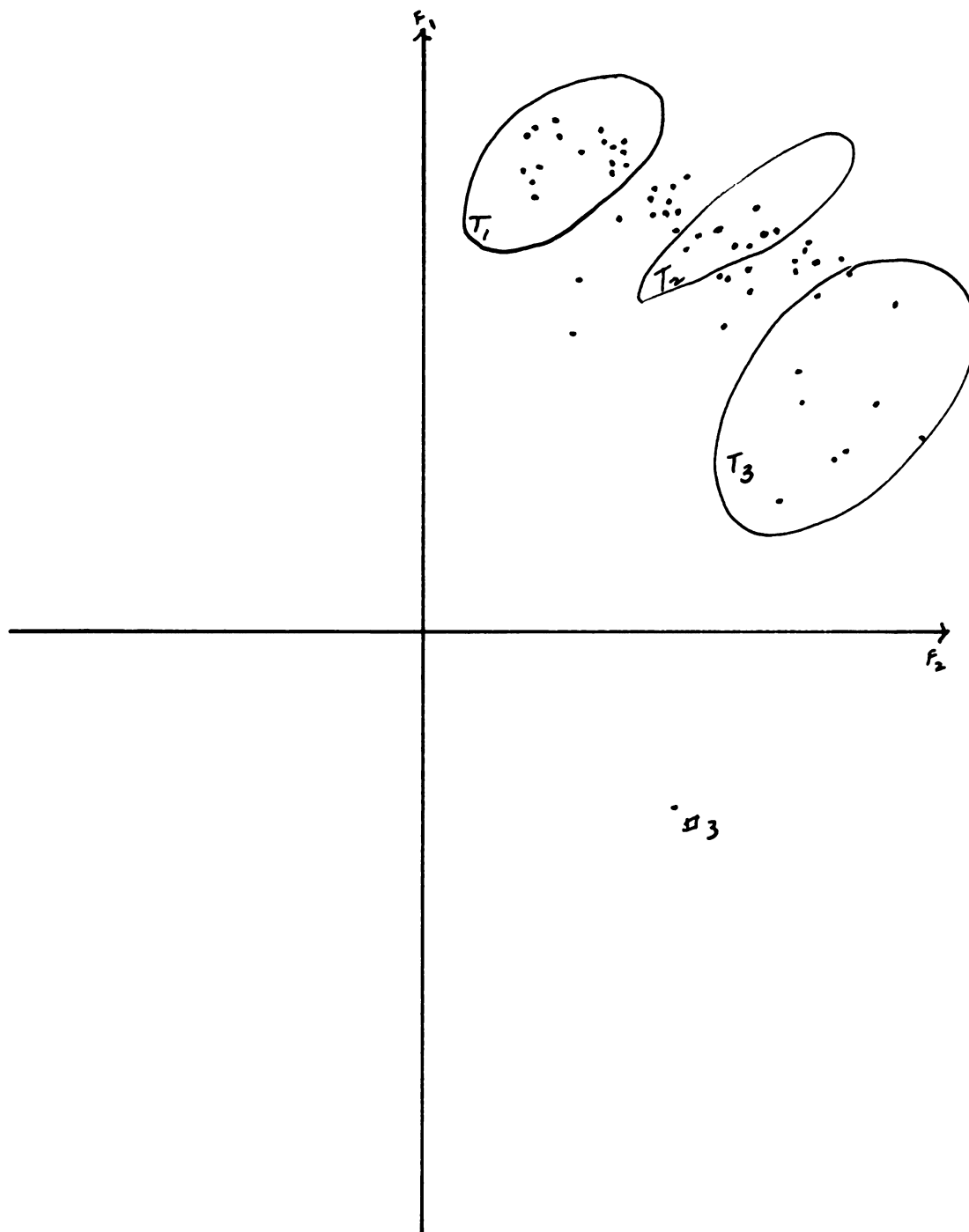


Figure 2 -- Two-Factor Varimax Rotation, showing positions of 60 Illinois commercial farmers as determined by the relationships of their patterns of attitudes toward the Cooperative Extension Service.



This table shows that Type 2 correlates highly with both Types 1 and 3. The moderate correlation between Types 1 and 3 indicates that there are substantial differences between these two attitude types in spite of the fact that the entire group has high agreement within itself. Further analysis of the factor item arrays shows important differences between the three attitude types. Type 2 possesses some of the characteristics of both groups, but is more like Type 1 than Type 3.

CES Type 1 Farmers -- Technically Oriented

In general, CES Type 1 farmers appear to be more technically or scientifically oriented than the other two types. A farmer of this type most highly agrees with the idea that information from the Cooperative Extension Service (CES) is honest and can be trusted to be as accurate as possible (Table 2). He strongly agrees that CES educational programs in general tell him what he needs to know in his type of farming. He is like Type 3 in strongly agreeing that when he has a farming problem he can get the information he needs quickly and easily from the CES.

One of the major differences between Types 1 and 3 is that the first type of farmer firmly believes that CES information helps increase farm production and so returns more money than it costs in taxes. This follows his technical orientation, whereas Type 3 farmers strongly reject this idea.

Type 1 strongly agrees with Type 3 that they can rely on CES information. However, a farmer of the first CES type strongly believes that Extension material is impartial and unbiased, and that the same farmers--usually, the best ones in the county--tend to show

Table 2 -- CES Type 1 Item Arrays, Most Agree

Item	Description	Type 1	Type 3	Type 2
* 9	Information that comes from the Cooperative Extension Service is honest and can be trusted to be as accurate as possible.	1.62	.65	.64
* 2	In general, Extension's educational programs tell me what I need to know about new developments in my kind of farming.	1.44	.28	.77
18	When I have a farming problem, I find that I can get the information I need quickly and easily from the Extension Service.	1.39	1.53	.83
* 38	Information from the Cooperative Extension Service helps increase farm production and so returns more money than it costs in taxes.	1.23	- .97	1.04
28	The Cooperative Extension Service suggests sound practices that benefit the farmer who uses them.	1.21	1.59	1.37
43	I believe that a lot of the information that comes from the University of Illinois is of practical use to me.	1.21	1.44	1.58
* 8	Cooperative Extension Service material is impartial and unbiased.	1.15	- .33	- .08
* 44	The same farmers--usually the best ones in the county--tend to show up at every Extension meeting. The Extension educational system thus does not get to the farmers who need the information the most.	1.01	- .84	1.17
* 3	I like the Cooperative Extension Service idea that no farmer is too old to learn better farming methods.	.71	2.43	1.72
* 35	Extension's educational programs tell me what I want to know.	.66	- .44	.47
* 13	The Cooperative Extension Service should not concentrate on helping only farmers, but should try to help everybody.	.55	- .86	.28

*Greatest item disagreement, the items that most differ between CES Types 1 and 3.

Table 3 -- CES Type 1 Item Arrays, Most Disagree

Item	Description	Type 1	Type 3	Type 2
* 40	So far as I am concerned, they could do away with the Cooperative Extension Service today.	-2.01	-1.01	-1.55
36	I don't have much confidence in the recommendations of the Cooperative Extension Service.	-1.59	- .74	-1.18
6	Most of the so-called Extension experts have read so many books that they can't talk sense any more.	-1.47	-1.38	-1.06
* 25	The Cooperative Extension Service does not do what it is supposed to do--give farmers information they can use.	-1.47	- .31	- .69
1	The farmer who knows his business does not really have much need for Extension services like soil testing.	-1.39	-1.49	-1.73
26	I get the feeling that the Cooperative Extension Service as part of the University of Illinois does not fit in very well with the farmers around here.	-1.26	- .49	- .80
* 16	Cooperative Extension Service recommendations are influenced too much by commercial interests.	-1.23	.14	- .45
* 42	It is hard to tell whether the tax money that is spent on the Cooperative Extension Service is doing any good or not.	-1.01	.90	- .51
* 24	My years of experience tell me just about all I need to know about farming.	- .84	-1.78	-1.88

*Greatest item disagreement, the items that most differ between CES Types 1 and 3.



up at every Extension meeting and that the Extension educational system thus does not get to the farmers who most need the information. A farmer of the third type disagrees with these attitude statements rather strongly.

Type 1 farmers tend to be the strongest supporters of the Cooperative Extension Service. They most strongly disagree with the statement that so far as they are concerned the CES could be eliminated today (Table 3). They highly reject the ideas that the CES does not do what it is supposed to do--give farmers information they can use, and that the CES as part of the University of Illinois does not fit in very well with farmers in their areas.

Three other attitudes toward the CES are major distinguishing aspects between the two extreme types of farmers. Type 1 farmers strongly disagree that Cooperative Extension Service recommendations are influenced too much by commercial interests. The farmers of Type 3 are not in disagreement at all with this statement, and are inclined to be nearly neutral in their attitudes toward that idea. In the most clear-cut attitude difference between the two extreme types of farmers in this Q-sort, those in the first type highly disagree that it's hard to tell whether the tax money that is spent on the CES is doing any good or not, while farmers who fall into the third type almost as strongly agree with that attitude. Both types disagree that their years of experience tell them just about all they need to know about farming, but Type 1 disagrees much less strongly than Type 3 with this attitude. This apparent inconsistency probably can be explained in that Type 1 farmers have more confidence that their systems of operation are soundly based on Extension Service recommendations than do Type 3 farmers.

CES Type 1 Attitudes Toward Advisers

The three types that we have identified on Q-sort 1 as being divided in their attitudes toward the institutional aspects of the Cooperative Extension Service (dimension 1) also differ somewhat in their attitudes toward the county farm advisers and state Extension specialists. Differences between CES Types 1 and 3 are greater in these item arrays than in their attitudes toward Cooperative Extension. The mixed Type 2 tends to be very much like Type 1, as can be seen in this table of their correlations on Q-sort 2.

Types	1	2	3
1	1.000		
2	.943	1.000	
3	.814	.831	1.000

Two of the most striking differences in their attitudes toward the personal aspects of Cooperative Extension come about when the CES Type 1 farmers agree somewhat that their county farm advisers try very hard to involve everyone in Extension educational programs regardless of which organization they belong to, and that it seems as if no matter how tough a problem they take to their county farm advisers they can find a satisfactory solution. Type 3 farmers disagree somewhat with these attitude statements (Table 4). The type of farmer whom we have identified as technically oriented most highly agrees with the idea that his county farm adviser gives him the straight facts as he sees them. Type 3 farmers share this attitude, but hold it much less strongly.

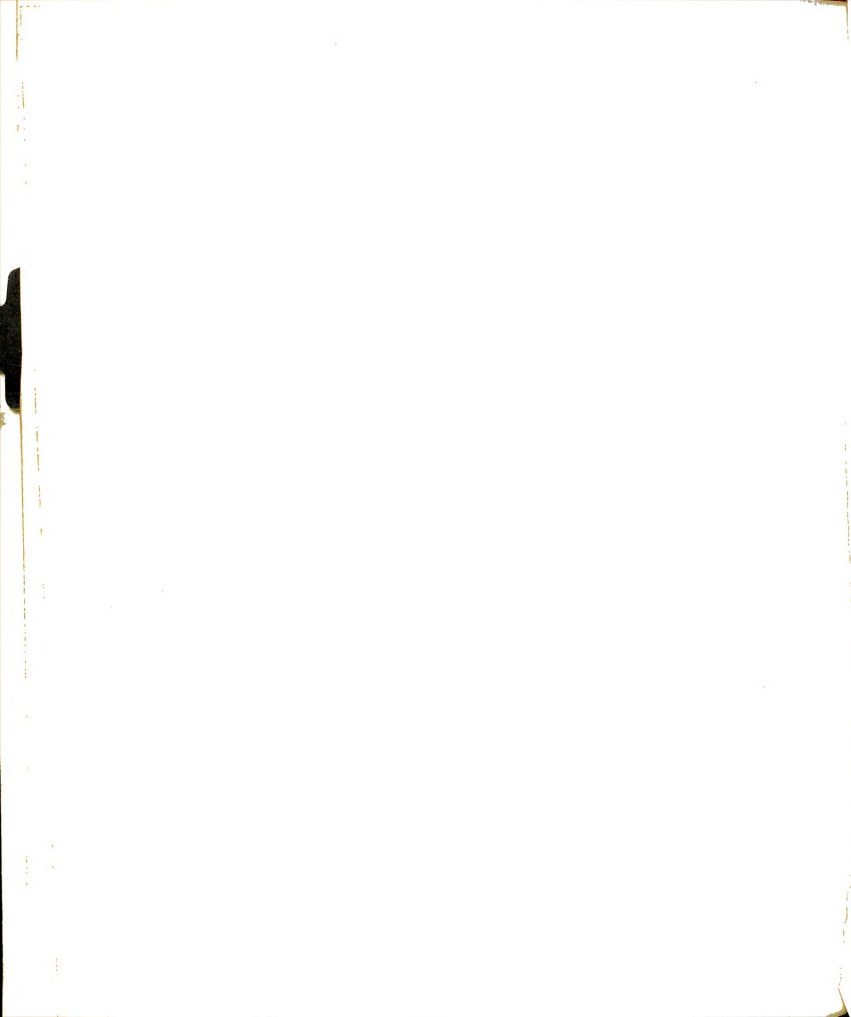


Table 4 -- CES Type 1 Adviser Arrays, Most Agree

Item	Description	Type 1	Type 3	Type 2
* 16	My county farm adviser gives me the straight facts as he sees them, and I appreciate it.	1.54	.54	1.88
12	My county farm adviser is the most reliable source of information about farming that I know.	1.38	.76	.46
3	I think that there is a lot of value in most of the practices recommended by my county farm adviser.	1.27	1.81	1.49
29	My county farm adviser is interested in people and their problems. He is more than just a subject matter expert.	1.23	2.06	1.01
2	My county farm adviser gives us farmers much valuable help in our farming operations.	1.15	.91	1.34
15	My county farm adviser almost always seems to have the information I need at his fingertips.	1.08	.45	1.18
5	My county farm adviser gives good service to us farmers.	1.08	.92	1.07
40	Farmers can get from the county farm adviser the most down-to-earth recommendations on how to farm better.	1.08	.92	.79
28	I appreciate the sincere interest that my county farm adviser takes in helping me with my problems.	1.06	.95	1.32
* 24	My county farm adviser tries very hard to involve everyone in Extension educational programs regardless of which organization they belong to.	.77	- .42	.39
* 38	It seems that no matter how tough a problem I take to my county farm adviser he can find a satisfactory solution.	.57	- .44	.40
* 17	My county farm adviser is a wonderful person.	.43	1.79	.46

*Greatest item disagreement, the items that most differ between CES Types 1 and 3.

Table 5 -- CES Type 1 Adviser Arrays, Most Disagree

Item	Description	Type 1	Type 3	Type 2
25	Most of the recommendations that I get from my county farm adviser sound like the horse-and-buggy days, they are so old-fashioned.	-1.76	-1.97	-1.30
4	My county farm adviser uses too many high-pressure tactics -- he pushes too hard in trying to get us to try out new things and ideas.	-1.67	-1.39	-1.05
*31	My county farm adviser plays favorites among the farmers in my county and I do not like it.	-1.56	.10	-1.10
22	Generally speaking, county farm advisers are not worth what they are paid.	-1.53	-1.16	-1.37
32	It takes too much time and trouble to get information from my county farm adviser.	-1.12	- .72	- .63
36	My county farm adviser does not seem to be able to present information in a way that is easy to understand and use.	-1.10	- .50	-1.28
19	My county farm adviser will not listen to new ideas and suggestions from the farmers in this county.	-1.08	- .86	-1.19
11	I can get more reliable information that I need for my farming operation from a local commercial dealer I know than I can from my county farm adviser.	-1.08	-1.58	-1.00

*Greatest item disagreement, the items that most differ between CES Types 1 and 3.

Type 1 farmers are lukewarm toward the idea that their county farm adviser is a wonderful person. On the other hand, they firmly disagree that their county farm advisers play favorites among the farmers in their counties, while Type 3 farmers lean just a little on the positive side of neutral toward that attitude statement (Table 5).

The CES Type 1 farmer strongly believes that his county farm adviser is the most reliable source of information about farming that he knows, but does not agree as strongly as Type 3 that there is a lot of value in most of the practices he recommends and that he is interested in people and their problems. Type 1 also believes fairly strongly that his county farm adviser gives him much valuable help in his farming operations, that he almost always seems to have needed information at his fingertips, that he gives good service, that he takes a sincere interest in helping with farmer problems, that he gives down-to-earth recommendations on how to farm better, and that he is the most up-to-date source of new farming information.

These technically oriented farmers strongly disagree with the attitudes that it takes too much time and trouble to get information from their farm adviser, that he doesn't seem able to present information in a way that is easy to understand and use, that he will not listen to new ideas and suggestions, and that they can get more reliable information from a local commercial dealer than they can from him.

CES Type 1 Attitudes Toward Sources

Even greater differences between CES Types 1 and 3 appear in their item arrays toward the Cooperative Extension Service as a source of technical farming information. Again, as in the attitudes of CES Type farmers toward the personal aspects of Cooperative Extension, the Type 2 mixed group is closely aligned with Type 1, while Type 3 is even more divergent than before, as shown in this table of correlations:

Type	1	2	3
1	1.000		
2	.910	1.000	
3	.721	.778	1.000

CES Type 1 farmers are most different from Type 3 farmers in their comparative attitudes toward the Cooperative Extension Service as a source. While the Type 1 farmer regards the CES as his most reliable source, the Type 3 farmer is almost neutral in his agreement with that attitude (Table 6). On the other hand, all three types of farmers highly agree on the county farm adviser as a reliable source of technical information, although Type 3 is in much less agreement on this attitude than the other two. Other consensus agreement items between all three types on this Q-sort include their attitudes toward bulletins and reports from the Agricultural Experiment Station in Urbana and the Experiment Station itself, the College of Agriculture, the University of Illinois and successful farmers they know.

Table 6 -- CES Type 1 Source Arrays, Most Agree

Item	Description	Type 1	Type 3	Type 2
* 1	Cooperative Extension Service	2.09	.40	1.50
8	My county farm adviser	2.04	1.32	2.27
13	College of Agriculture at Urbana	1.63	.86	1.23
22	Bulletins and reports from the Agricultural Experiment Station in Urbana	1.58	1.95	1.30
* 11	State Extension specialists	1.46	.40	.84
* 43	Farm Bureau Farm Management Service fieldman	1.39	- .17	.36
32	The Agricultural Experiment Station in Urbana	1.39	1.14	1.29
* 3	My years of farming experience	1.17	2.90	1.73
6	University of Illinois	1.01	1.19	1.09
10	Successful farmers I know	.82	.85	1.65
* 30	A veterinarian I know	.48	1.45	.21
* 20	Extension council meetings	.40	- .49	- .01

*Greatest item disagreement, the items that most differ between
CES Types 1 and 3.

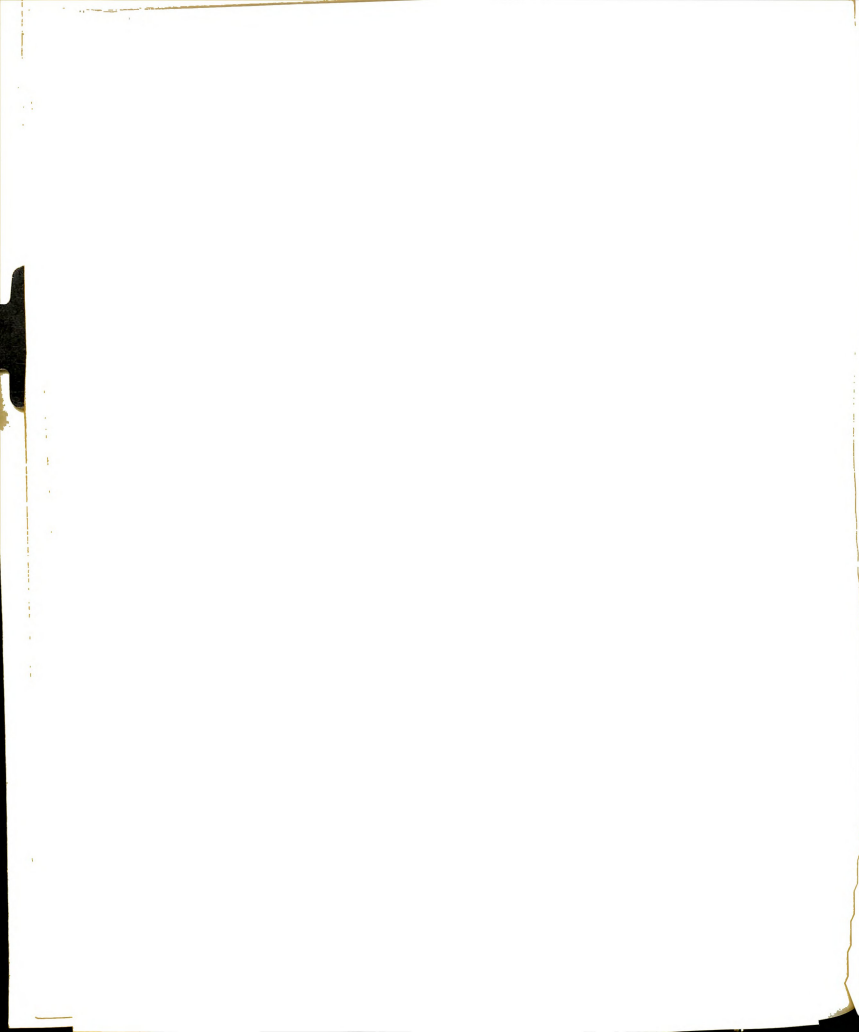


Table 7 -- CES Type 1 Source Arrays, Most Disagree

Item	Description	Type 1	Type 3	Type 2
* 36	The National Farmers Organization	-1.88	- .61	-1.95
25	Advertising in newspapers	-1.84	-1.26	-1.76
34	Farmers Union	-1.68	-1.33	-1.82
17	Advertising in farm magazines	-1.51	-1.09	-1.49
35	The Grange	-1.21	-1.67	-1.75
12	A local fertilizer dealer	-1.05	- .62	-1.04
* 26	Articles in newspapers	-1.00	.01	- .99
31	My relatives	-1.00	-1.27	-1.48
* 21	My landlord or landlady	- .81	-1.96	- .58
* 14	County ASCS office	- .21	1.16	- .05

*Greatest item disagreement, the items that most differ between CES Types 1 and 3.

Another large difference between attitudes of the two most extreme types is toward the Farm Bureau Farm Management Service fieldman, whom the Type 1 farmers highly regard as a source and toward whom the Type 3 farmers take a slightly negative view. This may be explained by the fact that more of the technically-minded farmers in Type 1 are aware of the service or belong to it, while many Type 3 farmers do not use the service and do not know what it can do for them. Type 1 farmers have a much higher regard for state Extension specialists as sources than do Type 3 farmers, while they are almost equally divided on opposite sides of the fence in their attitudes toward Extension Council meetings as a source of reliable farming information. Type 1 farmers are not nearly so confident in the reliability of their years of experience or a veterinarian they know as information sources as are the Type 3 farmers.

A farmer who falls into the classification of CES Type 1 regards the National Farmers Organization and advertising in newspapers as almost equally unreliable sources of farming information (Table 7). He regards articles in newspapers as a strongly unreliable source. The other two CES types of farmers strongly agree with his belief that the Farmers Union, advertising in farm magazines, the Grange and a local fertilizer dealer are highly unreliable information sources. Type 1 also thinks that a landlord or landlady is an unreliable source and that the county ASCS office is slightly unreliable.

Summary -- What is a CES Type 1 Farmer Like?

Analysis of the demographic data on the 17 Illinois commercial farmers in CES Type 1 tend to support our sample selection procedure. These 17 were chosen to represent Type 1 on the first Q-sort of attitudes toward the Cooperative Extension Service on the basis of their high loadings on Factor I of the first varimax rotation. However, the only criterion for selection that seems to make a difference for this type is prior attitude toward the CES (Appendix 9).

Age for this group of 17 individuals who are more like each other than they are like any of the other farmers is divided around the median in an approximation of a normal distribution. Their average age of 46.8 is not significantly different from the average age of 47.5 of the 60 farmers. Location in the county does not seem to make any difference, nor does location in the kind of counties chosen for the sample. We might expect that our most favorable farmers would come from the counties with the better CES programs; actually, more come from counties with the historically poorer CES programs.

Education seems to make a difference, along with prior attitude. Of the 12 farmers in the total group with college educations, 7 of them are in CES Type 1. Size of farm and income do not vary greatly within this group from the average of the entire sample of 60 farmers. The distribution corresponds very highly, with more farmers than we might expect from the smaller farms and lower income brackets.

The most crucial selection criterion seems to be prior attitude which we have theorized is based on past experience. We chose one-third of the sample farmers on the basis of having a favorable

attitude toward the Cooperative Extension Service. One-fifth of them are included in CES Type 1. The two farmers included in CES Type 1 who were thought to have prior neutral or questionable attitudes, and the three who were chosen because they were thought to have unfavorable attitudes, turn out to be not so neutral nor unfavorable. But the general results highly support our sample selection procedure as being soundly conceived.

In terms of the Cooperative Extension Service characteristics that the CES Type 1 farmers chose as being most important to them, competence and value stand out (Appendix 10). These farmers chose all four attitude statements in both of these characteristic categories as among the most important for them (Appendix 4). The impartiality and practicality of Extension also were more important than the other characteristics for these farmers.

However, reliability rates the highest consensus agreement in the CES Type 1 item arrays, while value carries the highest consensus disagreement rating. These farmers are very consistent in most agreeing with positive attitude statements and disagreeing with negative attitude statements. Only statement 44 appears out of place in these rankings. CES Type 1 farmers highly agree with this negative statement: the same farmers--usually the best ones in the county--tend to show up at every Extension meeting and the Extension educational system thus does not get to the farmers who need the information the most.

CES Type 3 Farmers --Person-oriented, Emotional

In contrast to CES Type 1, CES Type 3 farmers do not tend to be so technically or scientifically minded. They seem to be more



person-oriented. They are in strong agreement with the idea that no person is too old to learn better farming methods (Table 8). They agree much more highly than Type 1 that the CES is about as friendly an organization as you could find anywhere, that the scientists at the College of Agriculture give them a lot of good help, and that most smart farmers will try a new practice recommended by CES.

CES Type 3 farmers are completely different from the other two types when they agree that it's hard to tell whether the tax money being spent on the CES is doing any good or not, and agree a little that CES recommendations are influenced too much by commercial interests. Their person orientation shows up clearly as they are nearly neutral toward the idea that CES educational programs tell them what they need to know about new farming developments.

Farmers of this third type disagree most strongly that their years of farming experience tell them just about all they need to know about farming, that their fathers taught them most of the things they need to know about farming, and that they get more ideas from the Farm Progress Show and the State Fair than they do from the CES (Table 9). These attitude statements might appear to be inconsistent with their person orientation until we look at where they do get their information (Table 12).

CES Type 3 Attitudes Toward Advisers

Another indication of the personal orientation of CES Type 3 farmers is their highest agreement that their county farm adviser is interested in people and their problems and is more than just a subject matter expert (Table 10). They strongly agree that there is a lot of value in most of the practices recommended by their county

Table 8 -- CES Type 3 Item Arrays, Most Agree

Item	Description	Type 3	Type 1	Type 2
* 3	I like the Cooperative Extension Service idea that no farmer is too old to learn better farming methods.	2.43	.71	1.72
28	The Cooperative Extension Service suggests sound practices that benefit the farmer who uses them.	1.59	1.21	1.37
18	When I have a farming problem I find that I can get the information I need quickly and easily from the Cooperative Extension Service.	1.53	1.39	.83
10	Generally speaking, I have found the Cooperative Extension Service to be about as friendly an organization as you could find anywhere.	1.49	.63	1.09
43	I believe that a lot of the information that comes from the University of Illinois is of practical use to me.	1.44	1.21	1.58
20	The scientists at the College of Agriculture in Urbana give farmers like me a lot of good help.	1.31	.88	1.00
33	Most smart farmers will try a new practice that is recommended by the Cooperative Extension Service.	1.17	.40	1.23
19	I can rely on information from the Cooperative Extension Service.	1.04	1.15	.70
*42	It is hard to tell whether the tax money that is spent on the Cooperative Extension Service is doing any good or not.	.90	-1.01	- .51
* 2	In general, Extension's educational programs tell me what I need to know about new developments in my kind of farming.	.28	1.44	.77
*16	Cooperative Extension Service recommendations are influenced too much by commercial interests.	.14	-1.23	- .45

*Greatest item disagreement, the items that most differ between CES Types 3 and 1.



Table 9 -- CES Type 3 Item Arrays, Most Disagree

Item	Description	Type 3	Type 1	Type 2
* 24	My years of farming experience tell me just about all I need to know about farming.	-1.78	- .84	-1.88
21	My father taught me most of the things I need to know about farming.	-1.54	- .69	-1.57
1	The farmer who knows his business does not really have much need for Extension services like soil testing.	-1.49	-1.39	-1.73
22	I get most of my ideas on how to farm better from the Farm Progress Show or State Fair, and not from the Cooperative Extension Service.	-1.15	- .59	-1.31
* 40	So far as I am concerned, they could do away with the Cooperative Extension Service today.	-1.01	-2.01	-1.55
* 38	Information from the Cooperative Extension Service helps increase farm production and so returns more money than it costs in taxes.	- .97	1.23	1.04
* 13	The Cooperative Extension Service should not concentrate on helping only farmers, but should try to help everybody.	- .86	.55	.28
* 44	The same farmers--usually the best ones in the county--tend to show up at every Extension meeting. The Extension educational system thus does not get to the farmers who need the information the most.	-.84	1.01	1.17
* 35	Extension's educational programs tell me what I want to know.	- .44	.66	.47
* 8	Cooperative Extension material is impartial and unbiased.	- .33	1.15	- .08
* 25	The Cooperative Extension Service does not do what it is supposed to do--give farmers information they can use.	- .31	-1.47	- .69

*Greatest item disagreement, the items that most differ between CES Types 3 and 1.

Table 10 -- CES Type 3 Adviser Arrays, Most Agree

Item	Description	Type 3	Type 1	Type 2
29	My county farm adviser is interested in people and their problems. He is more than just a subject matter expert.	2.06	1.23	1.01
3	I think that there is a lot of value in most of the practices recommended by my county farm adviser.	1.81	1.27	1.49
*17	My county farm adviser is a wonderful person.	1.79	.43	.46
26	I like the way that my county farm adviser keeps up to date with new farming practices by attending meetings at the College of Agriculture in Urbana.	1.18	.91	1.33
27	My county farm adviser is almost never too busy to come out to visit my farm when I want him to.	1.00	.72	.80
*16	My county farm adviser gives me the straight facts as he sees them and I appreciate it.	.54	1.54	1.88
*31	My county farm adviser plays favorites among the farmers in my county and I do not like it.	.10	-1.56	-1.10

*Greatest item disagreement, the items that most differ between CES Types 3 and 1.

Table 11 -- CES Type 3 Adviser Arrays, Most Disagree

Item	Description	Type 3	Type 1	Type 2
25	Most of the recommendations that I get from my county farm adviser sound like the horse-and-buggy days, they are so old-fashioned.	-1.97	-1.76	-1.30
39	The Extension specialists who come around here cannot talk the language of the farmers--they use too many technical terms and complicated language.	-1.69	- .82	-1.10
11	I can get more reliable information that I need for my farming operation from a local commercial dealer that I know than I can from my county farm adviser.	-1.58	-1.08	-1.00
4	My county farm adviser uses too many high-pressure tactics--he pushes too hard in trying to get us to try out new things and ideas.	-1.39	-1.67	-1.05
23	My county farm adviser should have to foot the bill to establish some of the practices that he recommends so that he would become more practical.	-1.18	- .71	- .92
22	Generally speaking, county farm advisers are not worth what they are paid.	-1.16	-1.53	-1.37
13	My county farm adviser often does not follow up on things he says he is going to do.	-1.14	- .84	- .84
* 38	It seems that no matter how tough a problem I take to my county farm adviser, he can find a satisfactory solution.	- .44	.57	.40
* 24	My county farm adviser tries very hard to involve everyone in Extension educational programs regardless of which organization they belong to.	- .42	.77	.39

*Greatest item disagreement, the items that most differ between CES Types 3 and 1.

farm adviser, that they like the way he keeps up to date with new farming practices by attending meetings at the College of Agriculture in Urbana, and that he is almost never too busy to come out to visit their farms when they want him to.

Type 3 CES farmers highly agree that their county farm adviser is a wonderful person. This is an emotional statement that we might more expect Type 3 to make than Type 1. Type 3 farmers agree somewhat that their county farm adviser gives them the straight facts as he sees them, and only slightly that their county farm adviser plays favorites in their county.

Type 3 farmers again show their orientation toward other persons when they disagree with Type 1 farmers that their county farm adviser can find a satisfactory solution to tough problems and that he tries very hard to involve everyone in Extension educational programs regardless of which organization they belong to (Table 11).

CES Type 3 Attitudes Toward Sources

Type 3 farmers apparently are not being entirely consistent when they rate their years of farming experience as the most reliable source of farming information, after they had most highly disagreed with the attitude statement that their years of farming experience tell them just about all they need to know about farming (Table 12). They rate their years of experience most highly as a source, but earlier in the CES sort (Q-1) had most highly rejected the idea that they could rely only on their experience without benefiting from the educational programs of the Cooperative Extension Service. Perhaps they might have reacted differently if the statement about their years of experience telling them just

about all they need to know had been presented to them in some context other than the Q-sort concerning their attitudes toward the CES.

Type 3 farmers rate bulletins and reports from the Agricultural Experiment Station in Urbana, their county farm adviser, the University of Illinois, and the Agricultural Experiment Station in Urbana as highly reliable sources. They rate a veterinarian and the county ASCS office highly reliable in sharp contrast to Type 1 farmers, and the U. S. Department of Agriculture much more reliable. They are only mildly favorable toward the Cooperative Extension Service as an institutional source, but are again inconsistent in their person-orientation when they rate state Extension specialists low as reliable sources. They are neutral toward articles in newspapers.

They say that a landlord or landlady is their most highly unreliable source of farming information (Table 13). When asked why they rate landlords so low, the farmers say that their landlord or landlady is too far behind modern farming practices, or that they never pay any attention to the farming operations, or that they are against making needed improvements. Two of these eight farmers in Type 3 are members of the NFO, which accounts for the high rating this organization gets as a source with this group. They regard the Grange and Farmers Union as unreliable. Type 3 farmers regard their relatives and Farm Bureau board meetings as less reliable, but advertising in newspapers and farm magazines not so unreliable as Type 1 does. As less technically oriented farmers than Type 1, Type 3 have not seen the need for the services of the Farm Bureau Farm Management Service and thus may not be familiar with that

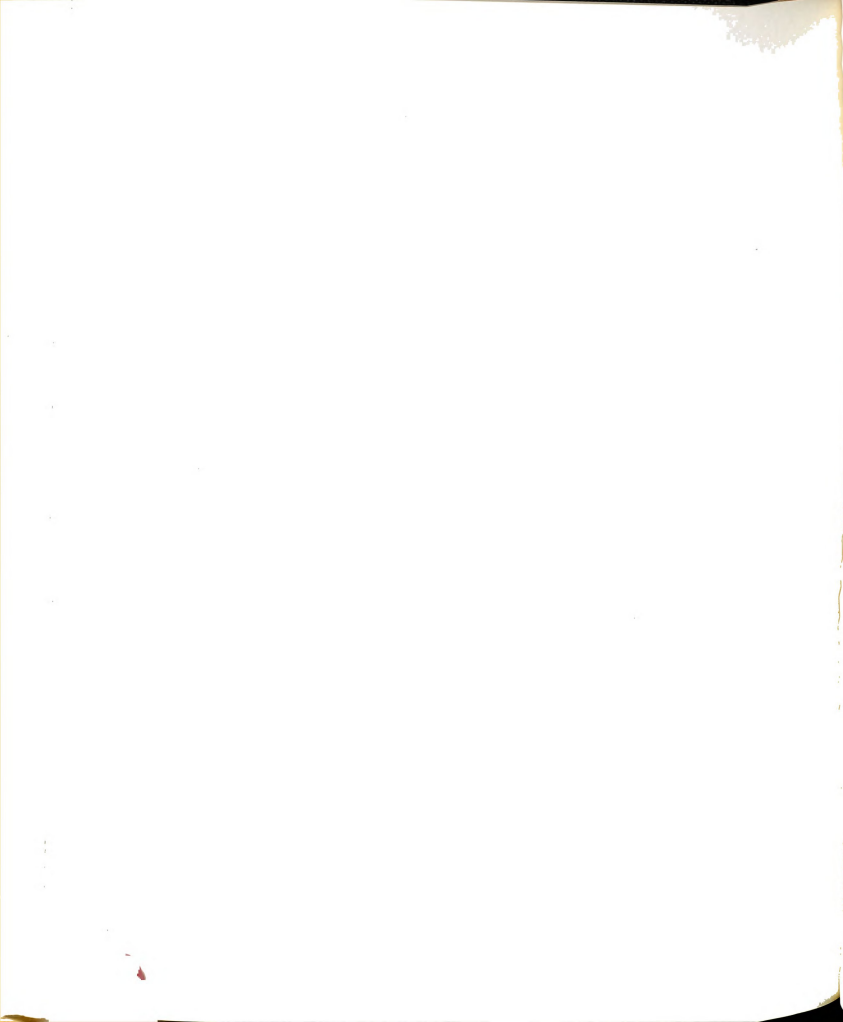
Table 12 -- CES Type 3 Source Arrays, Most Agree

Item	Description	Type 3	Type 1	Type 2
* 3	My years of farming experience	2.90	1.17	1.73
22	Bulletins and reports from the Agricultural Experiment Station in Urbana	1.95	1.58	1.30
*30	A veterinarian I know	1.45	.48	.21
8	My county farm adviser	1.32	2.04	2.27
6	The University of Illinois	1.19	1.01	1.09
*14	County ASCS office	1.16	- .21	- .05
32	The Agricultural Experiment Station at Urbana	1.14	1.39	1.29
23	The U. S. Department of Agriculture	1.09	.36	.70
* 1	Cooperative Extension Service	.40	2.09	1.50
*11	State Extension specialists	.40	1.46	.84
*26	Articles in newspapers	.01	-1.00	- .99

Table 13 -- CES Type 3 Source Arrays, Most Disagree

Item	Description	Type 3	Type 1	Type 2
*21	My landlord or landlady	-1.96	- .81	- .58
35	The Grange	-1.67	-1.21	-1.75
34	Farmers Union	-1.33	-1.68	-1.82
31	My relatives	-1.27	-1.00	-1.48
25	Advertising in newspapers	-1.26	-1.84	-1.76
19	Farm Bureau board meetings	-1.18	- .44	- .67
17	Advertising in farm magazines	-1.09	-1.51	-1.49
*36	The National Farmers Organization	- .61	-1.88	-1.95
*43	Farm Bureau Farm Management Service fieldman	- .17	1.39	.36

*Greatest item disagreement, the items that most differ between CES Types 3 and 1.



organization as a source of reliable farming information. Some may also identify this person as an employee of the Farm Bureau because of the connotation in the organization's name.

Summary -- What is a CES Type 3 Farmer Like?

In general, CES Type 3 farmers tend to be a little older than the sample farmers, averaging 50.5 years as compared with 47.5 years. Neither the county they live in nor their distance from the farm adviser's office apparently are crucial criteria in their attitude differences (Appendix 11). Again, what makes the most difference in identifying this type is their prior attitude toward Cooperative Extension. Note that none of the eight farmers most like Type 3 were considered as favorable to CES prior to their selection as sample farmers, while only two were considered neutral or questionable. The other six were chosen for the sample as being unfavorable, and they formed a group on the basis of their card sorts.

Only one of this type is a college graduate, and he is a national director of the NFO chosen for his outspokenness against certain aspects of the CES. Type 3 farmers have less education than Type 1, but are not necessarily smaller farmers with less income. Three of them are rated in the top group of farm sizes with more than 500 acres, and four are included in the top income group with annual gross incomes of more than \$40,000. We do find fewer farm owners, however, than in Type 1 and five of the eight are in some renter category. Whereas, all of the Type 1 farmers belong to the Farm Bureau, only half of Type 3 farmers are active members and two of them have dropped their previous Farm Bureau membership.

Type 3 farmers share with Type 1 farmers a high regard for the value of the Cooperative Extension Service since they also chose all four value statements in the characteristic categories as high ranking attitudes (Appendix 12). However, Type 3 gave the CES reliability aspect a much higher rating than Type 1 by using three of the reliability statements as highly important to them as compared with one such category statement by Type 1. Type 3 thinks CES is much more effective than Type 1, while rating practicality, communication skills, impartiality, friendliness and organization aspects the same. Type 3 does not regard the competence or up-to-dateness of CES as highly as Type 1, but rates effectiveness and efficiency higher.

CES Type 2 Farmers -- A Mixed Group

CES Type 2 farmers occupy a middle ground between CES Types 1 and 3. They share some of the characteristics of both and have some strongly held attitudes of their own. In general, they are more like Type 1 than Type 3 as can be seen on the scatter diagram in Figure 2. But the lines of demarcation are hard to define. This type was identified on the first varimax rotation as those farmers who are about evenly correlated with both Types 1 and 3.

Farmers of the second type are in highest agreement with the idea that no farmer is too old to learn better farming methods and they think that a lot of the information that comes from the University is of practical use to them (Table 14).

The Type 2, or middle-group farmers, are most different from Type 1 farmers in their attitude that Cooperative Extension Service material is impartial and unbiased (Table 15). While a middle-group



farmer disagrees but is almost neutral toward the idea, the technical-oriented farmers highly agree with that statement. On the other hand, Type 2 farmers most highly disagree that their years of farming experience tell them all they need to know about farming.

Type 2 farmers differ most from Type 3 farmers in their attitudes toward the statement that the same farmers--usually the best ones in the county--tend to show up at every Extension meeting, and the CES educational system thus does not reach the ones who need it most. They are almost as far apart in their attitudes toward the idea that information from the CES helps increase farm production and so returns more money than it costs in taxes (Table 14). These middle type farmers highly agree with these attitude statements, while the third type farmers strongly disagree with them. Type 2 farmers are somewhat in agreement with the statement that the CES should not concentrate on helping only farmers but should try to help everybody, while Type 3 farmers fairly strongly disagree with that.

Middle group farmers disagree with the attitude that it is hard to tell whether the tax money that is spent on the CES is doing any good or not, while Type 3 farmers agree with that statement (Table 15). Type 2 farmers disagree much more highly than do Type 3 farmers that most Extension services like soil testing take too much time and paper work. Both Types 2 and 3 share their attitude of highest agreement that no farmer is too old to learn new farming methods. They are in almost perfect consensus in their negative attitudes toward the statements that their years of experience tell them all they need to know about farming, and that their fathers taught them all they need to know about farming.



Table 14 -- CES Type 2 (mixed) Item Arrays, Most Agree

Item	Description	Type 2	Type 1	Type 3
* 3	I like the Cooperative Extension Service idea that no farmer is too old to learn better farming methods.	1.72	.71	2.43
43	I believe that a lot of the information that comes from the University of Illinois is of practical use to me.	1.58	1.21	1.44
28	The Cooperative Extension Service suggests sound practices that benefit the farmer who uses them.	1.37	1.21	1.59
33	Most smart farmers will try a new practice that is recommended by the Cooperative Extension Service.	1.23	.40	1.17
**44	The same farmers--usually the best ones in the county--tend to show up at every Extension meeting. The Extension educational system thus does not get to the farmers who need the information the most.	1.17	1.01	- .84
10	Generally speaking, I have found the Cooperative Extension Service to be about as friendly an organization as you could find anywhere.	1.09	.63	1.49
39	The Cooperative Extension Service is very thoughtful and considerate in its dealings with farmers like me.	1.07	.61	.87
**38	Information from the Cooperative Extension Service helps increase farm production and so returns more money than it costs in taxes.	1.04	1.23	- .97
32	Cooperative Extension can do its job well only so long as it maintains an office in every county.	1.00	.84	.92
20	The scientists at the College of Agriculture in Urbana give farmers like me a lot of good help.	1.00	.88	1.31
* 9	Information that comes from the Cooperative Extension Service is honest and can be trusted to be as accurate as possible.	.64	1.62	.65



Table 14 -- CES Type 2 (mixed) Item Arrays, Most Agree (cont.)

Item	Description	Type 2	Type 1	Type 3
**13	The Cooperative Extension Service should not concentrate on helping only farmers, but should try to help everybody.	.28	.55	- .86

*Greatest item disagreement--the items that differ most between
CES Types 2 and 1.

**Greatest item disagreement--the items that differ most between
CES Types 2 and 3.

Table 15 -- CES Type 2 (mixed) Item Arrays, Most Disagree

Item	Description	Type 2	Type 1	Type 3
* 24	My years of farming experience tell me just about all I need to know about farming.	-1.88	- .84	-1.78
1	The farmer who knows his business does not really have much need for Extension services like soil testing.	-1.73	-1.39	-1.49
21	My father taught me most of the things I need to know about farming.	-1.57	- .69	-1.54
40	So far as I am concerned, they could do away with the Cooperative Extension Service today.	-1.55	-2.01	-1.01
**34	Most Extension services, like soil testing, take too much time and paper work.	-1.39	- .64	- .24
22	I get most of my ideas on how to farm better from the Farm Progress Show or State Fair, and not from the Cooperative Extension Service.	-1.31	- .59	-1.15
36	I don't have much confidence in the recommendations of the Cooperative Extension Service.	-1.18	-1.59	- .74
6	Most of the so-called Extension experts have read so many books that they cannot talk common sense any more.	-1.06	-1.47	-1.38
**42	It is hard to tell whether the tax money that is spent on the Cooperative Extension Service is doing any good or not.	- .51	-1.01	.90
* 8	Cooperative Extension Service material is impartial and unbiased.	- .08	1.15	- .33

*Greatest item disagreement--the items that differ most between CES Types 2 and 1.

**Greatest item disagreement--the items that differ most between CES Types 2 and 3.

CES Type 2 Attitudes Toward Advisers

CES Type 2 farmers have a strong attitude that their farm advisers give them the straight facts as he sees them (Table 16). Two other attitudes that distinguish Type 2 from Type 3 farmers but that they share with Type 1 farmers, are that their county farm advisers are interested in people and their problems, and that their county farm adviser is a wonderful person. However, Types 2 and 3 are alike in sharing a much weaker though still positive feeling that the county farm adviser is the most reliable source of farming information that they know. Type 2 farmers highly disagree that their county farm adviser plays favorites in the county, while Type 3 differs greatly by agreeing somewhat with that idea (Table 17). The mixed group differs from both other types in disagreeing less strongly with the statement that their county farm adviser uses high-pressure tactics.

The three types share about equally strong agreements that there is a lot of value in practices recommended by their county farm adviser, that he gives much valuable help in their farming operations, that they like the way he keeps up to date with new farming practices, and that they appreciate the interest that he takes in them. Type 2 farmers disagree more strongly than the other two types that their county farm adviser stays too much to himself, and disagree about equally with the attitudes that farm advisers are not worth what they are paid, and that the advisers put out old-fashioned ideas.



Table 16 -- CES Type 2 (mixed) Adviser Arrays, Most Agree

Item	Description	Type 2	Type 1	Type 3
**16	My county farm adviser gives me the straight facts as he sees them, and I appreciate it.	1.88	1.54	.54
3	I think that there is a lot of value in most of the practices recommended by my county farm adviser.	1.49	1.27	1.81
2	My county farm adviser gives us farmers much valuable help in our farming operations.	1.34	1.15	.91
26	I like the way that my county farm adviser keeps up to date with new farming practices by attending meetings at the College of Agriculture in Urbana.	1.33	.91	1.18
28	I appreciate the sincere interest that my county farm adviser takes in helping me with my problems.	1.32	1.06	.95
34	I enjoy visiting with my county farm adviser on just about any subject.	1.20	.62	.70
15	My county farm adviser almost always seems to have the information I need at his fingertips.	1.18	1.08	.45
5	My county farm adviser gives good service to us farmers.	1.07	1.08	.92
**29	My county farm adviser is interested in people and their problems. He is more than just a subject matter expert.	1.01	1.23	2.06
**17	My county farm adviser is a wonderful person.	.46	.43	1.79
*12	My county farm adviser is the most reliable source of information about farming that I know.	.46	1.38	.76

*Greatest item disagreement, the items that most differ between CES Type 2 and 1.

**Greatest item disagreement, the items that most differ between CES Types 2 and 3.

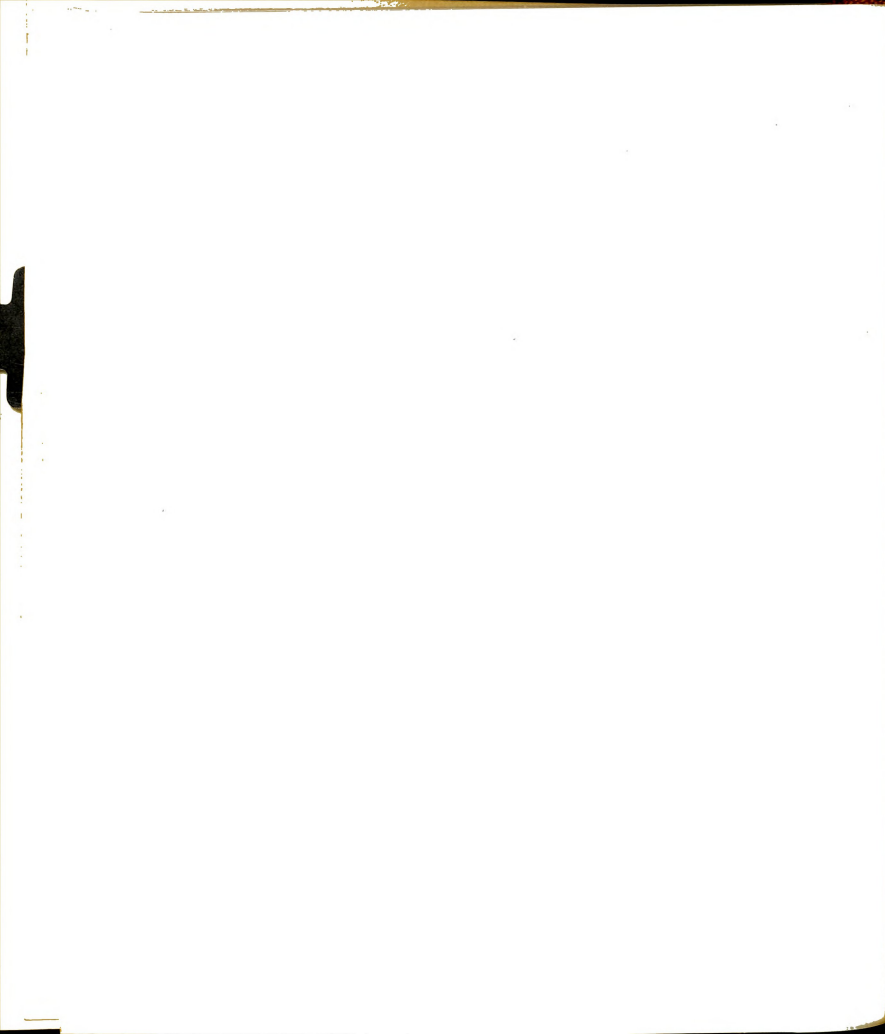
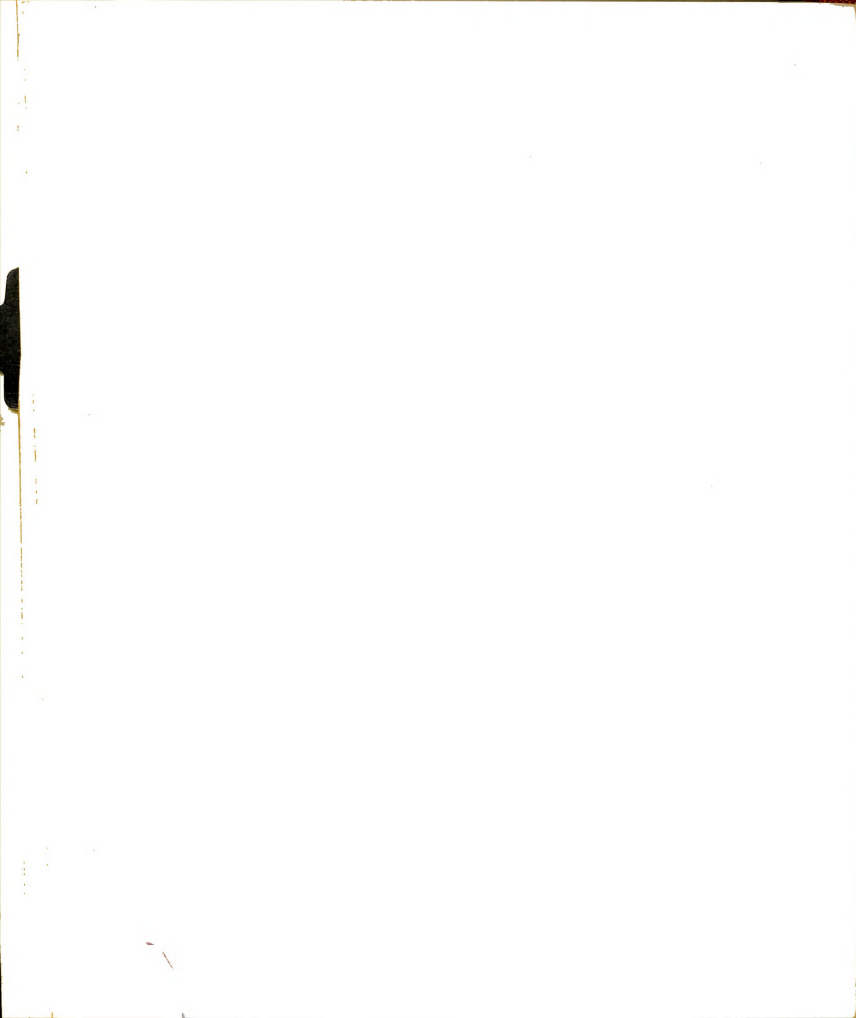


Table 17 -- CES Type 2 (mixed) Adviser Arrays, Most Disagree

Item	Description	Type 2	Type 1	Type 3
37	My county farm adviser stays too much to himself and just is not one of us.	-1.45	- .96	- .53
22	Generally speaking, county farm advisers are not worth what they are paid.	-1.37	-1.53	-1.16
25	Most of the recommendations that I get from my county farm adviser sound like the horse-and-buggy days, they are so old-fashioned.	-1.30	-1.76	-1.97
36	My county farm adviser does not seem to be able to present information in a way that is easy to understand and use.	-1.28	-1.10	- .50
19	My county farm adviser will not listen to new ideas and suggestions from the farmers in this county.	-1.19	-1.08	- .86
39	The Extension specialists who come around here can not talk the language of the farmers--they use too many technical terms and complicated language.	-1.10	- .82	-1.69
**31	My county farm adviser plays favorites among the farmers in my county and I do not like it,	-1.10	-1.56	.10
* 4	My county farm adviser uses too many high-pressure tactics--he pushes too hard in trying to get us to try out new things and ideas.	-1.05	-1.67	-1.39
7	My county farm adviser tries too hard to be friendly.	-1.01	- .48	- .78
11	I can get more reliable information that I need for my farming operation from a local commercial dealer than I can from my county farm adviser.	-1.00	-1.08	-1.58

*Greatest item disagreement, the items that most differ between CES Type 2 and 1.

**Greatest item disagreement, the items that most differ between CES Types 2 and 3.



CES Type 2 Attitudes Toward Sources

These Type 2 farmers show how closely they are like Type 1 farmers in their agreement on the reliability of information sources by having only two major items of disagreement in this dimension of attitude. Type 2 lies almost midway between Types 1 and 3 in their somewhat favorable attitude toward Farm Bureau Farm Management Service fieldmen, and are neutral toward other farmers as a source, while both Types 1 and 3 regard other farmers as somewhat unreliable (Tables 18 and 19).

CES Type 2 farmers show many more areas of difference between themselves and Type 3 farmers in their attitudes toward their years of farming experience, the CES, farm cooperatives, a veterinarian, the NFO, articles in newspapers, a landlord or landlady, and the county ASCS office. In each of these cases they are more like Type 1 than Type 3 farmers.

Type 2 farmers are the most loyal supporters of the county farm adviser as a reliable source of farming information. They also have lots of confidence in their years of farming experience, successful farmers they know, the CES, bulletins and reports from the Agricultural Experiment Station in Urbana and the Station itself, the College of Agriculture and the University of Illinois as sources of reliable farming information. They regard as most unreliable the NFO, the Farmers Union, advertising in newspapers, the Grange, advertising in farm magazines, their relatives and a local fertilizer dealer.

Summary -- What is a CES Type 2 Farmer Like?

CES Type 2 farmers also are a little older on the average than Type 1 farmers, but not quite as old as those in Type 3 (Appendix 13).



Table 18 -- CES Type 2 (mixed) Source Arrays, Most Agree

Item	Description	Type 2	Type 1	Type 3
8	My county farm adviser	2.27	2.04	1.32
** 3	My years of farming experience	1.73	1.17	2.90
10	Successful farmers I know	1.65	.82	.85
** 1	Cooperative Extension Service	1.50	2.09	.40
22	Bulletins and reports from the Agricultural Experiment Station in Urbana	1.30	1.58	1.95
32	The Agricultural Experiment Sta- tion in Urbana	1.29	1.39	1.14
13	College of Agriculture at Urbana	1.23	1.63	.86
6	University of Illinois	1.09	1.01	1.19
**33	Farmers cooperatives	.46	- .09	- .52
*43	Farm Bureau Farm Management Ser- vice fieldman	.36	1.39	- .17
**30	A veterinarian I know	.21	.48	1.45

*Greatest item disagreement, the items that most differ between
CES Types 2 and 1.

**Greatest item disagreement, the items that most differ between
CES Types 2 and 3.

Table 19 -- CES Type 2 (mixed) Source Arrays, Most Disagree

Item	Description	Type 2	Type 1	Type 3
**36	The National Farmers Organization	-1.95	-1.88	- .61
34	Farmers Union	-1.82	-1.68	-1.33
25	Advertising in newspapers	-1.76	-1.84	-1.26
35	The Grange	-1.75	-1.21	-1.67
17	Advertising in farm magazines	-1.49	-1.51	-1.09
31	My relatives	-1.48	-1.00	-1.27
12	A local fertilizer dealer	-1.04	-1.05	- .62
**26	Articles in newspapers	- .99	-1.00	.01
**21	My landlord or landlady	- .58	- .81	-1.96
**14	County ASCS office	- .05	- .21	1.16
* 44	Other farmers	.00	- .88	- .70

*Greatest item disagreement, the items that most differ between CES Type 2 and 1.

**Greatest item disagreement, the items that most differ between CES Types 2 and 3.



The oldest farmer interviewed and the next to youngest are both found among this type, so that age apparently is not a crucial variable in forming this group. Neither are location in the county nor the type of Extension program. As we might expect from a mixed type, the prior attitudes upon which the farmers were selected for the sample are almost evenly balanced. Religion seemingly is not a factor in attitude formation, since one Catholic is included in each of the three types.

None of the farmers with a college education in our sample is included in this type; they are evenly balanced between a grade school and a high school education. Five of the 10 are owners, while four of the other five rent some land in addition to that they own. The one farmer who rents all the land he farms lives on the family farm and rents from his father.

These farmers live on all sizes of farms, but are good farmers as seen by the fact that most of them fall into the top three income groups with gross incomes of more than \$10,000 a year. Eight of the 10 are Farm Bureau members, while of the other two, one belongs to the Farmers Union and the other to the NFO. While these latter two were selected for the sample because they were thought to have unfavorable attitudes toward the CES, they expressed neutral attitudes in the Q-sort. The other two farmers in this type who were selected on the basis of prior unfavorable attitudes also turn out to be not as unfavorable as supposed, but actually neither of them uses Cooperative Extension services very much, preferring to "go it" alone.

Again, the value of CES to the entire group of farmers shows up most highly in the choice of Type 2 farmers of all four items in the

value characteristic category as highly important to them (Appendix 14). They are more impressed than either of the other two groups with the friendliness of the CES and its organization. They agree with Type 3 in highly agreeing that the CES is about as friendly an organization as you can find anywhere, but also highly agree that the CES is very thoughtful and considerate in its dealings with them. They are the only group who agrees that the CES can do its job well only so long as it maintains an office in every county as an organizational policy.

Type 2 farmers do not view CES as so practical as the other two types, and rank between them in their attitude towards its effectiveness. They agree with the other two in their attitudes toward the communication ability of CES, and like Type 3 have no feeling for its up-to-dateness. Their feelings are not as strong as the other two on the impartiality of CES information, but they rate along with Type 3 in having more feeling for its efficiency and reliability than Type 1 (Appendix 4).

Farmer 3 -- A Type By Himself

As you can see from inspection of Figure 1, Farmer 3 occupies a unique position all by himself in attitudes expressed by this sample of 60 Illinois commercial farmers toward the institutional aspects of the Cooperative Extension Service. Farmer 3 is in substantial disagreement with the majority of the other farmers, and his total expression of attitudes on Q-sort 1 has practically no correlation with the others ($-.045$ with the first principal axis).

His attitude statement of highest consensus with the rest of the farmers is that he finds the Cooperative Extension Service to be about as friendly an organization as you could find anywhere (Table

20). He also is in high positive agreement with the rest that no farmer is too old to learn better farming methods, and that a lot of the information that comes from the University of Illinois is of practical use to him. He strongly believes this, even though he also strongly thinks that CES recommendations are influenced too much by commercial interests and that CES does not give farmers information they can use. Both of these attitudes are conflicting with the majority. One reason for these attitudes that he holds is that he reads many booklets and circulars that he identifies as coming from the University of Illinois rather than the Cooperative Extension Service. He finds them well written and easy to read, but he doesn't give CES credit for the information that he uses. He isn't against educational meetings, but he doesn't attend any and prefers to get the information he wants from circulars and bulletins. He is a professed reader, which is why he says that most of the information put out by the CES is a review of what he has already heard or read about.

He says that the CES should try to help other people besides farmers, and believes that the CES system of getting information to farmers through educational meetings is very effective although it is out of date. He strongly feels that the CES as part of the University of Illinois, does not fit very well with the farmers in his area, in almost direct contrast to the attitude expressed by the rest of the sample farmers.

He highly disagrees with the majority when he says that he doesn't think the CES helps increase farm production and so returns more money than it costs in taxes; he thinks that CES education has

Table 20 -- Farmer 3 CES Item Arrays, Most Agree

Item	Description	Farmer 3	All Others
10	Generally speaking, I have found the Cooperative Extension Service to be about as friendly an organization as you could find anywhere.	1.88	.97
*16	Cooperative Extension Service recommendations are influenced too much by commercial interests.	1.88	- .99
3	I like the Cooperative Extension Service idea that no farmer is too old to learn better farming methods.	1.51	1.29
*13	The Cooperative Extension Service should not concentrate on helping only farmers, but should try to help everybody.	1.51	.28
*25	The Cooperative Extension Service does not do what it is supposed to do--give farmers information they can use.	1.51	-1.14
23	I think that the Cooperative Extension system of getting information to farmers through educational meetings is very effective.	1.13	.73
*26	I get the feeling that the Cooperative Extension Service as part of the University of Illinois does not fit in very well with the farmers around here.	1.13	-1.05
30	Cooperative Extension Service circulars and booklets that I have read are well written and easy to understand.	1.13	.80
43	I believe that a lot of the information that comes from the University of Illinois is of practical use to me.	1.13	1.37
*12	Most of the information put out by the Cooperative Extension Service is a review of what I have already heard or read about.	.75	- .44
*40	So far as I am concerned, they could do away with the Cooperative Extension Service today.	.75	-1.83



Table 20 -- Farmer 3 CES Item Arrays, Most Agree (cont.)

Item	Description	Farmer 3	All Others
*41	Extension's system of holding educational meetings is out of date.	.38	- .73
* 1	The farmer who knows his business does not really have much need for Extension services like soil testing.	.00	-1.46
* 2	In general, Extension's educational programs tell me what I need to know about new developments in my kind of farming.	.00	1.17

*Greatest item disagreement, the items that most differ between Farmer 3 and all others.

Table 21 -- Farmer 3 CES Item Arrays, Most Disagree

Item	Description	Farmer 3	All Others
* 38	Information from the Cooperative Extension Service helps increase farm production and so returns more money than it costs in taxes.	-1.88	1.07
* 9	Information that comes from the Cooperative Extension Service is honest and can be trusted to be as accurate as possible.	-1.88	1.27
42	It is hard to tell whether the tax money that is spent on the Cooperative Extension Service is doing any good or not.	-1.51	- .83
* 39	The Cooperative Extension Service is very thoughtful and considerate in its dealings with farmers like me.	-1.51	.91
* 15	On the whole, the Extension Service does a pretty good job of presenting information to us.	-1.51	1.01
37	The Cooperative Extension Service bombards us farmers with so much information that it is hard to sort out what is useful and what is not useful for my operation.	-1.13	- .63
* 35	Extension's educational programs tell me what I want to know.	-1.13	.50
31	Most Extension information materials use too many technical words and school-book language.	-1.13	- .78
* 8	Cooperative Extension Service material is impartial and unbiased.	-1.13	.84
* 36	I don't have much confidence in the recommendations of the Cooperative Extension Service.	- .75	-1.50
* 19	I can rely on information from the Cooperative Extension Service.	- .75	-1.04
* 18	When I have a farming problem, I find that I can get the information I need quickly and easily from the Cooperative Extension Service.	- .75	1.24



Table 21 -- Farmer 3 CES Item Arrays, Most Disagree (cont.)

Item	Description	Farmer 3	All Others
*24	My years of experience tell me just about all I need to know about farming.	- .38	-1.48
*20	The scientists at the College of Agriculture in Urbana give farmers like me a lot of good help.	- .38	1.05
*22	I get most of my ideas on how to farm better from the Farm Progress Show or State Fair, and not from the Cooperative Extension Service.	.00	-1.01
* 6	Most of the so-called Extension experts have read so many books that they can't talk common sense any more.	.00	-1.34

*Greatest item disagreement, the items that most differ between Farmer 3 and all others.



caused much of the over-production problems of agriculture (Table 21). He says that he doesn't trust CES information to be as honest and accurate as possible, and he disagrees highly with the statement that it's hard to tell whether the tax money that is spent on the CES is doing any good or not. The majority disagree with this statement, too, but not as much. In response to probing questions, Farmer 3 stated that he thought the CES was engaged in a deliberate conspiracy to deceive the farmers into thinking that the law of supply and demand governs the prices of farm products. Rather, he said the CES is promoting government control of farm production and stimulating a trend toward a socialistic society. He thinks that the information from the Agricultural Experiment Station research projects is reliable, but that CES specialists tell only a biased story to the farmers and can't be trusted.

Whereas, the majority are in high agreement, he highly disagrees with the statements that the CES is thoughtful and considerate in its dealings with farmers like him, and that on the whole the CES does a pretty good job of presenting information to farmers. He disagrees with the majority that CES material is impartial and unbiased, but thinks that it does not use too many technical words and school book language. He more highly disagrees than the majority that it is hard to sort out what information is useful to him, but he disagrees that CES educational programs tell him what he wants to know when the majority are in some agreement. So far as he is concerned, he agrees that it would be all right to do away with the CES today, in contrast to the majority who highly disagree with that attitude.

Farmer 3 Attitudes Toward Advisers

Correlation of Farmer 3's attitudes toward his county farm adviser with the 59 other farmers is .095. He does agree with the others in thinking that his county farm adviser makes him feel free to talk over problems at educational meetings, and that his county farm adviser is interested in people and their problems. However, he shows his poor orientation toward the Cooperative Extension Service and his county farm adviser, who is the principal county CES representative, by most highly agreeing with the idea that the county farm adviser would make more practical recommendations on farming operations if he had to put some of them into practice. He also thinks that the ideas that the farm adviser puts out are too expensive for him to use. He reflects poorer relationships with his county farm adviser than the others when he highly agrees that his county farm adviser often does not follow up on things he is going to do (Table 22).

One discriminating item that sets him apart from the other 59 farmers in this sample where he agrees and they disagree is that his county farm adviser plays favorites. Others are that it takes too much time and trouble to get information from his county farm adviser, that he has already heard or read about most of the information that his county farm adviser puts out, that the adviser could do a better job if he had more practical farm experience, that farm advisers are not worth what they are paid, and that the farm adviser's recommendations are old-fashioned. Other farmers highly agree that they get valuable help from their farm advisers, whereas Farmer 3 is neutral on this.

Table 22 -- Farmer 3, All Other Adviser Arrays, Most Agree

Item	Description	Farmer 3	All Others
*23	My county farm adviser should have to foot the bill to establish some of the practices he recommends so that he would become more practical.	1.96	- .88
1	My county farm adviser makes us feel free to talk our problems over with him at educational meetings.	1.57	1.02
*21	Many ideas that my county farm adviser puts out are too expensive for farmers like me to use.	1.57	- .87
29	My county farm adviser is interested in people and their problems. He is more than just a subject matter expert.	1.57	1.26
*13	My county farm adviser often does not follow up on things he says he is going to do.	1.18	- .87
24	My county farm adviser tries very hard to involve everyone in Extension educational programs regardless of which organization they belong to.	1.18	.68
*31	My county farm adviser plays favorites among the farmers in my county and I do not like it.	1.18	-1.32
*32	It takes me too much time and trouble to get information from my county farm adviser.	1.18	-1.18
* 9	I have already heard or read about most of the information that my county farm adviser puts out.	.78	- .27
*33	My county farm adviser could do a much better job if he had more practical farm experience.	.78	- .47
*22	Generally speaking, county farm advisers are not worth what they are paid.	.39	-1.46

Table 22 -- Farmer 3, All Other Adviser Arrays, Most Agree (cont.)

Item	Description	Farmer 3	All Others
* 2	My county farm adviser gives us farmers much valuable help in our farming operations.	.00	1.24
*25	Most of the recommendations that I get from my county farm adviser sound like the horse-and-buggy days, they are so old-fashioned.	.00	-1.52

*Greatest item disagreement, the items that most differ between Farmer 3 and all others.

Table 23 -- Farmer 3, All Other Adviser Arrays, Most Disagree

Item	Description	Farmer 3	All Others
4	My county farm adviser uses too many high-pressure tactics--he pushes too hard in trying to get us to try out new things and ideas.	-1.96	-1.47
39	The Extension specialists who come around here can not talk the language of the farmer--they use too many technical terms and complicated language.	-1.57	- .92
* 38	It seems that no matter how tough a problem I take to my county farm adviser, he can find a satisfactory solution.	-1.57	.51
19	My county farm adviser will not listen to new ideas and suggestions from the farmers in this county.	-1.57	-1.08
* 40	Farmers can get from the county farm adviser the most down-to-earth recommendations on how to farm better.	-1.18	1.03
* 15	My county farm adviser almost always seems to have the information I need at his fingertips.	-1.18	.94
* 12	My county farm adviser is the most reliable source of information about farming that I know.	-1.18	1.06
11	I can get more reliable information that I need for my farming operation from a local commercial dealer I know than I can from my county farm adviser.	-1.18	-1.07
* 16	My county farm adviser gives me the straight facts as he sees them, and I appreciate it.	-.39	1.62
* 5	My county farm adviser gives good service to us farmers.	-.39	1.08

*Greatest item disagreement, the items that most differ between Farmer 3 and all others.

He is on the same side of the fence as the majority when he disagrees as they do that his county farm adviser uses too many high-pressure tactics, that he will not listen to new ideas, that he can get more reliable information from a commercial dealer than he can from his county farm adviser, and that Extension specialists can't talk farmer language (Table 23). He holds sharply different attitudes from the others, however, when he disagrees that his farm adviser can always find a solution to a tough problem, that he can get the most down-to-earth recommendations from his county farm adviser, that his adviser always seems to have the right advice at his fingertips, that he is the most reliable source of information, that he always gives the straight facts as he sees them, and that he gives good service to his county farmers.

Farmer 3 Attitudes Toward Sources

Farmer 3 is a loyal member of the National Farmers Organization, which explains why he rates it as one of his most reliable sources while the majority of our sample farmers rate it as highly unreliable (Table 24). Farmer 3 also feels a sense of security and confidence in government sources of information in contrast to most of the sample farmers, and he rates both U. S. government bulletins and reports and the county ASCS office, which among other things oversees the government farm programs in the counties, as highly reliable sources of information for him. He also is inclined to have a high trust in the value of advertising in farm magazines, where most of the farmers do not. He regards his local school's vocational agriculture teacher, his father, and the Prairie Farmer Farm Progress Show as highly reliable sources, where the majority are somewhat favorable or neutral

toward them as sources. He rates his years of farming experience highly along with State Fair exhibits, and the Prairie Farmer Farm Progress Show, whereas the majority also have faith in their experience, but do not like the commercial aspects of State Fair exhibits or the Farm Progress Show at all. Farmer 3 says he likes the Grange a little as a source of farming information, but the majority cast a strong negative vote against it.

Farmer 3 casts his strongest negative votes against the Farm Bureau and its board meetings as the most unreliable sources of information for him (Table 25). The majority are neutral toward the Farm Bureau, but are inclined to agree with him somewhat on the low value of Farm Bureau board meetings for information about farming. He is consistent in his expression of distrust in Extension information as he lists the College of Agriculture at Urbana, the University of Illinois, the Cooperative Extension Service, Extension meetings held in Urbana, short courses and workshops at the University of Illinois, Extension council meetings and state Extension specialists as his most unreliable sources in that order after the Farm Bureau.

The majority rate their county farm adviser at the top of their list of reliable sources, but Farmer 3 fairly strongly rejects him. The majority regard the College, the University, the CES and state Extension specialists as highly reliable, and are favorable although not so strongly toward Extension meetings held in Urbana, short courses and workshops held at the University of Illinois, and county Extension council meetings as sources of farming information. Farmer 3 correlates $-.357$ with the other farmers toward sources.

Table 24 -- Farmer 3, All Other Source Arrays, Most Agree

Item	Description	Farmer 3	All Others
* 14	County ASCS Office	1.91	- .12
* 36	The National Farmers Organization	1.91	-1.95
7	Our local school's vocational agriculture teacher	1.52	.41
* 17	Advertising in farm magazines	1.52	-1.35
24	U. S. Government bulletins and reports	1.52	.33
2	My father	1.14	.26
3	My years of farming experience	1.14	1.04
41	State Fair Exhibits	1.14	- .56
42	Prairie Farmer Farm Progress Show	1.14	.02
* 35	The Grange	.76	-1.31

Table 25 -- Farmer 3, All Others Source Arrays, Most Disagree

Item	Description	Farmer 3	All Others
19	Farm Bureau board meetings	-1.91	- .56
15	Farm Bureau	-1.91	.08
* 13	College of Agriculture at Urbana	-1.52	1.65
* 6	University of Illinois	-1.52	1.22
* 1	Cooperative Extension Service	-1.52	1.65
40	Extension meetings held in Urbana	-1.14	.80
39	Short courses and workshops at the University of Illinois	-1.14	.61
20	Extension council meetings	-1.14	.31
* 11	State Extension specialists	-1.14	1.39
* 8	My county farm adviser	- .76	2.15

*Greatest item disagreement, the items that most differ between Farmer 3 and all others.



Summary -- What is Farmer 3 Like?

Farmer 3 is right at the median age of 47, he lives near the county seat and the farm adviser's office in a county that has a history of good Extension programs. He was selected for the sample because it was suspected that he would express unfavorable attitudes toward the Cooperative Extension Service. He is a Protestant with a high school education (Appendix 3). He owns and operates more than 500 acres of land and his gross income is more than \$25,000 a year.

This farmer believes very strongly that something must be done to improve farm income and get a fair price for farm products. He says that the Cooperative Extension Service has educated the farmer with half-truths--mainly that the law of supply and demand determines the market price--until the farmer is confused and is being regimented into a reserve labor pool. Our farm educational leaders are too idealistic, he says. The terms they use, such as "surplus," "efficiency," "supply and demand," "free enterprise," and "freedom," mark a trend toward a socialistic and communistic society, and he doesn't like it. If we knew how many times the Extension specialists are in the pay of commercial interests, we would be better able to evaluate their recommendations, he believes. Extension people are good psychologists, he says, and are easily able intentionally to mislead the average farmer. Extension information has been slanted in favor of exporters and chain stores--toward a communistic society, according to him, and is calculated to ruin traditional agriculture.

He believes that the results would be startling if a study were made of the number of farm boys who have gone to college and then



come back to the farm to go bankrupt. He knows of one or two instances of this. He says that the farm resource has been priced too cheaply on the market, and that the traditional 80 cents on a dollar return to farming has caused the trouble. He says the last four farm advisers in the county have been very good psychologists and very good with people, but not so good as information specialists and agricultural leaders. In other words, he thinks the CES has not given enough of its attention in the past to solving the farmer's marketing problems, but has been traditionally production oriented in which it has done an excellent job. A fair deal for the farmer at the market place is one of the tenets of the National Farmers Organization and one of their strongest selling points for membership.

Farm Bureau board members are sincere but misguided, Farmer 3 says. They have done a wonderful job with their purpose of increasing farm production, but he doesn't agree with this purpose. The opposite is true of the NFO, he says, and he is all for it. He has also had a good experience with the county ASCS committee. He says they do not deal in half-truths, that things are either black or white with them (referring to acreage allotments and government payments.) He owns two automobiles, a 1958 Oldsmobile and a 1953 Buick.

Inspection of Appendix 15 gives an indication of how much Farmer 3 is out of step with the rest of the 59 farmers in this sample. Whereas they all showed high consistency in agreeing with attitude statements in the positive dimension and disagreeing with those statements put in the negative dimension, Farmer 3 shows a very high degree of inconsistency. However, he was being consistent with his point of view, which apparently amounts to, "I believe that I am



right and all the rest of the world's out of step". We must assume from this, though, that there are other commercial farmers in Illinois who would tend to agree with him and who would also hold very negative attitudes toward the historical performance of the Cooperative Extension Service. Another indication of this is the clustering of the members of the National Farmers Organization together in Type 3. The NFO national policies give the dissidents a chance to express their dissatisfaction with the way things are and vote for a change. There is some dispute as to the actual NFO membership in Illinois and we included only eight NFO members in our sample. The evidence seems to show that many NFO members continue their membership in Farm Bureau. There is a diversity of reasons for this, most of them personal and unique with the farmer who holds them. In general, these reasons deal with either belonging to Farm Bureau for the insurance programs or dividends on the commercial products of Farm Supply and other commodity groups, or dissatisfaction and unhappiness with Farm Bureau for some alleged wrong suffered at its hands in the past.

Thumbnail Sketches of Cooperative Extension Types

CES Type 1 Farmers -- These are the good Extension cooperators. They strongly support and use Cooperative Extension educational programs, and they strongly support and use the information on better farming methods that their county farm adviser gives to them. They have much confidence that Extension's recommendations are soundly based on the latest findings at the Illinois Agricultural Experiment Station and they have much respect for agricultural scientists and the science of agriculture. They feel confident that following



Extension's recommendations returns more money to them through increased production than the service costs in taxes. They have a feeling of respect for the University of Illinois, and the fact that the information they use comes from the University assures them that it is impartial and unbiased. They tend to be strong Farm Bureau supporters.

CES Type 3 Farmers -- Farmers who are like this type also say they like the Cooperative Extension Service when asked, but they are not very enthusiastic. They think that Extension recommendations are sound, but they don't ask for them often. They like their county farm adviser, but they feel more secure around him when he is visiting on their farms than when they attend an educational meeting which they may not do very often. They are not so sure whether or not they are getting value received for their tax money from Extension. It is possible, they think, that Extension's recommendations may have a slight tinge of commercialism. They would like to see Extension restrict its activities entirely to the farming community, and they are somewhat sensitive about the idea that some farmers do not get the information they need to farm better because they don't go to Extension meetings. They are not sure that they are getting exactly the kind of service from Extension and their county farm adviser that they are paying for. They are not good Farm Bureau supporters and are inclined to favor other farm organizations whose policies they agree with more.

CES Type 2 Farmers -- There is room on the middle ground for farmers like these, who have a high regard for their county farm adviser and apparently use him somewhat as a farm manager. They



believe in education and firmly think that they are among those who can benefit greatly from Extension's better farming recommendations. They have become thoroughly educated on the need for soil testing, and rely heavily on what they learn from their own experience and from other successful farmers. They are more inclined to call on the farm adviser for help than to attend an Extension meeting, and they appreciate the help he gives them. They are impressed with farming success and they are inclined to think that their farm adviser doesn't pass around enough good ideas that he might get from other successful farmers instead of sticking so closely to Extension information. They don't agree with Farmers Union or NFO policies, but neither are they strong supporters of Farm Bureau policies even though they are members of that organization.

Farmer 3 -- Although this farmer operates a fairly large farm and grosses a fairly high income, he is most concerned about his net income. He thinks that the costs of farming operations have risen all out of proportion to farm income, and on this belief he probably has lots of company among Illinois commercial farmers. However, he strongly blames Extension for listening too much to such commercial interests as the chain stores and their efforts to buy meat animals as cheaply as possible. He thinks Extension has not concentrated its efforts enough to get higher market prices for livestock, upon which he depends for much of his income. He thinks that it is easy to get Extension information, he just doesn't agree with what he gets. In his opinion, Extension has over-educated farmers on good production methods, and neglected to educate them how to be more efficient at the market place. He doesn't think



his county farm adviser is very useful because he plays favorites and follows the Extension line too closely. He agrees with the NFO policy of trying to force higher market prices for farm products, and he doesn't like the Farm Bureau at all. He trusts the government and USDA much more than he does the College of Agriculture or Extension. He represents those farmers with radical ideas.



CHAPTER V

ATTITUDES TOWARD EXTENSION PERSONNEL

Analyses in this chapter will be concerned with the set of statements we developed to explore the second dimension of attitudes toward the Cooperative Extension Service in Illinois--those toward the people in Extension, principally the county farm advisers and state agricultural Extension specialists. For this part of the interviews with our structured sample of 60 Illinois commercial farmers, we developed the second Q-sort composed of 40 attitude statements. Four of them were in each of the same 10 characteristic categories that we used in Q-sort 1 (see Appendix 16), half of which were stated with negative and half with positive emphasis to help avoid statement bias.

First Principal Axis Solution

Our sample of commercial farmers structured itself by means of Q-technique into even more of a homogeneous grouping than they did in Q-sort 1 (Figure 3). However, this time we find five farmers out of step with the others. Each of them almost forms a type of his own. In order to most clearly understand the relationships of these five deviates to the rest of the farmers, we correlated their sorts separately with the 52 farmers who make up the largest principal axis factor.



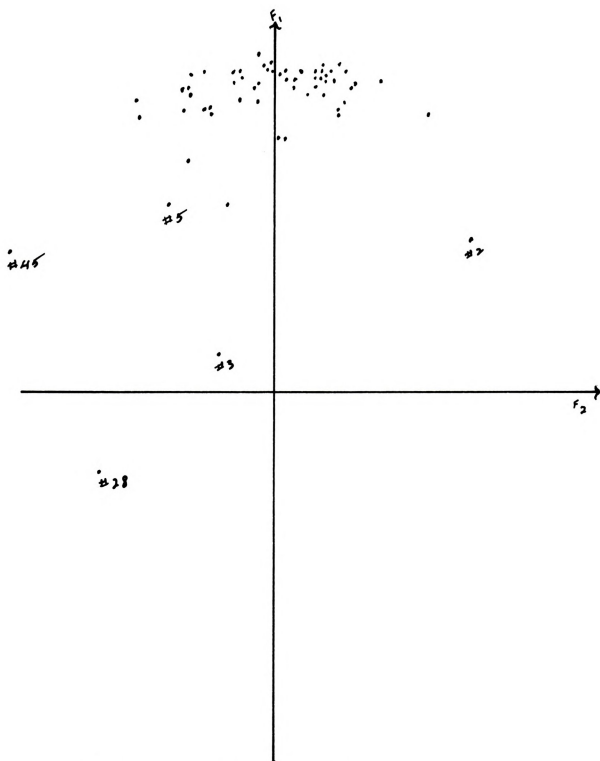


Figure 3 -- Principal Axis Solution, showing positions of 60 Illinois commercial farmers as determined by the relationships of their patterns of attitudes toward Cooperative Extension personnel.



A look at Appendix 19 discloses very little agreement among the five farmers farthest outside the main group in their attitudes toward the county farm adviser and state Extension specialists. Factor 1, the largest principal axis factor, explains about 63 percent of the sample variation. Factor 2 in the solution is Farmer No. 2, Factor 3 is Farmer No. 3, Factor 4 is Farmer No. 5, Factor 5 is Farmer No. 28, and Factor 6 is Farmer No. 45, the dissidents. The correlations were low and uneven between the 52 farmers in the main group and the five whose sorts were so different, as can be seen in this table of correlations among their statement sorts.

Type	1	2	3	4	5	6
1	1.000					
2	.414	1.000				
3	.096	.238	1.000			
4	.501	.181	.292	1.000		
5	-.222	-.188	.162	.115	1.000	
6	.369	-.258	.058	.277	.135	1.000

Appendix 17 shows the high loadings that the 52 farmers had on the first principal axis. The first varimax rotation added a little over 4 percent more of the variability in the sample, so it was apparent that the first principal axis solution was sufficient to account for most of the variability. For that reason the weighted rankings are based on the first principal axis solution (see weighting schedule in Appendix 18).



Adviser Type 1 -- The Majority Agree

The hypothetical sort for the one major attitude type into which 52 of the 60 Illinois commercial farmers in our sample fall on Q-sort 2 (attitudes toward the personnel in Extension) shows them to be in highest agreement with the statement that their county farm adviser gives them the straight facts as he sees them, and they appreciate it (Table 26). However, Farmer 5, who is a national director of the National Farmers Organization and one of the eight NFO members in our sample, highly disagrees with that statement, while Farmers 3, 28 and 45 disagree somewhat for different reasons. Farmer 5 is a young man with a B.S. degree in agricultural economics in 1958 from the University of Illinois. He firmly believes that the Cooperative Extension Service has concentrated its educational program for so long on production agriculture at the expense of marketing education that it doesn't have an answer to the major farm problem of today. His main goal and a policy of NFO is to fight for a free market in which the control of farm prices by supply and demand has been restored. Farmer 3 believes much the same about CES educational programs, only more so, and both of these farmers believe that their county farm adviser follows the University of Illinois College of Agriculture line too much for their liking. Farmer 28 thinks that a farmer must belong to the Farm Bureau in his county to get any service from the farm adviser, and Farmer 45 has not had enough experience with CES services to know what they can do for him.

With 60 Illinois commercial farmers having been arbitrarily selected for the sample by the various criteria to insure attitude variability, it is surprising that 52 of them in this Type 1 group

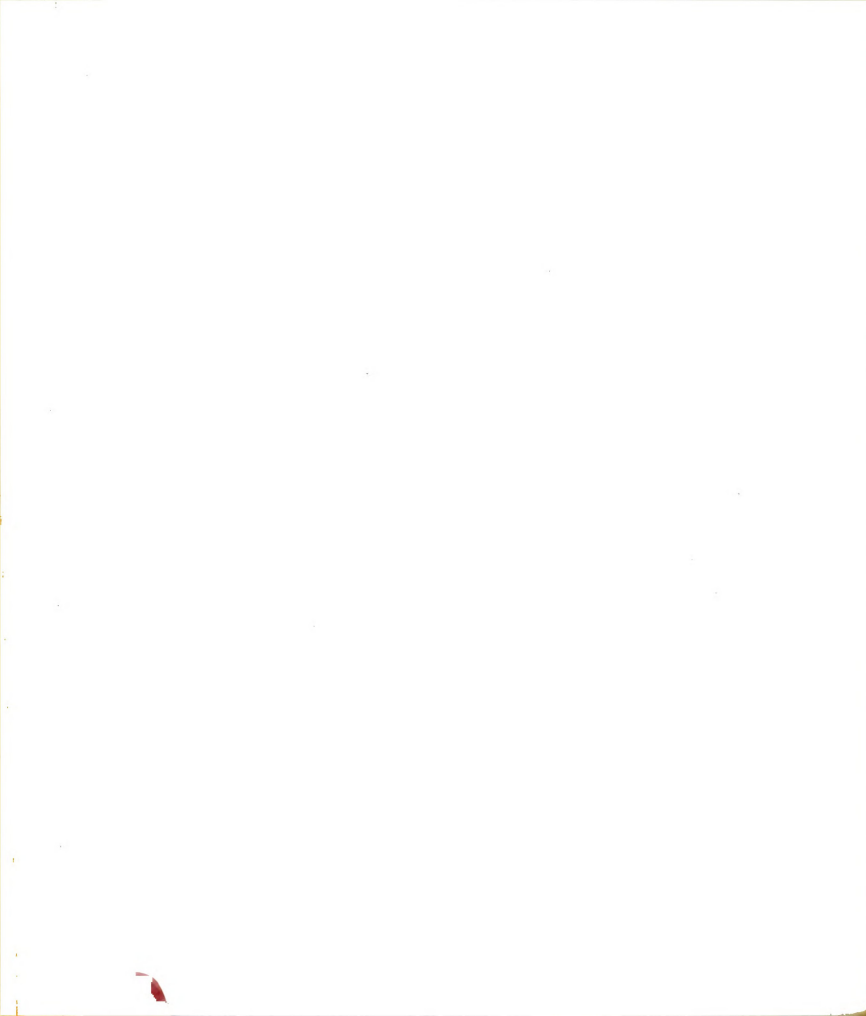


Table 26 -- Adviser Type 1 Item Arrays, Most Agree

Item	Description	Type 1
*16	My county farm adviser gives me the straight facts as he sees them, and I appreciate it.	1.69
3	I think that there is a lot of value in most of the practices recommended by my county farm adviser.	1.36
29	My county farm adviser is interested in people and their problems. He is more than just a subject matter expert.	1.29
28	I appreciate the sincere interest that my county farm adviser takes in helping me with my problems.	1.28
2	My county farm adviser gives us farmers much valuable help in our farming operations.	1.22
* 5	My county farm adviser gives good service to us farmers.	1.16
* 1	My county farm adviser makes us feel free to talk our problems over with him at educational meetings.	1.06
*12	My county farm adviser is the most reliable source of information about farming that I know.	1.05
34	I enjoy visiting with my county farm adviser on just about any subject.	1.02
*40	Farmers can get from the county farm adviser the most down-to-earth recommendations on how to farm better.	.97

*Greatest item disagreement, the items that most differ between Adviser Type 1 and the five extreme types.

Table 27 -- Adviser Type 1 Item Arrays, Most Disagree

Item	Description	Type 1
25	Most of the recommendations that I get from my county farm adviser sound like the horse-and-buggy days, they are so old-fashioned.	-1.50
*31	My county farm adviser plays favorites among the farmers in my county and I don't like it.	-1.44
4	My county farm adviser uses too many high-pressure tactics--he pushes too hard in trying to get us to try out new things and ideas.	-1.41
22	Generally speaking, county farm advisers are not worth what they are paid.	-1.41
32	It takes too much time and trouble to get information from my county farm adviser.	-1.21
37	My county farm adviser stays too much to himself and just is not one of us.	-1.16
19	My county farm adviser will not listen to new ideas and suggestions from the farmers in this county.	-1.13
36	My county farm adviser does not seem to be able to present information in a way that is easy to understand and use.	-1.11
11	I can get more reliable information that I need for my farming operation from a local commercial dealer than I can from my county farm adviser.	-1.06
*23	My county farm adviser should have to foot the bill to establish some of the practices he recommends so that he would become more practical.	- .84

*Greatest item disagreement, the items that most differ between Adviser Type 1 and the five extreme types.



agree so much in the favorable attitudes they hold toward their county farm advisers. The state Extension specialists do not rate so highly, but they were mentioned on only two of the statements and the attitudes expressed toward them are also favorable (Appendix 19, items 30 and 39). The 52 farmers in Adviser Type 1 are in high agreement (more than 1.000 standard deviation from the mean) on nine attitude statements (Table 26), and in high disagreement on nine items (Table 27).

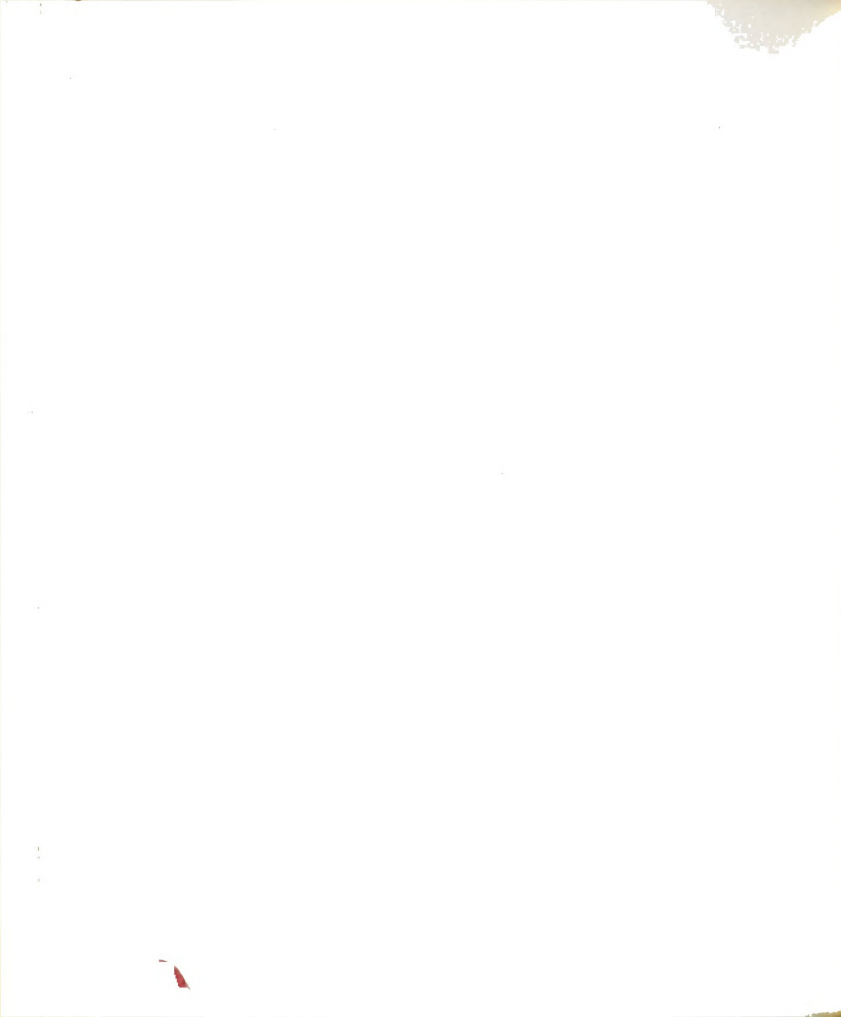
The major group is in high agreement that there is a lot of value in the practices recommended by their county farm adviser. The highest consensus item on which all 60 farmers are in most agreement is that their county farm adviser is interested in people and is more than just a subject matter "expert." Actually, Farmers 2, 3 and 5 rate this attitude statement higher than does the major group. Other attitudes toward advisers and specialists that all 60 sample farmers agree on at least somewhat, are that their county farm adviser is almost never too busy to come out to visit their farms when they want him to (Item 27), that Cooperative Extension Service farm advisers and state specialists really know their business (Item 30), and that their county farm adviser uses his time well--he's one of the most efficient persons they know (Item 10).

The 52 farmers in Adviser Type 1 appreciate the sincere interest that their farm advisers take in helping them with their problems, and agree that their county farm advisers give them much valuable help in their farming operations. Farmer 45 most highly disagrees with the majority high agreement statement that the county farm adviser gives good service to farmers. Farmer 28 most highly



disagrees with the majority high agreement attitude that the county farm adviser makes him feel free to talk problems over with him at educational meetings. Farmer 3 most highly disagrees with the majority high agreement item that their county farm adviser is the most reliable source of information about farming that they know of, and Farmer 2 most highly disagrees with the majority agreement that farmers can get from their county farm adviser the most down-to-earth recommendations on how to farm better. Adviser Type 1 farmers also highly agree that they enjoy visiting with their county farm adviser on just about any subject.

All of the farmers highly disagree with the attitude that most of the county farm adviser's recommendations are too old-fashioned, except Farmer 3 who is neutral toward that attitude statement (Table 27). Highest divergence in item agreement of the five farmers with the majority group comes in their attitudes toward the idea that their county farm adviser plays favorites among the farmers in their county and they don't like it. The majority of the farmers are in high disagreement with that statement, indicating that in the opinion of most of them their county farm adviser does not play favorites in their county. This is the statement that Farmer 2 most disagrees with. However, Farmer 28 says this is the statement he most highly agrees with, because he believes that his county farm adviser works too closely with the Farm Bureau and he doesn't like the Farm Bureau at all. Farmer 45 highly agrees with this statement since he does not get any service from his county farm adviser, primarily because he doesn't ask for any assistance. Farmer 3 highly agrees with this statement because he thinks his farm adviser is under the control of



commercial interests, and Farmer 5 agrees for much the same reason. Farmer 3 gets farthest away from the majority opinion when he highly agrees that his county farm adviser should have to foot the bill to establish some of the practices he recommends so that he would become more practical.

Adviser Type 1 Attitudes Toward the Cooperative Extension Service

As might be assumed, the Type 1 farmers in this Q-sort as a group (Table 28) are more like the group of mixed farmers (Type 2) in Q-sort 1 (Table 19), than they are of the other two types in that sort. Most of them are the same farmers.

Adviser Type 1 ranks the statement that a lot of the information that comes from the University of Illinois is of practical use to them as their item of highest agreement (Table 28). They also very much like the idea that no farmer is too old to learn better farming methods. On Item 9, the idea that information which comes from the Cooperative Extension Service is honest and can be trusted to be as accurate as possible, Adviser Type 1 farmers are most like CES Type 1 farmers who rate it most highly agreed rather than being like CES Type 2, the mixed group, who ranked this item 11th.

Adviser Type 1 ranks the attitude that so far as they are concerned the CES could be done away with today as its most disagree item. They also highly disagree with the idea that the farmer who knows his business does not really have much need for Extension services like soil testing, that they don't have much confidence in CES recommendations, and that their years of farming experience tell them just about all they need to know about farming.



Table 28 -- Adviser Type 1 CES Arrays, Most Agree

Item	Description	Type 1
43	I believe that a lot of the information that comes from the University of Illinois is of practical use to me.	1.44
3	I like the Cooperative Extension Service idea that no farmer is too old to learn better farming methods.	1.32
9	Information that comes from the Cooperative Extension Service is honest and can be trusted to be accurate as possible.	1.31
28	The Cooperative Extension Service suggests sound practices that benefit the farmer who uses them.	1.31
18	When I have a farming problem, I find that I can get the information I need quickly and easily from the Cooperative Extension Service.	1.29
2	In general, Extension's educational programs tell me what I need to know about new developments in my kind of farming.	1.19
19	I can rely on information from the Cooperative Extension Service.	1.06
38	Information from the Cooperative Extension Service helps increase farm production and so returns more money than it costs in taxes.	1.02
32	Cooperative Extension can do its job well only so long as it maintains an office in every county.	1.02
20	The scientists at the College of Agriculture in Urbana give farmers like me a lot of good help.	1.01
15	On the whole, the Extension Service does a pretty good job of presenting information to us.	1.01



Table 29 -- Adviser Type 1 CES Arrays, Most Disagree

Item	Description	Type 1
40	So far as I am concerned, they could do away with the Cooperative Extension Service today.	-1.86
1	The farmer who knows his business does not really have much need for Extension services like soil testing.	-1.58
36	I don't have much confidence in the recommendations of the Cooperative Extension Service.	-1.46
24	My years of experience tell me just about all I need to know about farming.	-1.45
6	Most of the so-called Extension experts have read so many books that they cannot talk common sense any more.	-1.28
25	The Cooperative Extension Service does not do what it is supposed to do--give farmers information they can use.	-1.14
21	My father taught me most of the things I need to know about farming.	-1.11
26	I get the feeling that the Cooperative Extension Service as part of the University of Illinois does not fit in very well with the farmers around here.	-1.03
22	I get most of my ideas on how to farm better from the Farm Progress Show or State Fair, and not from the Cooperative Extension Service.	-1.02
16	Cooperative Extension Service recommendations are influenced too much by commercial interests.	-1.01



Adviser Type 1 Attitudes Toward Sources

In their general attitudes toward sources of farming information, the 52 farmers in Adviser Type 1 most highly agree with CES Type 2, the mixed group, that the county farm adviser is their most reliable source (Table 30). Adviser Type 1 ranks bulletins and reports from the Agricultural Experiment Station in Urbana as their second highest agreement item, followed by the Cooperative Extension Service and the College of Agriculture in Urbana.

Adviser Type 1 rates the NFO as their most unreliable source (Table 31). They also say they don't trust advertising in newspapers and farm magazines, the Farmer's Union, and the Grange.

Summary -- What is an Adviser Type 1 Farmer Like?

Since 52 of the 60 farmers in the total sample are grouped together to form this one major type, we may assume that they are very nearly like the averages of the entire sample. However, it may be useful to look at which of the adviser characteristic categories they choose as their most important items.

It is apparent from an inspection of Appendix 20 that the sample farmers have a somewhat different outlook toward the people in Extension than they do toward the impersonal, institutional aspects of the organization. They do not rate the competence of the county farm adviser highly at all in their appraisal of his worth to them, whereas competence statements rate highly with the farmers in their attitudes toward the Cooperative Extension Service in Q-sort 1. Adviser Type 1 farmers also rate the practicality and communication skill of the advisers and Extension specialists as of more importance than they do of the CES as an institution. They



Table 30 -- Adviser Type 1 Source Arrays, Most Agree

Item	Description	Type 1
8	My county farm adviser	2.23
22	Bulletins and reports from the Agricultural Experiment Station in Urbana	1.77
1	Cooperative Extension Service	1.67
13	College of Agriculture at Urbana	1.56
11	State Extension specialists	1.41
32	The Agricultural Experiment Station in Urbana	1.36
3	My years of farming experience	1.30
6	University of Illinois	1.18
10	Successful farmers I know	1.14

Table 31 -- Adviser Type 1 Source Arrays, Most Disagree

Item	Description	Type 1
36	The National Farmers Organization	-1.80
25	Advertising in newspapers	-1.74
34	Farmers Union	-1.54
17	Advertising in farm magazines	-1.37
35	The Grange	-1.32
31	My relatives	-1.16
4	Farm supplies salesman	-1.09
5	Farm implement salesman or dealer	-1.08
21	My landlord or landlady	-1.06



rate the value of the adviser's advice a little lower than they do the CES, while the other characteristics rate about the same attention. The farmers in Adviser Type 1 are 100 percent consistent in their agreement with the most important positive statements and their disagreement with the most important negative statements.

Thumbnail Sketches of Adviser Types

Adviser Type 1 Farmers -- The majority of the Illinois commercial farmers in our sample strongly believe in the reliability and value of the information that comes from the University of Illinois through the Cooperative Extension Service. They most highly regard their county farm adviser as a trustworthy representative of the University and transfer their loyalty and trust to him at the county level. They value highly the service that the University provides them through the farm advisory system, but they also highly regard their farm adviser as a likeable, interested, educated person. They think that Extension recommendations are up-to-date and practical. They like the "soft sell" attitude that the farm advisers take toward the information they make available to farmers, and they think advisers are worth what they are paid. They are strong supporters of Extension and education. They rely on information from the College of Agriculture and have confidence in Extension recommendations, and do not think they can learn all they need to know only from experience, although they rate its education value highly. They are mainly conservative in their outlook, and they distrust the reliability of advertising and their relatives as sources of farming information.

Farmer 2 -- He fits in most closely with the majority on his highest agree and disagree statements. He is a very independent



Table 32 -- Adviser Types 2,3,4,5 and 6 Item Arrays, Most Agree

Item	Description	Type 1	Type 2	Type 3	Type 4	Type 5	Type 6
34	I enjoy visiting with my county farm adviser on just about any subject.	1.02	1.96				
23	My county farm adviser should have to foot the bill to establish some of the practices he recommends so that he would become more practical.	-.84		1.96			
3	I think that there is a lot of value in most of the practices recommended by my county farm adviser.	1.36			1.96		
31	My county farm adviser plays favorites among the farmers in my county and I don't like it.	-1.44				1.96	
18	My county farm adviser does not get around to visit farms like he should.	-.30					1.96

Table 33 -- Adviser Types 2,3,4,5 and 6 Item Arrays, Most Disagree

Item	Description	Type	Type	Type	Type	Type
		1	2	3	4	5
31	My county farm adviser plays favorites among the farmers in my county and I don't like it.	-1.44	-1.96			
4	My county farm adviser uses too many high-pressure tactics--he pushes too hard in trying to get us to try out new things and ideas.	-1.41		-1.96		
38	It seems that no matter how tough a problem I take to my county farm adviser he can find a satisfactory solution.	.55			-1.96	
23	My county farm adviser should have to foot the bill to establish some of the practices he recommends so that he would become more practical.	- .84				-1.96
11	I can get more reliable information that I need for my farming operation from a local commercial dealer I know than I can from my county farm adviser.	-1.06				-1.96



thinker and a hard worker who says that many of the farmers in his county would be better off financially if they would work harder and stop going to so many Extension meetings. He sells seed, feed and fertilizer as a business in addition to managing his wife's two farms, so he knows the financial condition of many of the county farmers. He doesn't think the farm adviser plays favorites.

Farmer 3 -- He believes that the farm adviser is not making the proper recommendations that will guarantee the farmer a fair price for his products. This is one reason why he would like to have the farm adviser foot the bill for some of his recommendations. However, he doesn't think that the farm adviser is trying to push him around or trying to educate him against his will.

Farmer 5 -- As a college graduate, he believes in the value of an education and he thinks that there is a lot of value in most of the practices recommended by the farm adviser. He certainly doesn't agree, however, that the farm adviser can answer all the problems of farming, especially since he so strongly believes that the CES has traditionally neglected its responsibilities for education in the functions of the market and marketing procedures.

Farmer 28 -- Highly prejudiced against the Farm Bureau in his county, this farmer most highly agrees that his county farm adviser plays favorites with Farm Bureau members because he is housed in the Farm Bureau office and he thinks is paid by that organization. He doesn't think his county farm adviser is a very reliable source of information or that he understands the problems of the farmers in his county very well. He gets much of the information he needs about seeds and fertilizers from his local farm supplies dealer.



Farmer 45 -- This farmer doesn't have much contact with Cooperative Extension education because he relies heavily on what information he gets about better farming methods from his farm manager. He doesn't have anything against Extension and thinks it puts out reliable information, but he never gets around to asking the farm adviser for any help. He wishes the adviser would get out to see him more often because he likes him and likes to visit with him, but he doesn't ask him to come out. He figures the farm adviser must be too busy giving his time to certain favored farmers, although he admits that it isn't efficient use of a farm adviser's time to visit too many farms. He doesn't trust the advice of commercial dealers at all in comparison to that from his county farm adviser.



CHAPTER VI

ATTITUDES TOWARD SOURCES OF FARM INFORMATION

The third major pattern of Illinois commercial farmer attitudes of interest to Cooperative Extension Administrators that we have chosen to study is that covered by the question of which sources of information about farming those farmers think are most reliable. The information they seek might be of a technical nature, but not necessarily. We did not restrict our list only to sources of technical farming information.

The list of 45 potential sources of farming information that we developed was derived from the focused interviews with 25 farmers in southern Illinois (Figure 9), from visiting with the agricultural supervisors and administrators, from the pre-test responses with six Champaign County farmers, and from several years of personal experience working with the various sources and with farm advisers on the part of the investigator. One farmer in the pre-test suggested adding source 45, the farm manager, because he had a farm manager whom he used as his most reliable source and couldn't vote for him. Probe questions with the 60 sample farmers during the interviews brought out other reliable sources they use such as experiment fields located out in the state (Dixon Springs, Brownstown, etc.), the local banker, vocational agriculture adult classes, travel in other states and around Illinois, and Extension Agronomist Pat Johnson. None of

these mentioned were named often enough as major sources by sample farmers to alter the findings, but they are legitimate sources of information and if they had been in the list might well have been valued over some of the others.

Principal Axis Analysis

Factor analysis of the matrix of intercorrelations on this Q-sort of 45 observations indicates one principal factor for this set of attitudes, plus two minor factors (Appendix 22), in which we should be interested. The sum of the eigenvalues for these first three factors is 34.8, which indicates that they account for 58 percent of the total variance among the 60 variables. But in this Q-sort, the first principal axis factor accounts for 44 percent of the variation, as compared with 58 percent for the first principal axis factor in Q-sort 1 and 63 percent in Q-sort 2.

Thus, we can see that while the 60 farmers in our sample tend to be somewhat alike in their attitudes toward the sources of agricultural information so far as their reliability is concerned, these same farmers form less of a homogeneous group on this dimension of attitudes than they did on the first two dimensions that we studied. The scatter diagram in Figure 4 shows this pattern of relationships.

We Isolate Three Types on This Q-Sort

Two varimax rotations brought out 58 percent of the variation to be explained in the data, and further rotations only seemed to confuse the picture (Appendix 23). Highest factor loadings on the second varimax rotation analysis were weighted according to the schedule in Appendix 24 and used for the weighted ranks analysis of

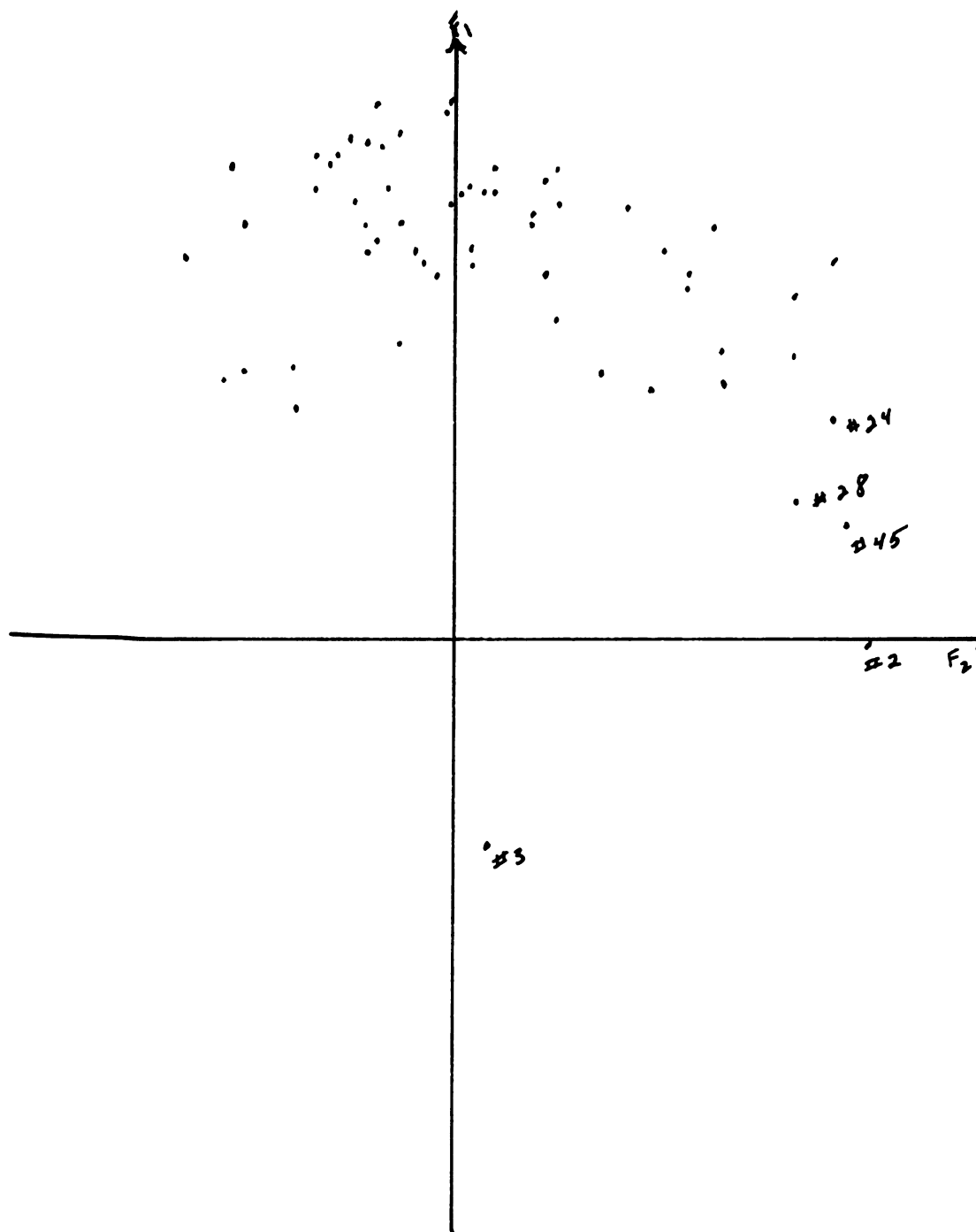


Figure 4 -- Principal Axis Solution, showing positions of 60 Illinois commercial farmers as determined by the relationships of their patterns of attitudes toward sources of farming information.

item arrays that distinguish the three types in Q-sort 3 (Appendix 25). Nine farmers were selected as most highly loaded on Factor I, seven on Factor II, and seven on Factor III.

Correlations between the reliability rankings of the 45 sources by these three types of farmers is much lower than the ranking of attitudes by these same 60 farmers in our sample toward either the Cooperative Extension Service (Q-sort 1) or the county farm advisers and state Extension specialists (Q-sort 2). Here is what the Q-3 correlations look like:

Types	1	2	3
1	1.000		
2	.426	1.000	
3	.315	.287	1.000

According to this table of correlations, Types 1 and 2 are most nearly alike in their attitude patterns. We will see how this pattern works out as we analyze the source reliability choices; what attitudes the 60 sample farmers share and what attitudes differ among the three types we identify.

These Illinois commercial farmers in our sample show a much wider range of attitudes toward the sources of farming information that they consider reliable than they do toward the Cooperative Extension Service. This Q-sort indicates only 15 items of consensus (less than 1,000 standard score difference among types) as compared with 31 consensus items on Q-1, but only 4 consensus items on Q-2. The principal reason for the low number of consensus items on Q-2

was the divergent group of eight farmers who displayed such a varied pattern of attitudes toward their county farm advisers.

The sample farmers most highly agree among themselves on this Q-sort that they consider their county farm adviser and bulletins and reports from the Agricultural Experiment Station in Urbana as their most reliable sources of farming information. Of course, some individual farmers do not rank these sources highest. Group consensus also is that the College of Agriculture is a highly reliable source, and they rate the Agricultural Experiment Station in Urbana and the University of Illinois fairly high as reliable sources. On the positive side, they agree on a veterinarian they know, books they read on agriculture, friends who have been to college, their fathers, and the local vocational agriculture teacher as somewhat reliable sources of information on how to farm better.

The source that they believe is most highly unreliable for them is "my relatives." Probe questions on this source reveals that very often they completely disagree with the farming methods or philosophy of a father-in-law, cousin or uncle, or even a brother or father in some cases. They also are in consensus disagreement with radio and television programs on agriculture, not necessarily against Extension programs but against the commercial programs such as the one in which Edward R. Murrow tried to tell what was wrong with American agriculture. They said that such programs tell only one side of the picture which isn't their side, and the programs too often completely distort the facts as they see them.

Not many of the sample farmers are able to see Extension agricultural television shows, because their number and range is so

limited. They like local radio shows put on by their county farm advisers and listen to them regularly, but are inclined to rate them with the farm adviser rather than the radio program as source. Much communication research in the past has not made clear to the respondents the difference between a primary source of information and a channel, but these sample farmers in most cases make the distinction themselves, even though channels and sources are both listed as sources in this Q-sort. They tend to go back to the primary source, such as the Experiment Station, the College of Agriculture and the county farm adviser. Even though the farm adviser also is a channel for much of the information he puts out, his farmer audience tends to rate him a source.

They rate State Fair exhibits more unreliable than the Prairie Farmer Farm Progress Show. When asked about these sources of information, the sample farmers said they think that the Farm Progress Show exhibits are somewhat less high-pressure and more entertaining than the State Fair exhibits, although in most cases they are presented by the same commercial companies. Throughout the interviews, the sample farmers showed the same general reluctance to accept the "pitches" of the commercial dealers for their business, as can be seen in their attitudes toward advertising and commercial companies as sources of information.

Sources Type 1 Farmers -- Somewhat Insecure

Although it is not so easy to clearly identify the Q-3 types as falling into specific categories as it was the types in the other two Q-sorts, the Sources Type 1 farmers generally rate successful farmers

they know as their most reliable source of farming information and seem to be the most insecure farmers in the sample. For instance, we find the two Farmers Union members in this group plus two of the NFO members. Both of these organizations are rated as somewhat radical by their fellow farmers who are not members, especially so by some loyal Farm Bureau members. We also find three farmers in this group who have left the ranks of Farm Bureau, and one of the four Farm Bureau members in the group also belongs to the NFO (Appendix 26).

These farmers rate bulletins and reports from the Agricultural Experiment Station in Urbana, their county farm adviser and the College of Agriculture at Urbana as highly reliable sources of information on how to be better farmers, but they characteristically rate their years of farming experience very high also (Table 34). They like state Extension specialists, the University of Illinois and the Agricultural Experiment Station in Urbana as sources, but unlike the other types are highly inclined toward U. S. government bulletins and reports and the U. S. Department of Agriculture. These farmers also have some confidence in the county ASCS office and USDA representatives as reliable sources, in contrast with the other two types on the Q-sort.

These Sources Type 1 farmers believe that commercial sources of farm information are highly unreliable. They vote most highly against farm supplies salesmen and farm implement salesmen or dealers, and add the Farm Supply Company (one of the commercial companies of the state Farm Bureau organization, the Illinois Agricultural Association), and a local fertilizer dealer to those



Table 34 -- Sources Type 1 Item Arrays, Most Agree

<u>I t e m</u>	<u>Description</u>	<u>Type 1</u>	<u>Type 3</u>	<u>Type 2</u>
**10	Successful farmers I know	1.69	1.60	.00
22	Bulletins and reports from the Agricultural Experiment Station in Urbana	1.63	1.24	1.42
8	My county farm adviser	1.57	1.16	1.57
13	College of Agriculture at Urbana	1.38	.56	1.44
3	My years of farming experience	1.37	2.60	.82
11	State Extension specialists	1.28	- .35	1.32
**24	U. S. government bulletins and reports	1.22	.12	- .67
6	University of Illinois	1.19	.30	1.10
**23	U. S. Department of Agriculture	1.18	.64	- .76
**14	County ASCS office	.64	.42	-1.31
**37	USDA representatives	.63	- .35	-1.03

* Greatest item disagreement, items that most differ between Sources Types 1 and 3.

** Greatest item disagreement, the items that most differ between Sources Types 1 and 2.

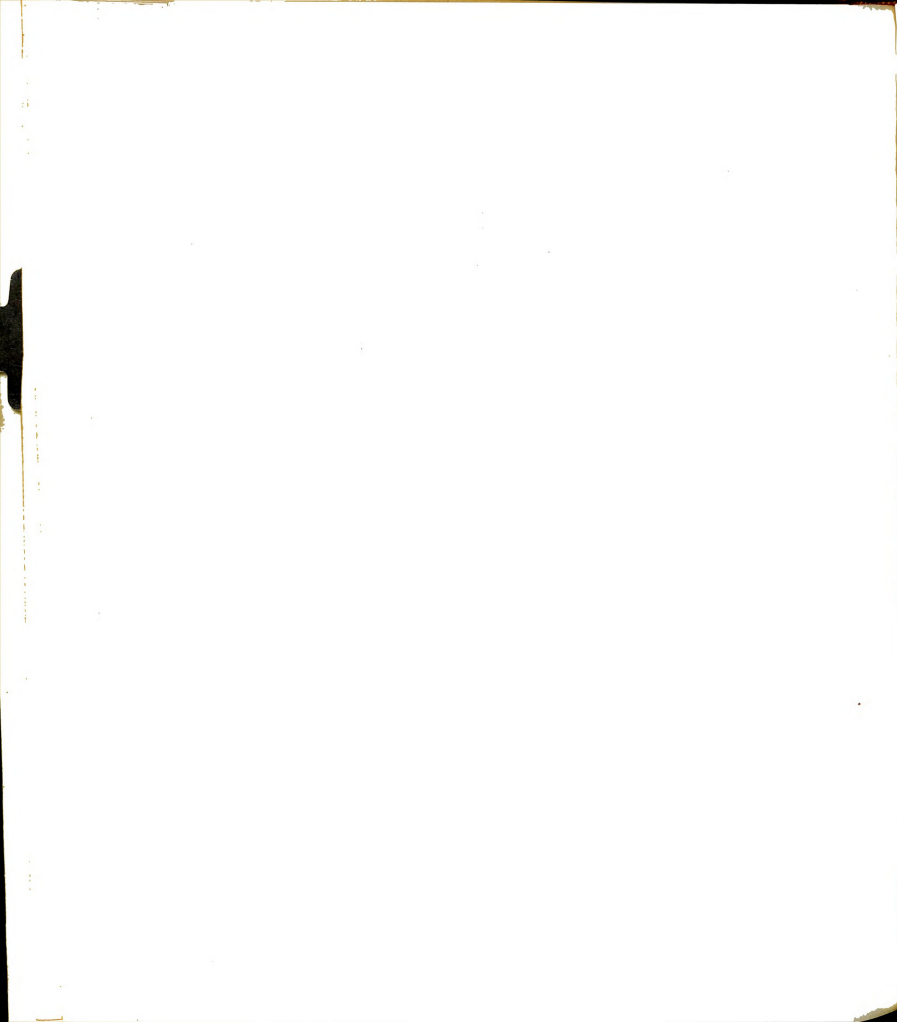
Table 35 -- Sources Type 1 Item Arrays, Most Disagree

Item	Description	Type 1	Type 3	Type 2
* 4	Farm supplies salesman	-1.73	.91	-.53
* 5	Farm implement salesman or dealer	-1.67	.98	-.73
31	My relatives	-1.63	-.75	-.80
12	A local fertilizer dealer	-1.47	.15	-.56
16	Farm Supply	-1.42	.08	.44
* 9	My neighbors	-1.38	.79	-.28
21	My landlord or landlady	-1.28	-.18	-.29
19	Farm Bureau board meetings	-1.17	-1.13	.60
** 15	Farm Bureau	-.99	.17	1.21
** 43	Farm Bureau Farm Management Service fieldman	-.67	-.69	1.87
* 34	Farmers Union	-.54	-2.55	-1.24
*** 36	The National Farmers Organization	-.49	-2.62	-2.28

*Greatest item disagreement, the items that most differ
between Sources Types 1 and 3.

**Greatest item disagreement, the items that most differ
between Sources Types 1 and 2.

***Both



unreliable sources (Table 35). They highly reject their relatives, their neighbors, and a landlord or landlady. Six of these nine farmers either rent all the land they farm or some of it, and so are presently having to deal with a landlord or landlady.

They have no liking for the Farm Bureau or its board meetings, or a Farm Bureau Farm Management Service fieldman as sources of information. It is possible that they associate this latter person as a Farm Bureau employee and transfer to him their general dislike of anything having to do with that organization. Actually, he is employed by an independent organization sponsored by the Cooperative Extension Service, and in some cases the fieldmen are employed by Extension and are members of the staff. They have been Extension staff members only a little more than a year, however, and this relationship is not well known. Farmers in Type 1 are less set against the Farmers Union and NFO as unreliable sources than the other two types, but even so do not consider them as reliable sources for the information they need about technical farming operations.

Sources Type 1 Attitudes Toward
The Cooperative Extension Service

Attitudes of the three types of farmers that we have chosen to distinguish among on Q-Sort 3 (the sources sort) are not as greatly different in their attitudes toward the Cooperative Extension Service as they are toward the sources of farming information. When they think about the CES, Sources Type 1 is more like Sources Type 3 than it is like Sources Type 2, as can be seen in this table of correlations:



Types	1	2	3
1	1.000		
2	.749	1.000	
3	.865	.791	1.000

Farmers in Sources Type 1 are consistent with their sources item arrays when they also most highly agree that a lot of the information that comes from the University of Illinois is of practical use to them (Table 36). Here they indicate that they clearly distinguish between sources and channels by going back to the University as a primary source of information. They also rate the scientists at the College of Agriculture in Urbana highly. They highly support the Cooperative Extension Service idea that no farmer is too old to learn better farming methods, and that the CES is very thoughtful and considerate in its dealings with them. Another indication of their favorableness toward the government and its Agricultural programs is their high agreement with the close ties between the CES and the U. S. Department of Agriculture. An indication of their general non-conformist, non-institutional outlook is seen when they differ greatly from Sources Type 3 and somewhat from Sources Type 2 in the attitude that the CES should not concentrate on helping only farmers but should try to help everybody.

Sources Type 1 farmers highly reject the ideas that either their fathers or their experience taught them what they need to know about farming (Table 37). Since they are looking for many sources of infor-



Table 36 -- Sources Type 1 CES Arrays, Most Agree

Item	Description	Type 1	Type 3	Type 2
43	I believe that a lot of the information that comes from the University of Illinois is of practical use to me.	1.77	.84	.94
3	I like the Cooperative Extension Service idea that no farmer is too old to learn better farming methods.	1.65	1.61	1.05
20	The scientists at the College of Agriculture in Urbana give farmers like me a lot of good help.	1.30	1.49	.83
39	The Cooperative Extension Service is very thoughtful and considerate in its dealings with farmers like me.	1.29	.80	.46
**29	One of the good things about Cooperative Extension is its close ties with the U.S. Department of Agriculture.	1.20	.47	-.96
28	The Cooperative Extension Service suggests sound practices that benefit the farmer who uses them.	1.18	1.54	.72
18	When I have a farming problem, I find that I can get the information I need quickly and easily from the Cooperative Extension Service.	1.06	.68	.83
30	Cooperative Extension Service circulars and booklets that I have read are well written and easy to understand.	1.00	.68	.35
* 13	The Cooperative Extension Service should not concentrate on helping only farmers, but should try to help everybody.	.97	-.16	.31
** 9	Information that comes from the Cooperative Extension Service is honest and can be trusted to be as accurate as possible.	.54	1.34	1.62
**44	The same farmers--usually the best ones in the county--tend to show up at every Extension meeting; the Extension educational system thus does not get to the farmers who need the information the most.	.29	-.32	1.45



Table 36 -- Sources Type 1 CES Arrays, Most Agree (Continued)

Item	Description	Type 1	Type 3	Type 2
**41	Extension's system of holding educational meetings is out of date.	.08	- .45	- .92
* 32	Cooperative Extension can do its job well only so long as it maintains an office in every county.	.04	1.42	.93

*Greatest item disagreement, the items that most differ between Sources Types 1 and 3.

**Greatest item disagreement, the items that most differ between Sources Types 1 and 2.

Table 37 -- Sources Type 1 CES Arrays, Most Disagree

Item	Description	Type 1	Type 3	Type 2
21	My father taught me most of the things I need to know about farming.	-1.62	-1.75	- .83
6	Most of the so-called Extension experts have read so many books that they can't talk sense any more.	-1.52	-1.37	-1.10
40	So far as I am concerned, they could do away with the Cooperative Extension Service today.	-1.52	-1.75	-1.90
24	My years of farming experience tell me just about all I need to know about farming.	-1.51	-1.54	-1.39
* 17	I think that the Extension specialists should be located out in the state and not at Urbana.	-1.41	- .27	- .54
1	The farmer who knows his business does not really have much need for Extension services like soil testing.	-1.38	-1.41	-1.78
36	I don't have much confidence in the recommendations of the Cooperative Extension Service.	-1.16	-1.28	-1.42
22	I get most of my ideas on how to farm better from the Farm Progress Show or State Fair, and not from the Cooperative Extension Service.	-1.15	-1.75	- .84
26	I get the feeling that the Cooperative Extension Service as part of the University of Illinois does not fit in very well with the farmers around here.	-1.09	- .75	-1.15
25	The Cooperative Extension Service does not do what it is supposed to do--give farmers the information they need.	-1.07	- .86	-1.13
11	Much of the information from the University of Illinois College of Agriculture is too advanced for the average farmer--he is not ready for it.	-1.06	-1.21	- .55



Table 37 -- Sources Type 1 CES Arrays, Most Disagree (Continued)

Item	Description	Type 1	Type 3	Type 2
** 7	Cooperative Extension educational programs are dictated too much by the U. S. Department of Agriculture.	- .98	- .10	.24
** 16	Cooperative Extension Service recommendations are influenced too much by commercial interests.	- .05	.01	-1.63

*Greatest item disagreement, the items that most differ between Sources Types 1 and 3.

**Greatest item disagreement, the items that most differ between Sources Types 1 and 2.

mation, they highly support the Cooperative Extension Service and the so-called Extension "experts." They want the Extension specialists to stay in Urbana and not be stationed out in the state much more highly than do either of the other two sources types.

Sources Type 1 Attitudes Toward Advisers

All three sources types share similar attitudes toward their county farm advisers. Type 1 is more like Type 2 than it is like Type 3, as can be seen in this table of correlations on adviser attitudes:

Types	1	2	3
1	1.000		
2	.893	1.000	
3	.864	.780	1.000

Type 1 farmers on this Q-sort give further evidence of their dependence on other people when they most highly agree that their county farm adviser is interested in people and their problems and more than just a subject matter expert (Table 38). They pay strong allegiance to Cooperative Extension in their high assessment of the attitudes that there is a lot of value in most of the practices recommended by their county farm adviser, and that they appreciate the sincere interest their county farm advisers take in helping them with their farming problems. They think more than the other types that their county farm adviser is a wonderful person, but



Table 38 -- Sources Type 1 Adviser Arrays, Most Agree

Item	Description	Type 1	Type 3	Type 2
** 29	My county farm adviser is interested in people and their problems; he is more than just a subject matter expert.	1.53	1.68	.56
3	I think that there is a lot of value in most of the practices recommended by my county farm adviser.	1.48	1.84	1.43
28	I appreciate the sincere interest that my county farm adviser takes in helping me with my problems.	1.42	.73	.91
** 17	My county farm adviser is a wonderful person.	1.34	.98	.09
26	I like the way that my county farm adviser keeps up to date with new farming practices by attending meetings at the College of Agriculture in Urbana.	1.27	.91	1.10
34	I enjoy visiting with my county farm adviser on just about any subject.	1.21	1.52	.65
5	My county farm adviser gives good service to us farmers.	1.15	.74	1.19
40	Farmers can get from their county farm adviser the most down-to-earth recommendations on how to farm better.	1.14	.66	1.17
16	My county farm adviser gives me the straight facts as he sees them, and I appreciate it.	1.11	1.45	1.48
1	My county farm adviser makes us feel free to talk our problems over with him at educational meetings.	1.10	.32	1.16
2	My county farm adviser gives us farmers much valuable help in our farming operations.	1.08	.72	1.46



Table 38 -- Sources Type 1 Adviser Arrays, Most Agree (Continued)

Item	Description	Type 1	Type 3	Type 2
** 8	I never hesitate to put into practice one of my county farm adviser's recommendations, because I know that it will usually work.	.15	.61	.93

*Greatest item disagreement, the items that most differ between Sources Types 1 and 3.

**Greatest item disagreement, the items that most differ between Sources Types 1 and 2.



Table 39 -- Sources Type 1 Adviser Arrays, Most Disagree

Item	Description	Type 1	Type 3	Type 2
25	Most of the recommendations that I get from my county farm adviser sound like the horse-and-buggy days, they are so old-fashioned.	-1.78	-1.61	-1.89
19	My county farm adviser will not listen to new ideas and suggestions from the farmers in this county.	-1.26	- .72	-1.39
13	My county farm adviser often does not follow up on things he says he is going to do.	-1.24	- .45	- .80
32	It takes me too much time and trouble to get information from my county farm adviser.	-1.21	- .70	-1.37
21	Many ideas that my county farm adviser puts out are too expensive for farmers like me to use.	-1.19	- .82	-1.16
22	Generally speaking, county farm advisers are not worth what they are paid.	-1.18	-1.52	-1.47
11	I can get more reliable information that I need for my farming operation from a local commercial dealer than I can from my county farm adviser.	-1.17	- .94	- .84
23	My county farm adviser should have to foot the bill to establish some of the practices he recommends so that he would become more practical.	-1.06	1.13	- .70
* 4	My county farm adviser uses too many high-pressure tactics--he pushes too hard in trying to get us to try out new things and ideas.	- .99	-1.80	- .90
* 9	I have already heard or read about most of the information that my county farm adviser puts out.	- .19	.94	- .60
* 18	My county farm adviser does not get around to visit farms like he should.	- .18	1.10	- .53

Table 39 -- Sources Type 1 Adviser Arrays, Most Disagree (Continued)

Item	Description	Type 1	Type 3	Type 2
** 24	My county farm adviser tries very hard to involve everyone in Extension educational programs regardless of which organization they belong to.	- .14	- .02	.64

*Greatest item disagreement, the items that most differ between Sources Types 1 and 3.

**Greatest item disagreement, the items that most differ between Sources Types 1 and 2.



they hesitate more to take his advice and put it into practice because they are less sure than the other types that it will work. They are more inclined to evaluate such advice in terms of their own or others' farming experience.

They most highly reject the notion that their farm adviser's recommendations are old-fashioned (Table 39), which the other two types also highly reject. All three types are in consensus in highly disagreeing that their county farm adviser will not listen to new ideas and suggestions, and that farm advisers are not worth what they are paid. The farmers in Type 1 are most different from Type 3 farmers in their attitudes that their county farm adviser uses too many high-pressure tactics, that they have already heard or read about most of the information that he puts out, and that he does not get around to visit farms like he should. Type 1 farmers are most different from those in Type 2 when they reject the idea that their county farm adviser tries to involve farmers from all organizations in Extension educational programs.

Summary -- What is a Sources Type 1 Farmer Like?

These farmers are older than the average of the 60 Illinois commercial farmers sample (Appendix 26). Neither their location with respect to the farm adviser's office nor the kind of extension program the county has had historically apparently influence this farmer's attitudes toward sources of farming information. However, prior attitude toward Extension and the organizations they belong to seem to be crucial variables in this dimension of attitudes. Only two of the nine farmers whose sorts were used to compose this attitude

type were selected for the sample because their attitudes were thought to be favorable toward Extension, while one was thought to be neutral or unknown and six were selected for their unfavorable attitudes. Their attitudes turn out to be more unfavorable toward the Farm Bureau than toward CES, however, as seen by their source item arrays (Table 35). All of the four in this group who listed Farm Bureau membership might be classed as lukewarm members when compared with other Farm Bureau members.

These farmers show definite attitudes in favor of Cooperative Extension as an organization in their selection of all four organization statements as highly important for them (Appendix 27). However, they do not think that the best farmers in the county always go to Extension meetings, and they do think that Extension educational material gets to the farmers who need it the most; namely, themselves (Item 44). They cast a highly favorable vote toward the reliability of Extension information (Items 21 and 24), and they vote highest agreement with practical, valuable and effective statements (Items 43, 3 and 20). They also think that their county farm advisers are practical, valuable and reliable, (Items 29, 3, 28 and 13), and think that the information they put out is up-to-date and impartial (Items 25 and 19).

Sources Type 3 Farmers -- Person-Oriented and Independent

Sources Type 3 farmers most clearly represent the traditional farmer stereotype of fierce independence, conservative reluctance to progress too fast, and close-knit togetherness within the farming community. They rate their years of farming experience much

higher as a reliable source of farming information than the other two sources types of farmers, but they disagree slightly more than the others that their years of farming experience tell them all they need to know about farming (Table 40). They rely heavily on their own experience, but supplement it with what they see other successful farmers doing and experience stories in farm magazines. They also rate their neighbors as somewhat reliable sources in contrast to the other two types. They read bulletins and reports from the Agricultural Experiment Station in Urbana and also ask advice of their county farm advisers. They are not afraid to ask a salesman for his advice and will listen to it if they know him, and they like to read advertisements in farm magazines.

They do not trust the advice and philosophy of either the NFO or the Farmers Union and they rate the Grange low (Table 41). They all own some land and highly distrust the advice of a farm manager. They don't think much of Farm Bureau board meetings or short courses and workshops at the University of Illinois as sources of farming information, and they agree closely with Sources Type 1 in their rating of a Farm Bureau Farm Management Service fieldman as an unreliable source. In this case, their reason is apparently due to the fact that he is seen as a farm manager, rather than their being mistaken about his connection with the Farm Bureau organization.

Sources Type 3 Attitudes Toward The Cooperative Extension Service

Type 3 farmers are much like Type 1 farmers in agreeing with the Cooperative Extension Service idea that no farmer is too old to

Table 40 -- Sources Type 3 Item Arrays, Most Agree

Item	Description	Type 3	Type 1	Type 2
3	My years of farming experience	2.60	1.37	.82
10	Successful farmers I know	1.60	1.69	.00
**18	Stories in farm magazines	1.39	- .25	- .73
22	Bulletins and reports from the Agricultural Experiment Station in Urbana	1.24	1.63	1.42
8	My county farm adviser	1.16	1.57	1.57
* 5	Farm implement salesman or dealer	.98	-1.67	- .73
* 4	Farm supplies salesman	.91	-1.73	- .53
* 9	My neighbors	.79	-1.38	- .28
**17	Advertising in farm magazines	.34	- .89	-1.86

Table 41 -- Sources Type 3 Item Arrays, Most Disagree

Item	Description	Type 3	Type 1	Type 2
*36	The National Farmers Organization	-2.62	- .49	-2.28
*34	Farmers Union	-2.55	- .54	-1.24
35	The Grange	-1.90	- .65	- .99
45	Farm Manager	-1.33	- .13	- .47
19	Farm Bureau board meetings	-1.13	-1.17	.60
39	Short courses and workshops at the University of Illinois	-1.00	.55	.75
**43	Farm Bureau Farm Management Service fieldman	- .69	-.67	1.87

*Greatest item disagreement, the items that most differ between Sources Types 3 and 1.

**Greatest item disagreement, the items that most differ between Sources Types 3 and 2.

learn better farming methods (Table 42). The main difference lies in where Type 3 farmers get their information -- mainly from other farmers and from stories in farm magazines. All three types highly agree that the CES does a pretty good job of presenting information, and that the scientists at the College of Agriculture in Urbana give them a lot of good help.

Sources Type 3 farmers highly differ from Type 1 in thinking that the CES can do its job well only so long as it maintains an office in every county. These independent farmers agree much more highly than those of the second type that CES is a friendly organization, that one of the good things about it is its close ties with the USDA, and that its recommendations are influenced too much by commercial interests. They are nearly neutral on this latter idea, which reflects their confidence in commercial sources of information.

These farmers who show their bias toward persons in their attitudes toward the sources of farming information, most highly disagree that they could do away with the CES today, and that their fathers taught them most of what they need to know about farming (Table 43). In spite of their comparative trust in commercial sources of information, they highly reject the idea that they get most of their ideas on how to farm better from the Farm Progress Show or State Fair rather than from the CES. All three types highly disagree that their years of experience tell them just about all they need to know about farming, and that the farmer who knows his business doesn't really have much need for Extension services like soil testing.



Table 42 -- Sources Type 3 CES Arrays, Most Agree

Item	Description	Type 3	Type 1	Type 2
3	I like the Cooperative Extension Service idea that no farmer is too old to learn better farming methods.	1.61	1.65	1.05
28	The Cooperative Extension Service suggests sound practices that benefit the farmer who uses them.	1.54	1.18	.72
15	On the whole, the Extension Service does a pretty good job of presenting information to us.	1.52	.91	1.39
20	The scientists at the College of Agriculture in Urbana give farmers like me a lot of good help.	1.49	1.30	.83
**32	Cooperative Extension can do its job well only so long as it maintains an office in every county.	1.42	.04	.93
9	Information that comes from the Cooperative Extension Service is honest and can be trusted to be as accurate as possible.	1.34	.54	1.62
**10	Generally speaking, I have found the Cooperative Extension Service to be about as friendly an organization as you could find anywhere.	1.20	.80	.20
33	Most smart farmers will try a new practice that is recommended by the Cooperative Extension Service.	1.17	.69	1.21
**29	One of the good things about Cooperative Extension is its close ties with the U. S. Department of Agriculture.	.47	1.20	-.96
**16	Cooperative Extension Service recommendations are influenced too much by commercial interests.	.01	-.05	-1.63

*Greatest item disagreement, the items that most differ between Sources Types 3 and 1.

**Greatest item disagreement, the items that most differ between Sources Types 3 and 2.

Table 43 -- Sources Type 3 CES Arrays, Most Disagree

Item	Description	Type 3	Type 1	Type 2
40	So far as I am concerned, they could do away with the Cooperative Extension Service today.	-1.75	-1.52	-1.90
21	My father taught me most of the things I need to know about farming.	-1.75	-1.62	- .83
22	I get most of my ideas on how to farm better from the Farm Progress Show or State Fair, and not from the Cooperative Extension Service.	-1.75	-1.15	- .84
24	My years of experience tell me just about all I need to know about farming.	-1.54	-1.51	-1.39
1	The farmer who knows his business does not really have much need for Extension Services like soil testing.	-1.41	-1.38	-1.78
6	Most of the so-called Extension experts have read so many books that they can't talk common sense any more.	-1.37	-1.52	-1.10
36	I don't have much confidence in the recommendations of the Cooperative Extension Service.	-1.28	-1.16	-1.42
11	Much of the information from the University of Illinois College of Agriculture is too advanced for the average farmer--he is not ready for it.	-1.21	-1.06	- .55
14	Written materials from the Cooperative Extension Service are usually too cold and official for me.	-1.12	- .98	- .66
**44	The same farmers--usually the best ones in the county--tend to show up at every Extension meeting; the Extension educational system thus does not get to the farmers who need the information the most.	-.32	.29	1.45
* 17	I think that the Extension specialists should be located out in the state and not at Urbana.	- .27	-1.41	- .54



Table 43 -- Sources Type 3 CES Arrays, Most Disagree (Continued)

Item	Description	Type 3	Type 1	Type 2
* 13	The Cooperative Extension Service should not concentrate on helping only farmers, but should try to help everybody.	- .16	.97	.31

*Greatest item disagreement, the items that most differ between Sources Types 3 and 1.

**Greatest item disagreement, the items that most differ between Sources Types 3 and 2.



Sources Type 3 Attitudes Toward Advisers

This independent type of farmer highly agrees with the other two types in believing that there is much of value in most of the practices recommended by the county farm adviser (Table 44). Type 3 apparently adds the farm adviser to his already large list of personal sources to whom he goes for his farming information. Type 3 differs greatly from Type 2 when he highly agrees that his county farm adviser is interested in people. However, he is nearly neutral about the idea that his county farm adviser almost always seems to have the information he needs at his fingertips, whereas Type 2 highly agrees with that. Type 3 also believes strongly that his county farm adviser does not visit farms as often as he should in contrast to the other two types. His attitude toward having heard or read about most of the information that his county farm adviser puts out is a reflection of his inclination to visit other farmers and to read stories in farm magazines.

Sources Type 3 disagrees more highly than either of the other two types with the idea that his county farm adviser uses too many high-pressure tactics, and much more than Type 2 that his county farm adviser tries too hard to be friendly (Table 45). All three types are in consensus disagreement that farm adviser recommendations are old-fashioned, and that farm advisers are not worth what they are paid.

Summary -- What Are Sources Type 3 Farmers Like?

Sources Type 3 farmers are of average age, with three of the seven whose sorts make up the hypothetical type being over the average



Table 44 -- Sources Type 3 Adviser Arrays, Most Agree

Item	Description	Type 3	Type 1	Type 2
3	I think that there is a lot of value in most of the practices recommended by my county farm adviser.	1.84	1.48	1.43
**29	My county farm adviser is interested in people and their problems; he is more than just a subject matter expert.	1.68	1.53	.56
34	I enjoy visiting with my county farm adviser on just about any subject.	1.52	1.21	.65
16	My county farm adviser gives me the straight facts as he sees them, and I appreciate it.	1.45	1.11	1.48
30	Cooperative Extension Service farm advisers and specialists really know their business.	1.28	.38	.45
***18	My county farm adviser does not get around to visit farms like he should.	1.10	- .18	- .53
*** 9	I have already heard or read about most of the information that my county farm adviser puts out.	.94	- .19	- .60
** 15	My county farm adviser almost always seems to have the information I need at his fingertips.	.22	.88	1.44

*Greatest item disagreement, the items that most differ between Sources Types 3 and 1.

**Greatest item disagreement, the items that most differ between Sources Types 3 and 2.

***Both

Table 45 -- Sources Type 3 Adviser Arrays, Most Disagree

Item	Description	Type 3	Type 1	Type 2
* 4	My county farm adviser uses too many high-pressure tactics--he pushes too hard in trying to get us to try out new things and ideas.	-1.80	- .99	- .90
25	Most of the recommendations that I get from my county farm adviser sound like the horse-and-buggy days, they are so old-fashioned.	-1.61	-1.78	-1.89
22	Generally speaking, county farm advisers are not worth what they are paid.	-1.52	-1.18	-1.47
35	My county farm adviser is taking his connection with the University of Illinois too seriously--he claims to have more knowledge than I think he has.	-1.38	- .91	- .93
39	The Extension specialists who come around here cannot talk the language of the farmers--they use too many technical terms and complicated language.	-1.32	- .71	- .92
** 7	My county farm adviser tries too hard to be friendly.	-1.24	- .89	- .26
23	My county farm adviser should have to foot the bill to establish some of the practices he recommends so that he would become more practical.	-1.13	-1.06	- .70

*Greatest item disagreement, the items that most differ between Sources Types 3 and 1.

**Greatest item disagreement, the items that most differ between Sources Types 3 and 2.



age of the 60 sample farmers, and four being younger than average (Appendix 32). For some reason, six of them farm close to the county seat and the farm adviser's office, while only one was selected because he lived far away. This may be a reflection of the fact that the county farm adviser is more aware of dissidents nearby than he is those farther away, although four of these farmers were selected for the sample because they were thought to have neutral or questionable attitudes toward Extension and only two were thought to be unfavorable. Education, size of farm, ownership status and income all seem to follow closely the sample averages. All are or have been Farm Bureau members, while one still claims membership in the Grange.

The value of Extension rates most highly in Type 3 attitudes, followed by competence and reliability (Items 3, 40, 28 and 21, Appendix 33). The organization of the CES also impresses these farmers with all four statements being included among the highest rating attitudes (Items 32, 29, 44 and 17). These farmers are most impressed with the practicality of their county farm adviser according to the statements they rated highest (Items 29 and 4, Appendix 34). Value, up-to-dateness and friendliness of their farm advisers also impress them (Items 3, 22, 25 and 34).

Sources Type 2 Farmers -- A Mixed Type

By the way these farmers select their most important attitude statements, we would be justified in considering them to be the most technically oriented of the three groups in the Q-sort. They most highly regard a Farm Bureau Farm Management Service fieldman as their

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most reliable source, in sharp contrast to the other two groups (Table 46). One reason for this is that two of the seven farmers whose sorts were used to define this type are members of the Farm Bureau Farm Management Service and regard the fieldmen who service their accounts as their most reliable source of information about how to farm better. But the other five farmers also rate this professional farm manager high as a reliable source.

This mixed group of farmers think of the Cooperative Extension Service as a much more reliable source than do either of the other two groups. But all three are in essential agreement that the county farm adviser, the College of Agriculture at Urbana, and bulletins and reports from the Agricultural Experiment Station in Urbana are highly reliable sources of better farming information. This group 2 apparently sees a very close connection between the Extension Service, the county farm adviser and the College of Agriculture that the other groups fail to recognize. Or, the other groups may see the CES as a channel of information flow rather than as a primary source. Type 2 casts a strong positive vote for Extension meetings held at the University in Urbana and for state Extension specialists, in sharp contrast to Type 3. These mixed farmers rate the Farm Bureau high as a source of farming information which sets them far apart from the Type 1 independent farmers, and they are neutral toward successful farmers as sources whereas both Types 1 and 3 rate them very highly reliable.

Type 3 farmers characterize themselves as against government programs in agriculture and are very different from Type 1 farmers when they vote so strongly negative toward the county ASCS office,



Table 46 -- Sources Type 2 Item Arrays, Most Agree

Item	Description	Type 2	Type 1	Type 3
***43	Farm Bureau Farm Management Service fieldman	1.87	- .67	- .69
1	Cooperative Extension Service	1.81	.65	.49
8	My county farm adviser	1.57	1.57	1.16
13	College of Agriculture at Urbana	1.44	1.38	.56
22	Bulletins and reports from the Agricultural Experiment Station in Urbana	1.42	1.63	1.24
40	Extension meetings held at the University in Urbana	1.39	.60	- .58
11	State Extension Specialists	1.32	1.28	- .35
*15	Farm Bureau	1.21	- .99	.17
6	University of Illinois	1.10	1.19	.30
***10	Successful farmers I know	.00	1.69	1.60

*Greatest item disagreement, the items that most differ between Sources Types 2 and 1.

**Greatest item disagreement, the items that most differ between Sources Types 2 and 3.

***Both



Table 47 -- Sources Type 2 Item Arrays, Most Disagree

Item	Description	Type	Type	Type
		2	1	3
* 36	The National Farmers Organization	-2.28	- .49	-2.62
**17	Advertising in farm magazines	-1.86	- .89	.34
25	Advertising in newspapers	-1.47	- .98	- .15
* 14	County ASCS office	-1.31	.64	.42
34	Farmers Union	-1.24	- .54	-2.55
* 37	USDA representatives	-1.03	.63	- .35
* 23	U. S. Department of Agriculture	- .76	1.18	.64
**18	Stories in farm magazines	- .73	- .25	1.39
* 24	U. S. government bulletins and reports	- .67	1.22	.12

*Greatest item disagreement, the items that most differ between Sources Types 2 and 1.

**Greatest item disagreement, the items that most differ between Sources Types 2 and 3.

USDA representatives, the U. S. Department of Agriculture and U. S. government bulletins and reports (Table 47). They also show more distrust in the National Farmers Organization and advertising in farm magazines and newspapers than Type 1 farmers, and of Type 3 farmers so far as advertising is concerned. They don't trust stories in farm magazines, either. When asked about this, they reply that farm magazine reporters glamorize their stories until they are not realistic; they have known of stories, in some cases about their own farming operations, where the facts just were not so; and they know that what sounds good about one farmer in a story may not work at all for them in their different situations.

Sources Type 2 Attitudes Toward The Cooperative Extension Service

The mixed group of farmers on the sources sort is most unlike Type 3, the independent thinkers and doers, and somewhat unlike Type 1 in their high agreement that the best farmers tend to show up at every Extension meeting and therefore the education doesn't get to the farmers who need it most (Table 48). They are highly unlike Type 1 and like Type 3 in believing strongly that CES information is honest and can be trusted. The mixed farmers cast another vote against government intervention in farming when they agree somewhat that CES programs are dictated too much by the USDA. In this they are most unlike Type 1. They are very unlike Type 3 when they register almost neutral toward the idea that the CES is a most friendly organization.

The Sources Type 2 farmers are in highest disagreement, higher than the other two types but in high consensus with them, that CES

Table 48 -- Sources Type 2 CES Arrays, Most Agree

Item	Description	Type 2	Type 1	Type 3
* 9	Information that comes from the Cooperative Extension Service is honest and can be trusted to be as accurate as possible.	1.62	.54	1.34
***44	The same farmers--usually the best ones in the county--tend to show up at every Extension meeting; the Extension educational system thus does not get to the farmers who need the information the most.	1.45	.29	-.32
15	On the whole, the Extension Service does a pretty good job of presenting information to us.	1.39	.91	1.52
8	Cooperative Extension Service material is impartial and unbiased.	1.26	.54	.33
33	Most smart farmers will try a new practice that is recommended by the Cooperative Extension Service.	1.21	.69	1.17
38	Information from the Cooperative Extension Service helps increase farm production and so returns more money than it costs in taxes.	1.18	.43	.95
5	The content of Extension's educational programs is as modern as agricultural research can make it.	1.09	.72	.67
19	I can rely on information from the Cooperative Extension Service.	1.08	.99	.46
3	I like the Cooperative Extension Service idea that no farmer is too old to learn better farming methods.	1.05	1.65	1.61
* 7	Cooperative Extension educational programs are dictated too much by the U. S. Department of Agriculture.	.24	-.98	-.10

Table 48 -- Sources Type 2 CES Arrays, Most Agree (Continued)

Item	Description	Type 2	Type 1	Type 3
**10	Generally speaking, I have found the Cooperative Extension Service to be about as friendly an organization as you could find anywhere.	.20	.80	1.20

*Greatest item disagreement, the items that most differ between Sources Types 2 and 1.

**Greatest item disagreement, the items that most differ between Sources Types 2 and 3.

***Both

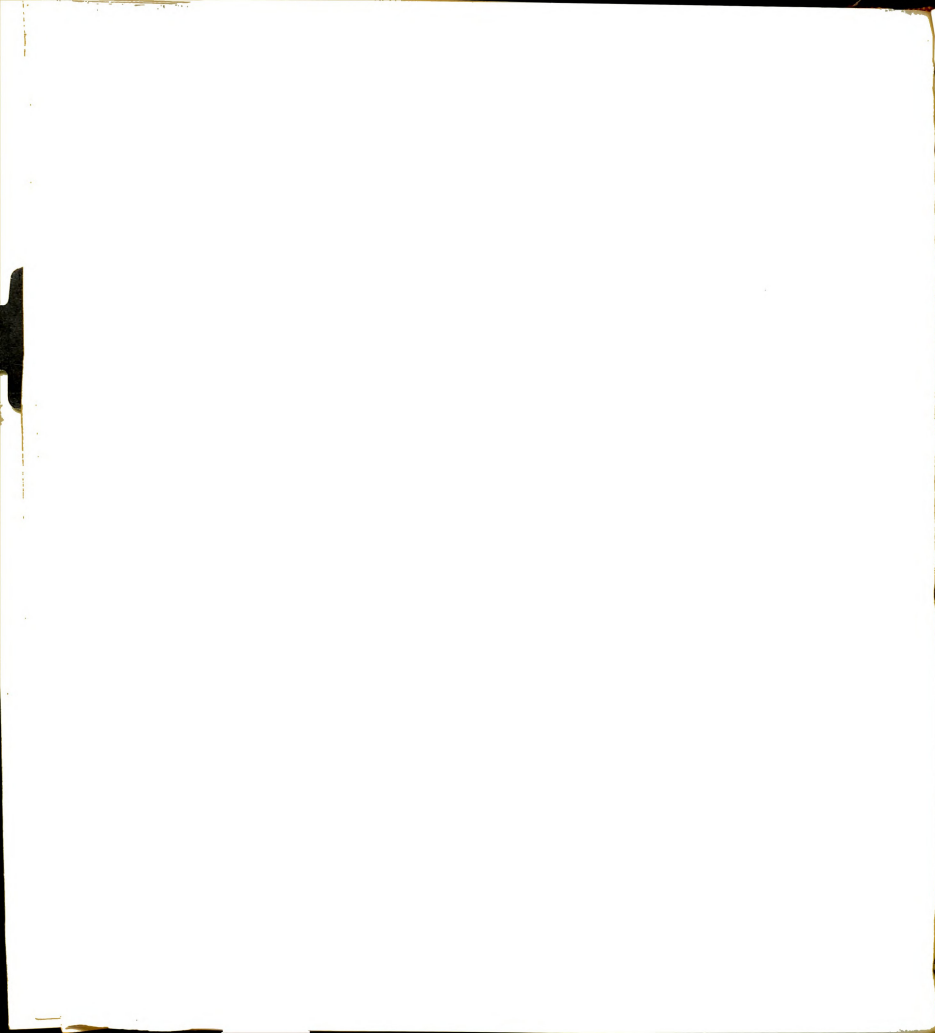


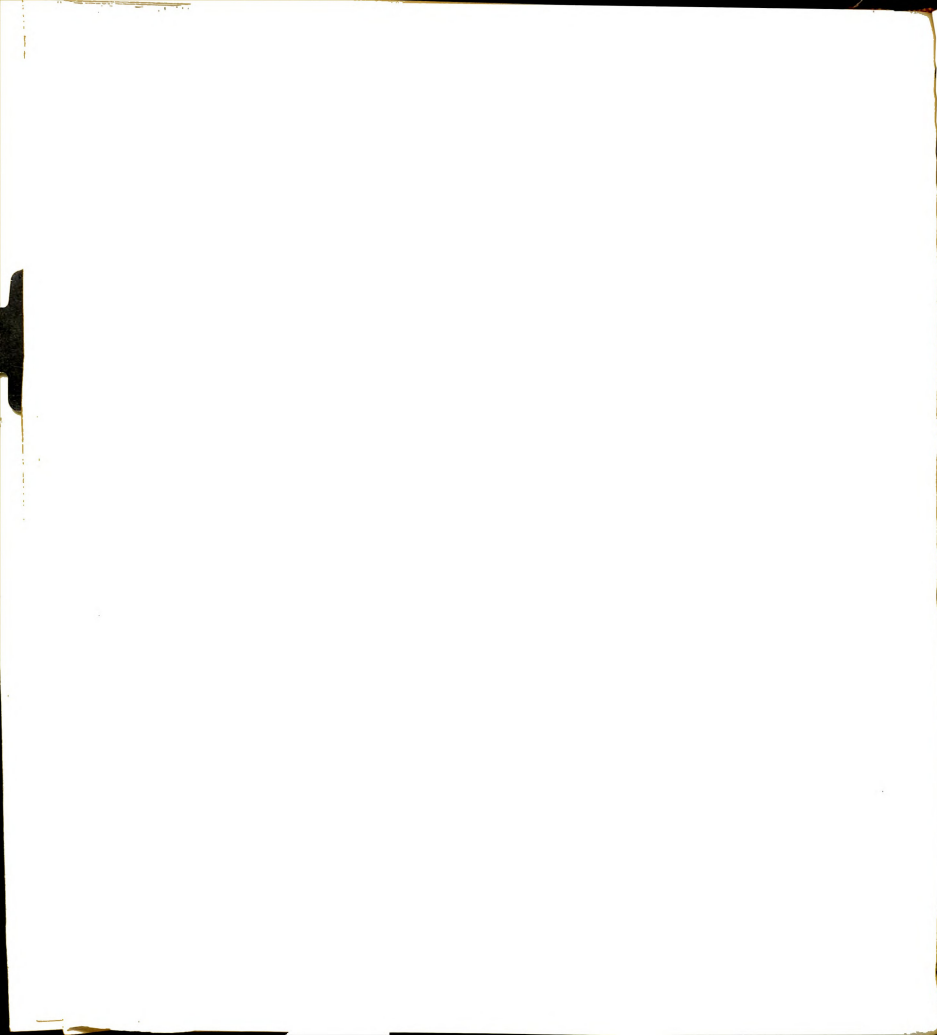
Table 49 -- Sources Type 2 CES Arrays, Most Disagree

Item	Description	Type 2	Type 1	Type 3
40	So far as I am concerned they could do away with the Cooperative Extension Service today.	-1.90	-1.52	-1.75
1	The farmer who knows his business does not really have much need for Extension services like soil testing.	-1.78	-1.38	-1.41
***16	Cooperative Extension Service recommendations are influenced too much by commercial interests.	-1.63	- .05	.01
36	I don't have much confidence in the recommendations of the Cooperative Extension Service.	-1.42	-1.16	-1.28
24	My years of experience tell me just about all I need to know about farming.	-1.39	-1.51	-1.54
26	I get the feeling that the Cooperative Extension Service as part of the University of Illinois does not fit in very well with the farmers around here.	-1.15	-1.09	- .75
25	The Cooperative Extension Service does not do what it is supposed to do--give farmers information they can use.	-1.13	-1.07	- .86
6	Most of the so-called Extension experts have read so many books that they cannot talk common sense any more.	-1.10	-1.52	-1.37
***29	One of the good things about Cooperative Extension is its close ties with the U. S. Department of Agriculture.	- .96	1.20	.47
* 41	Extension's system of holding educational meetings is out of date.	- .92	.03	- .45

*Greatest item disagreement, the items that most differ between Sources Types 2 and 1.

**Greatest item disagreement, the items that most differ between Sources Types 2 and 3.

***Both



could be done away with today, and that farmers who know their business do not have need for Extension services like soil testing (Table 49). They are highly unlike both other types in their strong disagreement with the attitude that CES recommendations are influenced too much by commercial interests. We might expect Type 3 to be even more strongly in disagreement with this attitude than Type 2, but they are nearly neutral, probably because they so highly favor commercial information as a reliable source of farming information. Type 2 farmers are very different from both other types, especially Type 1, in their disagreement with the attitude that one of the good things about the CES is its close ties with the USDA. They differ markedly from Type 1, the farmers who seem to depend on experience to support their farming decisions, in their disagreement that Extension's system of holding educational meetings is out of date.

Sources Type 2 Attitudes Toward Advisers

When their attention is focused on their county farm adviser, the mixed group of farmers agree more highly than the other two sources types, but in high consensus with them, that their county farm adviser gives them the straight facts as he sees them, and that there is a lot of value in most of the practices he recommends (Table 50). This is in line with their high regard for the county farm adviser, the College of Agriculture and the CES as reliable sources of information. Type 2 supports the county farm adviser much more highly than Type 3 farmers in their agreement that the county farm adviser almost always seems to have the information

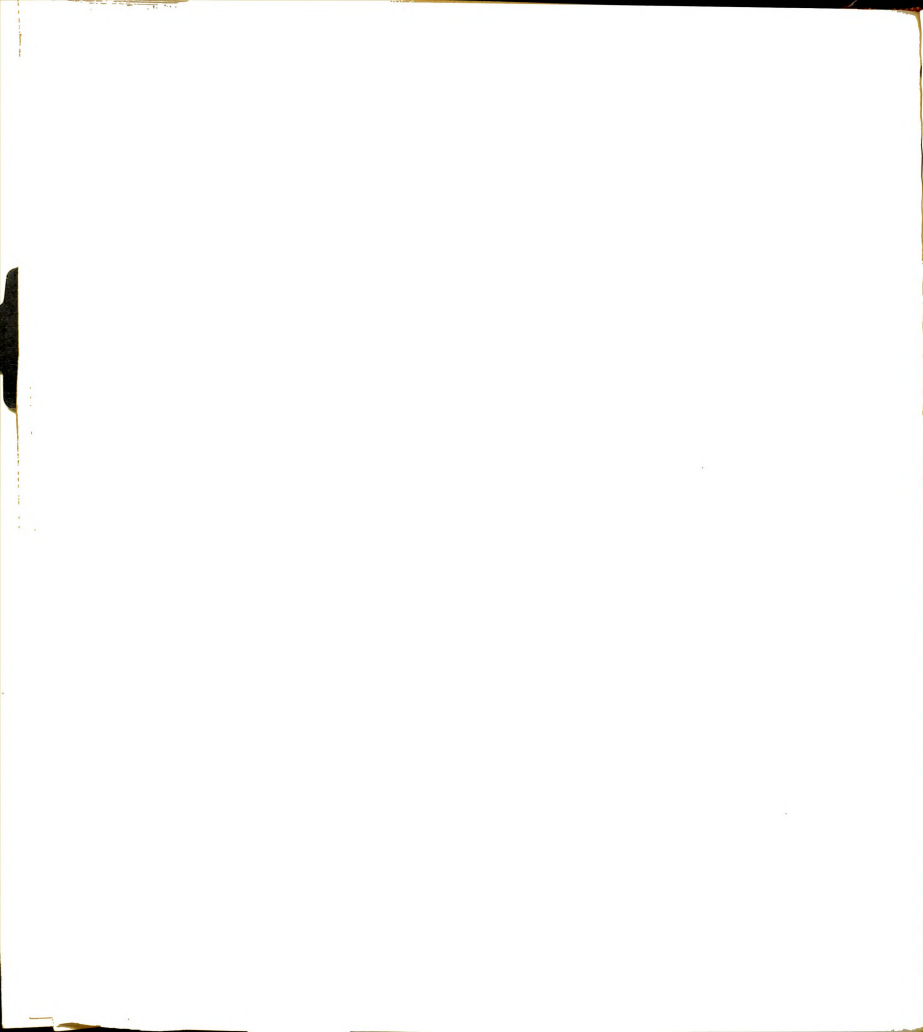


Table 50 -- Sources Type 2 Adviser Arrays, Most Agree

Item	Description	Type 2	Type 1	Type 3
16	My county farm adviser gives me the straight facts as he sees them and I appreciate it.	1.48	1.11	1.45
2	My county farm adviser gives us farmers much valuable help in our farming operations.	1.46	1.08	.72
** 15	My county farm adviser almost always seems to have the information I need at his fingertips.	1.44	.88	.22
3	I think that there is a lot of value in most of the practices recommended by my county farm adviser.	1.43	1.48	1.84
12	My county farm adviser is the most reliable source of information about farming that I know.	1.33	.77	.67
5	My county farm adviser gives good service to us farmers.	1.19	1.15	.74
40	Farmers can get from their county farm adviser the most down-to-earth recommendations on how to farm better.	1.17	1.14	.66
1	My county farm adviser makes us feel free to talk our problems over with him at educational meetings.	1.16	1.10	.32
26	I like the way that my county farm adviser keeps up to date with new farming practices by attending meetings at the College of Agriculture in Urbana.	1.10	1.27	.91
** 8	I never hesitate to put into practice one of my county farm adviser's recommendations, because I know that it will usually work.	.93	.15	.61
** 24	My county farm adviser tries very hard to involve everyone in Extension educational programs regardless of which organization they belong to.	.64	-.14	-.02

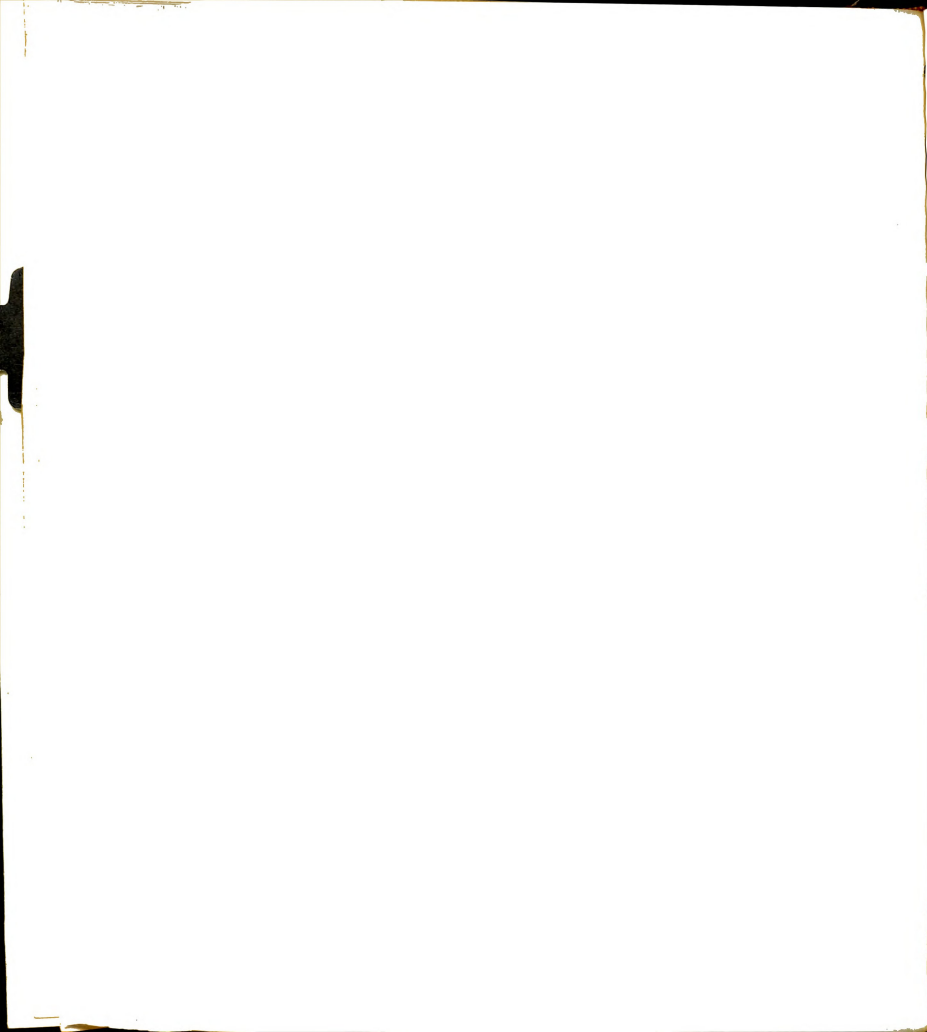


Table 50 -- Sources Type 2 Adviser Arrays, Most Agree (Continued)

Item	Description	Type 2	Type 1	Type 3
***29	My county farm adviser is interested in people and their problems; he is more than just a subject matter expert.	.56	1.53	1.68
* 17	My county farm adviser is a wonderful person.	.09	1.34	.98

*Greatest item disagreement, the items that most differ between Sources Types 2 and 1.

**Greatest item disagreement, the items that most differ between Sources Types 2 and 3.

***Both

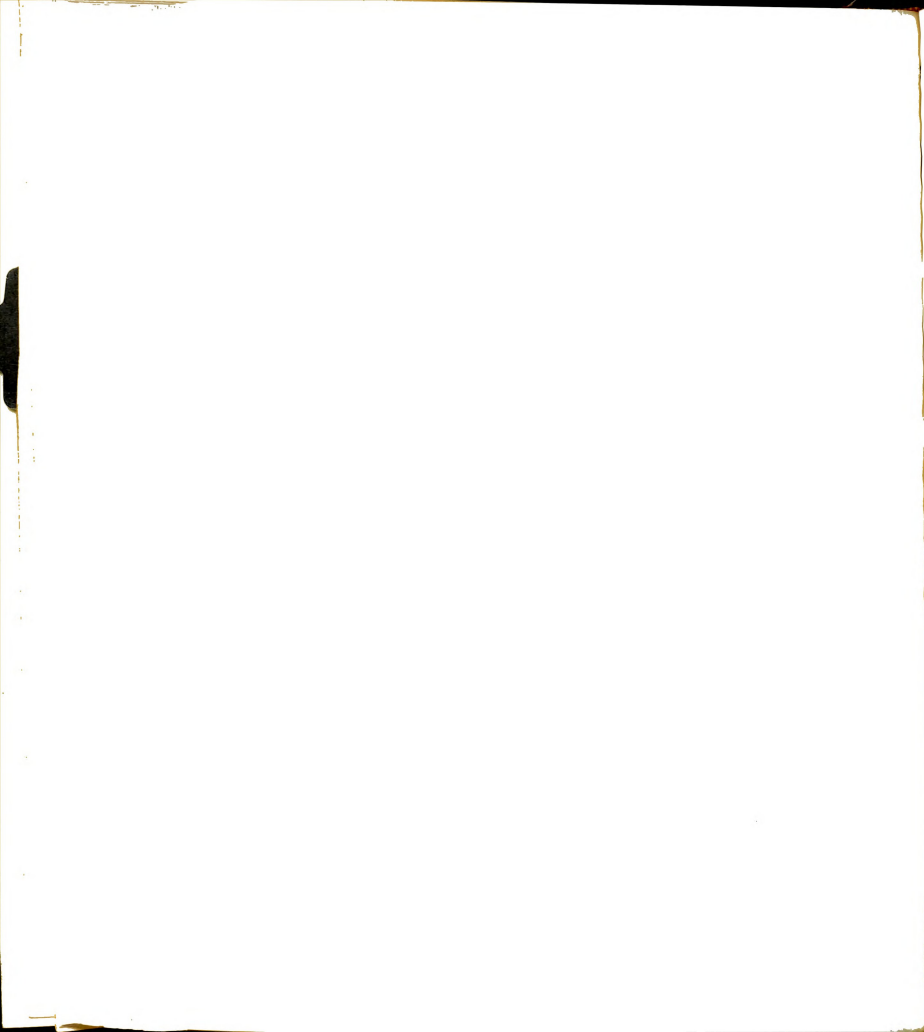
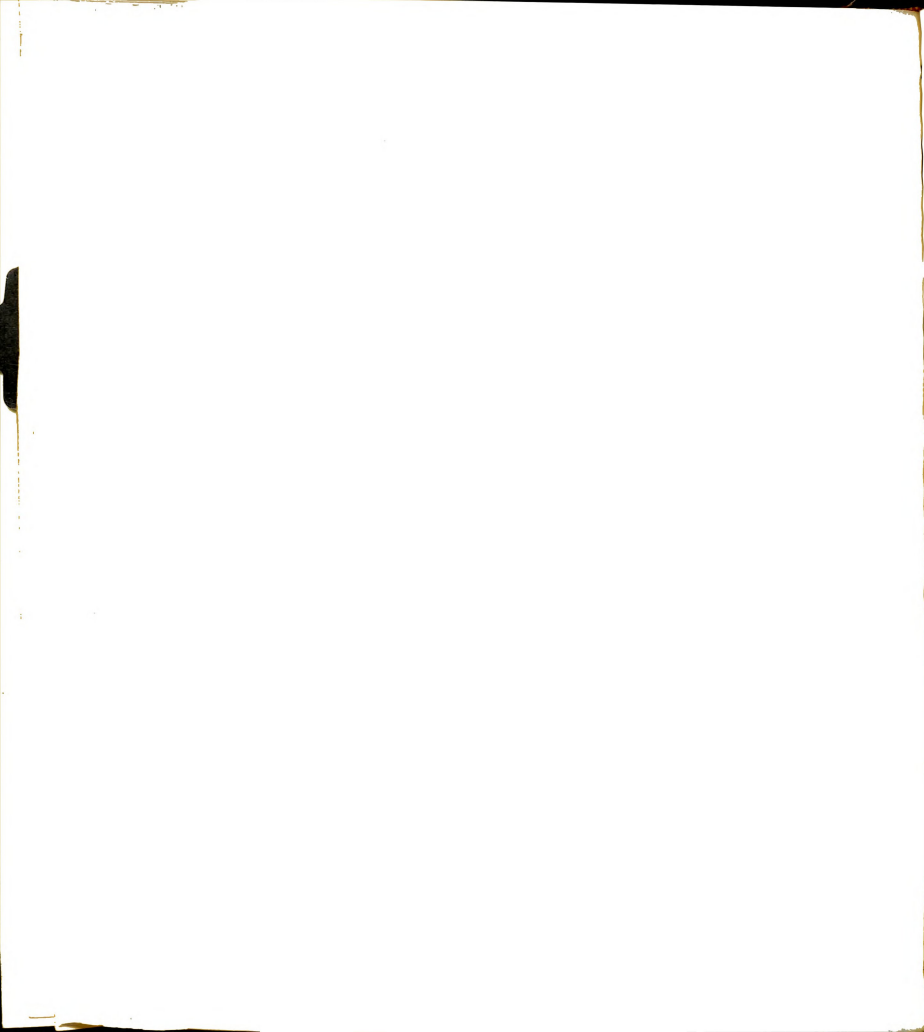


Table 51 -- Sources Type 2 Adviser Arrays, Most Disagree

Item	Description	Type 2	Type 1	Type 3
25	Most of the recommendations that I get from my county farm adviser sound like the horse-and-buggy days, they are so old-fashioned.	-1.89	-1.78	-1.61
22	Generally speaking, county farm advisers are not worth what they are paid.	-1.47	-1.18	-1.52
19	My county farm adviser will not listen to new ideas and suggestions from the farmers in this county.	-1.39	-1.26	- .72
32	It takes me too much time and trouble to get information from my country farm adviser.	-1.37	-1.21	- .70
31	My county farm adviser plays favorites among the farmers in my county and I do not like it.	-1.29	- .34	- .61
21	Many ideas that my county farm adviser puts out are too expensive for farmers like me to use.	-1.16	-1.19	- .82
** 9	I have already heard or read about most of the information that my county farm adviser puts out.	- .60	- .19	.94
**18	My county farm adviser does not get around to visit farms like he should.	- .53	- .18	1.10
** 7	My county farm adviser tries too hard to be friendly.	- .26	- .89	-1.24

*Greatest item disagreement, the items that most differ between Sources Types 2 and 1.

**Greatest item disagreement, the items that most differ between Sources Types 2 and 3.

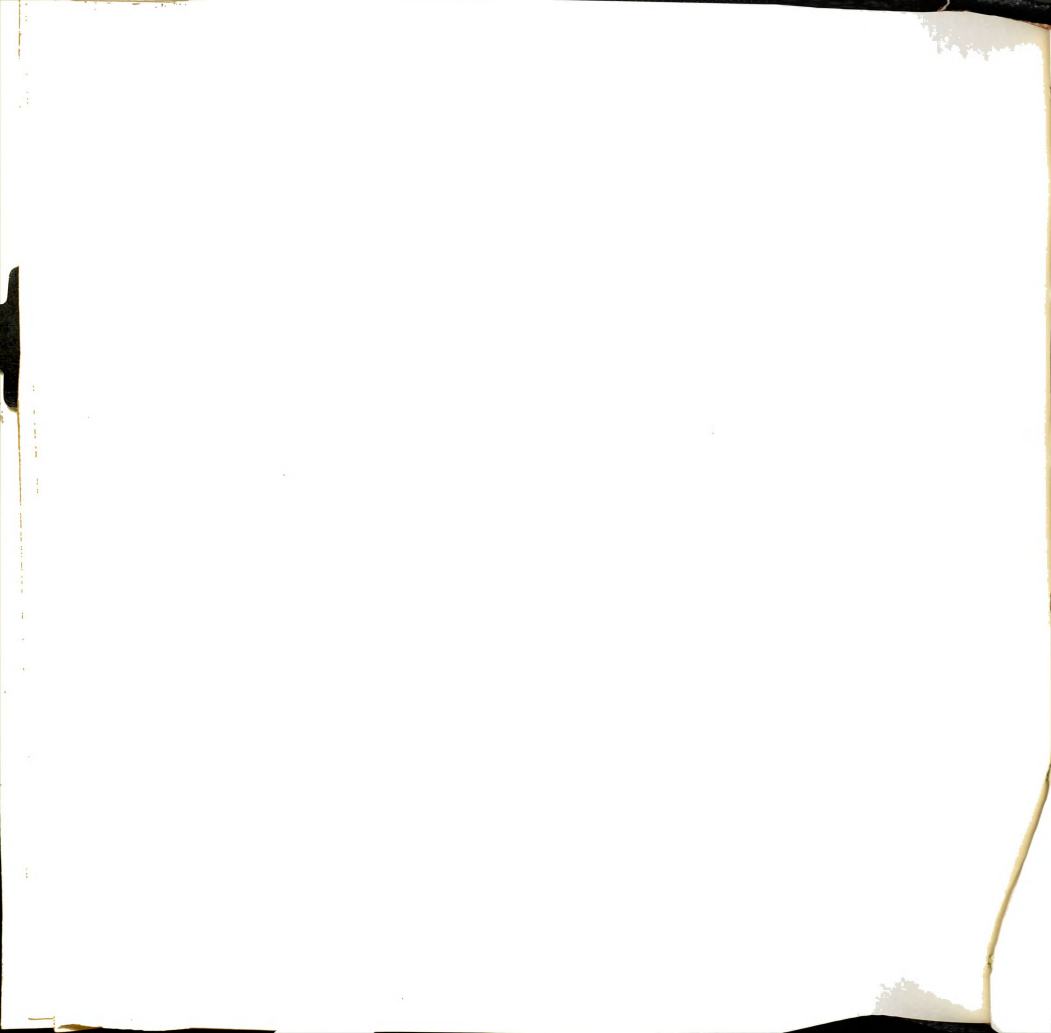


they need at his fingertips. They agree much more strongly than Type 1 farmers that they have confidence in their farm adviser's recommendations and that he works hard to involve everyone in educational programs regardless of which organization they belong to. They agree, but much less than the other two types that their farm adviser is interested in people. They are almost neutral about and in much less agreement than the more emotional, dependent Type 1 farmers that their county farm adviser is a wonderful person.

The mixed farmers are much unlike Type 3, the independent group, when they admit that they haven't heard or read about most of the information that their county farm adviser puts out, probably because they call on the farm adviser for his advice oftener than do the Type 3 farmers (Table 51). They most disagree with the Type 3 attitude that their farm adviser doesn't get around to visit farms like he should, again perhaps because they ask him to come out oftener and he does. They disagree some, but not as much as Type 3, that their county farm adviser tries too hard to be friendly.

Summary -- What is a Sources Type 2 Farmer Like?

These farmers appear to be older than average, but mainly because the second oldest farmer in the sample, No. 7, is one of their group in the hypothetical sort (Appendix 29). Otherwise, their ages average about the same as the entire sample of 60. Location in county, type of county and even prior attitude are all well mixed in this group, as they should be if this is a mixed grouping as we have said. With the exception of Farmer 3, the NFO member in the group, they all appear to be good Farm Bureau members in sympathy



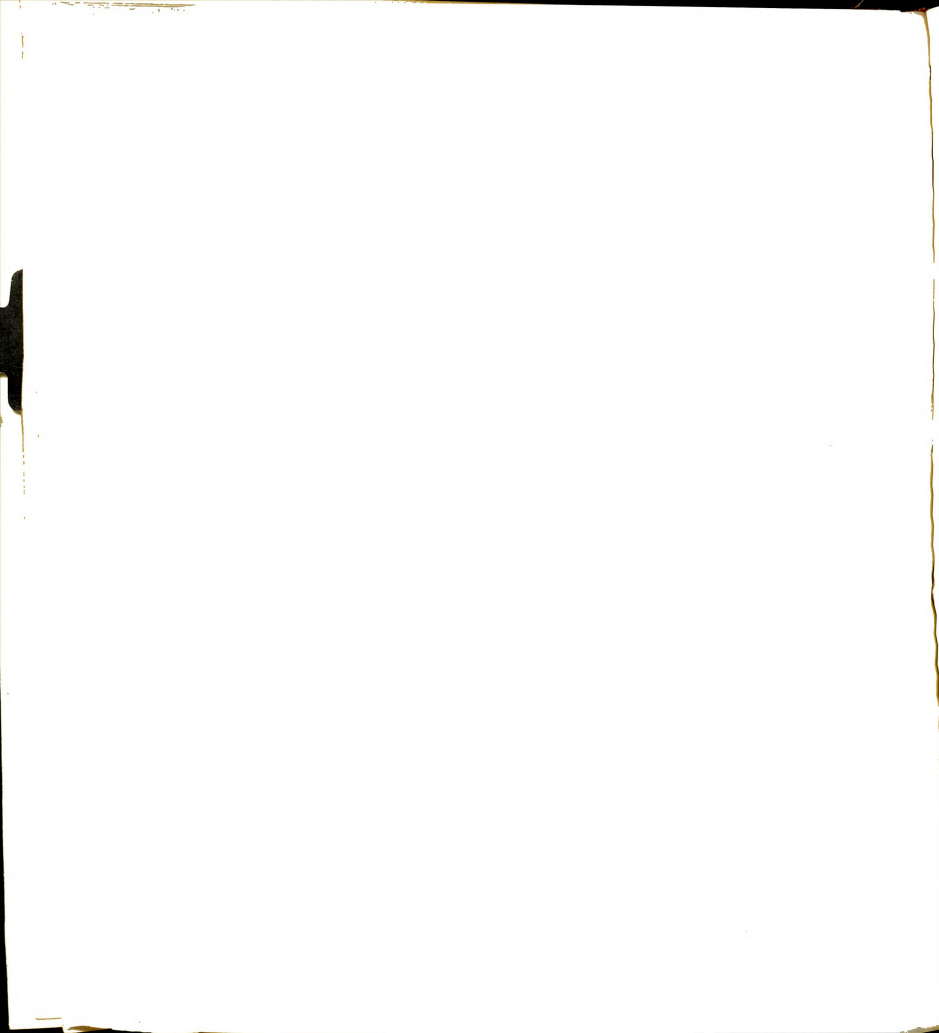
with its aims and programs. They represent the entire range of farm sizes and income groups, so there is nothing in those variables upon which to predict membership in this group.

They regard reliability, value and impartiality highest among the characteristics of the Cooperative Extension Service (Items 9, 40, 8 and 16, Appendix 30). They are very consistent in voting with positive statements and against negative statements, with the exception of Item No. 44, in which they highly agree that Extension's educational programs do not reach the farmers who need them most.

They rate the value and impartiality of the county farm adviser most highly (Items 16, 2, 22 and 19, Appendix 31), and vote the up-to-dateness of the adviser's information high (Item 25). They are 100 percent consistent in voting with positive statements and against negative statements in the characteristic categories of the adviser sort (Q-2).

Thumbnail Sketches of Sources Types

Sources Type 1 Farmers -- The typical Sources Type 1 farmer seems to be somewhat insecure and seems to depend a great deal on other people for his information on how to farm better and for support in his decisions. He likes to watch what other successful farmers are doing and get ideas from them. He is apparently a conservative and not an innovator. He reads a lot of University of Illinois and U. S. government circulars and bulletins, and has a lot of faith in the information they contain. He also gets some information from his local school's vocational agriculture teacher-- in fact about anywhere he can find it, including the Farm Progress



Show and State Fair exhibits. He doesn't trust a farm manager, and he doesn't like the Grange, the Farmers Union or the National Farmers Organization.

He appreciates the sincere interest that his county farm adviser takes in helping him with his problems, and he thinks his farm adviser is a wonderful person and that he is worth what he is paid. He thinks his farm adviser is reliable and will follow up on things he is going to do, but doesn't think his recommendations are too expensive for him to try out.

He is a great supporter and user of the information that the University of Illinois puts out, and he firmly believes that neither he nor any other farmer ever gets too old to learn new things. He reads a lot and finds CES circulars and booklets easy to read, and he doesn't think that Extension "experts" have read so much they can't talk his language any more.

Sources Type 3 Farmers -- This type of farmer is the strongly independent type who has great faith in his own farming ability based on his years of farming experience. He is more inclined to read about other farmers and their experiences with different types of farming operations in farm magazines than he is to visit with other successful farmers, although he is somewhat person-oriented too. He hunts until he finds a dealer or salesman whom he can trust and then uses him for an information source. He also gets farming advice from his veterinarian, his neighbors and other farmers, his father and a local fertilizer dealer. He likes to read articles in newspapers about farming and is interested in learning about new equipment and farm products from advertising in farm magazines,



rather than going to the State Fair or Farm Progress Show to see them on display. He doesn't have much use for his relatives, his landlord or landlady, or television programs on agriculture. He is not an organization man, and includes the University of Illinois and Cooperative Extension among those organizations. He doesn't like farm managers because they also represent the organizational side of the farming business.

He may not use CES recommended practices but he thinks they are good for anyone who does, and he gets what he wants from Extension although it may not be much. He wants more information than his father or his years of experience provide for him, but he doesn't agree that information from the University of Illinois is very useful for him.

He knows that if he wants information from his county farm adviser he can get it and he has faith in its value even though he may not ask for it often. He wishes his county farm adviser would come out to look at his farm more often, and he can't be classified as a good Extension cooperator. He thinks his farm adviser ought to be more "pushy" in his efforts to give the farmers better service, but he interprets better service as coming out to see him at his place.

Sources Type 2 Farmers -- This type of farmer is somewhat like both of the other groups in many ways, but inclines to be much more institution-oriented and less person-oriented than they seem to be. He likes and trusts the professional help that the Farm Bureau Farm Management Service provides, and he is a firm supporter of the CES, the county farm adviser, the College of

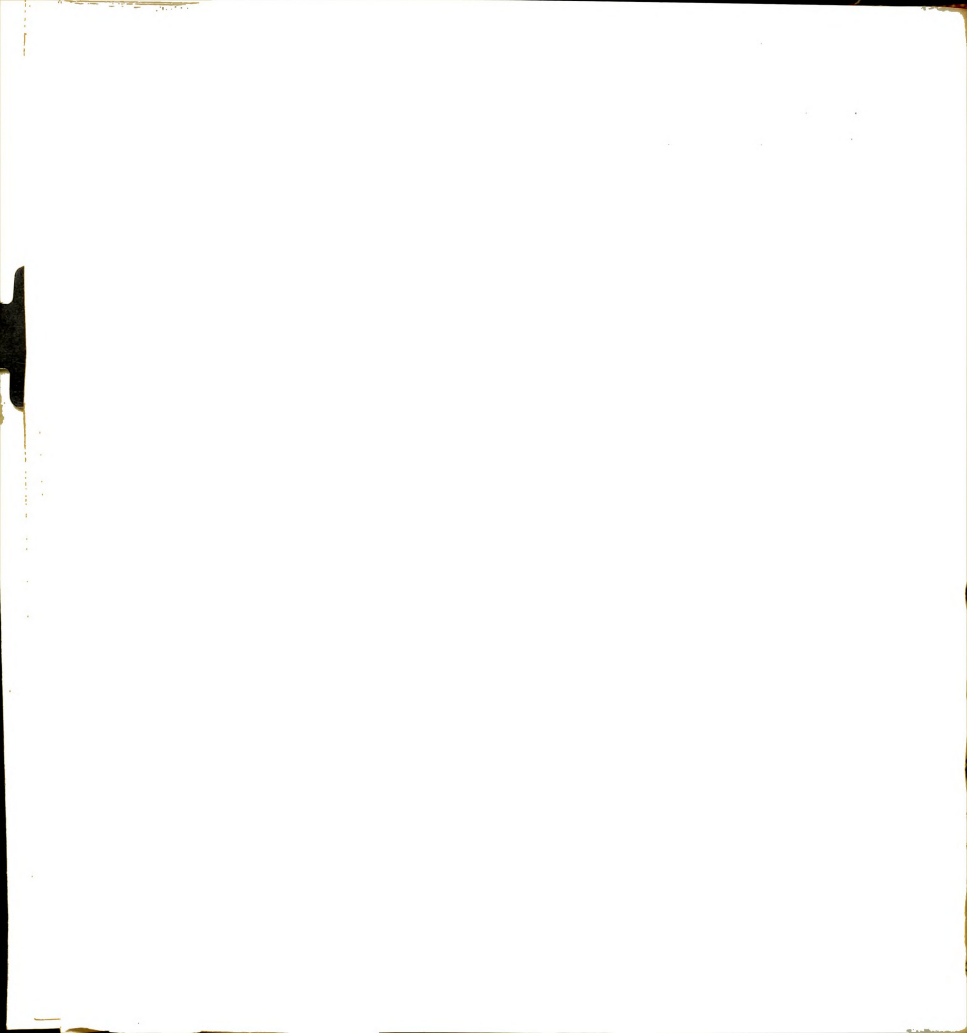


Agriculture and the state Extension specialists. He thinks highly of and probably attends with some regularity the Extension meetings, short courses and workshops at the University of Illinois in Urbana. He is a good Farm Bureau member and believes strongly in the farm cooperative movement. He likes the people who sit on Farm Bureau boards and Extension Councils and may be one of them at one time or another. He buys much of his material from the Farm Supply Company, one of the Illinois Agricultural Association's (the state Farm Bureau) subsidiaries. He listens to farm radio programs but is not enthusiastic about them.

He doesn't like advertising nor having the government in agriculture. He doesn't have much to do with other farmers as good sources of farming information, nor does he look to the State Fair or Farm Progress Show for his ideas on how to farm better.

He highly trusts CES information and thinks it is very impartial and unbiased. He is a strong Extension supporter and uses its information as much as he can. He likes to go to Extension meetings and does not think that this system of getting information to farmers is out of date or ineffective, even though he thinks that not enough farmers in his county take advantage of the availability of good sound technical farming information at such meetings. He wants the Extension Service to stay in business. He has lots of confidence in CES recommendations and firmly rejects the idea that they are influenced too much by commercial interests.

He thinks farm advisers are competent and reliable sources of information and that their help is very valuable to him. His county farm adviser serves him very well with up-to-date information. He



is convinced that his farm adviser will listen to suggestions from his county farmers and does not play favorites. He finds it easy to get the information he wants, because he doesn't hesitate to ask for it. He is a good friend of his county farm adviser and probably is the type of farmer who accepts appointments to the Extension Council and helps plan the county Extension program.



CHAPTER VII

ATTITUDES OF FARM ADVISERS AND ADMINISTRATORS

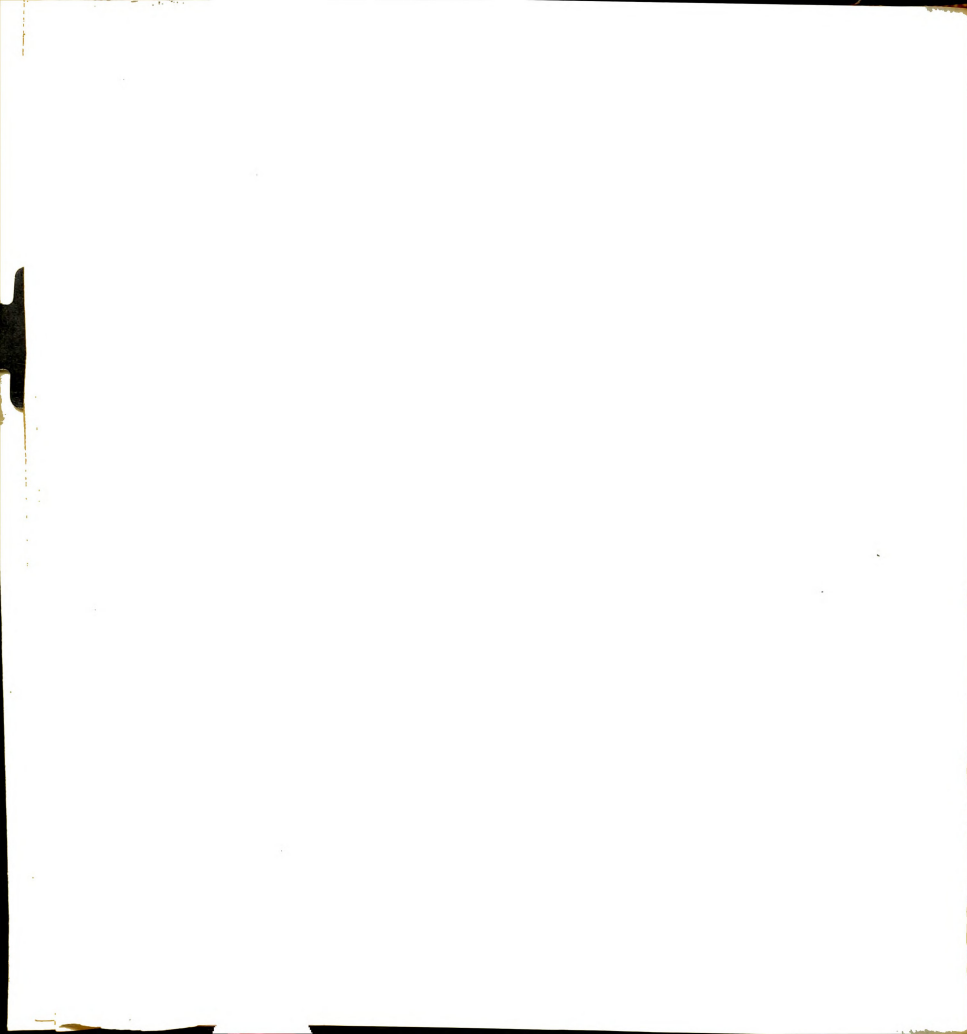
This chapter reports the analysis of the intercorrelations between the Q-sorts of the 60 sample Illinois commercial farmers and those made by the 10 farm advisers whose counties included the sample farmers, the five agricultural supervisors, and seven Extension administrators (Table 1).

Factor analysis of the Q-sorts made by the 10 county farm advisers show two distinct types in each of the three dimensions of attitude (institutional, personal and sources). However, the types are not consistent, and three of the farm advisers vary between types. We will look at the types more closely as we analyze each Q-sort separately.

Two Cooperative Extension (Typical) Types

We asked each farm adviser in our 10 sample counties to sort the cards through once on the basis of how he thought the "typical" farmer in his county would sort them. In other words, his sort approximates his picture of how he thinks the average farmer in his county regards the Cooperative Extension Service, in this case. Figure 5 shows the distribution of the 10 farm advisers around the two factor coordinates based on the first varimax rotation analysis of this Q-sort.

This solution explains 68 percent of the variance and further



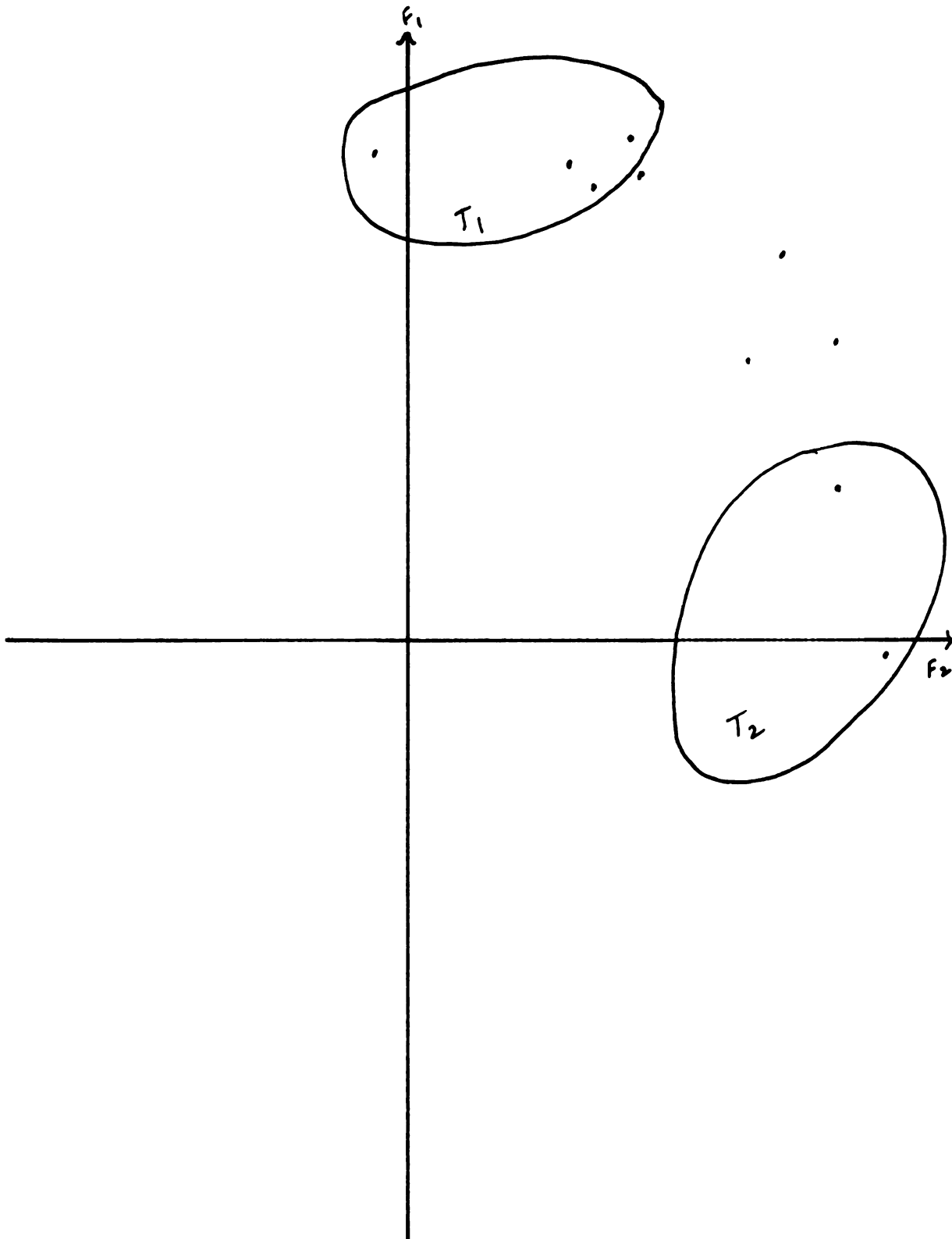
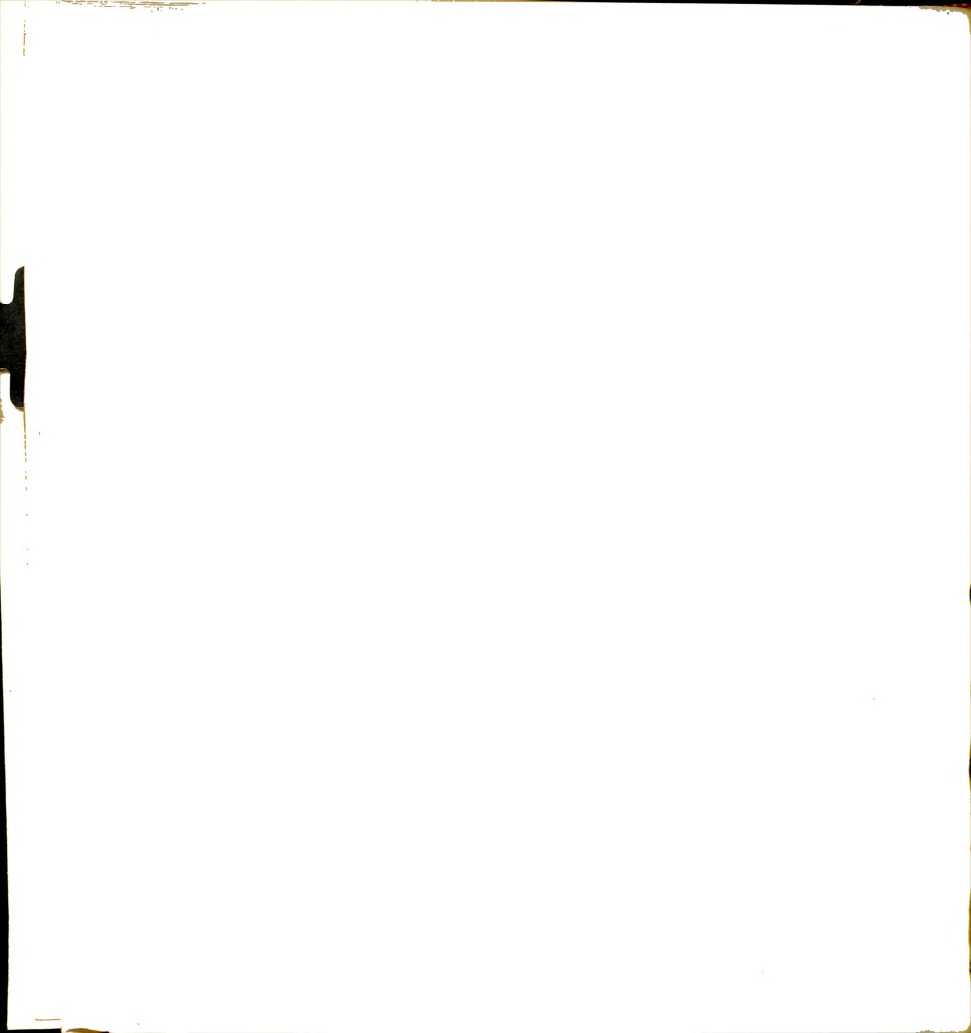


Figure 5 -- First Varimax Rotation, showing positions of 10 Illinois county farm advisers as determined by the relationships of their "typical" patterns of attitudes toward the Cooperative Extension Service.



rotation added little more information.

These farm advisers agree with each other most highly when they think the average farmer in their county believes the Cooperative Extension Service suggests sound practices that benefit the farmer who uses them. They also have about the same picture of the average farmers in their respective counties who believe that information from the Cooperative Extension Service is honest and can be trusted to be as accurate as possible. They also share these attitudes about their typical farmers: they like the CES idea that no farmer is too old to learn better farming methods, the CES is thoughtful and considerate in its dealings with farmers, and Extension can do its job well only so long as it maintains an office in every county.

All 10 farm advisers are in highest consensus disagreement with the statement that most of the so-called Extension experts have read so many books that they can't talk common sense any more. They all think that their "typical" farmer highly disagrees that CES recommendations are influenced too much by commercial interests.

CES (Typical) Type 1 Farm Advisers

Type 1 farm advisers in this first Q-sort of "typical" attitudes toward the Cooperative Extension Service think that their farmers most like the idea that no other source of agricultural information is more up-to-date than the CES (Table 52). They say their farmers strongly believe that CES material is impartial and unbiased, that the content of its educational programs is as modern as agricultural research can make it, and that its information is honest and accurate.

Table 52 -- CES Type 1 Farm Advisers (Typical) Item Arrays, Most Agree

Item	Description	Type 1	Type 2
* 4	No other source of agricultural information is more up-to-date than the Cooperative Extension Service.	1.54	- .81
8	Cooperative Extension Service material is impartial and unbiased.	1.48	.64
* 5	The content of Extension's educational programs is as modern as agricultural research can make it.	1.44	.18
9	Information that comes from the Cooperative Extension Service is honest and can be trusted to be as accurate as possible.	1.39	1.18
19	I can rely on information from the Cooperative Extension Service.	1.26	.72
23	I think that the Cooperative Extension system of getting information to farmers through educational meetings is very effective.	1.21	.27
15	On the whole, the Extension Service does a pretty good job of presenting information to us.	1.13	1.90
18	When I have a farming problem, I find that I can get the information I need quickly and easily from the Cooperative Extension Service.	1.12	.37
* 33	Most smart farmers will try a new practice that is recommended by the Cooperative Extension Service.	1.11	- .18
* 35	Extension's educational programs tell me what I want to know.	1.07	- .27
28	The Cooperative Extension Service suggests sound practices that benefit the farmer who uses them.	1.05	1.09
3	I like the Cooperative Extension Service idea that no farmer is too old to learn better farming methods.	1.02	.82



**Table 52 -- CES Type 1 Farm Advisers (Typical) Item Arrays, Most Agree
(Continued)**

Item	Description	Type 1	Type 2
43	I believe that a lot of the information that comes from the University of Illinois is of practical use to me.	1.00	1.81
*13	The Cooperative Extension Service should not concentrate on helping only farmers, but should try to help everybody.	.73	-1.36
*10	Generally speaking, I have found the Cooperative Extension Service to be about as friendly an organization as you could find anywhere.	.66	1.71

***Greatest item disagreement, the items that most differ between CES Types 1 and 2 Farm Advisers.**



Table 53 -- CES Type 1 Farm Advisers (Typical) Item Arrays, Most Dis-
agree

Item	Description	Type 1	Type 2
*36	I don't have much confidence in the recommendations of the Cooperative Extension Service.	-2.10	- .73
40	So far as I'm concerned, they could do away with the Cooperative Extension Service today.	-1.70	-2.08
*12	Most of the information put out by the Cooperative Extension Service is a review of what I have already heard or read about.	-1.35	.72
6	Most of the so-called Extension experts have read so many books that they can't talk common sense any more.	-1.35	-1.63
*24	My years of experience tell me just about all I need to know about farming.	-1.34	.89
*21	My father taught me most of the things I need to know about farming.	-1.29	.44
*42	It's hard to tell whether the tax money that is spent on the Cooperative Extension Service is doing any good or not.	-1.19	.71
*41	Extension's system of holding educational meetings is out-of-date.	- .95	.46
*27	Information presented at Extension's educational meetings is too general, it is not specific enough to be of any real help to me.	- .76	.73
*44	The same farmers--usually the best ones in the county--tend to show up at every Extension meeting; the Extension educational system thus does not get to the farmers who need the information the most.	- .72	.38
*26	I get the feeling that the Cooperative Extension Service as part of the University of Illinois does not fit in very well with the farmers around here.	- .67	-1.99



Table 53 -- CES Type 1 Farm Advisers (Typical) Item Arrays, Most Disagree (Continued)

Item	Description	Type 1	Type 2
*29	One of the good things about Cooperative Extension is its close ties with the U. S. Department of Agriculture.	- .34	-1.46
*34	Most Extension services, like soil testing, take too much time and paper work.	- .14	-1.71

*Greatest item disagreement, the items that most differ between CES Types 1 and 2 Farm Advisers.



They express confidence in the CES when they say their farmers believe most smart farmers will try a new practice recommended by Extension, that Extension's educational programs tell the farmers what they want to know, and most highly disagree that their farmers don't have much confidence in Extension recommendations (Table 53). They express very different ideas about their county farmers than Type 2 advisers when they disagree heartily with the ideas that most of the CES information is a review of what they have already heard or read about, that their years of experience tell them just about all they need to know about farming, and that it's hard to tell whether the tax money that is spent on the CES is doing any good or not.

CES (Typical) Type 2 Farm Advisers

Type 2 farm advisers are most concerned that their county farmers have a favorable attitude toward the process of getting information to them, and that it is practical information, rather than that it is up-to-date and unbiased as Type 1 advisers said (Table 54). Their view of their farmers' attitudes toward Extension vary most from the Type 1 advisers when they agree somewhat that their farmers think their years of experience tell them just about all they need to know about farming. Type 2 farm advisers also take strong exception to the Type 1 stand when they say that their farmers somewhat disagree that Extension has the most up-to-date information. They think that their farmers will say their fathers taught them about all they need to know about farming.



Table 54 -- CES Type 2 Farm Advisers (Typical) Item Arrays, Most Agree

Item	Description	Type 2	Type 1
15	On the whole, the Extension Service does a pretty good job of presenting information to us.	1.90	1.13
43	I believe that a lot of the information that comes from the University of Illinois is of practical use to me.	1.81	1.00
10	Generally speaking, I have found the Cooperative Extension Service to be about as friendly an organization as you could find anywhere.	1.71	.66
20	The scientists at the College of Agriculture in Urbana give farmers like me a lot of good help.	1.46	.50
9	Information that comes from the Cooperative Extension Service is honest and can be trusted to be as accurate as possible.	1.18	1.39
28	The Cooperative Extension Service suggests sound practices that benefit the farmer who uses them.	1.09	1.05
*24	My years of experience tell me just about all I need to know about farming.	.89	-1.34
*27	Information presented at Extension's educational meetings is too general, it is not specific enough to be of any real help to me.	.73	- .76
*12	Most of the information put out by the Cooperative Extension Service is a review of what I have already heard or read about.	.72	-1.35
*42	Its hard to tell whether the tax money that is spent on the Cooperative Extension Service is doing any good or not.	.71	-1.19
*41	Extension's system of holding educational meetings is out of date.	.46	- .95
*21	My father taught me most of the things I need to know about farming.	.44	-1.29
* 5	The content of Extension's educational programs is as modern as agricultural research can make it.	.18	1.44

*Greatest item disagreement, the items that most differ between CES Types 2 and 1 Farm Advisers.

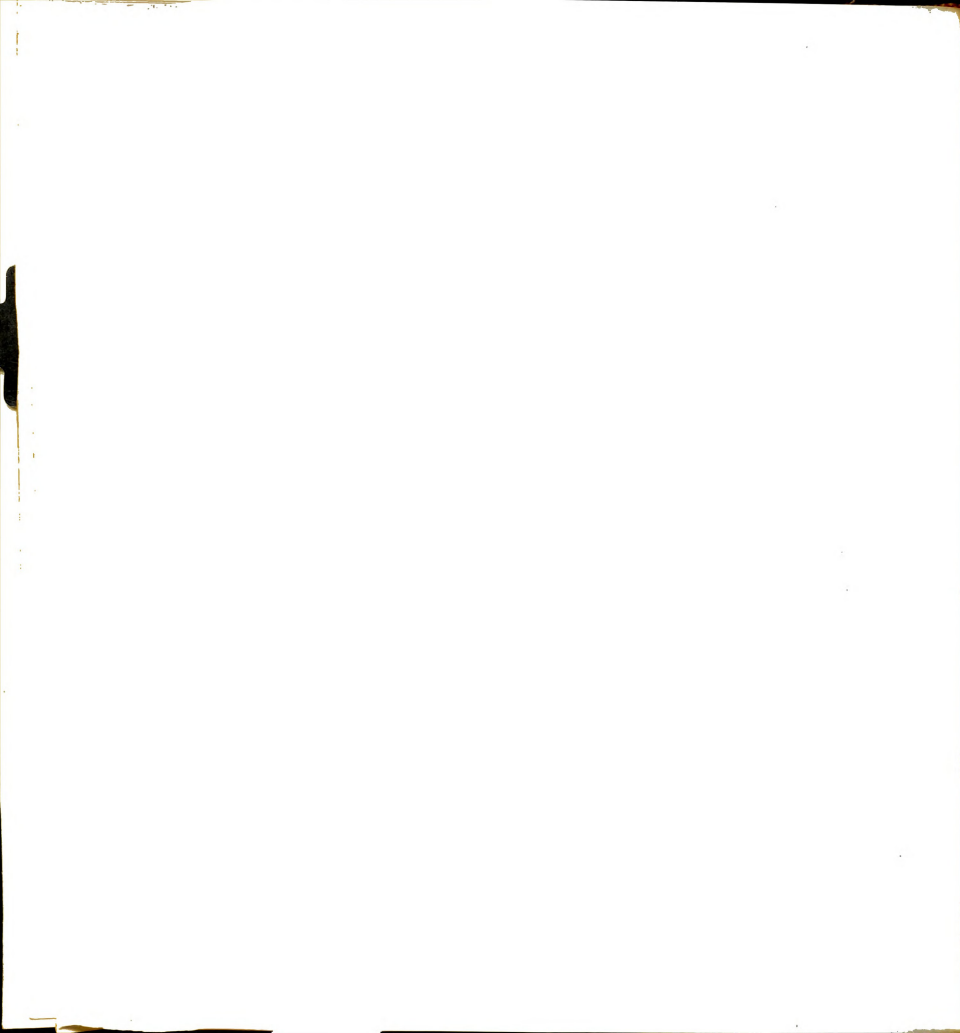


Table 55 -- CES Type 2 Farm Advisers (Typical) Item Arrays, Most Disagree

Item	Description	Type 2	Type 1
40	So far as I am concerned, they could do away with the Cooperative Extension Service today.	-2.08	-1.70
*26	I get the feeling that the Cooperative Extension Service as part of the University of Illinois does not fit in very well with the farmers around here.	-1.99	- .67
*34	Most Extension services, like soil testing, take too much time and paper work.	-1.71	- .14
6	Most of the so-called Extension experts have read so many books that they can't talk common sense any more.	-1.63	-1.35
*29	One of the good things about Cooperative Extension is its close ties with the U. S. Department of Agriculture.	-1.46	- .34
*13	The Cooperative Extension Service should not concentrate on helping only farmers, but should try to help everybody.	-1.36	.73
* 4	No other source of agricultural information is more up-to-date than the Cooperative Extension Service.	- .81	1.54
*35	Extension's educational programs tell me what I want to know.	- .27	1.07
*33	Most smart farmers will try a new practice that is recommended by the Cooperative Extension Service.	- .18	1.11

*Greatest item disagreement, the items that most differ between CES Types 2 and 1 Farm Advisers.

Type 2 advisers on this Q-sort are a little more concerned than Type 1 advisers that their farmers don't want to get rid of the CES (Table 55). They think that their county farmers are strongly opposed to the idea that Extension doesn't fit in very well with the farmers and that most Extension services like soil testing take too much time. They think their farmers believe that Extension experts can talk common sense, that they don't want CES to be too closely linked with the USDA, and that CES should concentrate on its farm audience.

Thumbnail Sketches of CES Farm Advisers (Typical) Types

CES (Typical) Type 1 Farm Advisers are concerned about the timeliness and up-to-dateness of Extension information. They feel that their farmers, on the average, want impartial, unbiased information that they can rely on. They think that they are getting out the information that their farmers want to them quickly and easily, and that the system of holding educational meetings is sound. They think that their typical farmers have confidence in CES information, and that what they get is new to them. They vigorously deny that their farmers get all the information they need from either their father or their experience. They seem to be institutionally oriented toward the aspects of Extension.

CES (Typical) Type 2 Farm Advisers are concerned that their farmers think of them as friendly persons putting out practical information. They are not so sure that Extension's system of holding educational meetings is the best way to get the information to farmers, and they think that their typical farmers do get much of their



information from their experience and their fathers. They are a little less traditional in their outlook toward Extension information, denying that Extension benefits from having close ties with the USDA, that no other source of information is more up-to-date than CES, and that CES educational programs categorically tell the farmers what they want to know.

Two Farm Adviser (Typical) Types

The farm advisers are more nearly of one type on the dimension of attitudes toward themselves and their colleagues in the other counties. Seven of the 10 advisers on this Q-sort are much alike in their opinions about what their typical county farmers think of them. However, two of the farm advisers are divergent enough to form a different type (Figure 6), and one is in the middle, about equally weighted toward both types.

These two adviser types hold nearly the same strong attitude that their county farmers on the average appreciate the sincere interest that the farm advisers take in helping them with their problems. The advisers are a little sensitive that they don't get out to visit farms often enough when they agree that their farmers don't think they get around to visit farms like they should.

All the advisers highly disagree with the ideas that their farmers think they should have to foot the bill to establish some of the practices they recommend so that they would become more practical, and that they will not listen to new ideas and suggestions from their farmers. They also disagree with the attitude that they play favorites among their farmers.



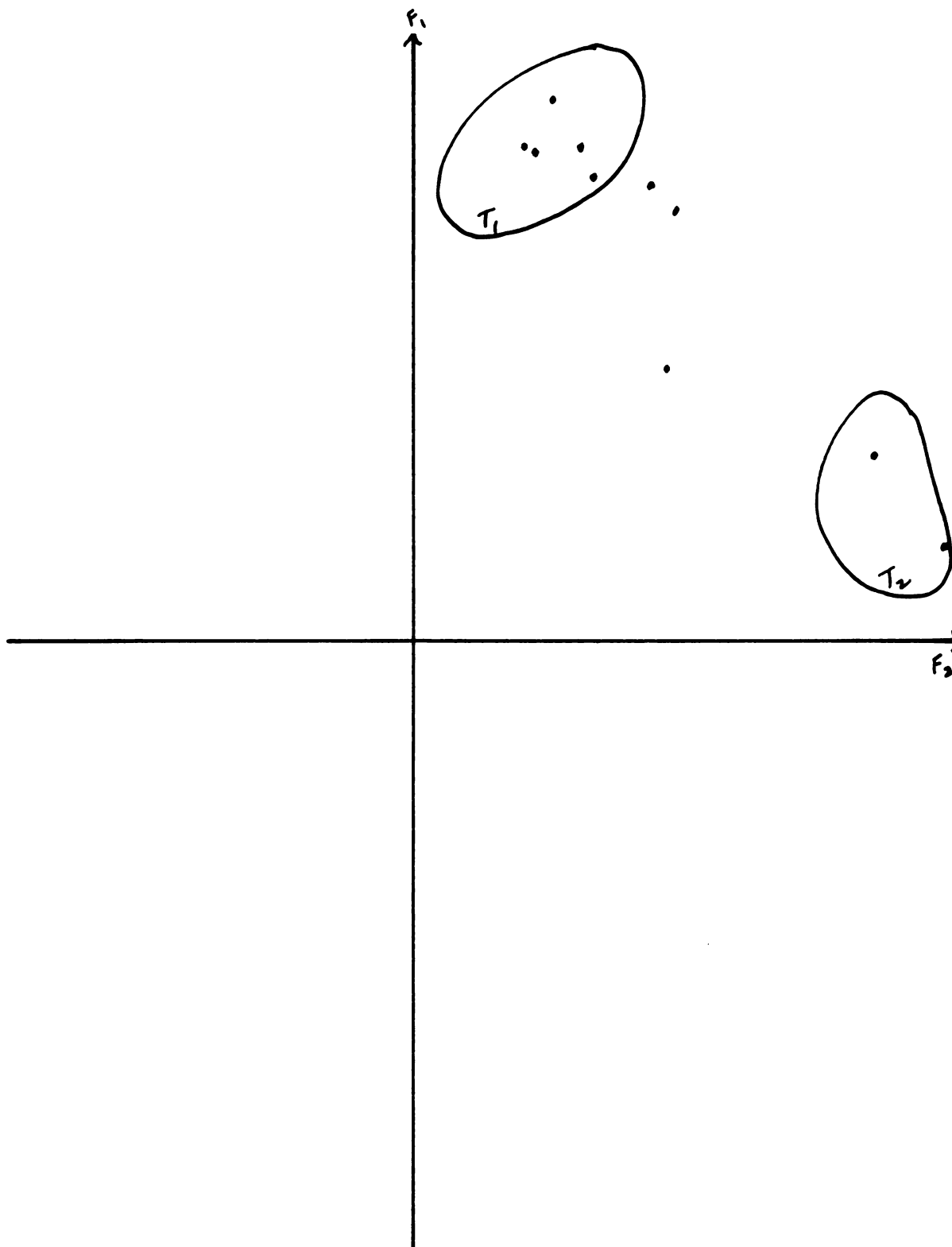


Figure 6 -- First Varimax Rotation, showing positions of 10 Illinois county farm advisers as determined by the relationships of their "typical" patterns of attitudes toward Cooperative Extension personnel.

Adviser (Typical) Type 1 Farm Advisers

These advisers most highly agree that their typical farmers believe there is a lot of value in most of the practices recommended by the county farm adviser, and that he gives good service to his county farmers (Table 56). Adviser Type 2 advisers highly disagree with Type 1 about these farmer attitudes. Type 1 advisers strongly believe that their average farmers think advisers are interested in people as well as subject matter and that they tell farmers the straight facts as they see them. Type 1 think their farmers will usually put one of their recommendations into practice because they know it will usually work, while those in Type 2 are not so sure about that.

Type 1 advisers most highly disagree that their farmers think they are not worth what they are paid, and Type 2 advisers have the same feeling (Table 57). The majority of the 10 advisers also highly disagree with the idea that their farmers think CES recommendations are old-fashioned. They think their farmers are easily able to understand the way they present information, while Type 2 advisers do not go along with that idea.

Adviser (Typical) Type 2 Farm Advisers

Type 2 farm advisers most highly agree that they think their typical farmers can get from them the most down-to-earth recommendations on how to farm better (Table 58). They agree much more than Type 1 advisers that farm advisers and state specialists really know their business. They suspect that their farmers might think that it takes a little too much time and trouble to get information from them, while Type 1 advisers don't agree with that idea at all.



Table 56 -- Adviser Type 1 Farm Advisers (Typical) Item Arrays,
Most Agree

Item	Description	Type 1	Type 2
* 3	I think that there is a lot of value in most of the practices recommended by my county farm adviser.	1.68	- .43
28	I appreciate the sincere interest that my county farm adviser takes in helping me with my problems.	1.66	1.65
* 5	My county farm adviser gives good service to us farmers.	1.64	- .72
29	My county farm adviser is interested in people and their problems, he is more than just a subject matter expert.	1.59	1.78
16	My county farm adviser gives me the straight facts as he sees them, and I appreciate it.	1.49	1.22
2	My county farm adviser gives us farmers much valuable help in our farming operations.	1.12	.35
1	My county farm adviser makes us feel free to talk our problems over with him at educational meetings.	1.07	.19
24	My county farm adviser tries very hard to involve everyone in Extension educational programs regardless of which organization they belong to.	1.00	.74
* 8	I never hesitate to put into practice one of my county farm adviser's recommendations, because I know that it will usually work.	.85	- .29
*40	Farmers can get from the county farm adviser the most down-to-earth recommendations on how to farm better.	.79	1.97
*30	Cooperative Extension Service farm advisers and specialists really know their business.	.30	1.65
*20	It is not efficient use of my farm adviser's time to visit too many farms.	.13	-1.01

*Greatest item disagreement, the items that most differ between Adviser Types 1 and 2 Farm Advisers.

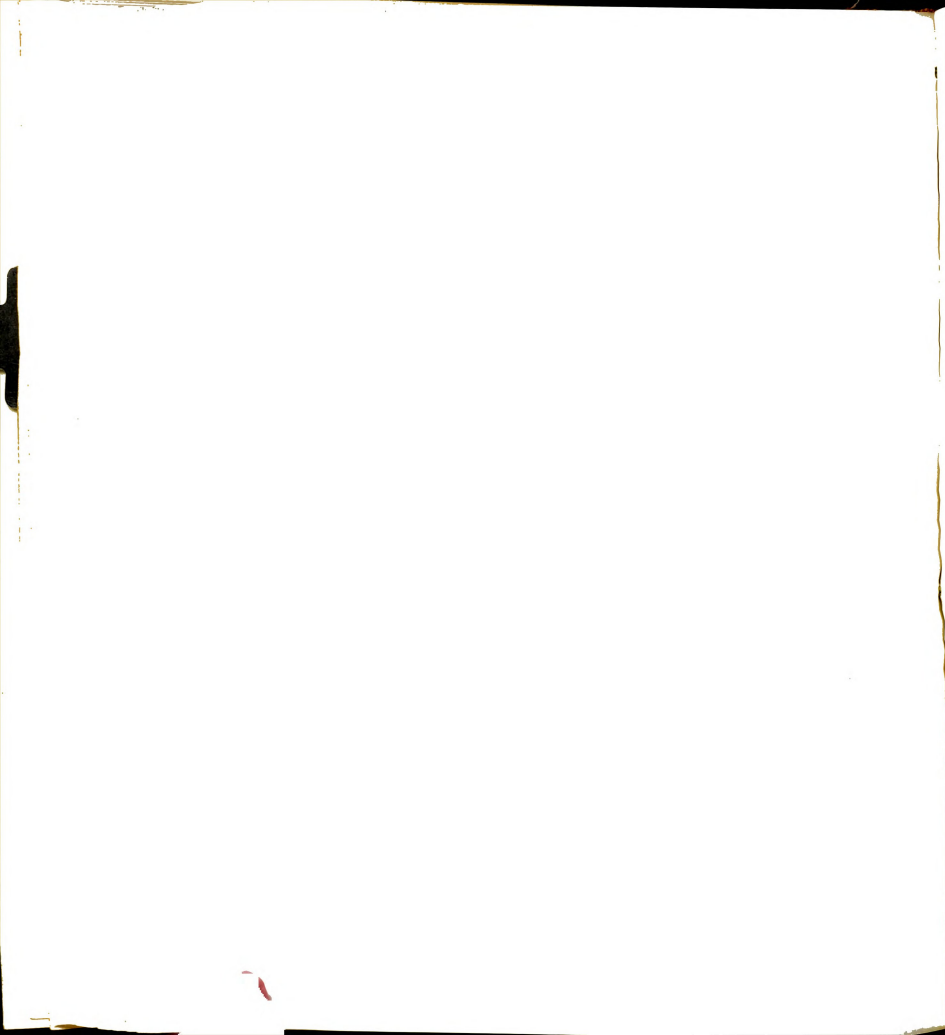


Table 57 -- Adviser Type 1 Farm Advisers (Typical) Item Arrays,
Most Disagree

Item	Description	Type 1	Type 2
22	Generally speaking, county farm advisers are not worth what they are paid.	-2.01	-1.68
25	Most of the recommendations that I get from my county farm adviser sound like the horse-and buggy days, they are so old-fashioned.	-1.78	-1.65
23	My county farm adviser should have to foot the bill to establish some of the practices he recommends so that he would become more practical.	-1.31	-1.20
*36	My county farm adviser does not seem to be able to present information in a way that is easy to understand and use.	-1.16	.43
19	My county farm adviser will not listen to new ideas and suggestions from the farmers in this county.	-1.15	-1.22
11	I can get more reliable information that I need for my farming operation from a local commercial dealer I know than I can from my county farm adviser.	-1.12	- .35
4	My county farm adviser uses too many high-pressure tactics--he pushes too hard in trying to get us to try out new things and ideas.	-1.10	-1.94
*35	My county farm adviser is taking his connection with the University of Illinois too seriously--he claims to have more knowledge than I think he has.	-1.08	.13
*32	It takes me too much time and trouble to get information from my county farm adviser.	- .90	.72
* 7	My county farm adviser tries too hard to be friendly.	- .42	-1.49

*Greatest item disagreement, the items that most differ between Adviser Types 1 and 2 Farm Advisers.

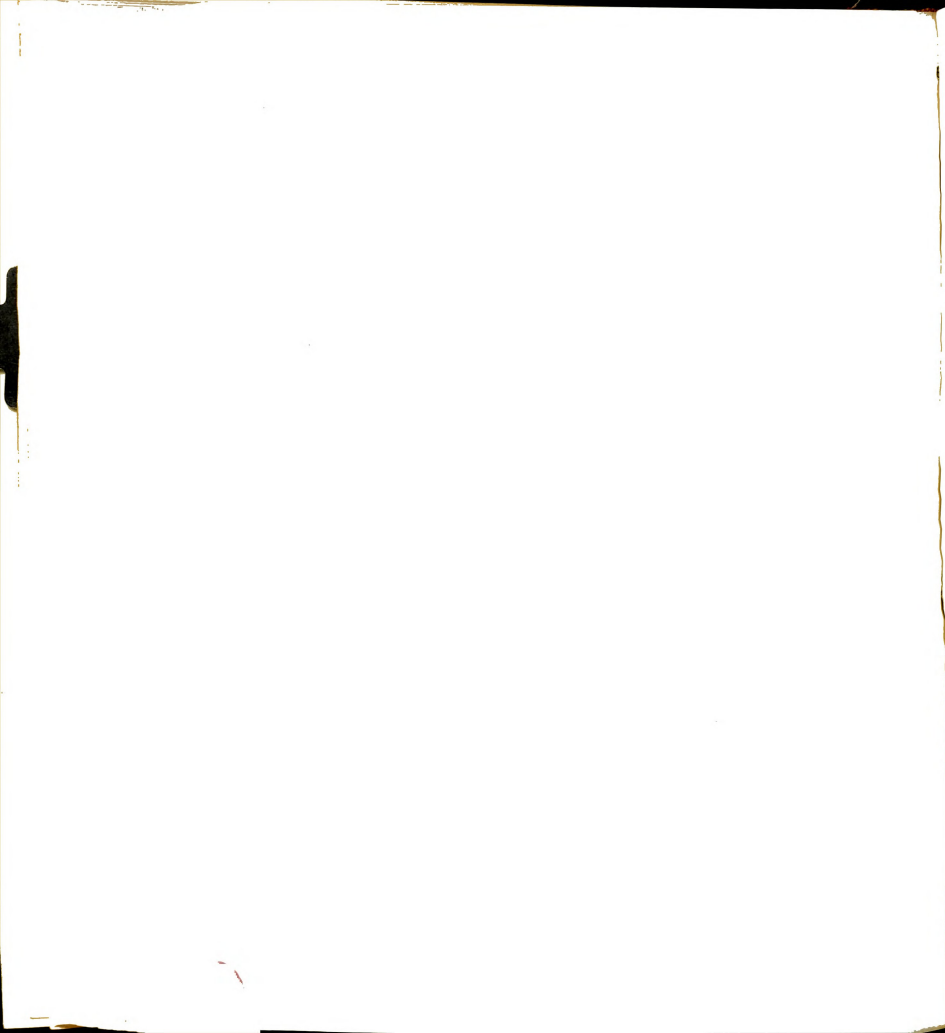


Table 58 -- Adviser Type 2 Farm Advisers (Typical) Item Arrays,
Most Agree

Item	Description	Type 2	Type 1
*40	Farmers can get from the county farm adviser the most down-to-earth recommendations on how to farm better.	1.97	.79
29	My county farm adviser is interested in people and their problems. He is more than just a subject matter expert.	1.78	1.59
28	I appreciate the sincere interest that my county farm adviser takes in helping me with my problems.	1.65	1.66
*30	Cooperative Extension farm advisers and specialists really know their business.	1.65	.30
16	My county farm adviser gives me the straight facts as he sees them, and I appreciate it.	1.22	1.49
26	I like the way that my county farm adviser keeps up-to-date with new farming practices by attending meetings at the College of Agriculture in Urbana.	1.06	.28
27	My county farm adviser is almost never too busy to come out to visit my farm when I want him to.	1.04	.43
*32	It takes me too much time and trouble to get information from my county farm adviser.	.72	- .90
*36	My county farm adviser does not seem to be able to present information in a way that is easy to understand and use.	.43	-1.16
*35	My county farm adviser is taking his connection with the University of Illinois too seriously--he claims to have more knowledge than I think he has.	.13	-1.08

*Greatest item disagreement, the items that most differ between Adviser Types 2 and 1 Farm Advisers.

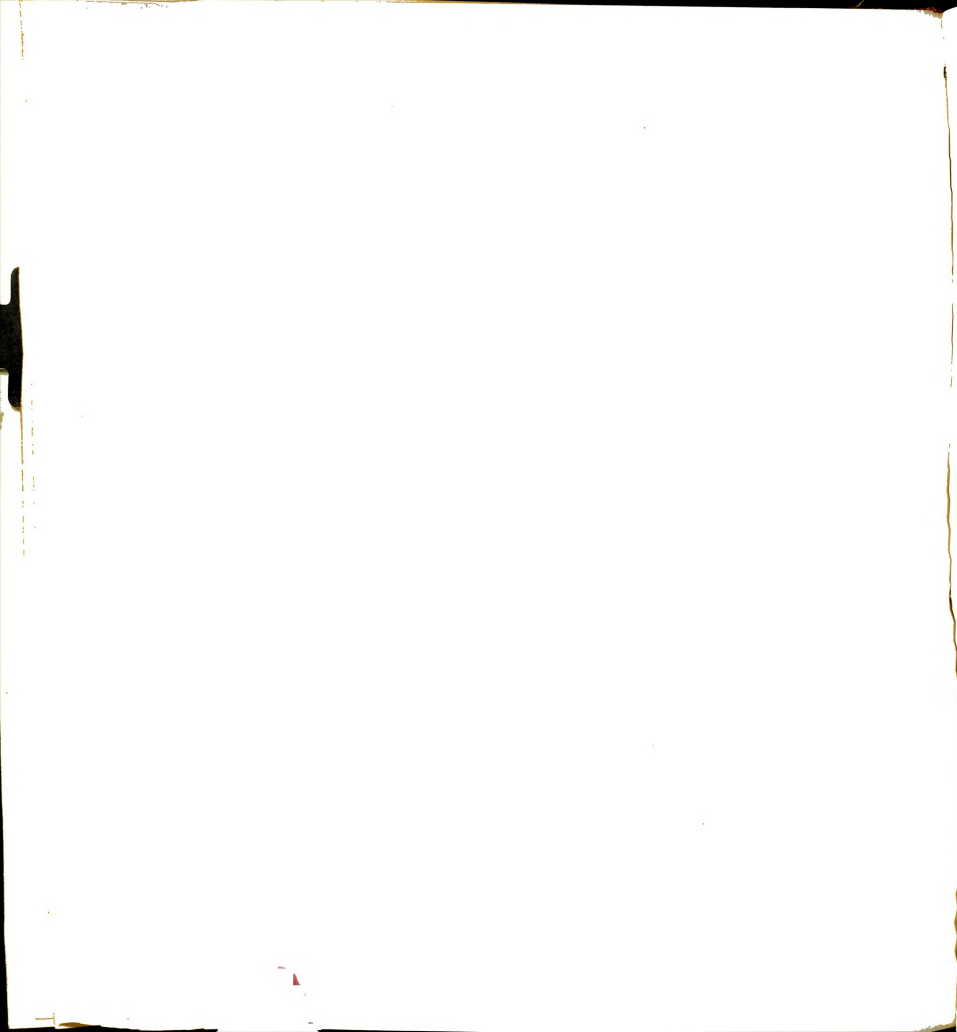
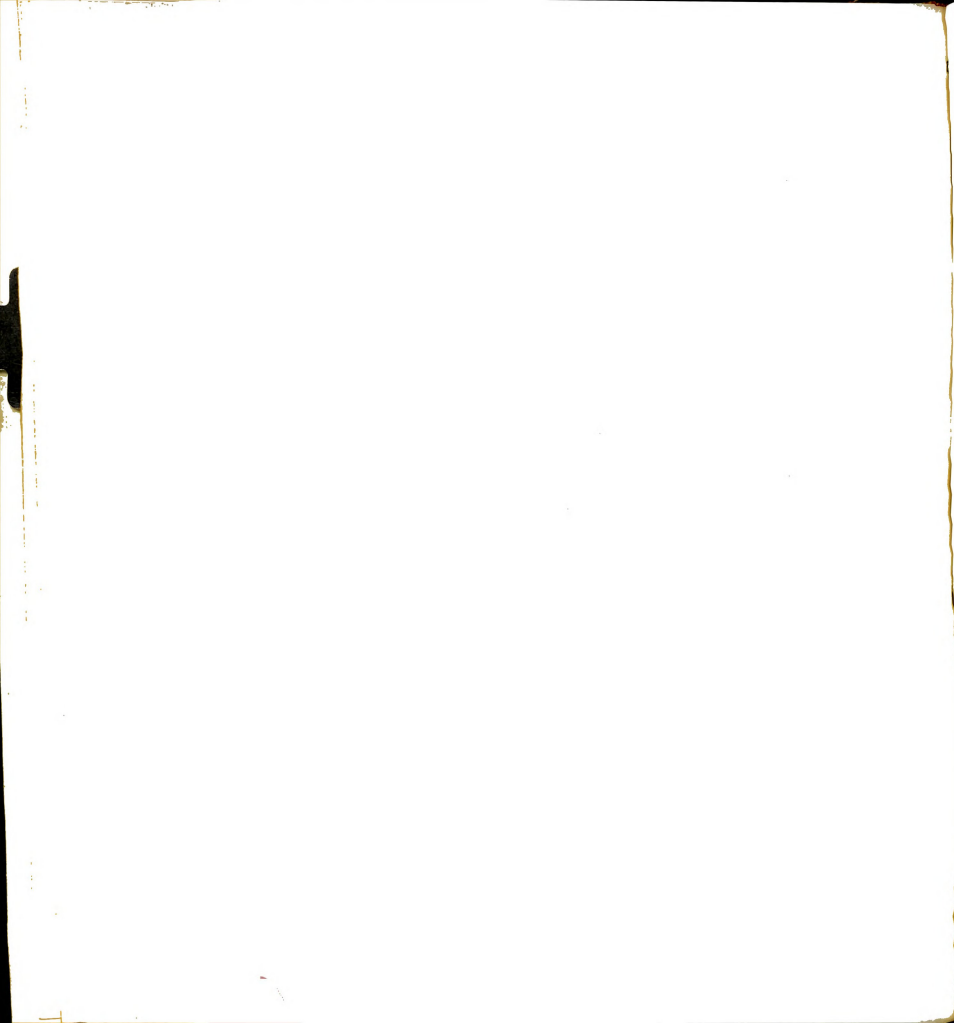


Table 59 -- Adviser Type 2 Farm Advisers (Typical) Item Arrays,
Most Disagree

Item	Description	Type 2	Type 1
4	My county farm adviser uses too many high pressure tactics--he pushes too hard in trying to get us to try out new things and ideas.	-1.94	-1.10
22	Generally speaking, county farm advisers are not worth what they are paid.	-1.68	-2.01
25	Most of the recommendations that I get from my county farm adviser sound like the horse-and-buggy days, they are so old-fashioned.	-1.65	-1.78
* 7	My county farm adviser tries too hard to be friendly.	-1.49	- .42
21	Many ideas that my county farm adviser puts out are too expensive for farmers like me to use.	-1.22	- .73
19	My county farm adviser will not listen to new ideas and suggestions from the farmers in this county.	-1.22	-1.15
23	My county farm adviser should have to foot the bill to establish some of the practices he recommends so that he would become more practical.	-1.20	-1.31
*20	It is not efficient use of my farm adviser's time to visit too many farms.	-1.01	.13
* 5	My county farm adviser gives good service to us farmers.	- .72	1.64
* 3	I think that there is a lot of value in most of the practices recommended by my county farm adviser.	- .43	1.68
* 8	I never hesitate to put into practice one of my county farm adviser's recommendations, because I know that it will usually work.	- .29	.85

*Greatest item disagreement, the items that most differ between Adviser Types 2 and 1 Farm Advisers.



Advisers of the second type most highly disagree that their farmers think they use too many high-pressure tactics (Table 59). They also disagree much more than Type 1 advisers that they try too hard to be friendly. While all the 10 farm advisers in our sample think that they don't make enough farm visits, Type 2 advisers on this Q-sort of attitudes disagree that their farmers think it's inefficient use of time to visit farms, while Type 1 advisers are lukewarm on that idea.

Thumbnail Sketches of Adviser Farm Advisers (Typical) Types

Adviser (Typical) Type 1 farm advisers are most concerned about the value of the information they put out and the kind of service they give to their county farmers. They want their farmers to appreciate the sincere interest they take in trying to help them with their problems. They also want to be known as highly reliable and honest workers who take a sincere interest in people, regardless of which organization they belong to. They want to be thought of as earning their salaries, and they believe that the information they pass on is up-to-date.

Adviser (Typical) Type 2 farm advisers are most concerned about whether their farmers are seeing them as capable persons who are keeping their recommendations down-to-earth. They share the idea that their farmers understand their great interest in people and in helping them with their problems. They are also sensitive that their farmers understand why it is necessary for them to attend so many meetings in Urbana. They don't want to be known as heavy pushers, nor that they try too hard to be friendly. They also share a common interest in



being worth what they are paid, being up-to-date in their recommendations, and not having to foot the bill for some of their recommended practices. They don't want their farmers to think that their ideas are too expensive, nor that they will not listen to new ideas and suggestions.

Two Sources (Typical) Types

Two of the 10 farm advisers switched types on this Q-sort of attitudes toward the sources of farming information. Their pattern of intercorrelations is lower on this dimension of attitudes than on the other two (Figure 7). Correlation between the two types was only .258, compared with .393 on Q-1 and .609 on Q-2.

These two sources types of advisers are in most consensus in their mutual agreement that their typical county farmers regard the National Farmers Organization, the Farmers Union and the Grange as their most unreliable sources of information about better farming methods. They also highly agree with each other that their farmers are lukewarm toward the mass media as sources of information, regarding articles in newspapers as somewhat reliable, but nearly neutral on television and radio programs. Type 2 farm advisers believe their farmers like stories in farm magazines fairly well, but Type 1 advisers do not regard them as so reliable a source.

Sources (Typical) Type 1 Farm Advisers

These farm advisers believe most highly that their typical farmers regard the Cooperative Extension Service and the Agricultural Experiment Station in Urbana as their most reliable sources of agricultural information (Table 60). They also think their farmers



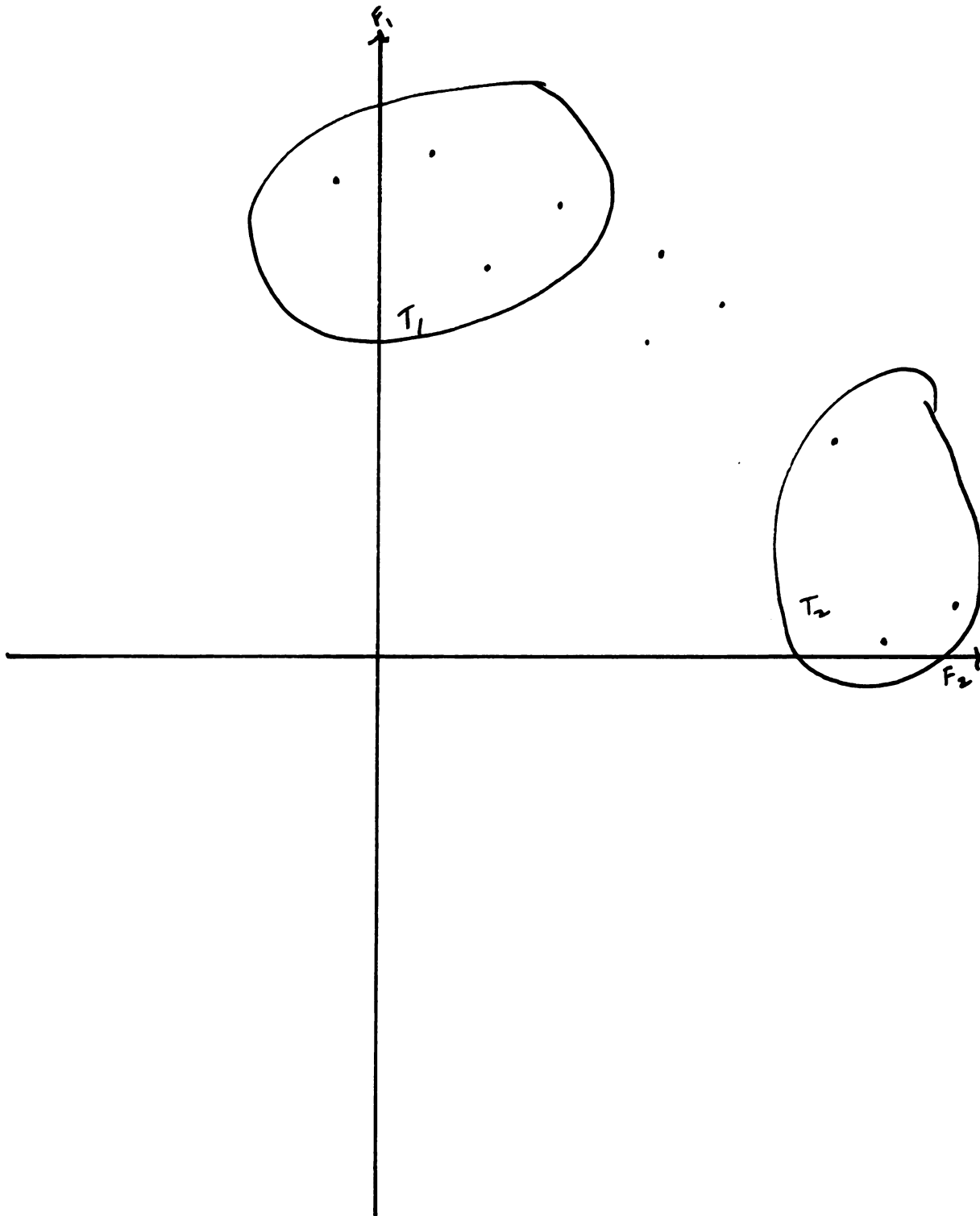


Figure 7 -- First Varimax Rotation, showing positions of 10 Illinois county farm advisers as determined by the relationships of their "typical" patterns of attitudes toward sources of farming information.



Table 60 -- Sources Type 1 Farm Advisers (Typical) Item Arrays,
Most Agree

Item	Description	Type 1	Type 2
* 1	Cooperative Extension Service	2.07	.06
*32	The Agricultural Experiment Station in Urbana	1.91	- .98
*22	Bulletins and reports from the Agri- cultural Experiment Station in Urbana	1.49	- .50
8	My county farm adviser	1.43	1.89
13	College of Agriculture at Urbana	1.40	.12
*39	Short courses and workshops at the University of Illinois	1.40	- .97
11	State Extension specialists	1.31	.37
*40	Extension meetings held at the University in Urbana	1.21	-1.00
*41	State Fair exhibits	.11	-1.30

*Greatest item disagreement, the items that most differ between
 Sources Types 1 and 2 Farm Advisers.



Table 61 -- Sources Type 1 Farm Advisers (Typical) Item Arrays,
Most Disagree

Item	Description	Type 1	Type 2
36	The National Farmers Organization	-1.93	-1.94
34	Farmers Union	-1.89	-1.94
35	The Grange	-1.64	-1.54
19	Farm Bureau board meetings	-1.63	- .63
37	USDA representatives	-1.34	- .54
15	Farm Bureau	-1.26	.08
21	My landlord or landlady	-1.17	- .62
*16	Farm Supply	-1.17	.79
*14	County ASCS office	-1.17	1.14
* 9	My neighbors	- .60	1.63
* 7	Our local school's vocational agriculture teacher	- .47	1.58

*Greatest item disagreement, the items that most differ between
Sources Types 1 and 2 Farm Advisers.



regard as highly reliable sources the bulletins and reports from the Agricultural Experiment Station, their county farm adviser, the College of Agriculture at Urbana, short courses and workshops at the University of Illinois, state Extension specialists and Extension meetings at the University in Urbana. Type 2 advisers are unlike Type 1 in all of these attitudes except that they also believe farmers have a high respect for their county farm adviser as a reliable source of information.

Typical Type 1 advisers in this Q-sort also think their farmers do not like Farm Bureau board meetings, USDA representatives, the Farm Bureau, or a landlord or landlady very much as sources of information (Table 61). They are most different from Type 2 advisers in saying that their farmers do not regard the Farm Supply Company, the county ASCS office, their neighbors or the local vocational agriculture teacher very highly as sources.

Sources (Typical) Type 2 Farm Advisers

The second type of farm advisers on the sources sort (Q-3) say that their typical farmers most like other successful farmers and rate them higher than their county farm adviser as a reliable source of farming information (Table 62). Next, they rate neighbors, the vocational agriculture teacher, other farmers and the county ASCS office as sources most highly reliable for their farmers. These advisers are almost neutral in their view of what their typical farmers think of the Cooperative Extension Service as a source of information.

Type 2 advisers on this Q-sort also do not think their farmers look upon the farm organizations other than Farm Bureau as very



Table 62 -- Sources Type 2 Farm Advisers (Typical) Item Arrays,
Most Agree

Item	Description	Type 2	Type 1
10	Successful farmers I know	2.29	.99
8	My county farm adviser	1.89	1.43
* 9	My neighbors	1.63	- .60
* 7	Our local school's vocational agri- culture teacher	1.58	- .47
44	Other farmers	1.18	.24
*14	County ASCS office	1.14	-1.17
18	Stories in farm magazines	1.10	.77
*16	Farm Supply	.79	-1.17
* 1	Cooperative Extension Service	.06	2.07

*Greatest item disagreement, the items that most differ between
 Sources Types 2 and 1 Farm Advisers.



Table 63 -- Sources Type 2 Farm Advisers (Typical) Item Arrays,
Most Disagree

Item	Description	Type 2	Type 1
36	The National Farmers Organization	-1.94	-1.93
34	Farmers Union	-1.94	-1.89
35	The Grange	-1.54	-1.64
25	Advertising in newspapers	-1.33	- .34
17	Advertising in farm magazines	-1.33	- .18
*41	State Fair exhibits	-1.30	.11
24	U. S. government bulletins and reports	-1.11	- .28
*40	Extension meetings held at the University in Urbana	-1.00	1.21
*32	The Agricultural Experiment Station in Urbana	- .98	1.91
*39	Short courses and workshops at the University of Illinois	- .97	1.40
*22	Bulletins and reports from the agricultural Experiment Station in Urbana	- .50	1.49

*Greatest item disagreement, the items that most differ between
Sources Types 2 and 1 Farm Advisers.



reliable sources of farm information (Table 63). They think that their farmers do not regard advertising in farm magazines and newspapers and State Fair exhibits very highly.

Thumbnail Sketches of Sources Farm Advisers (Typical) Types

Sources (Typical) Type 1 farm advisers believe that their average county farmers are oriented toward the institutional aspects of Extension information as sources of information on better farming methods. They mention only themselves and state specialists as persons among the sources they think their farmers regard as most reliable. They believe that their farmers like to go to meetings, short courses and workshops at the University of Illinois in Urbana. They include the Farm Bureau among the farm organizations that they think their farmers do not regard as reliable sources of information, and they list the government representatives in the county ASCS office, a landlord or landlady, neighbors and the local vocational agriculture teacher as unreliable sources of information.

Sources (Typical) Type 2 farm advisers list only the county ASCS office and Farm Supply Company (the holding company for several of the Illinois Agricultural Association commercial firms) as institutional sources of information that they think their typical county farmers regard as highly reliable. The other most reliable sources for their farmers are people. They think that their county farmers do not regard the Cooperative Extension Service as an important source at all. They see their typical farmers as not thinking much of the three farm organizations other than Farm Bureau as



sources of information, nor as having much respect for commercial sources. Their farmers, they say, are not at all impressed with U. S. government bulletins and reports nor the various meetings at Urbana as sources of information.

One Type for "Ideal" Sorts

We asked the 10 farm advisers in whose counties we had selected and interviewed the sample of 60 Illinois commercial farmers, plus the five agricultural supervisors and seven administrators, to sort the attitude statement cards as they would like to have the "ideal" farmer arrange them. Analysis of these "ideal" sorts shows enough unanimity of agreement as to what these 22 Extension people would want commercial farmers to think of them that we are able to use the first principal axis solution for the factor loading matrix of intercorrelations. This one factor solution accounts for 69 percent of the sample variance on Q-sort 1 (Cooperative Extension), and for 73 percent of the variance on both Q-sort 2 (county farm advisers and state specialists), and Q-sort 3 (sources of agricultural information).

CES (Ideal) Type farm advisers and administrators highly agree with each other that CES information is honest and can be trusted to be as accurate as possible (Table 64). They next most highly agree that Extension information is reliable, impartial and unbiased, and returns more money than it costs in taxes. They thoroughly believe that CES information is as modern as research can make it, and that it is easy to get. They also believe that it is practical and sound information.



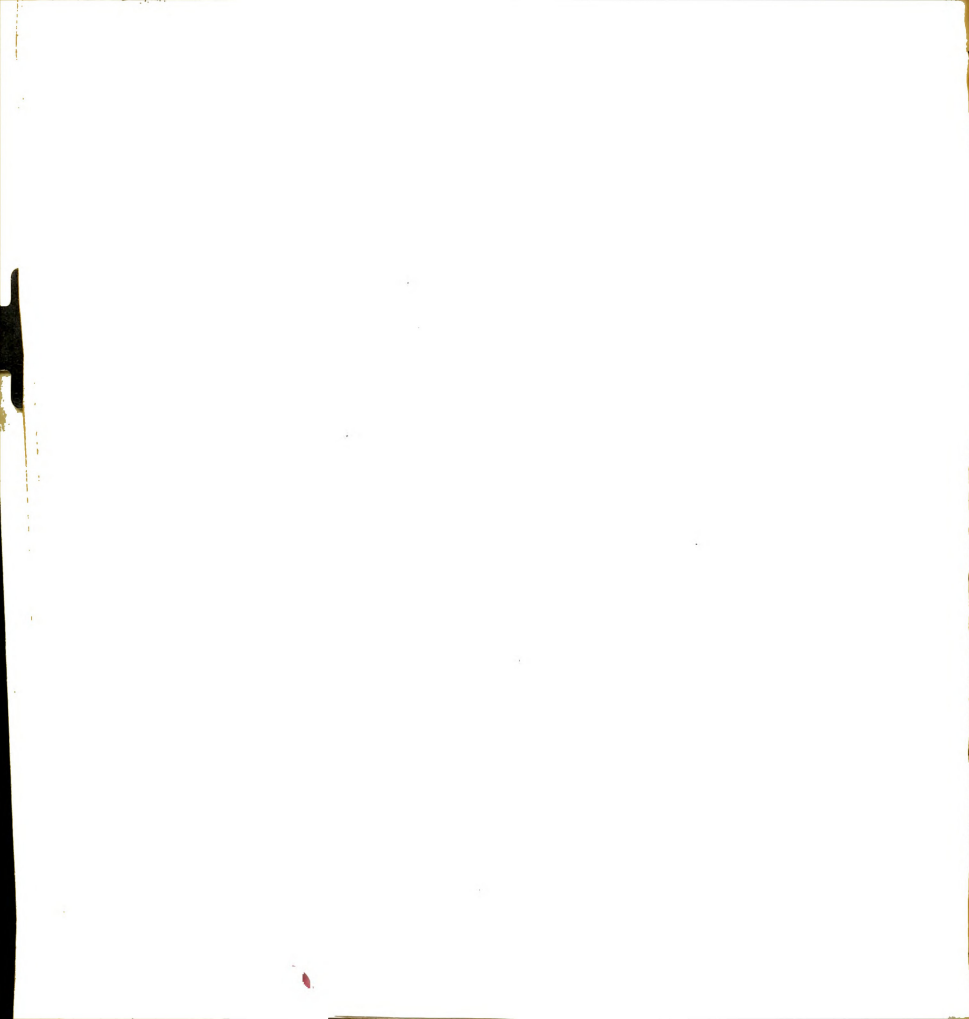
Table 64 -- CES (Ideal) Advisers and Administrators Item Arrays,
Most Agree

Item	Description	One Type
9	Information that comes from the Cooperative Extension Service is honest and can be trusted to be as accurate as possible.	1.45
38	Information from the Cooperative Extension Service helps increase farm production and so returns more money than it costs in taxes.	1.37
8	Cooperative Extension Service material is impartial and unbiased.	1.37
19	I can rely on information from the Cooperative Extension Service.	1.37
5	The content of Extension's educational programs is as modern as agricultural research can make it.	1.25
4	No other source of agricultural information is more up-to-date than the Cooperative Extension Service.	1.24
18	When I have a farming problem, I find that I can get the information I need quickly and easily from the Cooperative Extension Service.	1.24
43	I believe that a lot of the information that comes from the University of Illinois is of practical use to me.	1.22
28	The Cooperative Extension Service suggests sound practices that benefit the farmer who uses them.	1.22
35	Extension's educational programs tell me what I want to know.	1.00



Table 65 -- CES (Ideal) Advisers and Administrators Item Arrays,
Most Disagree

Item	Description	One Type
40	So far as I am concerned, they could do away with the Cooperative Extension Service today.	-2.03
36	I don't have much confidence in the recommendations of the Cooperative Extension Service.	-1.52
25	The Cooperative Extension Service does not do what it is supposed to do--give farmers information they can use.	-1.38
42	It is hard to tell whether the tax money that is spent on the Cooperative Extension Service is doing any good or not.	-1.30
16	Cooperative Extension Service recommendations are influenced too much by commercial interests.	-1.21
6	Most of the so-called Extension experts have read so many books that they cannot talk common sense any more.	-1.17
1	The farmer who knows his business does not really have much need for Extension service like soil testing.	-1.16
26	I get the feeling that the Cooperative Extension Service as part of the University of Illinois does not fit in very well with the farmers around here.	-1.14
21	My father taught me most of the things I need to know about farming.	-1.11
7	Cooperative Extension educational programs are dictated too much by the U. S. Department of Agriculture.	-1.06



They are solidly for the Extension Service and most highly disagree that it could be done away with today (Table 65). They express confidence in CES recommendations and believe that it does what it is supposed to do. They strongly deny that it is hard to tell whether the tax money that is spent on Extension is doing any good or not, and that it is influenced too much by commercial interests.

Adviser (Ideal) Type farm advisers and administrators most highly agree that they would like the Illinois commercial farmers to think that their county farm adviser is interested in people and their problems and that he is more than just a subject matter expert (Table 66). They also want the advisers to be known in their counties as reliable and capable sources of the latest farming information. They are concerned that the advisers be thought of as earning their salaries, that they are more reliable sources of up-to-date information than commercial dealers, and that they will listen to new ideas and suggestions from their farmers (Table 67).

Sources (Ideal) Type farm advisers and administrators most want their commercial farmer clientele group to regard the county farm adviser as the most reliable source of agricultural information available (Table 68). They are also much more concerned about a strong image of Cooperative Extension as a reliable source with Illinois farmers than any other source. They are not as concerned about the Grange as the poorest source of agricultural information, as they are the National Farmers Organization and the Farmers Union (Table 69). In their opinion, the ideal farmer will not pay much attention to advertising in newspapers and farm magazines, nor will



Table 66 -- Adviser (Ideal) Advisers and Administrators Item Arrays,
Most Agree

Item	Description	One Type
29	My county farm adviser is interested in people and their problems. He is more than just a subject matter expert.	1.74
12	My county farm adviser is the most reliable source of information about farming that I know.	1.41
30	Cooperative Extension Service farm advisers and specialists really know their business.	1.40
6	My county farm adviser is the most up-to-date source of new farming information that I know about.	1.34
40	Farmers can get from the county farm adviser the most down-to-earth recommendations on how to farm better.	1.24
28	I appreciate the sincere interest that my county farm adviser takes in helping me with my problems.	1.13
16	My county farm adviser gives me the straight facts as he sees them, and I appreciate it.	1.03
24	My county farm adviser tries very hard to involve everyone in Extension educational programs regardless of which organization they belong to.	1.01



Table 67 -- Adviser (Ideal) Advisers and Administrators Item Arrays,
Most Disagree

Item	Description	One Type
22	Generally speaking, county farm advisers are not worth what they are paid.	-1.89
25	Most of the recommendations that I get from my county farm adviser sound like the horse-and-buggy days, they are so old-fashioned.	-1.87
11	I can get more reliable information that I need for my farming operation from a local commercial dealer I know than I can from my county farm adviser.	-1.29
19	My county farm adviser will not listen to new ideas and suggestions from the farmers in this county.	-1.20
32	It takes me too much time and trouble to get information from my county farm adviser.	-1.09
4	My county farm adviser uses too many high-pressure tactics--he pushes too hard in trying to get us to try out new things and ideas.	-1.05
31	My county farm adviser plays favorites among the farmers in my county and I don't like it.	-1.04



Table 68 -- Sources (Ideal) Advisers and Administrators Item Arrays,
Most Agree

Item	Description	One Type
8	My county farm adviser	2.01
1	Cooperative Extension Service	1.94
11	State Extension specialists	1.83
13	College of Agriculture at Urbana	1.65
40	Extension meetings held at the University in Urbana	1.38
32	The Agricultural Experiment Station in Urbana	1.37
6	University of Illinois	1.36
39	Short courses and workshops at the University of Illinois	1.20
22	Bulletins and reports from the Agricultural Experiment Station in Urbana	1.01

Table 69 -- Sources (Ideal) Advisers and Administrators Item Arrays,
Most Disagree

Item	Description	One Type
34	Farmers Union	-1.75
36	The National Farmers Organization	-1.61
25	Advertising in newspapers	-1.59
17	Advertising in farm magazines	-1.53
31	My relatives	-1.35
35	The Grange	-1.20
21	My landlord or landlady	-1.13



he listen to his relatives or his landlord or landlady for ways to farm better.

How Well Did The Advisers Predict?

This study shows that, in general, the 60 Illinois commercial farmers hold attitudes more "ideal" than "typical" toward the Cooperative Extension Service, its personnel and toward sources of agricultural information. They are more likely to have the "ideal" attitudes that their advisers wish their county farmers had than they are the "typical" attitudes their advisers think they have.

The sample of 60 farmers are more like the advisers' "typical" farmers in Q-sort 1, the expression of their attitudes toward the Cooperative Extension Service, than they are in the other Q-sorts. Four of the farm advisers correlate higher in their "typical" sorts than in their "ideal" sorts with the 60 sample farmers' actual sorts in Q-1. Three of these four differences are practically negligible, however.

All 10 advisers think their "typical" farmers rate them lower than the 60 sample farmers actually do. In every instance on Q-sort 2 (measuring attitudes toward advisers and state specialists), the 10 sample advisers correlated higher on the "ideal" sorts than they did on their "typical" sorts with the sample farmers' actual sorts. The two advisers with the most years of service are the only ones whose "typical" sorts on Q-sort 3, the sources of agricultural information, correlate higher than their "ideal" sorts with the farmers' actual sorts. Average correlations of the 10 advisers on Q-1 were .684 with the farmers on the "typical" sort and .837 on



"ideal", .671 on "typical" compared with .834 on "ideal" on Q-2, and .434 on "typical" compared with .741 on "ideal" on Q-3.

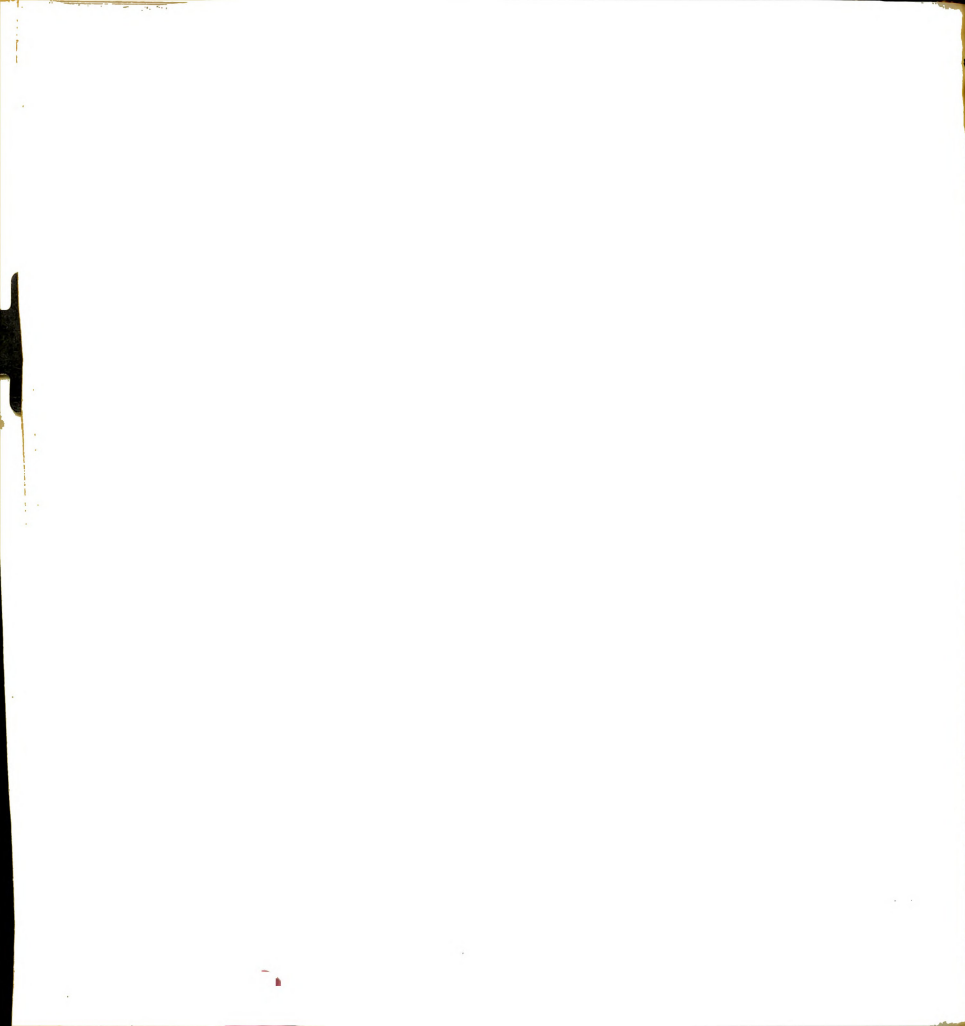
How Well Did The Administrators Predict?

In general, the seven administrators' "ideal" sorts correlate highly with the sample farmers' sorts, and higher than the county farm advisers in two of the three dimensions of attitude. Comparable correlation figures on Q-sort 1 (attitudes toward the Cooperative Extension Service) are .777 for administrators, .829 for advisers; on Q-sort 2 (attitudes toward Extension personnel), .844 for administrators, .644 for advisers; and on Q-sort 3 (attitudes toward the reliability of sources), .836 for administrators, .743 for advisers. The five district supervisors correlate even higher with the 60 farmers: .874 on Q-1, .903 on Q-2, and .876 on Q-3.

How Do "Ideal" Arrays Compare With Actual Arrays?

CES "Ideal" Farmers Compared with CES Actual Farmers -- When the question is raised, "What communication strategies are indicated for Extension administration on the basis of farmer attitudes toward the Cooperative Extension Service?", the answer for CES Type 1 farmers is, "Not very much change is needed." This answer will not do for CES Type 3 farmers, however.

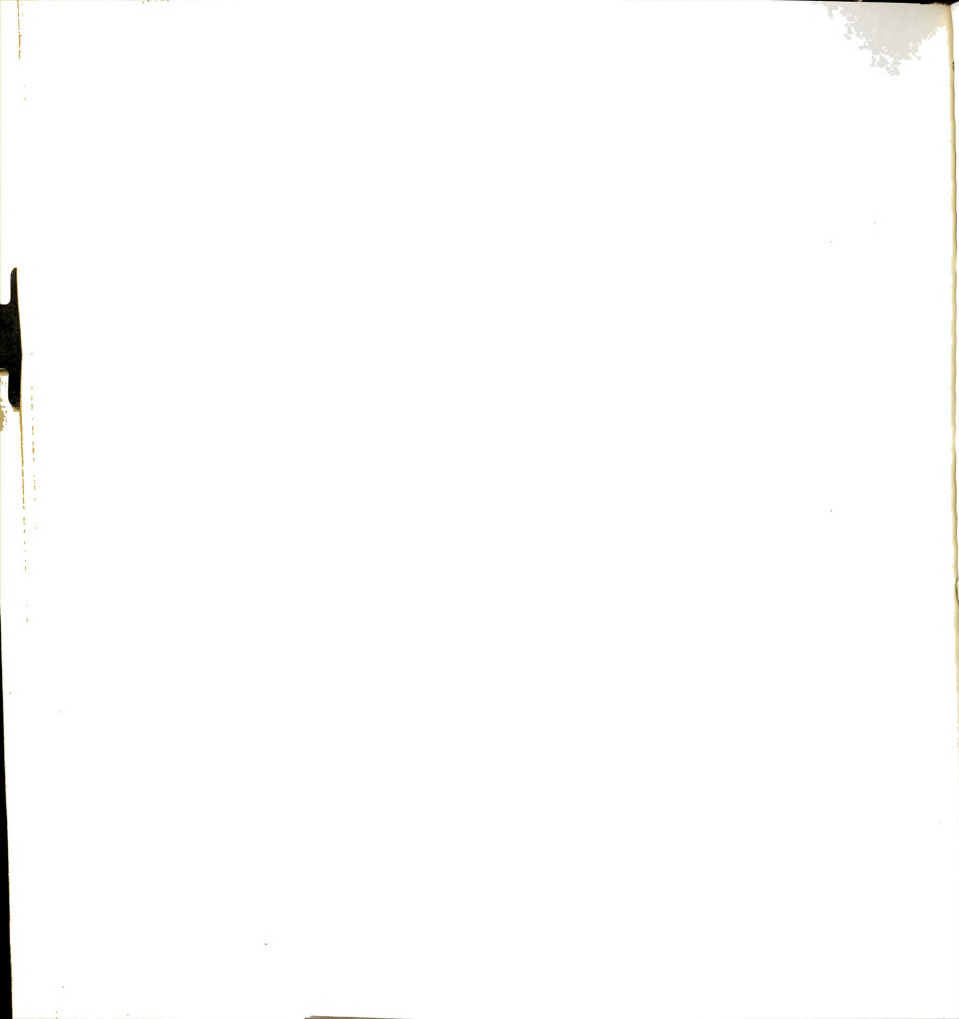
Comparison of advisers and administrators "ideal" sorts on Q-sort 1, dimensions of attitudes toward the Cooperative Extension Service, with the actual sorts of the CES Type 1 farmers shows a correlation of .948. Correlation of the advisers and administrators CES "ideal" sorts is only .566 with actual sorts of CES Type 3 farmers. Strategy in planning communication with this type of farmer



may "pay off" handsomely.

Both CES Type 1 and 3 farmers highly agree with the advisers and administrators that they can rely on CES information, that they can get information quickly and easily from the CES, that information from the University of Illinois is of practical use to them, and that the CES suggests sound practices that benefit the farmer who uses them (Table 70). They are in high consensus agreement that the CES is a reliable, efficient, practical, competent, and friendly organization (Appendix 4). But these groups do not agree at all on the value, impartiality, up-to-dateness and organization of CES. It is these latter discriminating items that provide clues to administrators that may indicate possible strategies to promote most effective communication with CES Type 3 farmers.

For instance, whereas advisers, administrators and CES Type 1 farmers highly agree that information from the Cooperative Extension Service helps increase farm production and so returns more money than it costs in taxes, CES Type 3 farmers highly disagree. Almost the same situation exists toward the attitude statement that Cooperative Extension material is impartial and unbiased. Other items that discriminate CES Type 3 farmers from CES Type 1 and "ideal" farmers of advisers and administrators are that no other source of agricultural information is more up-to-date than the Cooperative Extension Service, that Extension's educational programs tell them what they want to know, and that the CES should not concentrate on helping only farmers, but should try to help everybody. Advisers, administrators and CES Type 1 farmers only moderately agree that they like the CES



idea that no farmer is too old to learn better farming methods, but CES Type 3 farmers most highly agree with this statement. Specific statements of attitudes such as these by Illinois commercial farmer groups should provide Extension administrators with valuable information to plan communication strategies designed to bring about desired attitude changes among the groups.

Advisers and administrators are in consensus disagreement that the CES should be done away with today, while CES Type 3 farmers also disagree but not so highly (Table 71). The first two groups also more highly disagree than CES Type 3 farmers that they don't have confidence in CES recommendations and that the CES does not do what it is supposed to do--give farmers information they can use. Advisers, administrators and CES Type 1 farmers disagree almost equally that it is hard to tell whether the tax money that is spent on the Cooperative Extension Service is doing any good or not, and that CES recommendations are influenced too much by commercial interests, while CES Type 3 farmers agree with these attitudes.

Both of these CES farmer types almost equally deny, and more so than advisers and administrators, that most of the so-called Extension experts have read so many books that they cannot talk common sense any more, and that the farmer who knows his business does not have much need for Extension services like soil testing. CES Types 1 and 3 are at opposite ends of the line, with advisers and administrators in the neutral position between them, in their attitudes toward the statement that the same farmers--usually the best ones in the county--tend to show up at every Extension meeting, and that Extension education thus does not get to the farmers who need it the most. CES

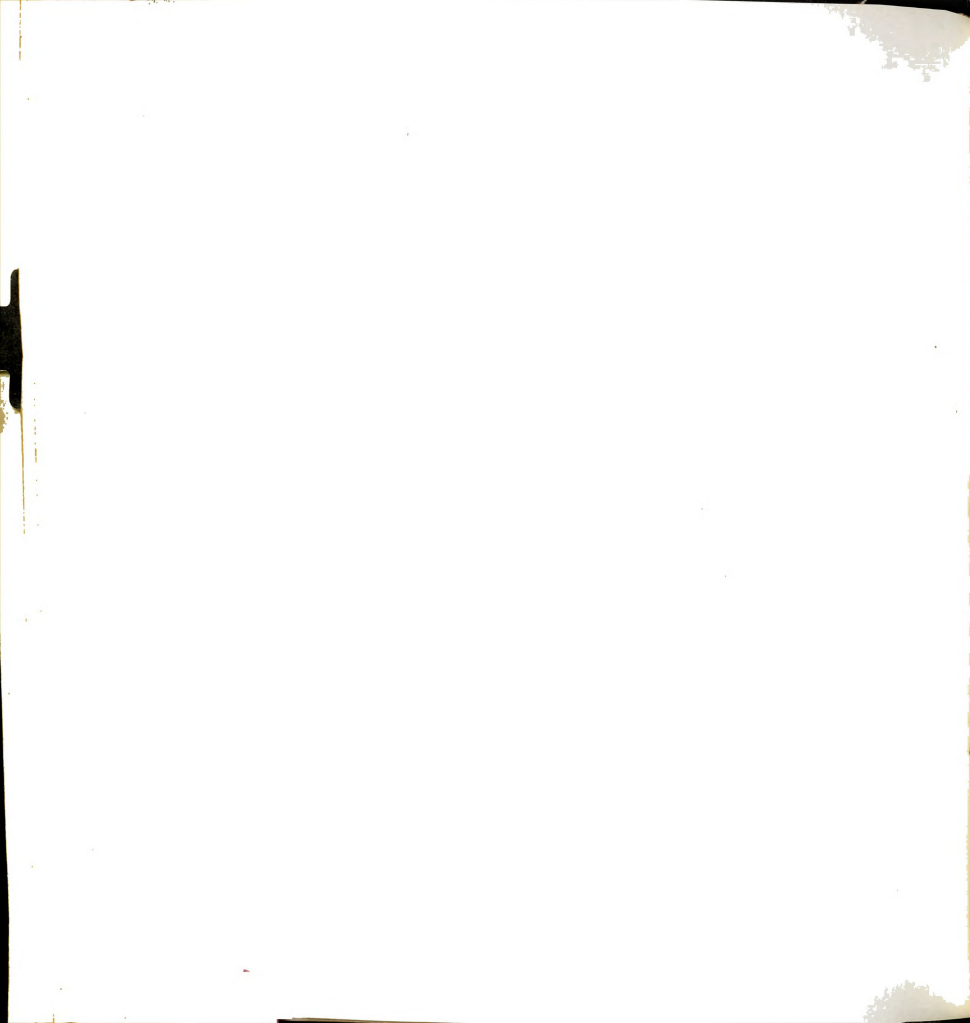


Table 70 -- Advisers and Administrators Ideal CES Arrays Compared With Sample Farmers' Actual Arrays (Q-1), Most Agree

Item	Description	CES Ideal	CES Type 1	CES Type 3
9	Information that comes from the Cooperative Extension Service is honest and can be trusted to be as accurate as possible.	1.45	1.62	.65
*38	Information from the Cooperative Extension Service helps increase farm production and so returns more money than it costs in taxes.	1.37	1.23	- .97
* 8	Cooperative Extension Service material is impartial and unbiased.	1.37	1.15	- .33
19	I can rely on information from the Cooperative Extension Service.	1.37	1.15	1.04
5	The content of Extension's educational programs is as modern as agricultural research can make it.	1.25	.65	.62
* 4	No other source of agricultural information is more up-to-date than the Cooperative Extension Service.	1.24	.63	- .34
18	When I have a farming problem, I find that I can get the information I need quickly and easily from the Cooperative Extension Service.	1.24	1.39	1.53
43	I believe that a lot of the information that comes from the University of Illinois is of practical use to me.	1.22	1.21	1.44
28	The Cooperative Extension Service suggests sound practices that benefit the farmer who uses them.	1.22	1.21	1.59
*35	Extension's educational programs tell me what I want to know.	1.00	.66	- .44
* 3	I like the Cooperative Extension Service idea that no farmer is too old to learn better farming methods.	.73	.71	2.43
*13	The Cooperative Extension Service should not concentrate on helping only farmers, but should try to help everybody.	.68	.55	- .86
*Greatest item disagreement, the items that most differ between Advisers and Administrators Ideal CES Type and Sample Farmers' Actual CES Types 1 and 3.				

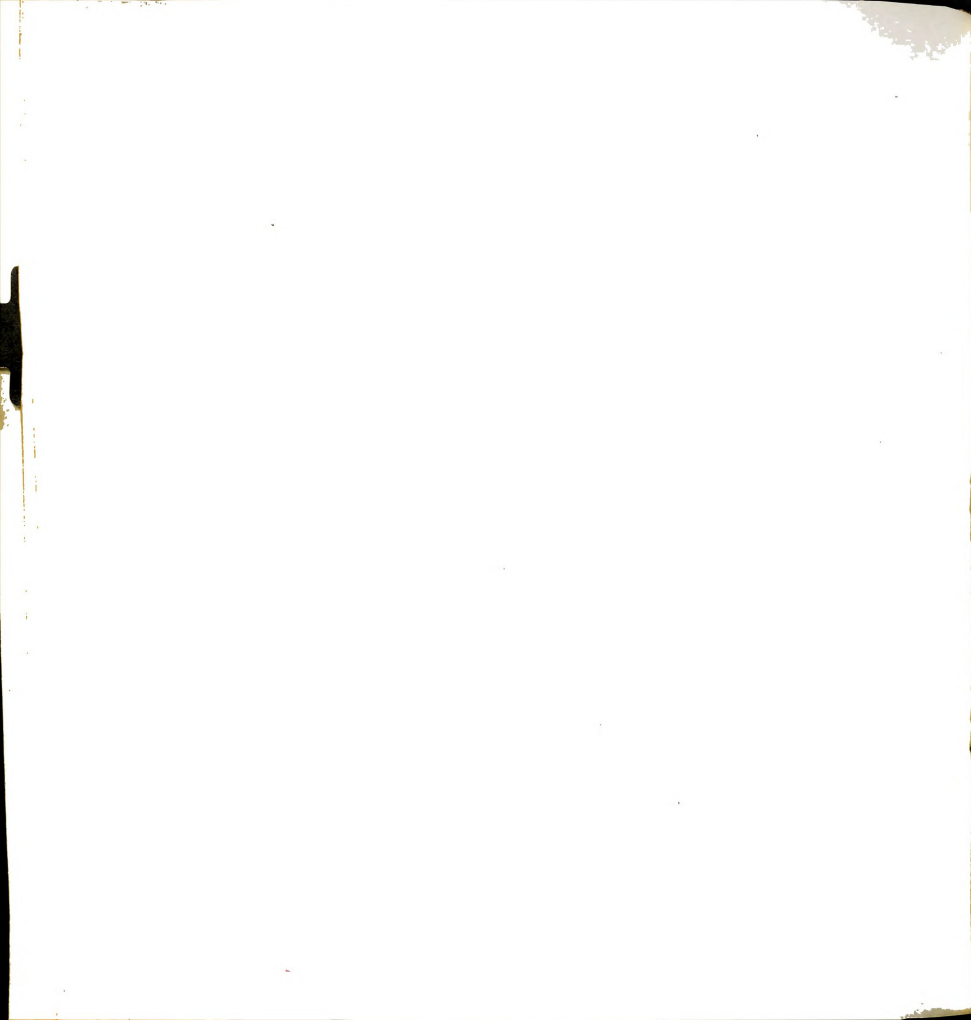
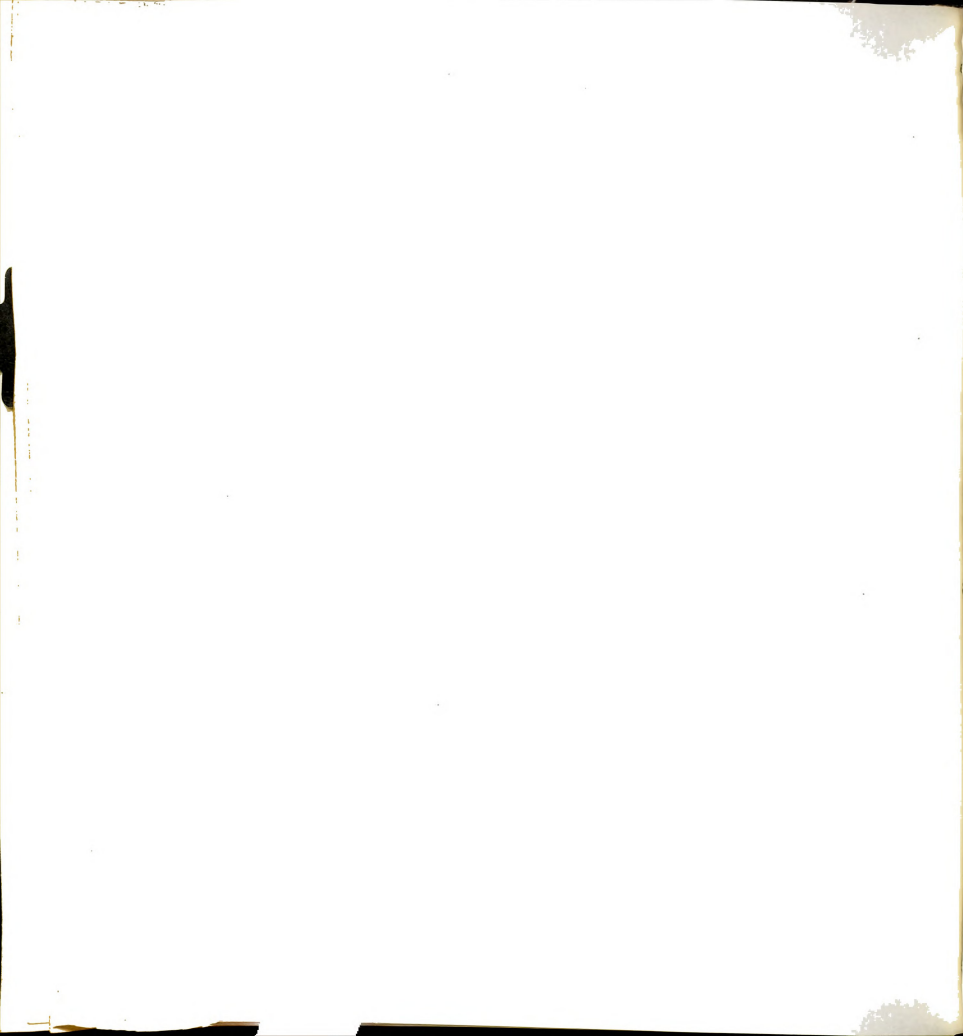


Table 71 -- Advisers and Administrators Ideal CES Arrays Compared With Sample Farmers' Actual Arrays (Q-1), Most Disagree

Item	Description	CES Ideal	CES Type 1	CES Type 3
*40	So far as I am concerned, they could do away with the Cooperative Extension Service today.	-2.03	-2.01	-1.01
36	I don't have much confidence in the recommendations of the Cooperative Extension Service.	-1.52	-1.59	-.74
25	The Cooperative Extension Service does not do what it is supposed to do--give farmers information they can use.	-1.38	-1.47	-.31
*42	It is hard to tell whether the tax money that is spent on the Cooperative Extension Service is doing any good or not.	-1.30	-1.01	.90
*16	Cooperative Extension Service recommendations are influenced too much by commercial interests.	-1.21	-1.23	.14
6	Most of the so-called Extension experts have read so many books that they cannot talk common sense any more.	-1.17	-1.47	-1.38
1	The farmer who knows his business does not really have much need for Extension services like soil testing.	-1.16	-1.39	-1.49
26	I get the feeling that the Cooperative Extension Service as part of the University of Illinois does not fit in very well with the farmers around here.	-1.14	-1.26	-.49
21	My father taught me most of the things I need to know about farming.	-1.11	-.69	-1.54
7	Cooperative Extension educational programs are dictated too much by the U. S. Department of Agriculture.	-1.06	-.58	-.22
*44	The same farmers--usually the best ones in the county--tend to show up at every Extension meeting. The Extension educational system thus does not get to the farmers who need the information the most.	.00	1.01	-.84

*Greatest item disagreement, the items that most differ between Advisers and Administrators Ideal CES Type and Sample Farmers' Actual CES Types 1 and 3.



Type 1 farmers highly agree with this statement, while CES Type 3 farmers almost as strongly disagree with it.

Adviser "Ideal" Farmers Compared With Adviser Actual Farmers --

As noted earlier, the sample farmers in this study form a highly homogeneous group in this Q-sort of attitudes toward Extension personnel. The correlation between the "ideal" sorts of the 22 advisers and administrators on the one hand and the 52 actual sorts of the farmers who make up the one major type on this Q-sort is .934. None of the attitude item differences between these two groups is more than 1.000 standard deviation.

One of the greatest item disagreements is toward the idea that CES farm advisers and specialists really know their business. The advisers and administrators would like farmers to highly agree with this attitude while the farmers actually are lukewarm toward it (Table 72). The actual farmers more highly agree than the advisers and administrators "ideal" farmers with the attitudes that their county farm adviser gives them the straight facts as he sees them and they appreciate it, that they think there is a lot of value in most of the practices recommended by their county farm adviser, and that their county farm adviser gives them good service. The advisers and administrators would like their "ideal" farmer to think their county farm adviser tries to involve everyone in Extension educational programs regardless of which organization they belong to, much more than the sample farmers think he does.

Patterns of disagreement items are very much the same for both groups (Table 73). The farmers actually disagree more with the statement that the county farm adviser stays too much to himself than the

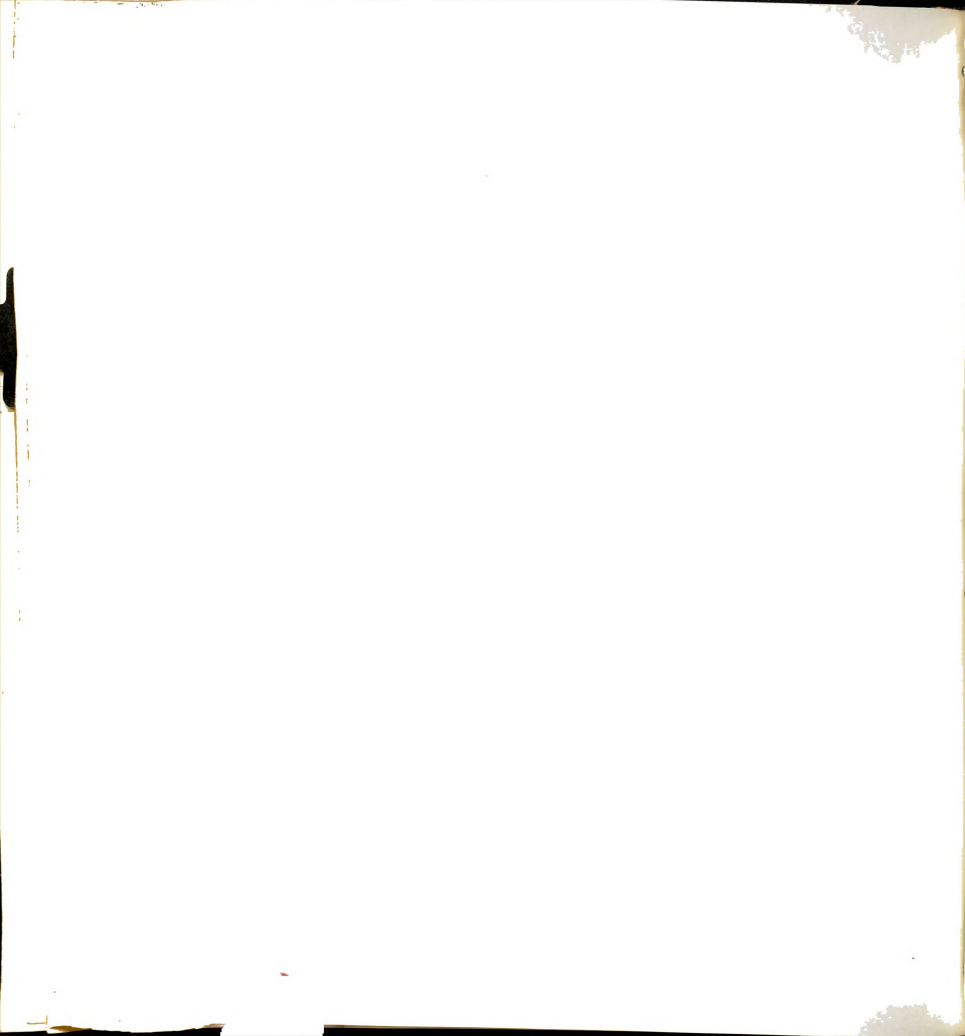


Table 72 -- Advisers and Administrators Ideal Adviser Arrays Compared
With Sample Farmers' Actual Arrays (Q-2), Most Agree

Item	Description	Adviser Ideal	Adviser Actual
29	My county farm adviser is interested in people and their problems; he is more than just a subject matter expert.	1.74	1.29
12	My county farm adviser is the most reliable source of information about farming that I know.	1.41	1.05
*30	Cooperative Extension Service farm advisers and specialists really know their business.	1.40	.44
6	My county farm adviser is the most up-to-date source of new farming information that I know about.	1.34	.91
40	Farmers can get from the county farm adviser the most down-to-earth recommendations on how to farm better.	1.24	.97
28	I appreciate the sincere interest that my county farm adviser takes in helping me with my problems.	1.13	1.28
*16	My county farm adviser gives me the straight facts as he sees them, and I appreciate it.	1.03	1.69
*24	My county farm adviser tries very hard to involve everyone in Extension educational programs regardless of which organization they belong to.	1.01	.55
* 3	I think that there is a lot of value in most of the practices recommended by my county farm adviser.	.66	1.36
* 5	My county farm adviser gives good service to us farmers.	.58	1.16

*Greatest item disagreement, the items that most differ between Advisers and Administrators Ideal Adviser Type and Sample Farmers Actual Adviser Type.

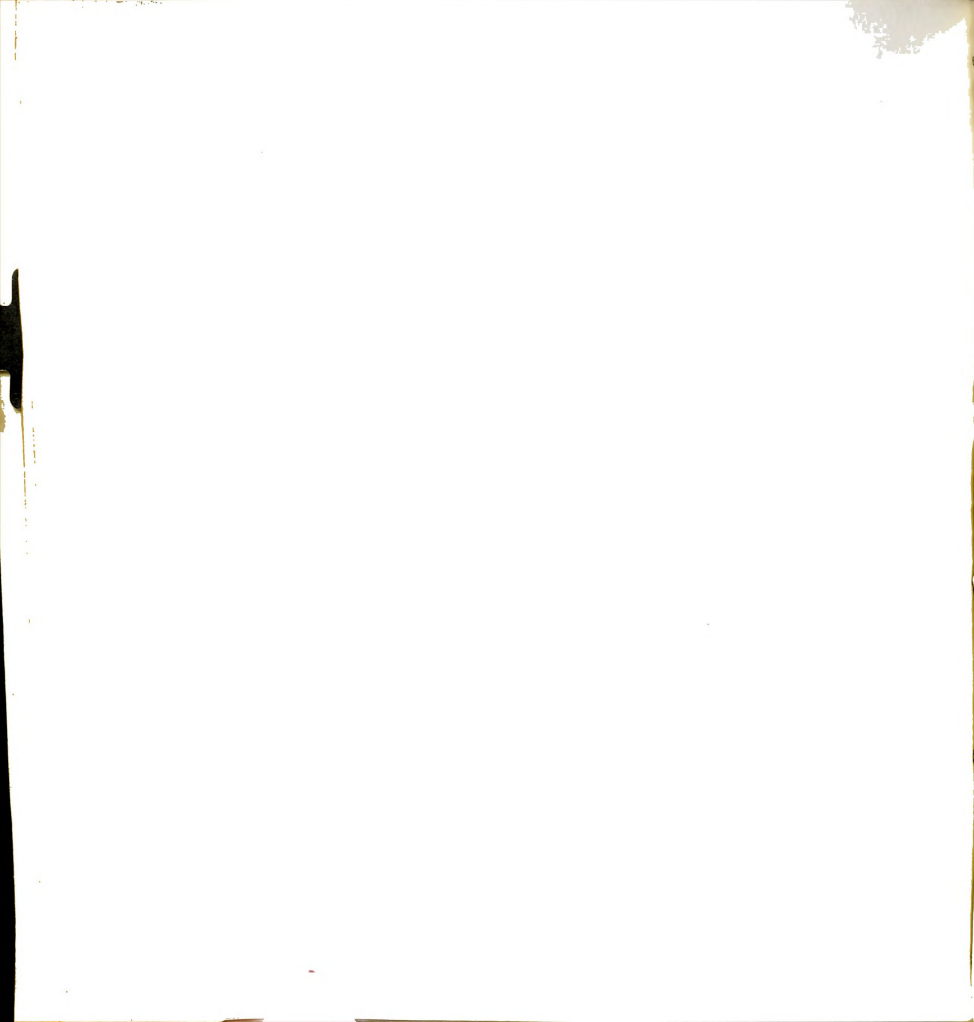
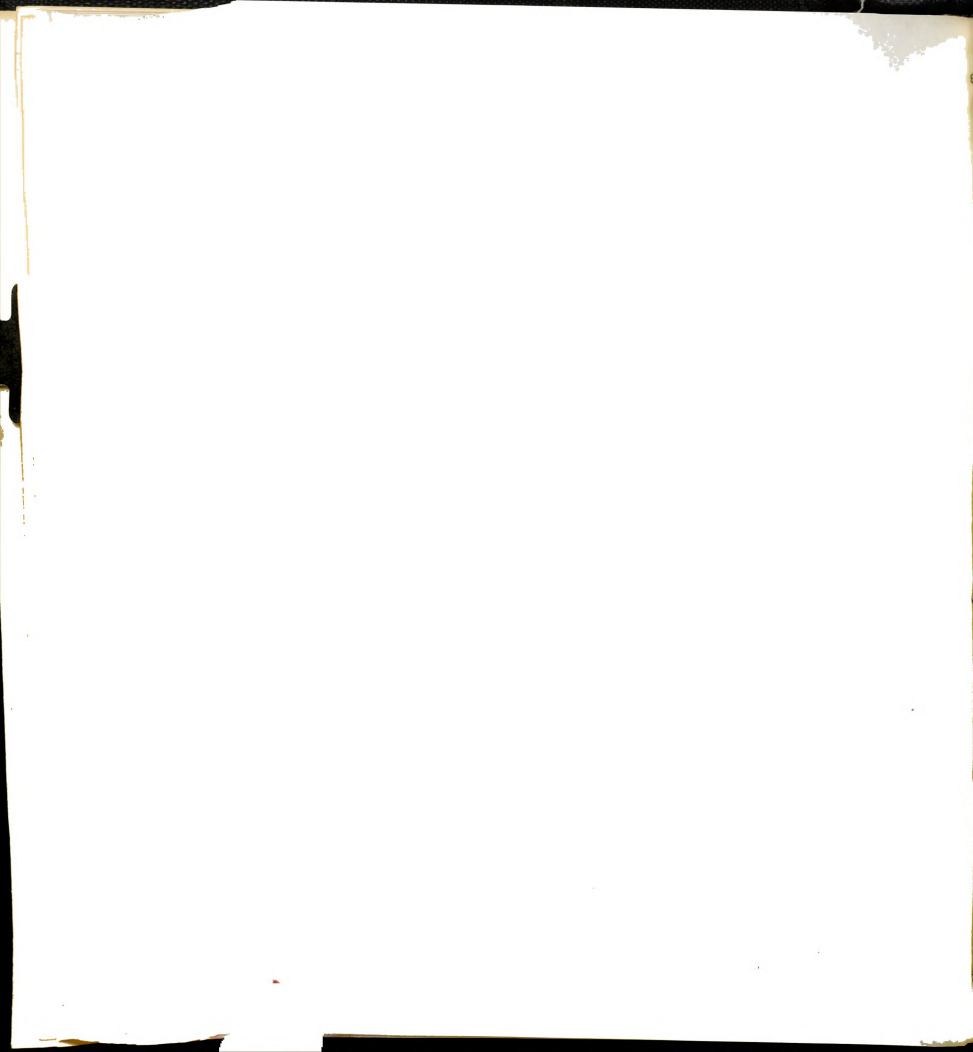


Table 73 -- Advisers and Administrators Ideal Adviser Arrays Compared With Sample Farmers' Actual Arrays (Q-2), Most Disagree

Item	Description	Adviser Ideal	Adviser Actual
22	Generally speaking, county farm advisers are not worth what they are paid.	-1.89	-1.41
25	Most of the recommendations that I get from my county farm adviser sound like the horse-and-buggy days, they are so old-fashioned.	-1.87	-1.50
11	I can get more reliable information that I need for my farming operation from a local commercial dealer I know than I can from my county farm adviser.	-1.29	-1.06
19	My county farm adviser will not listen to new ideas and suggestions from the farmers in this county.	-1.20	-1.13
32	It takes me too much time and trouble to get information from my county farm adviser.	-1.09	-1.21
4	My county farm adviser uses too many high-pressure tactics--he pushes too hard in trying to get us to try out new things and ideas.	-1.05	-1.41
31	My county farm adviser plays favorites among the farmers in my county and I do not like it.	-1.04	-1.44
*37	My county farm adviser stays too much to himself and just is not one of us.	- .80	-1.16
* 9	I have already heard or read about most of the information that my county farm adviser puts out.	- .74	- .32

*Greatest item disagreement, the items that most differ between Advisers and Administrators Ideal Adviser Type and Sample Farmers Actual Adviser Type.

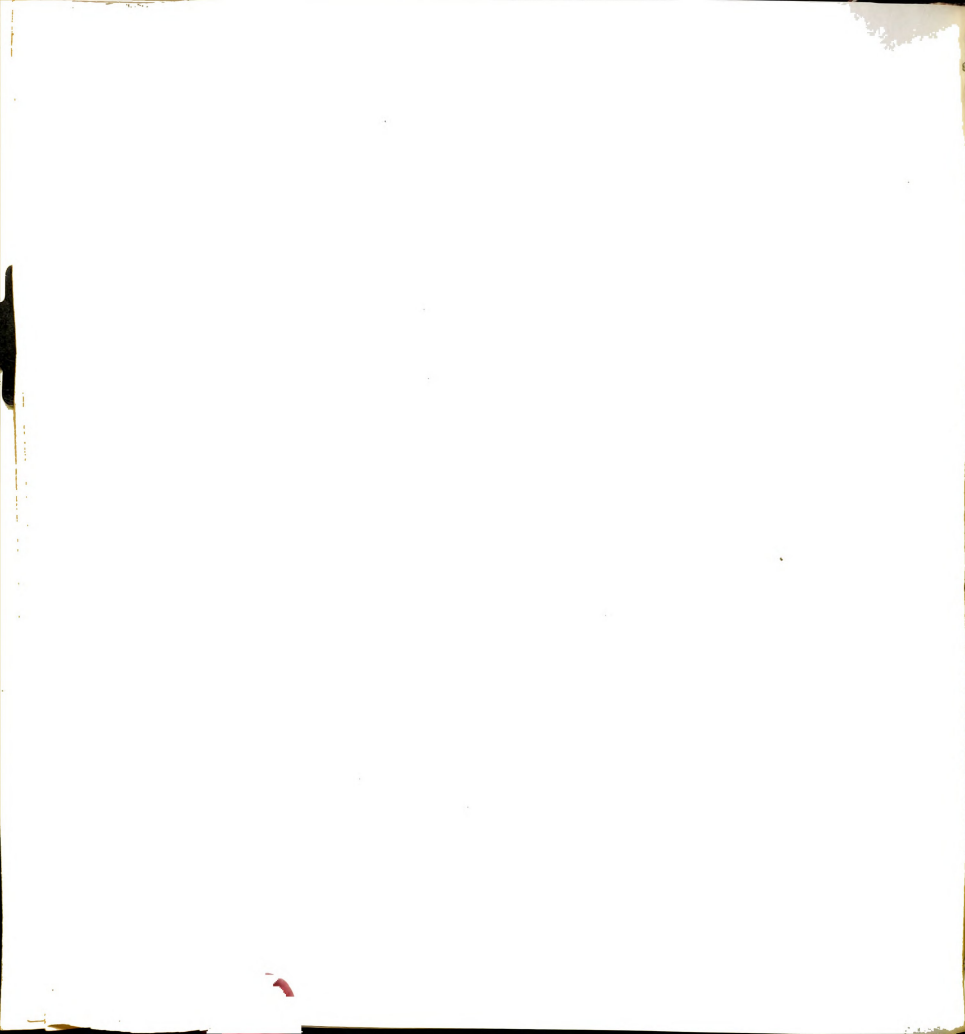


advisers and administrators would like their "ideal" farmer to disagree. Farmers do not disagree as much with the statement that they have already heard or read about most of the information that their county farm adviser puts out as the advisers and administrators would like them to.

Sources "Ideal" Farmers Compared With Sources Actual Farmers --

Illinois commercial farmers differ more from the "ideal" farmers in their attitudes toward sources of better farming information than in the other two Q-sorts of attitudes. It is where large variances appear between the ways that administrators regard farmer attitudes and their actual attitudes that information supplied by studies such as this can be most valuable to administrators. Correlation between the advisers and administrators group and Sources Type 1 farmers is .727, but only .302 with Sources Type 3 farmers.

Inspection of Tables 74 and 75 shows that the majority of the highest agreement and disagreement items for the advisers and administrators are greatest disagreement items for either Sources Type 3 farmers or both farmer types. Sources Type 1 farmers tend to occupy middle ground between the other two groups. All three groups are in high consensus agreement about the county farm adviser, the Agricultural Experiment Station in Urbana, and bulletins and reports from the Agricultural Experiment Station. But that's where the similarity among their agreement items ends. As we have stated before, Sources Type 3 farmers tend to be much more impressed with the value and reliability of other successful farmers and stories in farm magazines than Sources Type 1 farmers or the advisers and administrators would like them to be. Sources Type 3 farmers regard state Extension



**Table 74 -- Advisers and Administrators Ideal Sources Arrays Compared
With Sample Farmers' Actual Arrays (Q-3), Most Agree**

Item	Description	Ideal Type	Actual Type 1	Actual Type 3
8	My county farm adviser	2.01	1.57	1.16
** 1	Cooperative Extension Service	1.94	.65	.49
*11	State Extension Specialists	1.83	1.28	- .35
*13	College of Agriculture at Urbana	1.65	1.38	.56
**40	Extension meetings held at the Uni- versity in Urbana	1.38	.60	- .58
32	The Agricultural Experiment Station in Urbana	1.37	1.11	.93
* 6	University of Illinois	1.36	1.19	.30
*39	Short courses and workshops at the University of Illinois	1.20	.55	-1.00
22	Bulletins and reports from the Agri- cultural Experiment Station in Urbana	1.01	1.63	1.24
**43	Farm Bureau Farm Management Service fieldman	.94	- .67	- .69
* 7	Our local school's vocational agri- culture teacher	.91	.35	- .63
**10	Successful farmers I know	.61	1.69	1.60
*20	Extension council meetings	.47	.18	- .98
*45	Farm manager	.31	- .13	-1.33
*18	Stories in farm magazines	.06	- .25	1.39

*Greatest item disagreement, the items that most differ between Advisers and Administrators Ideal Sources Type and Sample Farmers Actual Sources Type 3.

**Greatest item disagreement, the items that most differ between Advisers and administrators Ideal Sources Type and Sample Farmers Actual Sources Types 1 and 3.

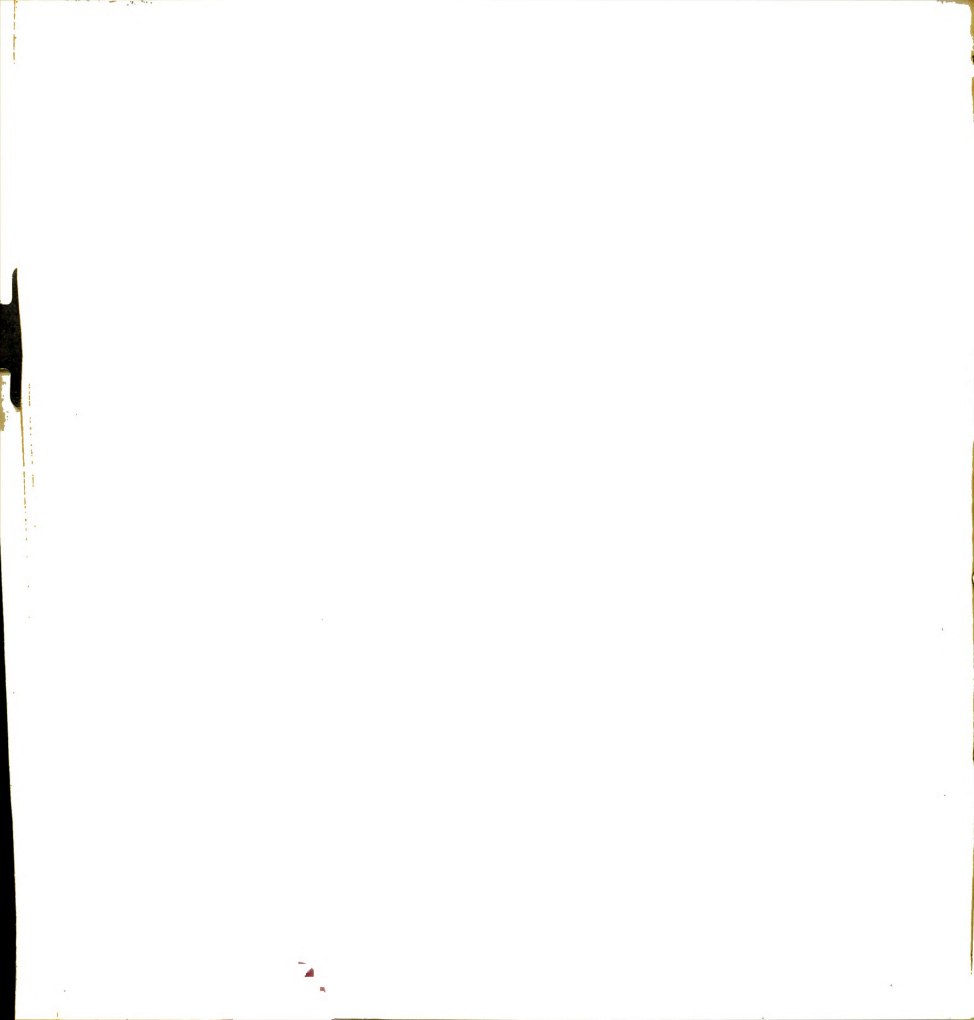


Table 75 -- Advisers and Administrators Ideal Sources Arrays Compared
With Sample Farmers' Actual Arrays (Q-3), Most Disagree

Item	Description	Ideal Type	Actual Type 1	Actual Type 3
**34	Farmers Union	-1.75	- .54	-2.55
**36	The National Farmers Organization	-1.61	- .49	-2.62
*25	Advertising in newspapers	-1.59	-. .98	- .15
*17	Advertising in farm magazines	-1.53	-. .89	.34
31	My relatives	-1.35	-1.63	- .75
35	The Grange	-1.20	- .65	-1.90
21	My landlord or landlady	-1.13	-1.28	- .18
*15	Farm Bureau	- .92	- .99	.17
* 9	My neighbors	- .89	-1.38	.79
* 5	Farm implement salesman or dealer	- .84	-1.67	.98
** 4	Farm supplies salesman	- .52	-1.73	.91
* 2	My father	- .50	- .28	.51
** 3	My years of farming experience	- .13	1.37	2.60

*Greatest item disagreement, the items that most differ between Advisers and Administrators Ideal Sources Type and Sample Farmers Actual Sources Type 3.

**Greatest item disagreement, the items that most differ between Advisers and Administrators Ideal Sources Type and Sample Farmers Actual Sources Types 1 and 3.



specialists, Extension meetings in Urbana, short courses and workshops at the University of Illinois, and farm managers as much less reliable than the administrative group would like them to.

Sources Type 3 farmers, on the other hand, regard the three other major farm organizations except Farm Bureau, as much more highly unreliable and advertising, relatives, landlords, Farm Bureau, salesmen, their experience and their fathers as much more reliable sources than the advisers and administrators think they should ideally.



CHAPTER VIII

SUMMARY AND RECOMMENDATIONS

Research tells us that one of the principal criteria for effective communication is an understanding of the audience. That is, the better that we know the background of our audience, their past experiences, and their present living habits, the better we are able, as sources, to formulate messages that they will understand. As a result, they will be more likely to change their behavior in ways that we prefer.

We designed and conducted this systematic study to see if we could determine the general pattern of Illinois commercial farmers' attitudes toward the Cooperative Extension Service. Such information provided to Cooperative Extension administrators should help them plan more effective communication strategies in their informational and educational programs.

Specifically, we tried to determine:

1. Major types of Illinois commercial farmers as determined by the patterns of their attitudes toward the more impersonal, institutional characteristics of the Cooperative Extension Service.
2. Major types of Illinois commercial farmers as determined by the patterns of their attitudes toward Extension personnel.
3. Major types of Illinois commercial farmers as determined by the patterns of their attitudes toward the sources of



agricultural information that they consider most reliable.

4. Accuracy of the "image" concepts that Extension administrators and county farm advisers have of Illinois commercial farmers.

Data gathering methods used in this study were based on Stephenson's Q-technique. We purposefully selected a relatively small structured sample of 60 Illinois commercial farmers and used them as the variables which we correlated and factor analyzed. Q-technique is particularly useful for studying this primary audience of Illinois commercial farmers, because it gives us a relatively few basic patterns of their thinking and feeling that describe well enough for our purposes the different kinds of farmers whom Extension administration wishes to communicate with. In addition, we assessed these farmers' sources of farming information, assuming that Extension administration will be able to increase its communication effectiveness with this primary audience if they know which sources they consider most reliable.

In general, we found that this primary audience for Extension informational and educational efforts has a much more favorable "image" or pattern of attitudes toward the Cooperative Extension Service than the administrators had supposed. This study provides evidence that this primary audience, at least, very much likes Extension's organization and educational system the way it is. The one large cluster of farmers brought out by the factor analysis indicates a high degree of consensus among this important clientele group. The factor analysis also disclosed a few other individual types of attitude patterns. The first factor type that resulted

from the principal axis solution on the first Q-sort of attitudes toward the Cooperative Extension Service was made up of 52 of the 60 sample farmers. Farmer attitudes were even more uniform on Q-sort 2 toward the county farm advisers and state Extension specialists, when the principal axis solution disclosed that 54 of the 60 farmers were enough highly correlated with each other to form a single type.

A two-factor varimax rotation analysis on Q-sort 1 showed three types of farmer attitudes, and the first rotation also developed three different types on Q-sort 3, the pattern of attitudes toward the sources of farming information. The first varimax rotation did not make much change in the principal axis type of Q-sort 2.

One type of the farmers identified on Q-sort 1 appears to be technically oriented toward the institutional aspects of the Cooperative Extension Service, while another type appears to be made up of farmers who have an orientation toward people, not necessarily in Extension. The third type was a mixed group somewhere between the other two with some characteristics of both and some attitudes of its own.

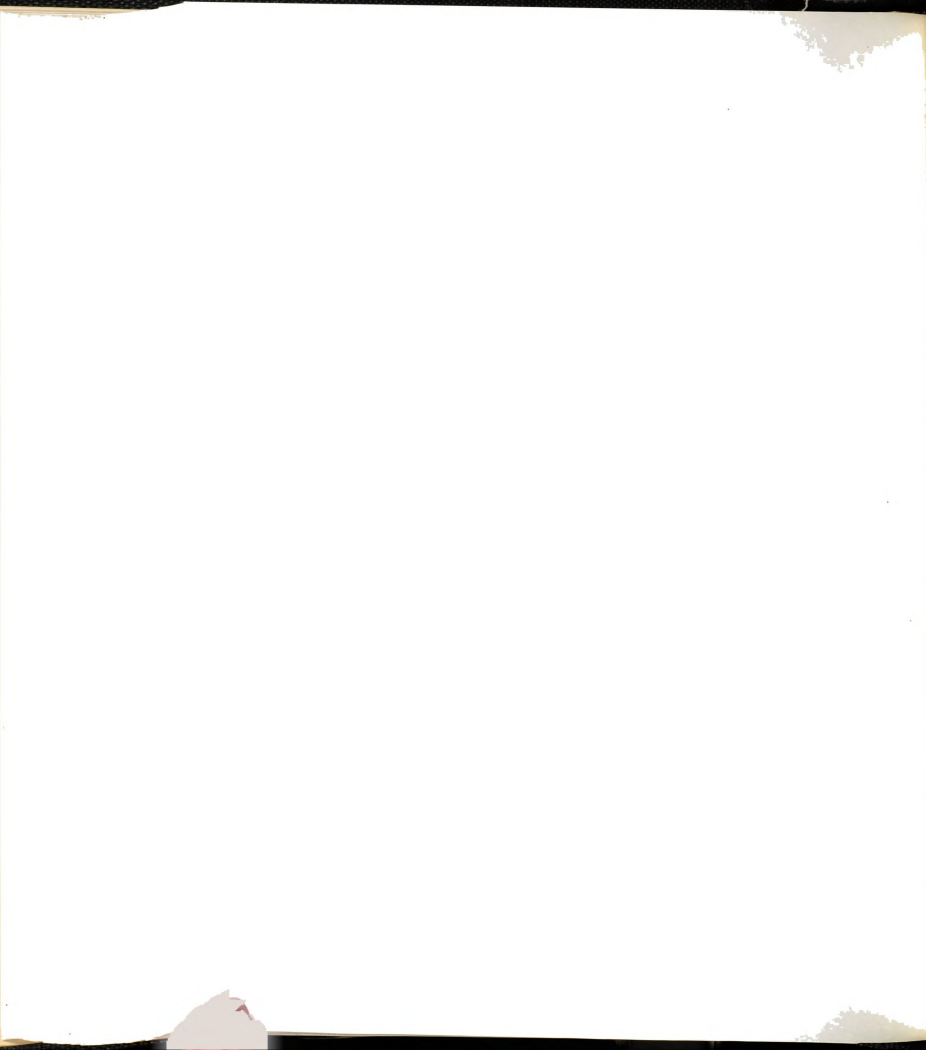
The same kinds of orientations toward institutions and persons was evident in the three types isolated in Q-sort 3 patterns of attitudes toward the various sources of agricultural information. For instance, the study established that for some Illinois farmers, the Cooperative Extension Service stands at the top of their list of reliable sources. These were the farmers in Type 1. For Type 3 farmers and some in Type 2, who have other sources that they rely on more than on Extension for information about farming, the study

provides administrators with information that should enable them more effectively to plan their communication strategy. This information should help them choose channels and prepare messages that will be most effective for the commercial farmers that they want to reach. Type 3 farmers, as an example, identify certain kinds of people in both the CES and Source sorts whom they regard as highly reliable sources. It will be necessary to work through these people to reach that type of farmer most effectively.

One farmer, No. 3 in the sample, provided evidence of the existence of a divergent type of commercial farmer in Illinois who is very dissatisfied with the way things are and the present educational programs of Cooperative Extension. Administrators must acknowledge the existence of this type of farmer among their clientele and be prepared to handle his special kind of problems.

The study also disclosed two different types of farm advisers in the way that they consider what the "typical" farmers in their counties think about Extension. These types were not entirely consistent through all three Q-sorts, but in general could be characterized as older, more traditional advisers with much faith in the Extension educational system and its value, as against a more youthful, unsure pattern of attitudes that questions some of the traditional ways of doing things.

Extension administrators should be highly pleased by the favorable attitudes that this study shows Illinois commercial farmers have toward the Cooperative Extension Service, its programs and people. The 60 sample farmers in their actual Q-sorts came close to matching the "ideal" patterns of attitudes as formulated by the 22 Extension



administrators, agricultural supervisors and county farm advisers included in the study. Farmer attitudes are closer to the "ideal" or hoped for attitude patterns of the administrators and supervisors than to the "ideal" patterns as visualized by the county farm advisers, and some different from the "typical" farmers that the advisers envision in their counties.

This study also shows that this audience of Illinois commercial farmers makes a clear distinction between sources and channels of information. This finding supports the research evidence, especially in diffusion studies, that the mass media are most valuable for introducing new ideas and information to farmers and for keeping them informed about the latest research results. These farmers in this study, however, do not regard the mass media as highly reliable sources of farming information, seeing them rather as channels and looking behind them to the persons or institutions they think are responsible for the information in the first place.

Use of Q-Blocks With a Large Sample

A further extension of this study, in order to generalize to the entire population of Illinois commercial farmers, would be to use Stephenson's "Q-block" questionnaire technique for assigning large numbers of people to Q typologies. As Talbott points out (30), some communication researchers have been dismayed by the use of Q-technique with relatively small numbers of persons, in some cases with only one. They have asked how the subjective procedures of Q could be combined with the precision of properly applied sample survey research methodology. It may not be economically feasible to apply Q-technique directly to large sample survey research because of the

great amount of time needed for administration and analysis.

However, Stephenson shows how Q-technique can easily be applied in large sample survey research for greater reliability in generalization (27). "The method," Talbott says, "involves the construction of 'Q-blocks' which are comparable in one sense to a series of small individual Q-sorts. Detailed knowledge of a stable Q-typology factor structure is necessary for construction of these Q-blocks. This knowledge can be derived from direct application of Q-technique to a smaller, usually structured sample from the population in which the researcher is interested." (30, p. 1) This study applies Q-technique to a small structured sample.

For a large-sample study of Illinois commercial farmers, it would be possible to construct Q-blocks from the arrays of statement z-scores for each of the types of farmers identified through the analysis of the Stage 2 Q-sorts. A number of item sets would be selected from the arrays. Each set would include a statement from the arrays of each of the attitude types at about the same level of acceptance, and each statement would be one which the other types accept substantially less. Each set of items makes up a Q-block.

The process consists of selecting a set of items in which the z-score in each of the diagonal cells from upper left to lower right is substantially higher than the other z-scores in both the row and column the diagonal cell is in. Ideally, the separation should be at least a standard score of 1.000. Statements from the negative end of the arrays can also be used to construct Q-blocks. When negative statements are used, z-scores in the principal diagonal cells must be substantially less than the z-scores in the row and column of the diagonal cell.



Respondents then would be asked to rank-order the statements from agree-most to disagree-most for each Q-block independently. Instructions for this rank-ordering are similar to those used in the original Q-study from which the blocks are developed. Scores are derived for each respondent, one for each type, from the sum of the ranks assigned to the statements. Scores for each respondent provide the basis for assignment to a type of attitude orientation toward the Cooperative Extension Service. From this pattern of typologies developed by the analysis of the Q-blocks, Extension administration would then be able to learn how many Illinois commercial farmers fall into each attitude type, and gain some background data to be used in planning communication efforts to reinforce or change these identified attitudes.

Carrying out this further study would require selecting a representative sample of Illinois commercial farmers to project the findings from the large sample to the general population of Illinois commercial farmers.

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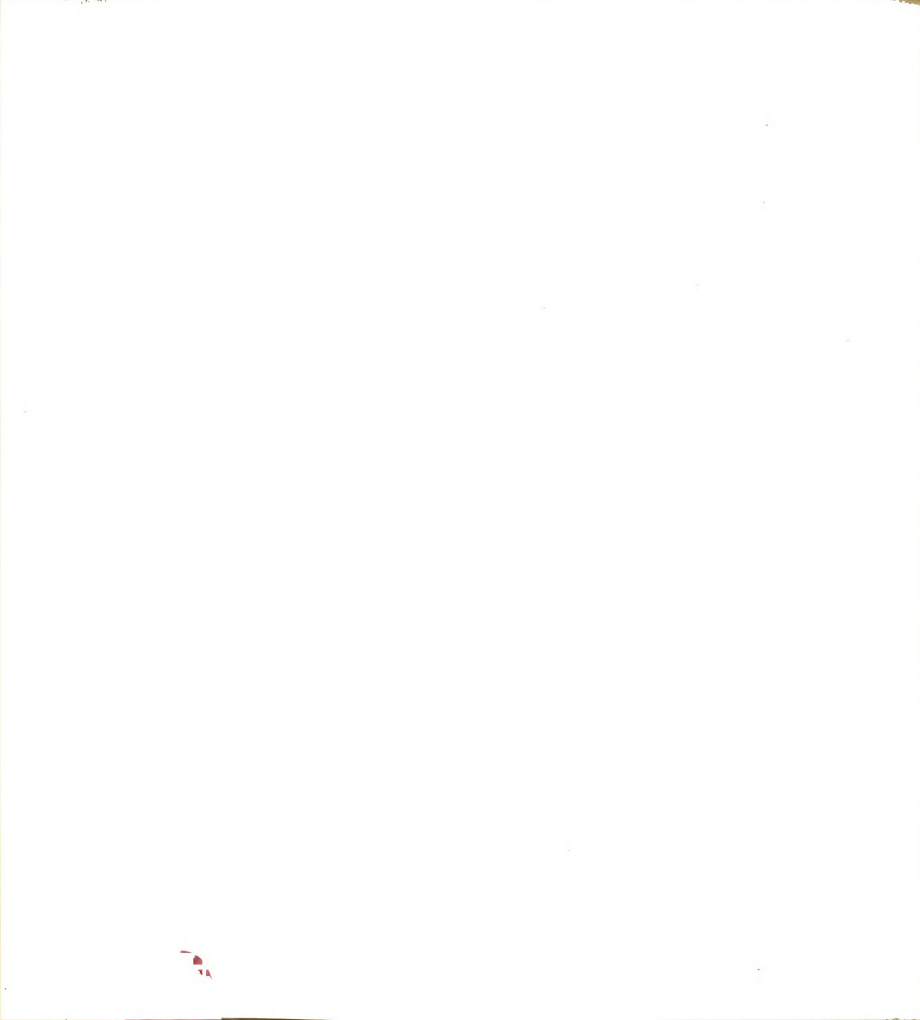
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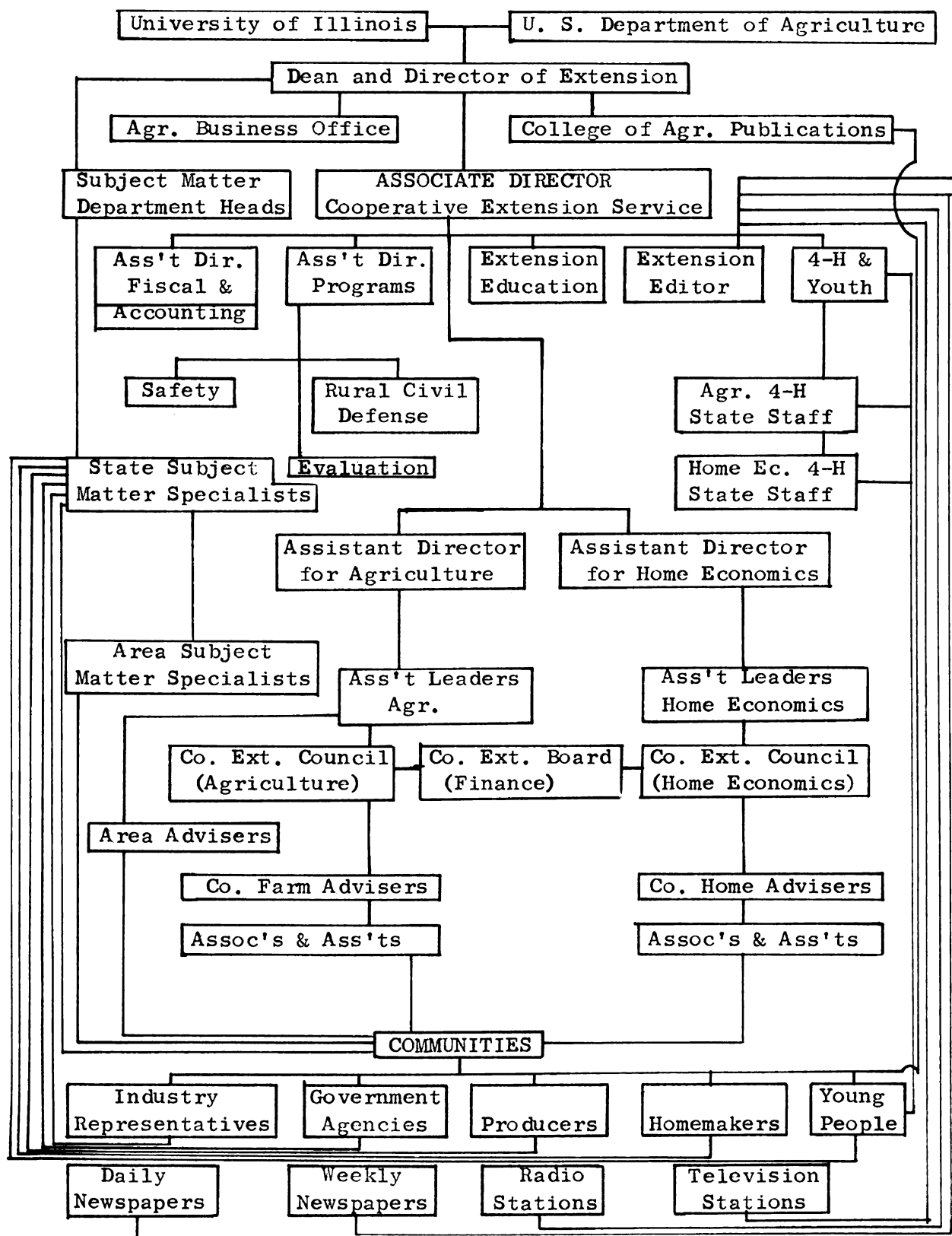


Figure 8 -- A diagram of the formal communication system within the Illinois Cooperative Extension Service and its clientele groups.

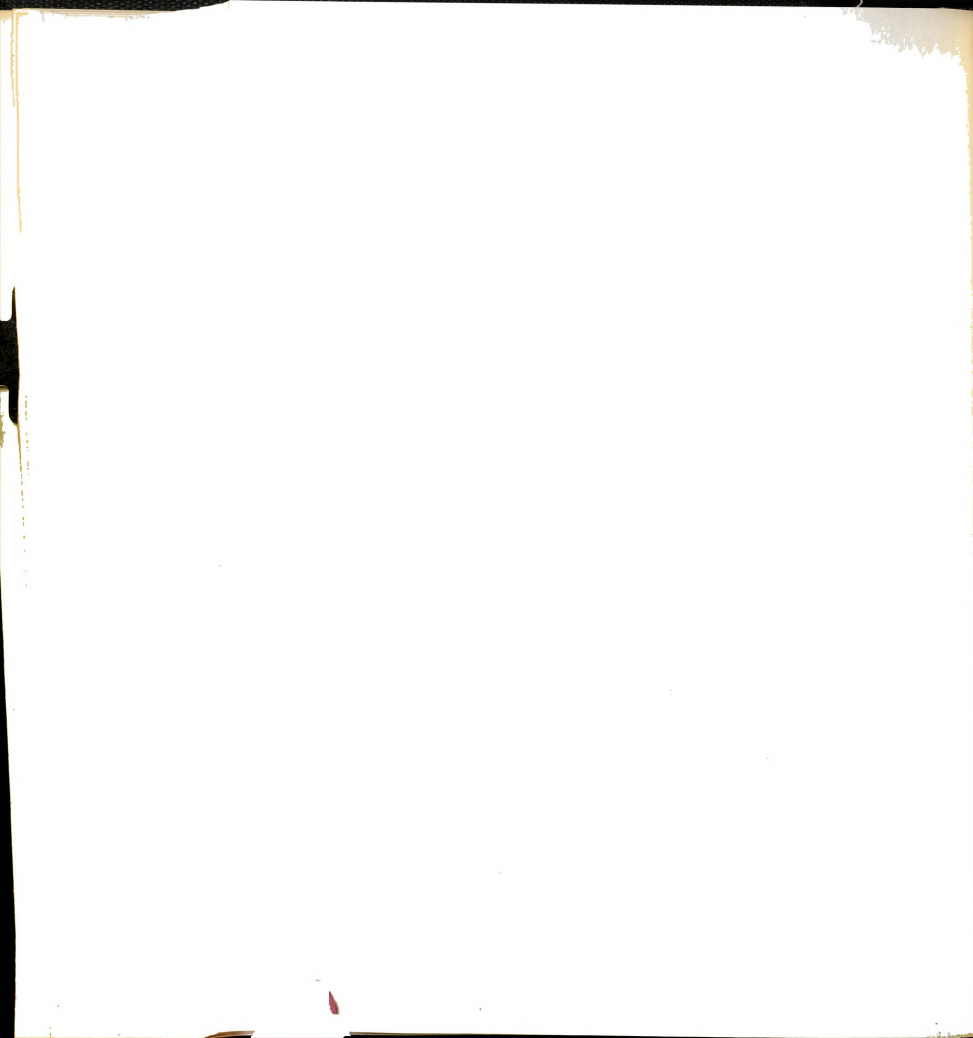


Figure 9 -- Farms visited, Stage 1, focused interviews,
September, 1963



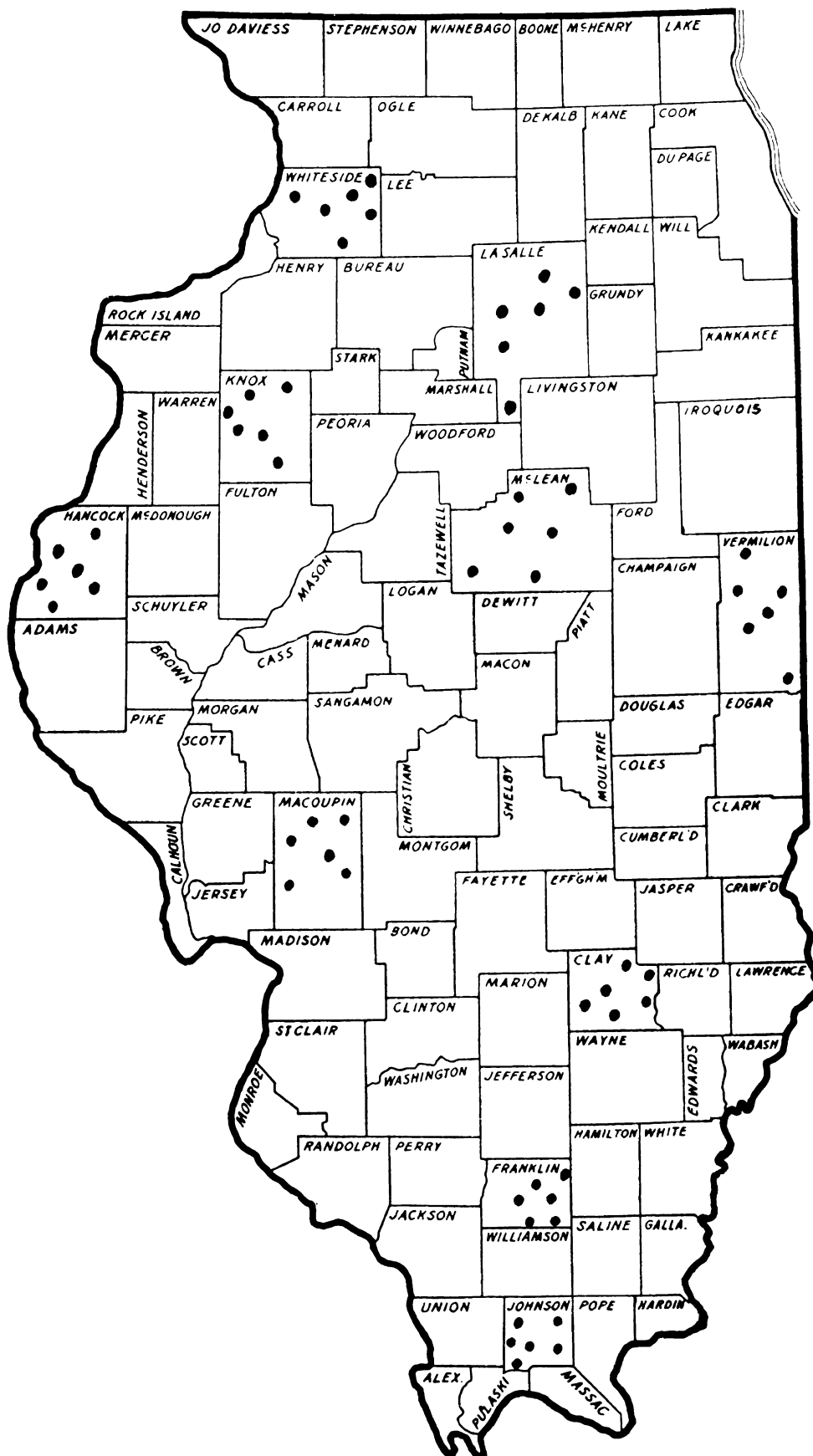
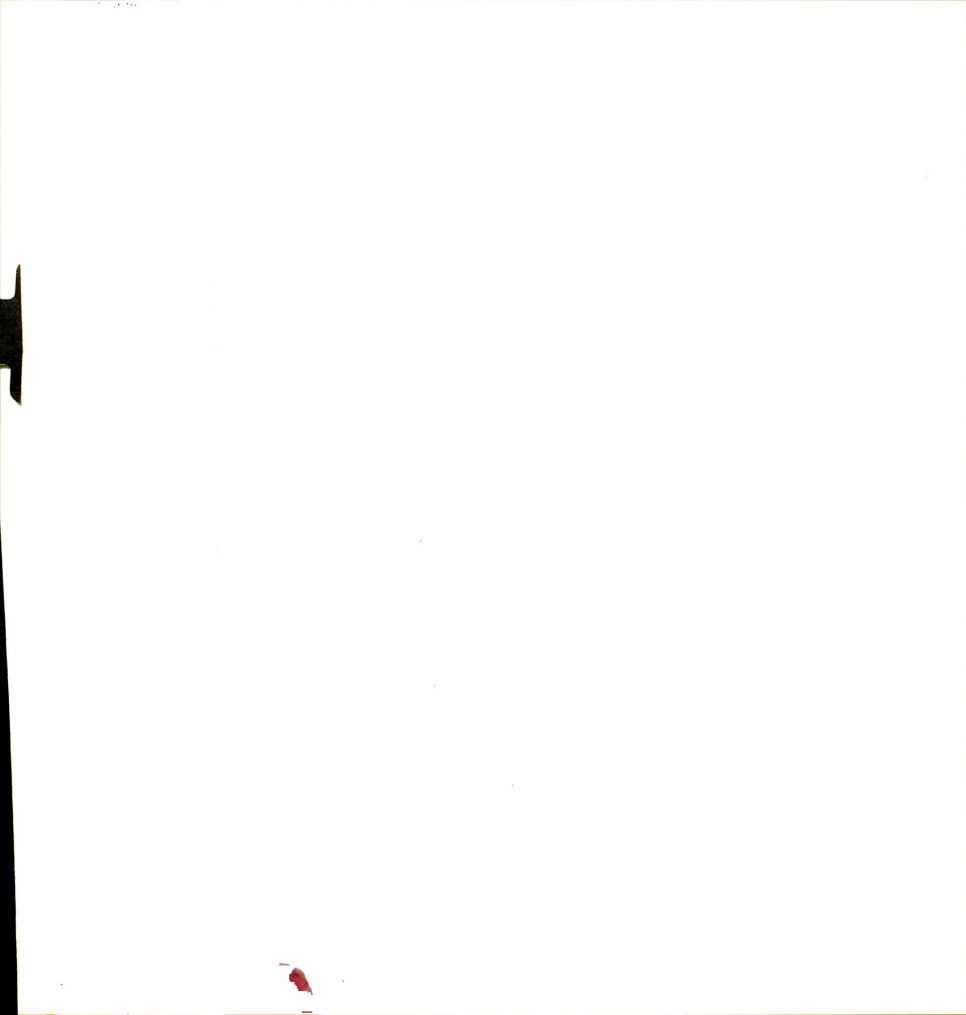


Figure 10 -- Location of respondents' farms, Stage 2, Q-study, January-February, 1964



APPENDICES



APPENDIX 1INFORMATION SHEET

Name _____

Address _____, Illinois

County _____

1. My age is _____

Under 35 9 35-44 16 45-54 16 55-64 15 Over 65 4

2. Circle the highest grade or year in school that you have completed.

5 6 7 8 9 10 11 12 13 14 15 16 17 or more Highest
(college) (graduate study) college degree _____

19 did not graduate from high school. 29 graduated from high school 12 college graduates

3. How many acres of land did you farm in 1963?

less than 180 9 15%180-259 acres 9 15%260-339 acres 10 17%340-500 acres 15 25%more than 500 17 28% How many total? _____

4. Please check the blank below that describes your situation

I own all of the land that I farm 24I own some and rent some of the land that I farm 26I rent all of the land that I farm 10

5. In which of the following groups would your gross farm income for 1963 fall?

I. under \$2,500 3 5%IV. \$10,000-\$19,999 15 24%II. \$2,500-\$4,999 0V. \$20,000-\$39,999 20 33%III. \$5,000-\$9,999 6 10%VI. More than \$40,000 16 28%



Appendix 1-(Continued)

6. What is your religious preference?

Protestant 52 Catholic 6 Jewish 0 Other 1 Mormon
1 Primitive Baptist

7. List below the make and year of your automobile(s)

8. Check below the farm organization(s) you now belong to

Farm Bureau 47 National Farmers Organization 8

Grange 2 List any others _____

Farmers Union 2 _____

9. Check below the farm magazines that you get and read regularly

Successful Farming	<u>52</u>	List any others	
		Better Farming Methods	8
Farm Journal	<u>52</u>	Drovers Journal	4
		Doane's	4
Prairie Farmer	<u>57</u>	Soybean Digest	1
		Feedlot	1
IAA Record	<u>47</u>	NFO Reporter	1
		Turkey World	1
The Nation's Agriculture	<u>47</u>	Feedstuffs	1
		Hereford Journal	2
Hoard's Dairyman	<u>5</u>	Polled Hereford World	2
		Farmers Digest	1
National Livestock Producer	<u>24</u>	Shorthorn Journal	1
		Angus Journal	1
National Hog Farmer	<u>24</u>	Breeders Gazette	1
		Illinois Union Farmer	1
Wallace's Farmer	<u>15</u>	Dairy Record	1
		Business of Farming	1
Farm Quarterly	<u>20</u>		

10. Do you know your county farm adviser personally?

Yes 57 No 2 I know who he is 1

11. Has he ever refused to give you information that you asked for?

Yes 2 No 54 I haven't asked for any 4

12. Have you ever attended a county Extension educational meeting?

Yes 54 No 6 I have never heard of them _____



APPENDIX 2Summary of Attitudes Toward Extension-Farm Bureau Relationships

1. Farm Bureau needs the Cooperative Extension Service for its educational programs.

$\frac{32}{\text{Highly agree}}$	$\frac{16}{\text{Agree some}}$	$\frac{1}{\text{Agree a little}}$	$\frac{5}{\text{Neutral}}$	$\frac{1}{\text{Disagree a little}}$	$\frac{0}{\text{Disagree some}}$	$\frac{5}{\text{Highly disagree}}$
----------------------------------	--------------------------------	-----------------------------------	----------------------------	--------------------------------------	----------------------------------	------------------------------------

2. The county farm adviser should have his office away from the Farm Bureau building.

$\frac{17}{\text{Highly agree}}$	$\frac{1}{\text{Agree some}}$	$\frac{1}{\text{Agree a little}}$	$\frac{10}{\text{Neutral}}$	$\frac{1}{\text{Disagree a little}}$	$\frac{7}{\text{Disagree some}}$	$\frac{23}{\text{Highly disagree}}$
----------------------------------	-------------------------------	-----------------------------------	-----------------------------	--------------------------------------	----------------------------------	-------------------------------------

3. I like the close tie-in in my county between the Cooperative Extension Service and the Farm Bureau.

$\frac{26}{\text{Highly agree}}$	$\frac{9}{\text{Agree some}}$	$\frac{1}{\text{Agree a little}}$	$\frac{8}{\text{Neutral}}$	$\frac{2}{\text{Disagree a little}}$	$\frac{4}{\text{Disagree some}}$	$\frac{10}{\text{Highly disagree}}$
----------------------------------	-------------------------------	-----------------------------------	----------------------------	--------------------------------------	----------------------------------	-------------------------------------

4. My county farm adviser has no business going to a county ASCS meeting, because it ties him in too closely with government programs.

$\frac{6}{\text{Highly agree}}$	$\frac{1}{\text{Agree some}}$	$\frac{2}{\text{Agree a little}}$	$\frac{5}{\text{Neutral}}$	$\frac{2}{\text{Disagree a little}}$	$\frac{15}{\text{Disagree some}}$	$\frac{27}{\text{Highly disagree}}$
---------------------------------	-------------------------------	-----------------------------------	----------------------------	--------------------------------------	-----------------------------------	-------------------------------------

5. I think that my county farm adviser gives good recommendations because he is hired by the Farm Bureau.

$\frac{5}{\text{Highly agree}}$	$\frac{3}{\text{Agree some}}$	$\frac{0}{\text{Agree a little}}$	$\frac{8}{\text{Neutral}}$	$\frac{2}{\text{Disagree a little}}$	$\frac{4}{\text{Disagree some}}$	$\frac{38}{\text{Highly disagree}}$
---------------------------------	-------------------------------	-----------------------------------	----------------------------	--------------------------------------	----------------------------------	-------------------------------------

6. I'm glad that my county farm adviser has his office at the Farm Bureau building, because that's where most of the farmers in my county go frequently.

$\frac{22}{\text{Highly agree}}$	$\frac{8}{\text{Agree some}}$	$\frac{3}{\text{Agree a little}}$	$\frac{6}{\text{Neutral}}$	$\frac{3}{\text{Disagree a little}}$	$\frac{4}{\text{Disagree some}}$	$\frac{14}{\text{Highly disagree}}$
----------------------------------	-------------------------------	-----------------------------------	----------------------------	--------------------------------------	----------------------------------	-------------------------------------

7. I will not go to see my county farm adviser at the Farm Bureau building, because I am not a Farm Bureau member.

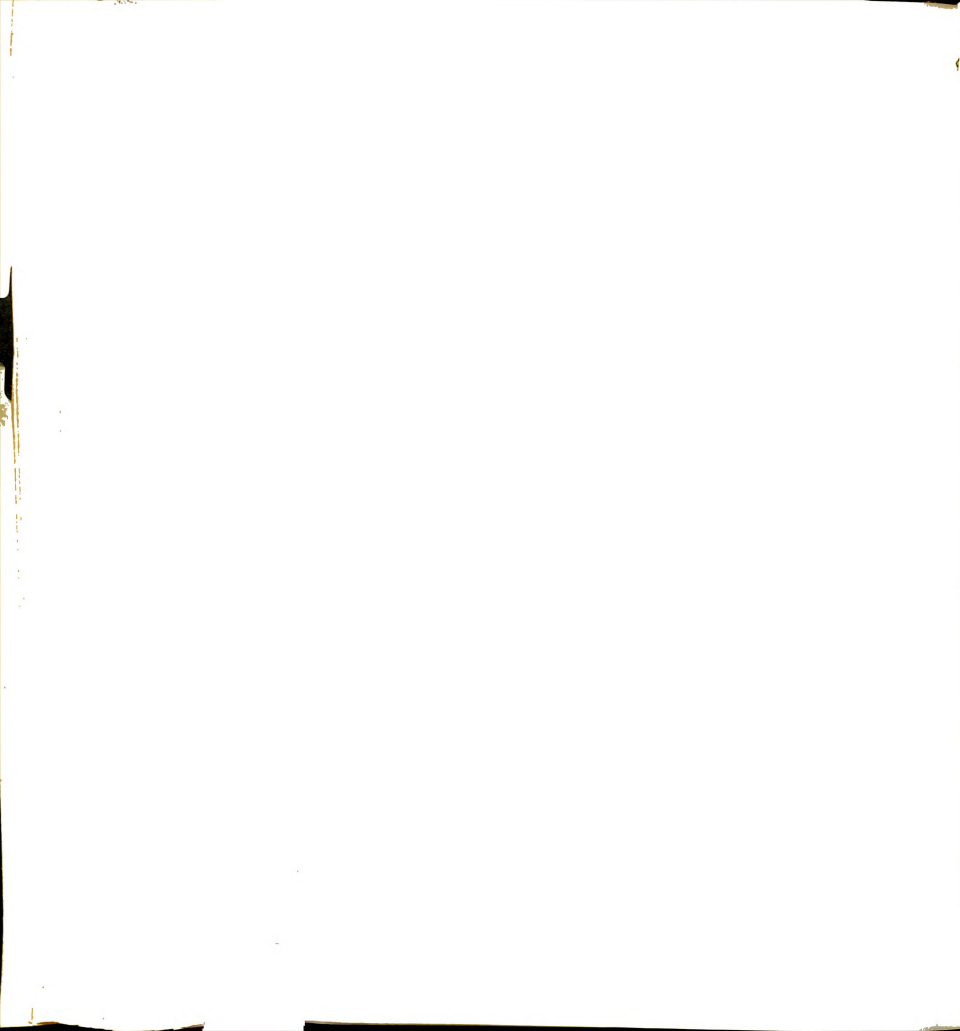
$\frac{3}{\text{Highly agree}}$	$\frac{1}{\text{Agree some}}$	$\frac{0}{\text{Agree a little}}$	$\frac{3}{\text{Neutral}}$	$\frac{4}{\text{Disagree a little}}$	$\frac{4}{\text{Disagree some}}$	$\frac{45}{\text{Highly disagree}}$
---------------------------------	-------------------------------	-----------------------------------	----------------------------	--------------------------------------	----------------------------------	-------------------------------------



APPENDIX 3

Characteristics of the 60 Sample Farmers

No.	Age	Loca- tion	County	Prior Att.	Reli- gion	Educa- tion	Acres	Owner- ship	In- come	Organi- zation
1	64	Far	Good	Fav.	Prot.	8	2	Owms	6	FB
2	67	Near	"	Neu.	Prot.	12	5	Owms	6	FB, G
3	47	Near	"	Unf.	Prot.	12	5	Owms	5	NFO
4	52	Med.	"	Neu.	Cath.	12	5	Owms	6	none
5	27	Med.	"	Unf.	Prot.	16	3	Rents	6	NFO
6	40	Far	"	Fav.	Prot.	12	2	Owms	6	FB
7	76	Med.	Poor	Unf.	Prot.	8	2	Owms	1	FB
8	32	Med.	"	Fav.	Cath.	16	5	Rents	6	FB
9	42	Near	"	Neu.	Prot.	8	5	Rents	4	ncne
10	59	Near	"	Fav.	Prot.	12	1	Rents	4	none
11	45	Far	"	Neu.	Prot.	12	2	Owms	5	FB
12	35	Far	"	Unf.	Prot.	12	2	Rents	4	FB
13	50	Far	"	Neu.	Prot.	12	4	O & R	4	FB
14	35	Near	"	Fav.	Prot.	16	4	Rents	6	FB
15	48	Med.	"	Unf.	Prot.	12	3	Owms	5	none
16	51	Med.	"	Neu.	Prot.	9	3	O & R	5	FB
17	56	Far	"	Fav.	Prot.	12	1	Owms	4	FB
18	45	Near	"	Unf.	P. B.	12	1	Owms	5	FB
19	31	Med.	Good	Fav.	Prot.	16	4	O & R	5	FB
20	67	Near	"	Unf.	Prot.	12	5	O & R	3	FB
21	60	Med.	"	Neu.	Prot.	8	4	Rents	6	FB
22	32	Near	"	Neu.	Prot.	12	2	O & R	3	FB
23	35	Far	"	Fav.	Prot.	16	5	Owms	6	FB
24	41	Far	"	Unf.	Prot.	12	4	O & R	6	FB
25	51	Near	Poor	Fav.	Prot.	13	3	Owms	4	FB
26	38	Med.	"	Neu.	Prot.	16	5	Owms	6	FB
27	55	Far	"	Neu.	Prot.	7	4	O & R	4	FB
28	61	Near	"	Unf.	Prot.	12	2	Owms	3	none
29	52	Med.	"	Fav.	Prot.	8	5	Owms	3	FB
30	43	Far	"	Unf.	Prot.	8	1	Owms	1	FB
31	46	Med.	Good	Fav.	Prot.	12	1	O & R	3	G
32	46	Near	"	Unf.	Prot.	11	2	O & R	4	FB
33	60	Far	"	Fav.	Prot.	16	4	Owms	4	FB
34	26	Near	"	Neu.	Mor.	12	5	O & R	5	FB
35	60	Far	"	Neu.	Prot.	16	5	O & R	6	FB
36	42	Med.	"	Unf.	Prot.	12	2	O & R	4	FB
37	55	Near	"	Fav.	Prot.	8	3	O & R	5	FB
38	21	Far	"	Neu.	Prot.	12	1	Rents	5	FB
39	49	Med.	"	Unf.	Cath.	8	3	O & R	4	NFO
40	43	Far	"	Unf.	Prot.	12	5	O & R	6	FU
41	80	Med.	"	Fav.	Prot.	9	5	Owms	6	FB
42	50	Near	"	Neu.	Cath.	8	3	Owms	5	FB



Appendix 3 -(continued)

No.	Age	Loca- tion	County	Prior Att.	Reli- gion	Educa- tion	Acres	Owner- ship	In- come	Organi- zation
43	58	Near	Poor	Fav.	Prot.	10	1	Owens	4	FB
44	38	Med.	"	Unf.	Prot.	12	4	Owens	5	NFO
45	57	Near	"	Neu.	Prot.	6	3	O & R	3	FB
46	42	Med.	"	Fav.	Prot.	8	4	O & R	5	FB
47	27	Far	"	Neu.	Prot.	12	4	O & R	4	none
48	43	Far	"	Unf.	Cath.	12	5	O & R	5	FB, NFO
49	62	Med.	Good	Unf.	Prot.	9	3	O & R	5	FU
50	62	Near	"	Fav.	Cath.	8	4	O & R	5	FB
51	36	Near	"	Fav.	Prot.	16	1	Owens	1	FB
52	48	Far	"	Neu.	Prot.	12	1	Rents	5	FB
53	42	Far	"	Unf.	Prot.	13	4	Owens	4	FB, NFO
54	33	Med.	"	Neu.	Prot.	12	3	Rents	5	FB
55	57	Far	Poor	Unf.	Prot.	8	5	O & R	6	FB
56	49	Med.	"	Fav.	Prot.	16	5	O & R	5	FB
57	56	Near	"	Unf.	Prot.	9	4	O & R	4	FB, NFO
58	52	Med.	"	Fav.	Prot.	12	4	Owens	5	FB
59	41	Far	"	Neu.	Prot.	16	4	O & R	5	FB
60	32	Near	"	Neu.	Prot.	16	5	O & R	6	FB

Summary and Key:

	Acreage Groups	No.	Per- cent
Ave. age of sample = 47.5	1 = less than 180	9	15
Oldest farmer = 80	2 = 180-259 acres	9	15
Youngest farmer = 21	3 = 260-339 acres	10	17
Average age of Illinois commercial farmers, 1960 Census = 47.8 years	4 = 340-500 acres	15	25
	5 = more than 500	17	28
	Income Groups (1960 U. S. Census)	No.	Per- cent
Protestants = 54	1 = under \$2,500	3	5
Catholics = 6	2 = \$2,500-4,999	0	0
P. B. = Primitive Baptist	3 = \$5,000-9,999	6	10
Mor. = Mormon	4 = \$10,000-19,999	15	25
College education = 12	5 = \$20,000-39,000	20	33
High school graduate = 29	6 = more than \$40,000	16	27
Grade school only = 19			
	Organization memberships		
Owners farming own land = 24	47 FB = Farm Bureau		
Owners that rent some = 26	2 FU = Farmers Union		
Renters only = 10	7 NFO = National Farmers Organization		
	2 G = Grange		
	6 = none		



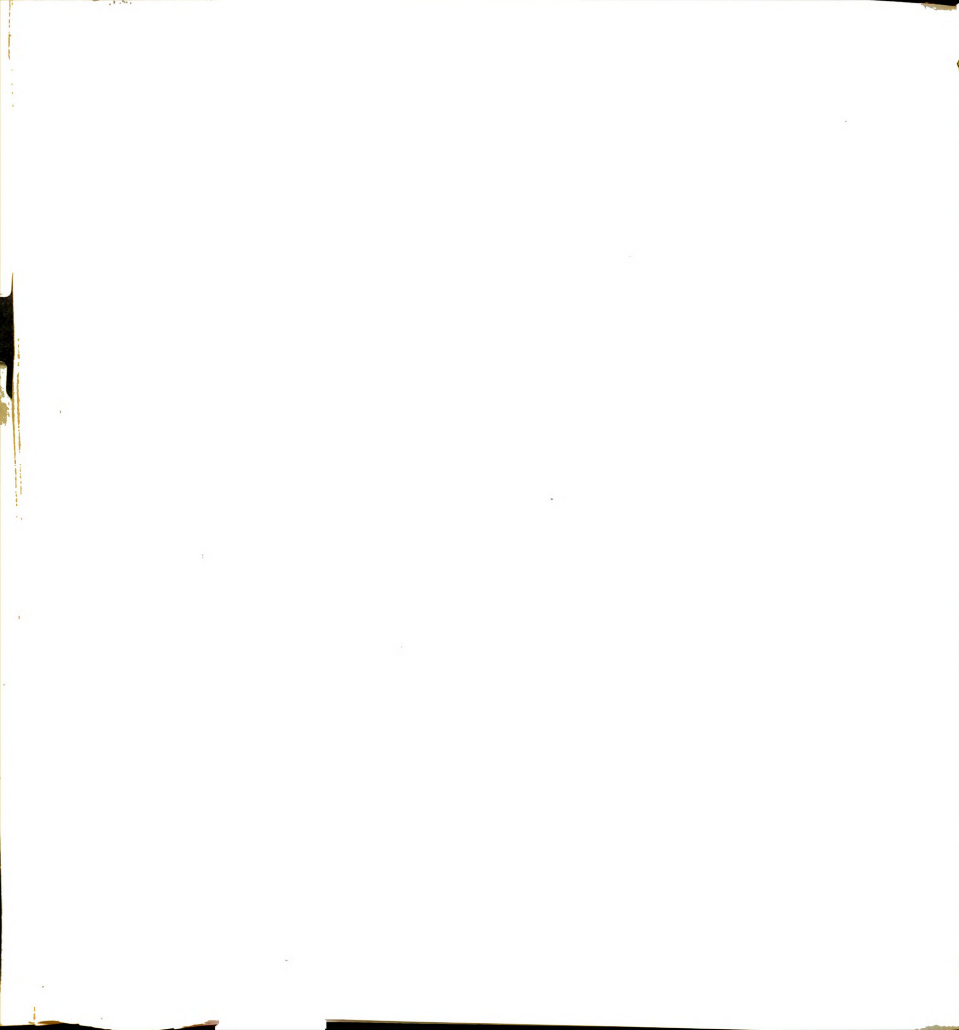
APPENDIX 4Q-Sort 1 -- Institutional Characteristics (Impersonal Sources)

Category Slant	No.	Description
1. Competence		
-	36	I don't have much confidence in the recommendations of the Cooperative Extension Service.
+	28	The Cooperative Extension Service suggests sound practices that benefit the farmer who uses them.
-	1	The farmer who knows his business doesn't really have much need for Extension services like soil testing.
+	2	In general, Extension's educational programs tell me what I need to know about new developments in my kind of farming.
2. Practicality		
-	27	Information presented at Extension's educational meetings is too general; it's not specific enough to be of any real help to me.
+	35	Extension's educational programs tell me what I want to know.
-	11	Much of the information from the University of Illinois College of Agriculture is too advanced for the average farmer--he isn't ready for it.
+	43	I believe that a lot of the information that comes from the University of Illinois is of practical use to me.
3. Effectiveness		
-	25	The Cooperative Extension Service doesn't do what it is supposed to do--give farmers information they can use.
+	20	The scientists at the College of Agriculture in Urbana give farmers like me a lot of good help.
-	22	I get most of my ideas on how to farm better from the Farm Progress Show or State Fair and not from the Cooperative Extension Service.
+	23	I think that the Cooperative Extension Service system of getting information to farmers through educational meetings is very effective.



Appendix 4--(Continued)

Category	Slant	No.	Description
4. Value	+	3	I like the Cooperative Extension Service idea that no farmer is too old to learn better farming methods.
	+	38	Information from the Cooperative Extension Service helps increase farm production and so returns more money than it costs in taxes.
	-	42	It's hard to tell whether the tax money that is spent on the Cooperative Extension Service is doing any good or not.
	-	40	So far as I am concerned, they could do away with the Cooperative Extension Service today.
5. Communication	+	30	Cooperative Extension circulars and booklets I have read are well written and easy to understand.
	-	31	Most Extension information materials use too many technical words and schoolbook language.
	-	6	Most of the so-called Extension "experts" have read so many books that they can't talk common sense any more.
	+	15	On the whole, the Extension Service does a pretty good job of presenting information to us.
6. Up-to-dateness	+	4	No other source of agricultural information is more up-to-date than the Cooperative Extension Service.
	-	12	Most of the information put out by the Cooperative Extension Service is a review of what I have already heard or read about.
	-	41	Extension's system of holding educational meetings is out of date.
	+	5	The content of Extension's educational programs is as modern as agricultural research can make it.
7. Impartiality	+	8	Cooperative Extension Service material is impartial and unbiased.
	+	13	The Cooperative Extension Service should not concentrate on helping only farmers, but should try to help everybody.



Appendix 4-(Continued)

Category	Slant	No.	Description
8. Efficiency	-	7	Cooperative Extension educational programs are dictated too much by the U. S. Department of Agriculture.
	-	16	Cooperative Extension Service recommendations are influenced too much by commercial interests.
	+	33	Most smart farmers will try a new practice that is recommended by the Cooperative Extension Service.
	-	34	Most Extension services, like soil testing, take too much time and paper work.
	-	37	The Cooperative Extension Service bombards us farmers with so much information that it's hard to sort out what is useful and what is not useful for my operation.
9. Reliability	+	18	When I have a farming problem, I find that I can get the information I need quickly and easily from the Cooperative Extension Service.
	+	19	I can rely on information from the Cooperative Extension Service.
	-	21	My father taught me most of the things I need to know about farming.
	-	24	My years of experience tell me just about all that I need to know about farming.
	+	9	Information that comes from the Cooperative Extension Service is honest and can be trusted to be as accurate as possible.
10. Friendliness	+	10	Generally speaking, I have found the Cooperative Extension Service to be about as friendly an organization as you could find anywhere.
	-	26	I get the feeling that the Cooperative Extension Service as part of the University of Illinois doesn't fit in very well with the farmers around here.
	-	14	Written materials from the Cooperative Extension Service are usually too cold and official for me.



Appendix 4-(Continued)

Category	Slant	No.	Description
11. Organization	+	39	The Cooperative Extension Service is very thoughtful and considerate in its dealings with farmers like me.
	-	17	I think that the Extension specialists should be located out in the state and not at Urbana.
	+	32	Cooperative Extension can do its job well only so long as it maintains an office in every county.
	+	29	One of the good things about Cooperative Extension is its close ties with the U. S. Department of Agriculture.
	-	44	The same farmers--usually the best ones in the county--tend to show up at every Extension meeting; the Extension educational system thus does not get to the farmers who need the information the most.



APPENDIX 5**Factor Loading Matrix on Principal Axis Analysis, Q-1***

Respond- ent No.	Factor I	Factor II	Respond- ent No.	Factor I	Factor II	Respond- ent No.	Factor I	Factor II
1	.8083	-.0568	21	.7289	.2202	41	.7675	.1319
2	.4057	.3717	22	.8384	-.0428	42	.7017	.1012
3	-.0267	.5114	23	.7889	-.0607	43	.8755	.1040
4	.8239	.0602	24	.8046	.1198	44	.7652	.1945
5	.6354	.5164	25	.8259	-.1604	45	.6256	.4178
6	.8042	-.3065	26	.8066	-.0595	46	.8474	-.1686
7	.7098	-.2517	27	.8352	.0804	47	.8455	-.0614
8	.6240	-.1132	28	.5300	.4091	48	.7972	-.0385
9	.8023	.2210	29	.8496	-.2097	49	.7768	.0867
10	.7965	.0157	30	.5375	.4103	50	.8074	-.2754
11	.7551	-.2798	31	.8079	-.0559	51	.8352	-.2832
12	.7744	.0806	32	.8403	-.0586	52	.7302	-.2677
13	.7900	.2523	33	.8432	-.2124	53	.8056	-.1631
14	.7983	-.3195	34	.7959	.1718	54	.7975	.3491
15	.7994	.0077	35	.8112	-.0859	55	.6045	.4667
16	.8894	.0753	36	.6164	.2721	56	.8582	-.1694
17	.7508	.1662	37	.8276	-.0885	57	.5523	-.0749
18	.8542	-.1911	38	.8343	.0132	58	.7246	-.2951
19	.8168	-.2274	39	.5694	.3181	59	.8370	-.1512
20	.8000	.0082	40	.5008	.2169	60	.7580	-.1119

*Eigenvalue of Factor I = 34.5766 = 57.7% (34.6 ÷ 60.0)



APPENDIX 6Factor Loadings on First Varimax Rotation Analysis, Q-1*

Respond- ent No.	Factor I	Factor II	Respond- ent No.	Factor I	Factor II	Respond- ent No.	Factor I	Factor II
1	.6919	.4217	21	.4668	.6015	41	.5494	.5519 ←
2	.1156	<u>.5380</u>	22	.7084	.4505	42	.5136	.4888 ←
3	-.3179	.4015	23	.6784	.4072	43	.6536	.5917 ←
4	.6369	.5261	24	.5867	.5635 ←	44	.5113	.6017 ←
5	.2191	<u>.7889</u>	25	<u>.7663</u>	.3474	45	.2682	<u>.7029</u>
6	<u>.8332</u>	.2157	26	.6922	.4185	46	<u>.7885</u>	.3532
7	<u>.7245</u>	.2057	27	.6345	.5491 ←	47	.7250	.4394
8	.5743	.2689	28	.1953	<u>.6404</u>	48	.6723	.4301
9	.5262	.6447	29	<u>.8141</u>	.3209	49	.5832	.5205 ←
10	.6404	.4739	30	.2007	<u>.6457</u>	50	<u>.8177</u>	.2429
11	<u>.7776</u>	.2090	31	.6911	.4222	51	<u>.8449</u>	.2526
12	.5848	.5141 ←**	32	.7190	.4387	52	<u>.7504</u>	.2045
13	.4981	.6631	33	<u>.8105</u>	.3150	53	<u>.7513</u>	.3334
14	<u>.8359</u>	.2017	34	.5495	.6008 ←	54	.4482	.7463
15	.6474	.4691	35	.7111	.3996	55	.2227	<u>.7306</u>
16	.6816	.5763	36	.3451	.5787	56	<u>.7979</u>	.3587
17	.5159	.5701 ←	37	.7261	.4070	57	.4937	.2587
18	<u>.8071</u>	.3388	38	.6726	.4938	58	<u>.7617</u>	.1789
19	.7977	.2875	39	.2801	<u>.5890</u>	59	<u>.7700</u>	.3613
20	.6476	.4699	40	.2827	<u>.4668</u>	60	<u>.6828</u>	.3476

**The two loadings on those marked with ← were averaged to derive weights.

*Proportions of Variance

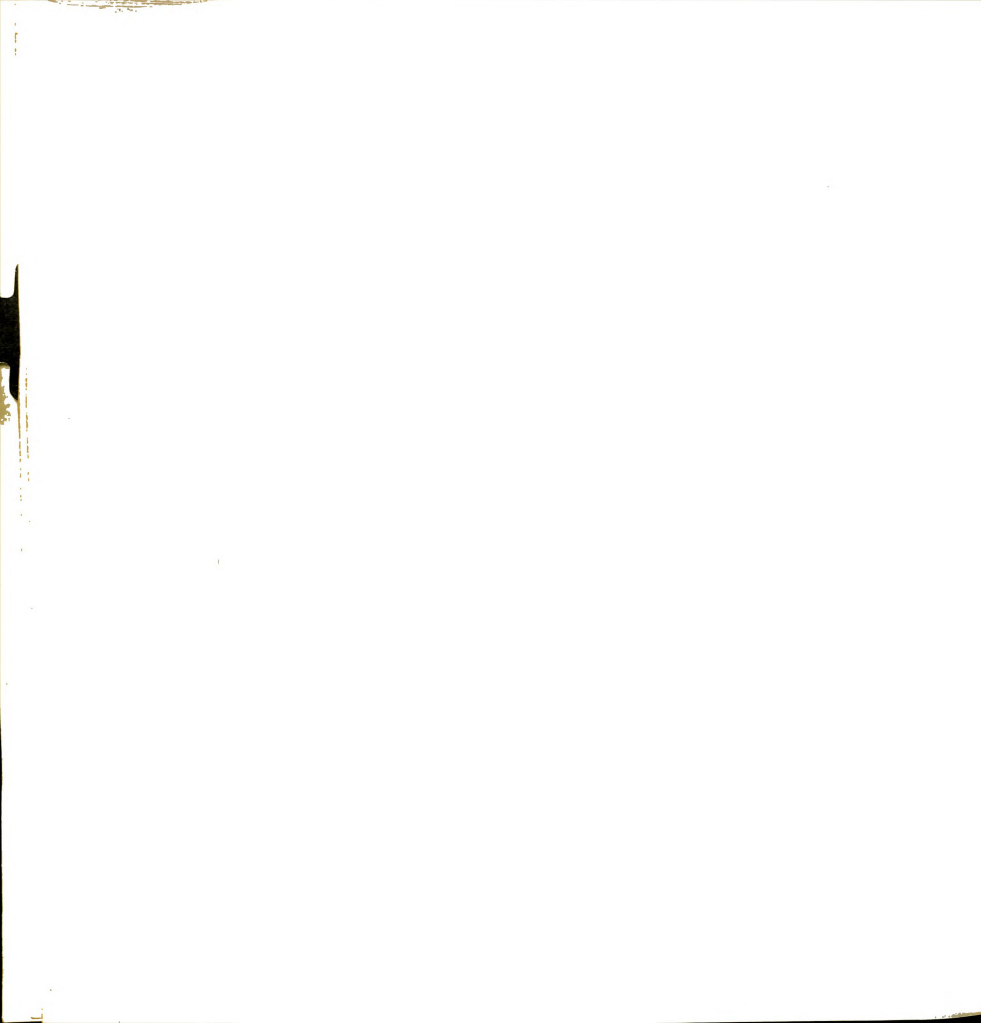
1 = .4005, 2 = .2276 -- 63%

APPENDIX 7Weighting Schedule for Q-Sort 1

Var. = 60

Obs. = 44

Factor	Variable No.	Loading	Weight
CES Type I N = 17	6	.83	2.668
	7	.72	1.495
	11	.78	1.992
	14	.84	2.853
	18	.81	2.355
	19	.80	2.222
	25	.77	1.891
	29	.81	2.355
	33	.81	2.355
	50	.82	2.503
	51	.84	2.853
	52	.75	1.714
	53	.75	1.714
	56	.80	2.222
	58	.76	1.800
	59	.77	1.891
	60	.68	1.265
CES Type III N = 8	2	.54	.762
	5	.79	2.102
	28	.64	1.084
	30	.65	1.126
	39	.59	.905
	40	.47	.603
	45	.71	1.432
	55	.73	1.563
CES Type II N = 10	12	.54	.762
	17	.54	.762
	24	.57	.844
	27	.58	.874
	34	.57	.844
	41	.55	.789
	42	.49	.645
	43	.62	1.007
	44	.55	.789
	49	.55	.789



APPENDIX 8**Factor Item Arrays in Q-Sort 1 -- Farmer Attitudes Toward
the Illinois Cooperative Extension Service**

Item	Description	Type 1	Type 3	Type 2(mixed)
z-scores				
1	The farmer who knows his business does not really have much need for Extension services like soil testing.	-1.39	-1.49	-1.73
2	In general, Extension's educational programs tell me what I need to know about new developments in my kind of farming.	1.44	.28	.77
3	I like the Cooperative Extension Service idea that no farmer is too old to learn better farming methods.	.71	2.43	1.72
4	No other source of agricultural information is more up-to-date than the Cooperative Extension Service.	.63	-.34	.64
5	The content of Extension's educational programs is as modern as agricultural research can make it.	.65	.62	.54
6	Most of the so-called Extension experts have read so many books that they cannot talk common sense any more.	-1.47	-1.38	-1.06
7	Cooperative Extension educational programs are dictated too much by the U. S. Department of Agriculture.	-.58	-.22	-.15
8	Cooperative Extension Service material is impartial and unbiased.	1.15	-.33	-.08
9	Information that comes from the Cooperative Extension Service is honest and can be trusted to be as accurate as possible.	1.62	.65	.64
10	Generally speaking, I have found the Cooperative Extension Service to be about as friendly an organization as you could find anywhere.	.63	1.49	1.09
11	Much of the information from the University of Illinois College of Agriculture is too advanced for the average farmer--he is not ready for it.	-.88	-.73	-.79



Appendix 8- (Continued)

Item	Description	Type 1	Type 3	Type 2 (mixed)
		z-scores		
12	Most of the information put out by the Cooperative Extension Service is a review of what I have already heard or read about.	- .69	- .14	- .03
13	The Cooperative Extension Service should not concentrate on helping only farmers, but should try to help everybody.	.55	- .86	.28
14	Written materials from the Cooperative Extension Service are usually too cold and official for me.	- .95	- .78	- .67
15	On the whole, the Extension Service does a pretty good job of presenting information to us.	.73	.96	.98
16	Cooperative Extension Service recommendations are influenced too much by commercial interests.	-1.23	.14	- .45
17	I think that the Extension specialists should be located out in the state and not at Urbana.	- .10	- .86	- .99
18	When I have a farming problem, I find that I can get the information I need quickly and easily from the Cooperative Extension Service.	1.39	1.53	.83
19	I can rely on information from the Cooperative Extension Service.	1.15	1.04	.70
20	The scientists at the College of Agriculture in Urbana give farmers like me a lot of good help.	.88	1.31	1.00
21	My father taught me most of the things I need to know about farming.	- .69	-1.54	-1.57
22	I get most of my ideas on how to farm better from the Farm Progress Show or the State Fair, and not from the Cooperative Extension Service.	- .59	-1.15	-1.31
23	I think that the Cooperative Extension System of getting information to farmers through educational meetings is very effective.	.74	.15	.74



Appendix 8-(Continued)

Item	Description	Type 1	Type 3	Type 2 (mixed)
		z-scores		
24	My years of experience tell me just about all I need to know about farming.	- .84	-1.78	-1.88
25	The Cooperative Extension Service does not do what it is supposed to do--give farmers information they can use.	-1.47	- .31	- .69
26	I get the feeling that the Cooperative Extension Service as a part of the University of Illinois does not fit in very well with the farmers around here.	-1.26	- .49	- .80
27	Information presented at Extension's educational meetings is too general; it is not specific enough to be of any real help to me.	- .60	- .18	- .62
28	The Cooperative Extension Service suggests sound practices that benefit the farmer who uses them.	1.21	1.59	1.37
29	One of the good things about Cooperative Extension is its close ties with the U. S. Department of Agriculture.	- .18	.52	.34
30	Cooperative Extension circulars and booklets that I have read are well written and easy to understand.	.76	.89	.46
31	Most extension information materials use too many technical words and school-book language.	- .74	- .96	- .51
32	Cooperative Extension can do its job well only so long as it maintains an office in every county.	.84	.92	1.00
33	Most smart farmers will try a new practice that is recommended by the Cooperative Extension Service.	.40	1.17	1.23
34	Most extension services, like soil testing, take too much time and paper work.	- .64	- .24	-1.39
35	Extension's educational programs tell me what I want to know.	.66	- .44	.47



Appendix 8 -(Continued)

Item	Description	z-scores		
		Type 1	Type 3	Type 2 (mixed)
36	I don't have much confidence in the recommendations of the Cooperative Extension Service.	-1.59	- .74	-1.18
37	The Cooperative Extension Service bombards us farmers with so much information that it is hard to sort out what is not useful for my operation.	- .52	- .81	- .76
38	Information from the Cooperative Extension Service helps increase farm production and so returns more money than it costs in taxes,	1.23	- .97	1.04
39	The Cooperative Extension Service is very thoughtful and considerate in its dealings with farmers like me.	.61	.87	1.07
40	So far as I am concerned, they could do away with the Cooperative Extension Service today.	-2.01	-1.01	-1.55
41	Extension's system of holding educational meetings is out-of-date.	- .75	- .30	- .94
42	It's hard to tell whether the tax money that is spent on the Cooperative Extension Service is doing any good or not.	-1.01	.90	- .51
43	I believe that a lot of the information that comes from the University of Illinois is of practical use to me.	1.21	1.44	1.58
44	The same farmers--usually the best ones in the county--tend to show up at every Extension meeting. The Extension educational system thus does not get to the farmers who need the information the most.	1.01	-.84	1.17



APPENDIX 9Data on CES Type 1 (technical) Farmers (Q-sort 1) N = 17

Far- mer	Age	Loca- tion	County	Prior Att.	Reli- gion	Educa- tion	Acres	Owner- ship	In- come	Organi- zation
6	40	Far	Good	Fav.	Prot.	12	2	Owens	6	FB
7	76	Med.	Poor	Unf.	Prot.	12	2	Owens	1	FB
11	45	Far	Poor	Fav.	Prot.	12	2	Owens	6	FB
14	35	Near	Poor	Fav.	Prot.	16	4	Rents	6	FB
18	45	Near	Poor	Unf.	P.B.	12	1	Owens	5	FB
19	31	Med.	Good	Fav.	Prot.	16	4	O & R	5	FB
25	51	Near	Poor	Fav.	Prot.	12	5	O & R	3	FB
29	52	Med.	Poor	Fav.	Prot.	8	5	Owens	3	FB
33	60	Far	Good	Fav.	Prot.	16	4	Owens	4	FB
50	62	Near	Good	Fav.	Cath.	8	4	O & R	5	FB
51	36	Near	Good	Fav.	Prot.	16	1	Owens	1	FB
52	48	Far	Good	Neu.	Prot.	12	1	Rents	5	FB
53	42	Far	Good	Unf.	Prot.	12	4	Owens	4	FB, NFO
56	49	Med.	Poor	Fav.	Prot.	16	5	O & R	5	FB
58	52	Med.	Poor	Unf.	Prot.	12	4	Owens	5	FB
59	41	Far	Poor	Fav.	Prot.	16	4	O & R	5	FB
60	32	Near	Poor	Neu.	Prot.	16	5	O & R	6	FB

Av. . age = 46.8

3 young	6 live near	11 favorable	15 Protestant
11 medium	5 live medium	2 neutral	1 Catholic
3 old	6 live far	4 unfavorable	1 Primitive Baptist

7 college graduates	9 are owners	<u>Income Groups</u>
8 high school graduates	6 are part owners	
2 grade school graduates	2 are renters	
17 Farm Bureau members	<u>Acre Groups</u>	<u>No.</u>
1 NFO member	1 =	3 17%
	2 =	3 17%
	3 =	0
	4 =	7 39%
	5 =	4 27%
		1 = 2 11%
		2 = 0
		3 = 2 11%
		4 = 2 11%
		5 = 7 39%
		6 = 4 28%



APPENDIX 10CES Type 1 Item Arrays by Q-1 Characteristic Categories

	Most Agree Item Nos.	Most Disagree Item Nos.	Total Items
1. Competence	2 +*, 28 +	36 -, 1 -	4
2. Practicality	43 +, 35 +*		2
3. Effectiveness		25 -*	1
4. Value	38 +*, 3 +*	40 -*, 42 -*	4
5. Communication		6 -	1
6. Up-to-dateness		24 -*	1
7. Impartiality	8 +*, 13 +*	16 -*	3
8. Efficiency	18 +		1
9. Reliability	19 +, 9 +*		2
10. Friendliness		26 -	1
11. Organization	44 -*		1

11 positive	9 negative
1 negative	0 positive

+ = positive statement
 - = negative statement

*Greatest item disagreement, the items that most differ between CES Types 1 and 3.



APPENDIX 11Data on CES Type 3 (Emotional) Farmers (Q-sort 1) N = 8

No.	Age	Loca- tion	County	Prior Att.	Reli- gion	Educa- tion	Acres	Owner- ship	In- come	Organi- zation
2	67	Near	Good	Neut.	Prot.	12	5	Owens	6	FB
5	27	Med.	Good	Unf.	Prot.	16	3	Rents	6	NFO
28	61	Near	Poor	Unf.	Prot.	12	2	Owens	3	none
30	43	Far	Poor	Unf.	Prot.	8	1	Owens	1	FB
39	49	Med.	Good	Unf.	Cath.	8	3	O & R	4	NFO
40	43	Far	Good	Unf.	Prot.	12	5	O & R	6	FU
45	57	Near	Poor	Neut.	Prot.	8	3	O & R	3	FB
55	57	Far	Poor	Unf.	Prot.	8	5	O & R	6	FB

Av. age = 50.5

Acre Groups

1 = 1
 2 = 1
 3 = 3
 4 = 0
 5 = 3

Income Groups

1 = 1
 2 = 0
 3 = 2
 4 = 1
 5 = 0
 6 = 4

FB = Farm Bureau

FU = Farmers Union

NFO = National Farmers Organization



APPENDIX 12CES Type 3 Item Arrays by Q-1 Characteristic Categories

	Most Agree Item Nos.	Most Disagree Item Nos.	Total Items
1. Competence	28 +, 2 +*	1 -	3
2. Practicality	43 +	35 +*	2
3. Effectiveness	20 +	22 -, 25 -*	3
4. Value	3 +*, 42 -*	40 -*, 38 +*	4
5. Communication		6 -	1
6. Up-to-dateness			0
7. Impartiality	16 -*	13 +*, 8 +*	3
8. Efficiency	18 +, 33 +		2
9. Reliability	19 +	24 -*, 21 -	3
10. Friendliness	10 +		1
11. Organization		44 -*	1
	9 positive 2 negative	8 negative 4 positive	

+ = positive statement
 - = negative statement

*Greatest item disagreement, the items that most differ
 between CES Types 3 and 1.



APPENDIX 13Data on CES Type 2 (Mixed) Farmers (Q-sort 1) N = 10

<u>No.</u>	<u>Age</u>	<u>Loca- tion</u>	<u>County</u>	<u>Prior Att.</u>	<u>Reli- gion</u>	<u>Educa- tion</u>	<u>Acres</u>	<u>Owner- ship</u>	<u>In come</u>	<u>Organi- zation</u>
12	35	Far	Poor	Unf.	Prot.	12	2	Rents	3	FB
17	56	Far	Poor	Fav.	Prot.	12	1	Owms	4	FB
24	41	Far	Good	Unf.	Prot.	12	4	O & R	6	FB
27	55	Far	Poor	Neut.	Prot.	8	4	O & R	4	FB
34	26	Near	Good	Neut.	Mor.	12	5	O & R	5	FB
41	80	Med.	Good	Fav.	Prot.	8	5	Owms	6	FB
42	50	Near	Good	Neut.	Cath.	8	3	Owms	5	FB
43	58	Near	Poor	Fav.	Prot.	8	1	Owms	4	FB
44	38	Med.	Poor	Unf.	Prot.	12	4	Owms	5	NFO
49	62	Med.	Good	Unf.	Prot.	8	3	O & R	5	FU

Av. age = 50.1

FB = Farm Bureau
 FU = Farmers Union
 NFO = National Farmers Organization
 G = Grange

Acre GroupsIncome Groups

1 = 2

1 = 0

2 = 1

2 = 0

3 = 2

3 = 1

4 = 3

4 = 3

5 = 2

5 = 4

6 = 2



APPENDIX 14CES Type 2 (Mixed) Item Arrays by Q-1 Characteristic Categories

	Most Agree Item Nos.	Most Disagree Item Nos.	Total Items
1. Competence	28 +	1 -, 36 -	3
2. Practicality	43 +		1
3. Effectiveness	20 +	22 -	2
4. Value	3 +*, 38 +**	40 -, 42 -**	4
5. Communication		6 -	1
6. Up-to-dateness			0
7. Impartiality	13 +**	8 +*	2
8. Efficiency	33 +	34 -**	2
9. Reliability	9 +	24 -*, 21 -	3
10. Friendliness	10 +, 39 +		2
11. Organization	44 -**, 32 +		2

11 positive

1 negative

9 negative

1 positive

+ = positive statement

- = negative statement

*Greatest item disagreement, the items that most differ
between CES Types 2 and 1.

**Greatest item disagreement, the items that most differ
between CES Types 2 and 3.



APPENDIX 15**Farmer 3 Item Arrays by Q-1 Characteristic Categories**

	Most Agree Item Nos.	Most Disagree Item Nos.	Total Items
1. Competence	1 -*, 2 +*	36 -*	3
2. Practicality	43 +	35 +	2
3. Effectiveness	25 -*, 23 +	20 +*, 22 -*	4
4. Value	3 +, 40 -*	38 +*, 42 -	4
5. Communication	30 +	15 +*, 31 -, 6 -	4
6. Up-to-dateness	12 -*, 41 -*		2
7. Impartiality	16 -*, 13 +*	8 +*	3
8. Efficiency		37 -, 18 +*	2
9. Reliability		9 +*, 19 +*, 24 -*	3
10. Friendliness	10 +, 26 -*	39 +*	3
11. Organization			0

7 positive

7 negative

7 negative

9 positive

+ = positive statement

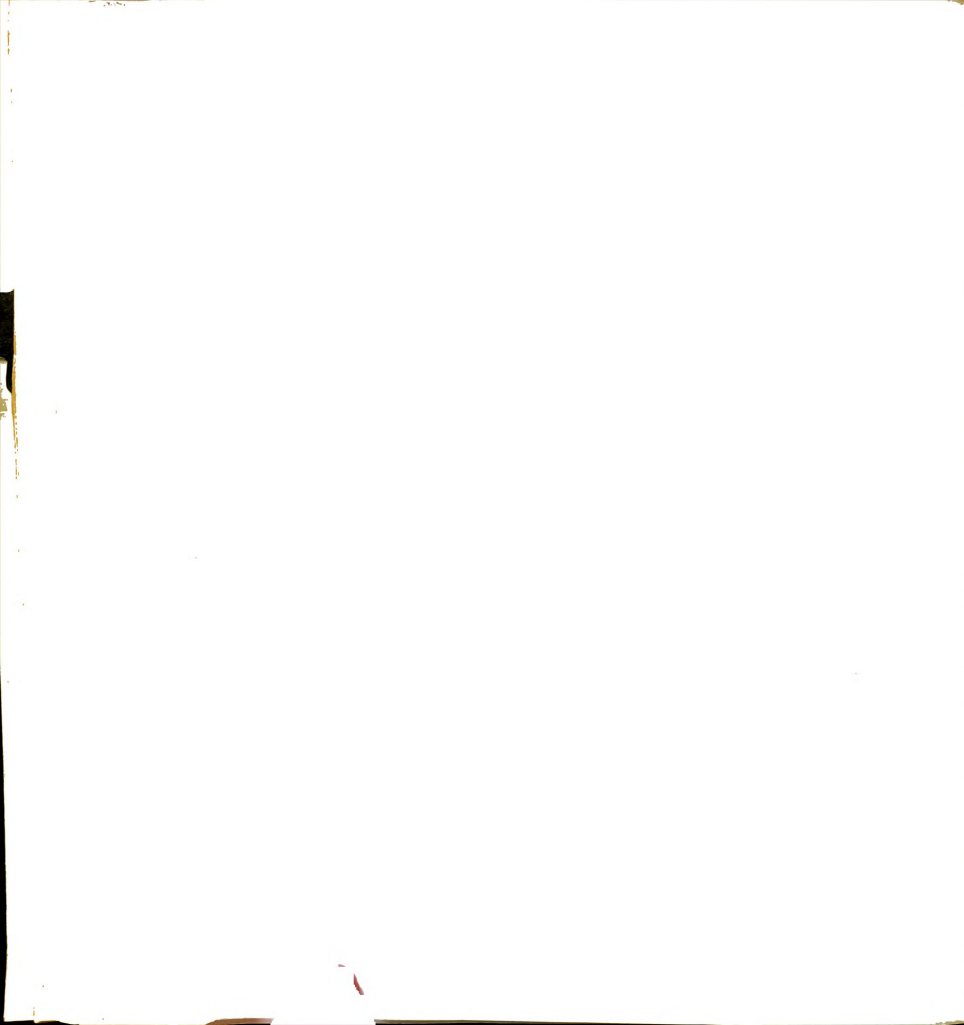
- = negative statement

*Greatest item disagreement, the items that most differ
between Farmer 3 and all others.



APPENDIX 16Q-Sort 2 -- Staff Characteristics (Personal Sources)

Category	Slant	No.	Description
1. Competence			
-	33		My county farm adviser could do a much better job if he had more practical farm experience.
+	30		Cooperative Extension Service advisers and specialists really know their business.
+	38		It seems that no matter how tough a problem I take to my county farm adviser, he can find a satisfactory solution.
-	35		My county farm adviser is taking his connection with the University of Illinois too seriously--he claims to have more knowledge than I think he has.
2. Practicality			
-	4		My county farm adviser uses too many high-pressure tactics--he pushes too hard in trying to get us to try out new things and ideas.
-	23		My county farm adviser should have to foot the bill to establish some of the practices he recommends so that he would become more practical.
+	29		My county farm adviser is interested in people and their problems; he is more than just a subject matter "expert."
+	8		I never hesitate to put one of my county farm adviser's recommendations into practice on my farm because I know that it will usually work.
3. Effectiveness			
+	5		My county farm adviser gives good service to us farmers.
-	18		My county farm adviser doesn't get around to visit farms like he should.
-	14		My county farm adviser spends too much time going to meetings to be of any real help to me.
+	27		My county farm adviser is almost never too busy to come out to visit my farm when I want him to.



Appendix 16 --(continued)

Category	Slant	No.	Description
4. Value			
-	22		Generally speaking, county farm advisers are not worth what they are paid.
-	21		Many ideas that my county farm adviser puts out are too expensive for farmers like me to use.
+	3		I think that there is a lot of value in most of the practices recommended by my county farm adviser.
+	2		My county farm adviser gives us farmers much valuable help in our farming operations.
5. Communication			
-	39		The Extension specialists who come around here can't talk the language of the farmer--they use too many technical terms and schoolbook language.
+	40		Farmers can get from their county farm adviser the most down-to-earth recommendations on how to farm better.
+	1		My county farm adviser makes us feel free to talk our problems over with him at educational meetings.
-	36		My county farm adviser doesn't seem able to present information in a way that is easy to understand and use.
6. Up-to-dateness			
-	9		I have already heard or read about most of the information that my county farm adviser puts out.
+	6		My county farm adviser is the most up-to-date source of new farming information that I know about.
+	26		I like the way that my county farm adviser keeps up to date with new farming practices by attending meetings at the College of Agriculture in Urbana.
-	25		Most of the recommendations that I get from my county farm adviser sound like the horse-and-buggy days, they are so old-fashioned.

Appendix 16 --(continued)

Category	Slant	No.	Description
7. Impartiality			
	+	16	My county farm adviser gives me the straight facts as he sees them and I appreciate it.
	-	19	My county farm adviser will not listen to new ideas and suggestions from the farmers in this county.
	+	24	My county farm adviser tries very hard to involve everyone in Extension educational programs regardless of which organization they belong to.
	-	31	My county farm adviser plays favorites among the farmers in my county and I don't like it.
8. Efficiency			
	+	10	My county farm adviser uses his time very well--he's one of the most efficient persons that I know.
	-	20	It is not efficient use of my county farm adviser's time to visit too many farms.
	-	32	It takes too much time and trouble to get information from my county farm adviser.
	+	15	My county farm adviser almost always seems to have the information I need at his fingertips.
9. Reliability			
	-	13	My county farm adviser often doesn't follow up on things he says he is going to do.
	+	12	My county farm adviser is the most reliable source of information about farming that I know.
	+	28	I appreciate the sincere interest that my county farm adviser takes in helping me with my problems.
	-	11	I can get more reliable information that I need for my farming operation from a local commercial dealer I know than I can from my county farm adviser.
10. Friendliness			
	-	37	My county farm adviser stays too much to himself and just isn't one of us.

Appendix 16 -- (continued)

Category	Slant	No.	Description
	+	17	My county farm adviser is a wonderful person.
	-	7	My county farm adviser tries too hard to be friendly.
	+	34	I enjoy visiting with my county farm adviser on just about any subject.



APPENDIX 17Factor Loading Matrix on Principal Axis Analysis (Q-Sort 2)*

Respond- ent No.	Factor I	Respond- ent No.	Factor I	Respond- ent No.	Factor I
1	.8675	21	.8647	41	.7511
2	.4175**	22	.8715	42	.8208
3	.1075**	23	.8674	43	.6946**
4	.8471	24	.6126	44	.7492
5	.5143**	25	.8255	45	.3805**
6	.8664	26	.8771	46	.7960
7	.8751	27	.8406	47	.8084
8	.4921**	28	-.2149**	48	.7427
9	.8373	29	.8842	49	.8697
10	.7778	30	.7821	50	.8512
11	.8869	31	.8455	51	.8611
12	.7436	32	.8819	52	.7901
13	.8798	33	.8142	53	.8903
14	.8721	34	.8363	54	.8549
15	.8673	35	.8613	55	.8328
16	.8321	36	.7613	56	.8763
17	.8126	37	.8574	57	.8353
18	.8276	38	.8593	58	.8074
19	.9181	39	.7480	59	.8498
20	.8415	40	.5157**	60	.7730

*Eigenvalue of Factor I = 37.6736 = 63.3% (37.6 ÷ 60.0)

**Eight variables excluded on weighted ranking analysis

APPENDIX 18Weighting Schedule for Q-Sort 2

Var. = 60

Obs. = 40

Variable				Variable			
Type	No.	Loading	Weight	No.	Loading	Weight	
I N = 52	1	.868	3.579	32	.882	3.901	
	4	.847	3.063	33	.814	2.355	
	6	.866	3.579	34	.836	2.853	
	7	.875	3.901	35	.861	3.303	
	9	.837	2.853	36	.761	1.800	
	10	.778	1.992	37	.857	3.303	
	11	.887	4.281	38	.859	3.303	
	12	.744	1.636	39	.748	1.714	
	13	.880	3.901	41	.751	1.714	
	14	.872	3.579	42	.821	2.503	
	15	.868	3.579	44	.749	1.714	
	16	.832	2.668	46	.796	2.222	
	17	.813	2.355	47	.808	2.355	
	18	.828	2.668	48	.743	1.636	
	19	.918	5.990	49	.870	3.579	
	20	.842	2.853	50	.851	3.063	
	21	.865	3.579	51	.861	3.303	
	22	.872	3.579	52	.790	2.102	
	23	.867	3.579	53	.890	4.281	
	24	.613	.971	54	.855	3.303	
	25	.826	2.668	55	.833	2.668	
	26	.877	3.901	56	.876	3.901	
	27	.841	2.853	57	.835	2.853	
	29	.884	3.901	58	.807	2.355	
	30	.782	1.992	59	.850	3.063	
	31	.846	3.063	60	.773	1.891	

Factor II	2	1.000
Factor III	3	1.000
Factor IV	5	1.000
Factor V	28	1.000
Factor VI	45	1.000
Factor VII	8	1.000
Factor VIII	40	1.000
Factor IX	43	1.000



APPENDIX 19

Factor Item Arrays in Q-Sort 2 -- Farmer Attitudes Toward the County Farm Advisers and State Extension Specialists

Item	Description	Type	Type	Type	Type	Type	Type
		1	2	3	4	5	6
1	My county farm adviser makes us feel free to talk our problems over with him at educational meetings.	1.06	.39	1.57	1.18	-1.57	.39
2	My county farm adviser gives us farmers much valuable help in our farming operations.	1.22	-.39	.00	1.57	.39	-.78
3	I think that there is a lot of value in most of the practices recommended by my county farm adviser.	1.36	.39	.78	1.96	.78	1.57
4	My county farm adviser uses too many high-pressure tactics--he pushes too hard in trying to get us to try new things and ideas.	-1.41	.00	-1.96	-.78	-1.18	-1.18
5	My county farm adviser gives good service to us farmers.	1.16	1.18	-.39	.78	-.78	-1.18
6	My county farm adviser is the most up-to-date source of new farming information that I know about.	.91	.78	.39	.78	-.39	.78
7	My county farm adviser tries too hard to be friendly.	-.74	-.39	-.78	.78	-.39	-1.18



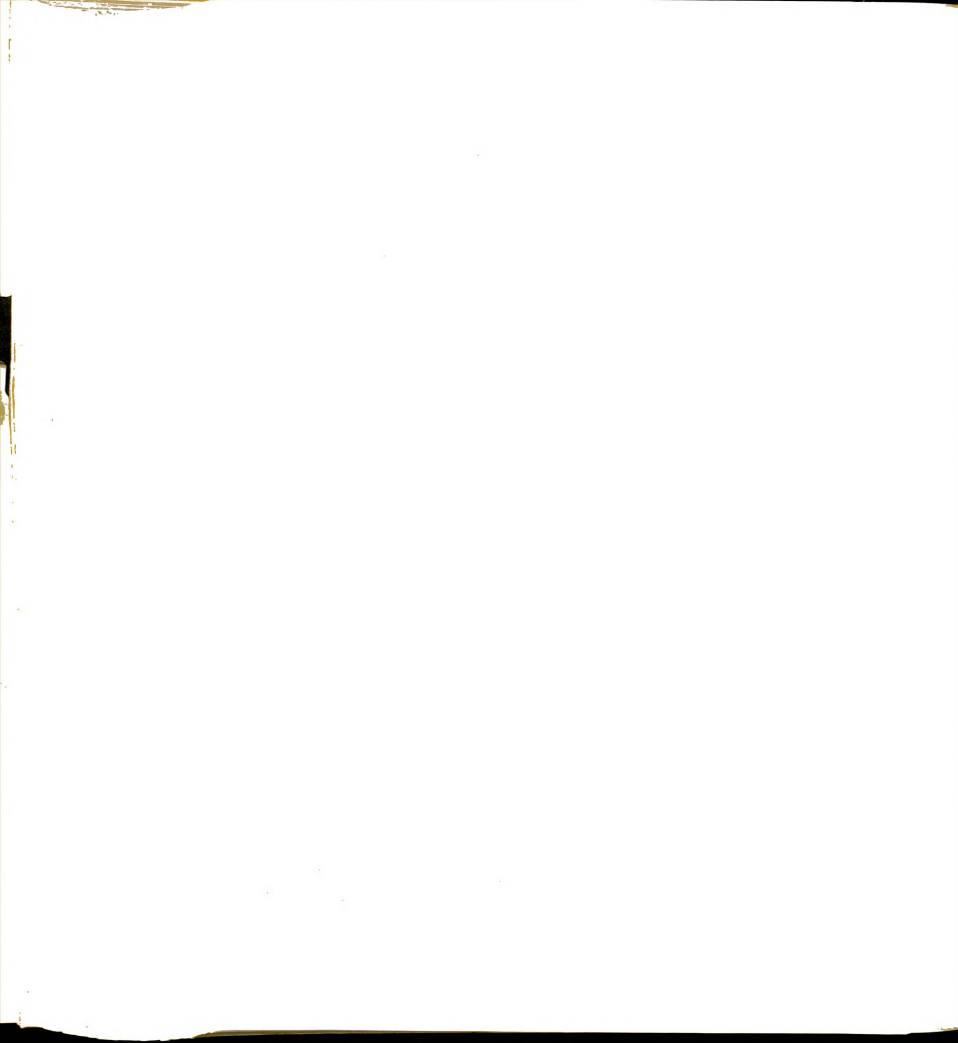
Appendix 19 -- (continued)

Item	Description	Type 1	Type 2	Type 3	Type 4	Type 5	Type 6
8	I never hesitate to put into practice one of my county farm adviser's recommendations, because I know that it will usually work.	.41	-.78	-.39	-1.18	.39	.78
9	I have already heard or read about most of the information that my county farm adviser puts out.	-.32	1.18	.78	.39	1.18	-.39
10	My county farm adviser uses his time very well--he is one of the most efficient persons that I know.	.50	-.39	-.39	.39	.39	.00
11	I can get more reliable information that I need for my farming operation from a local commercial dealer than I can from my county farm adviser.	-1.06	1.18	-1.18	-1.57	1.18	-1.96
12	My county farm adviser is the most reliable source of information about farming that I know.	1.05	.78	-1.18	-.39	-1.57	1.18
13	My county farm adviser often does not follow up on things he says he is going to do.	-.85	-.78	1.18	-.39	.00	-.39
14	My county farm adviser spends too much time going to meetings to be of any real help to me.	-.85	-.78	-.78	.00	.00	.78
15	My county farm adviser almost always seems to have the information I need at his fingertips.	.89	.39	-1.18	.39	.00	-.39



Appendix 19 --(continued)

Item	Description	Type 1	Type 2	Type 3	Type 4	Type 5	Type 6
16	My county farm adviser gives me the straight facts as he sees them, and I appreciate it.	1.69	1.18	-.39	-1.57	-.39	-.39
17	My county farm adviser is a wonderful person.	.81	1.57	.39	.78	.00	.39
18	My county farm adviser does not get around to visit farms like he should.	-.30	-.78	.00	.00	1.57	1.96
19	My county farm adviser will not listen to new ideas and suggestions from the farmers in this county.	-1.13	.00	-1.57	.00	.00	-1.18
20	It is not efficient use of my farm adviser's time to visit too many farms.	-.23	.00	.00	-.39	-1.18	1.18
21	Many ideas that my county farm adviser puts out are too expensive for farmers like me to use.	-.81	.00	1.57	.00	1.18	-.78
22	Generally speaking, county farm advisers are not worth what they are paid.	-1.41	.00	.39	-.39	-.39	-1.57
23	My county farm adviser should have to foot the bills to establish some of the practices he recommends so that he would become more practical.	-.84	1.57	1.96	-.78	-1.96	-1.57
24	My county farm adviser tries very hard to involve everyone in Extension educational programs regardless of which organization they belong to.	.55	-.39	1.18	.00	-1.57	.78



Appendix 19 -- (continued)

Item	Description	Type 1	Type 2	Type 3	Type 4	Type 5	Type 6
25	Most of the recommendations that I get from my county farm adviser sound like the horse-and-buggy days, they are so old-fashioned.	-1.50	-1.18	.00	-1.57	-.78	-1.57
26	I like the way that my county farm adviser keeps up to date with new farming practices by attending meetings at the College of Agriculture in Urbana.	.91	.39	.00	1.18	.78	.39
27	My county farm adviser is almost never too busy to come out to visit my farm when I want him to.	.62	.39	.39	1.18	.39	.39
28	I appreciate the sincere interest that my county farm adviser takes in helping me with my problems.	1.28	-.39	.39	1.57	-.39	-.78
29	My county farm adviser is interested in people and their problems; he is more than just a subject matter expert.	1.29	1.57	1.57	1.57	.78	1.18
30	Cooperative Extension Service farm advisers and specialists really know their business.	.44	.78	.78	.39	.39	.00
31	My county farm adviser plays favorites among the farmers in my county and I don't like it.	-1.44	-1.96	1.18	.39	1.96	1.57
32	It takes too much time and trouble to get information from my county farm adviser.	-1.21	.78	1.18	-1.18	.78	-.78



Appendix 19 --(continued)

Item	Description	Type 1	Type 2	Type 3	Type 4	Type 5	Type 6
33	My county farm adviser could do a much better job if he had more practical farm experience.	-.44	-1.57	.78	-1.18	1.57	.00
34	I enjoy visiting with my county farm adviser on just about any subject.	1.02	1.96	.00	-.78	-.78	-.39
35	My county farm adviser is taking his connection with the University of Illinois too seriously--he claims to have more knowledge than I think he has.	-.94	-1.57	-.39	-.78	.00	.00
36	My county farm adviser does not seem to be able to present information in a way that is easy to understand and use.	-1.11	.00	-.78	.00	1.18	.00
37	My county farm adviser stays too much to himself and is just not one of us.	-1.16	-1.57	-.78	-.39	1.57	.39
38	It seems that no matter how tough a problem I take to my county farm adviser he can find a satisfactory solution.	.55	-1.18	-1.57	-1.96	-.78	1.18
39	The Extension specialists who come around here cannot talk the language of the farmer--they use too many technical terms and complicated language.	.91	-1.18	-1.57	-1.18	-1.18	.00
40	Farmers can get from their county farm adviser the most down-to-earth recommendations on how to farm better.	.97	-1.18	-1.18	1.18	-1.18	1.57



APPENDIX 20Adviser Type 1 Item Arrays by Q-2 Characteristic Categories

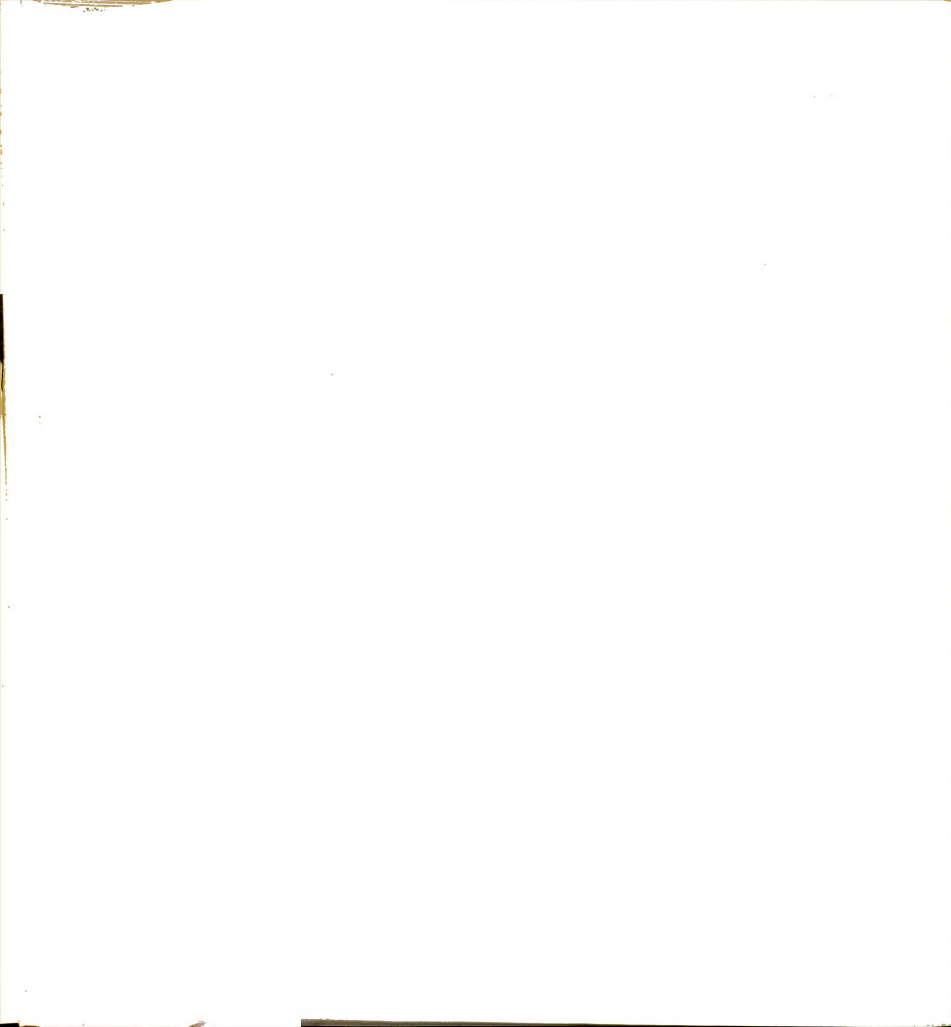
	Most Agree Item Nos.	Most Disagree Item Nos.	Total Items
1. Competence			0
2. Practicality	29 +	4 -, 23 -*	3
3. Effectiveness	5 +*		1
4. Value	3 +, 2 +	22 -	3
5. Communication	1 +*, 40+ *	36 -	3
6. Up-to-dateness		25 -	1
7. Impartiality	16 +*	31 -*, 19 -	3
8. Efficiency		32 -	1
9. Reliability	28 +, 12 +*	11 -	3
10. Friendliness	34 +	37 -	2

10 positive
0 negative

10 negative
0 positive

+ = positive statement
- = negative statement

*Greatest item disagreement, the items that most differ
between Adviser Type 1 and the five most extreme types.



APPENDIX 21Data on Adviser Types 2,3,4,5 and 6 (Q-sort 2) N = 5

No.	Age	Loca- tion	County	Prior Att.	Reli- gion	Educa- tion	Acres	Owner- ship	In- come	Organi- zation
2	67	Near	Good	Neut.	Prot.	12	5	Owms	6	FB
3	47	Near	Good	Unf.	Prot.	12	5	Owms	5	NFO
5	27	Med.	Good	Unf.	Prot.	16	3	Rents	6	NFO
28	61	Near	Poor	Unf.	Prot.	12	2	Owms	3	none
45	57	Near	Poor	Neut.	Prot.	6	3	O & R	3	FB

Av. age = 51.8

FB = Farm Bureau

NFO = National Farmers Organization



APPENDIX 22**Q-3 Factor Loading Matrix on Principal Axis Analysis***

Respond- ent No.	Factor I	Factor II	Factor III	Respond- ent No.	Factor I	Factor II	Factor III
1	.7706	-.1173	-.1862	31	.6262	.0290	.0271
2	-.0099	.6998	.1232	32	.4798	.5772	.0595
3	-.3418	.0574	.6303	33	.8239	-.1264	-.0831
4	.7582	.0689	.3651	34	.5828	.3830	.1646
5	.4785	-.2773	.3882	35	.6999	-.1492	-.1967
6	.8376	-.1788	-.2843	36	.7320	-.0166	.1540
7	.7867	.0691	-.3315	37	.7944	-.2002	.0844
8	.7549	.0282	-.2613	38	.5393	.1642	.0773
9	.6886	-.3528	.0353	39	.4329	-.3838	-.1108
10	.6135	.0251	.3828	40	.6616	-.1183	.5619
11	.7250	.2861	.0527	41	.6143	.3835	.1860
12	.6121	.1480	-.3864	42	.4215	.3247	-.3981
13	.6258	-.0404	.2821	43	.7390	-.1684	-.1577
14	.7336	.1730	.1597	44	.6880	.1300	.2268
15	.7485	.0173	.3855	45	.1861	.6589	-.0320
16	.4261	.2526	-.1110	46	.6437	-.1476	-.4967
17	.6692	-.1368	.2804	47	.8179	-.2392	.0780
18	.8493	-.0898	-.0784	48	.8908	-.1301	.1540
19	.7577	-.2261	-.2642	49	.4519	-.3527	.2076
20	.6396	-.4418	.1487	50	.8309	-.1433	.1543
21	.7012	.1298	-.3139	51	.8905	-.0089	.0177
22	.8071	-.1898	.0047	52	.6599	.0324	-.2987
23	.8756	-.0132	-.0438	53	.6906	-.0855	-.0967
24	.3678	.6382	.2162	54	.4273	.4544	-.1305
25	.7785	.1432	-.1093	55	.6455	-.0668	.0961
26	.6986	.4323	-.2492	56	.7572	.0535	-.2880
27	.4986	-.0919	-.0110	57	.3879	-.2636	.4171
28	.2365	.5658	.3735	58	.6393	.3513	-.2150
29	.7983	-.3641	.1202	59	.7883	.1624	-.1194
30	.6009	-.1851	.0560	60	.4843	.4473	.3498

*Eigenvalue of Factor I = 26.3086 = 43.9% (26.3 ÷ 60.0)

" " " II = 4.7485

" " " III = 3.7317

34.7888 = 58.0% (34.8 ÷ 60.0)

APPENDIX 23**Factor Loadings on Second Varimax Rotation Analysis, Q-3***

Respond- ent No.	Factor I	Factor II	Factor III	Respond- ent No.	Factor I	Factor II	Factor III
1	.4687	.1020	.6421	31	.4316	.2438	.3846
**2	-.2376	<u>.6611</u>	-.1071	32	.1131	<u>.6976</u>	.2598
3	.1116	.1098	-.7019	33	.5696	.1400	.5981
4	.7031	.4167	<u>.2122</u>	34	.3293	<u>.5860</u>	.2483
5	<u>.6753</u>	.0171	.0168	35	.4279	.0467	.6046
6	<u>.4835</u>	.0422	.7608	36	.5982	.2730	.3570
7	.3135	.2356	<u>.7614</u>	37	.6797	.1094	.4521
8	.3507	.2073	<u>.6877</u>	38	.3431	.3503	.2888
9	.6446	-.0771	.4225	39	.3974	-.2309	.3685
10	<u>.6551</u>	.2882	.1059	40	<u>.8336</u>	.2695	.0015
11	.4029	.5157	.4266	41	.3631	.6028	.2524
12	.1277	.2330	<u>.6894</u>	42	-.0861	.3251	.5731
13	<u>.6111</u>	.2510	.1907	43	.4858	.0532	.6004
14	<u>.5206</u>	.4460	.3518	44	.5474	.4103	.2715
15	<u>.7307</u>	.3725	.1909	45	-.1769	<u>.6475</u>	.1385
16	.1168	.3403	.3581	46	.2127	-.0529	<u>.7968</u>
17	<u>.6815</u>	.1782	.2211	47	.7088	.0804	<u>.4726</u>
18	.5738	.1827	.6107	48	.7560	.2240	.4608
19	.4611	-.0217	.6942	49	<u>.5837</u>	-.1092	.1379
20	<u>.7161</u>	-.1427	.3052	50	.7210	.1921	.4220
21	.2391	.2664	<u>.6920</u>	51	.6233	.2958	.5633
22	.6370	.1012	<u>.5209</u>	52	.2620	.1689	<u>.6546</u>
23	.5789	.2701	.6006	53	.4526	.1283	<u>.5217</u>
24	.1020	<u>.7579</u>	.0673	54	.0188	.5172	.3717
25	.4063	.3606	.5861	55	.5268	.1828	.3455
26	.1443	.5559	.6381	56	.3257	.2235	<u>.7093</u>
27	.3744	.0815	.3322	57	<u>.6243</u>	.0070	-.0640
28	.1359	<u>.6917</u>	-.1369	58	<u>.1589</u>	.4724	.5744
29	.7743	-.0272	.4290	59	.3987	.3784	.6000
30	.5240	.0503	.3482	60	.3428	<u>.6616</u>	.0428

*** Proportions of Variance**

Factor I = .2414
 " II = .1184
 " III = .2200
.5798 = 58%

**** Underlined variables were arrays used for three source types (see Appendix 24)**

APPENDIX 24Weighting Schedule for Q-Sort 3

Var. = 60

Obs. = 45

		Variable No.	Loading	Weight
Sources	Type 1	5	.675	1.265
		10	.655	1.169
	N = 9	13	.611	.971
		15	.731	1.563
		17	.682	1.265
		20	.716	1.495
		40	.834	2.668
		49	.584	.874
		57	.624	1.007
Sources	Type 3	2	.661	1.169
		24	.758	1.800
	N = 7	28	.692	1.317
		32	.698	1.373
		34	.586	.905
		45	.648	1.126
		60	.662	1.169
Sources	Type 2	3	.702	- 1.373
		7	-.761	1.800
	N = 7	12	-.689	1.317
		21	-.692	1.317
		46	-.797	2.222
		52	-.655	1.169
		56	-.709	1.432

APPENDIX 25

Factor Item Arrays in Q-Sort 3 -- Farmer Attitudes
 Toward the Most Common Sources of Agricultural Information

Item	Description	Type 1	Type 2	Type 3
1	Cooperative Extension Service	.65	.49	1.81
* 2	My father	- .28	.51	- .11
3	My years of farming experience	1.37	2.60	.82
4	Farm supplies salesman	-1.73	.91	- .53
5	Farm implement dealer or salesman	-1.67	.98	- .73
* 6	University of Illinois	1.19	.30	1.10
* 7	Our local school's vocation agriculture teacher	.35	- .63	.34
* 8	My county farm adviser	1.57	1.16	1.57
9	My neighbors	-1.38	.79	- .28
10	Successful farmers I know	1.69	1.60	.00
11	State extension specialists	1.28	- .35	1.32
12	A local fertilizer dealer	-1.47	.15	- .56
*13	College of Agriculture at Urbana	1.38	.56	1.44
14	County ASCS office	.64	.42	-1.31
15	Farm Bureau	- .99	.17	1.21
16	Farm Supply	-1.42	.08	.44
17	Advertising in farm magazines	- .89	.34	-1.86
18	Stories in farm magazines	- .25	1.39	- .73
19	Farm Bureau board meetings	-1.17	-1.13	.60
20	Extension Council meetings	.18	- .98	.43
21	My landlord or landlady	-1.28	- .18	- .29
*22	Bulletins and reports from the Agricultural Experiment Station in Urbana	1.63	1.24	1.42

Appendix 25 -- (continued)

Item	Description	Type 1	Type 2	Type 3
23	U. S. Department of Agriculture	1.18	.64	- .76
24	U. S. Government bulletins and reports	1.22	.12	- .67
25	Advertising in newspapers	- .98	- .15	-1.47
26	Articles in newspapers	- .43	.18	- .85
*27	Radio programs on agriculture	- .55	- .69	- .14
*28	Television programs on agriculture	- .24	- .23	- .26
*29	Friends of mine who have been to college to study agriculture	.71	- .07	.11
*30	A veterinarian I know	.52	.89	.56
*31	My relatives	-1.63	- .75	- .80
*32	The Agricultural Experiment Station in Urbana	1.11	.93	.88
33	Farmers Cooperatives	- .47	- .10	.65
34	Farmers Union	- .54	-2.55	-1.24
35	The Grange	- .65	-1.90	- .99
36	The National Farmers Organization	- .49	-2.62	-2.28
37	USDA representatives	.63	- .35	-1.03
*38	Books I read on agriculture	.79	- .20	.27
39	Short courses and workshops at the University of Illinois	.55	-1.00	.75
40	Extension meetings held at the University in Urbana	.60	- .58	1.39
*41	State Fair Exhibits	.06	- .38	- .62
*42	Prairie Farmer Farm Progress Show	.18	- .16	- .26
43	Farm Bureau Farm Management Service fieldman	- .67	- .69	1.87

Appendix 25 --(continued)

Item	Description	Type 1	Type 2	Type 3
44	Other farmers	- .17	.59	- .75
45	Farm manager	- .13	-1.33	- .47

* Consensus items, no difference more than 1.000 standard deviation from the mean.

APPENDIX 26**Data on Sources Type 1 Farmers (Q-sort 3) N = 9**

No.	Age	Loca- tion	County	Prior Att.	Reli- gion	Educa- tion	Acres	Owner- ship	In come	Organi- zation
5	27	Med.	Good	Unf.	Prot.	16	3	Rents	6	NFO
10	59	Near	Poor	Fav.	Prot.	12	1	Rents	4	none
13	50	Far	Poor	Neut.	Prot.	12	4	O & R	4	FB
15	48	Med.	Poor	Unf.	Prot.	12	3	Owms	5	none
17	56	Far	Poor	Fav.	Prot.	12	1	Owms	4	FB
20	67	Near	Good	Unf.	Prot.	12	5	O & R	3	FB
40	43	Far	Good	Unf.	Prot.	12	5	O & R	6	FU
49	62	Med.	Good	Unf.	Prot.	9	3	O & R	5	FU
57	56	Near	Poor	Unf.	Prot.	9	4	Owms	4	FB, NFO

Av. age = 52.0

FB = Farm Bureau

FU = Farmers Union

NFO = National Farmers Organization

APPENDIX 27**Sources Type 1 Item Arrays by Q-1 (CES) Characteristic Categories**

	Most Agree Item Nos.	Most Disagree Item Nos.	Total Items
1. Competence	28 +	1 -, 36 -	3
2. Practicality	43 +	11 -	2
3. Effectiveness	20 +	22 -, 25 -	3
4. Value	3 +	40 -	2
5. Communication	30 +	6 -	2
6. Up-to-dateness	41 -**		1
7. Impartiality	13 ++	7 -**, 16 -**	3
8. Efficiency	18 +		1
9. Reliability	9 +**	21 -, 24 -	3
10. Friendliness	39 +	26 -	2
11. Organization	29 +**, 44-**, 32+*	17 -*	4

11 positive
2 negative

13 negative
0 positive

+ = positive statement
- = negative statement

*Greatest item disagreement, the items that most differ between Sources Types 1 and 3.

**Greatest item disagreement, the items that most differ between Sources Types 1 and 2.

APPENDIX 28**Sources Type 1 Item Arrays by Q-2 (Adviser) Characteristic Categories**

	Most Agree Item Nos.	Most Disagree Item Nos.	Total Items
1. Competence			0
2. Practicality	29 +*, 8 +*	23 -, 4 -**	4
3. Effectiveness	5 +	18 -**	2
4. Value	3 +, 2 +	21 -, 22 -	4
5. Communication	40 +, 1 +		2
6. Up-to-dateness	26 +	25 -, 9 -**	3
7. Impartiality	16 +	19 -, 24 +*	3
8. Efficiency		32 -	1
9. Reliability	28 +	13 -, 11 -	3
10. Friendliness	17 +*, 34 +		2
	12 positive 0 negative	11 negative 1 positive	

+ = positive statement

- = negative statement

*Greatest item disagreement, the items that most differ between Sources Types 1 and 2.

**Greatest item disagreement, the items that most differ between Sources Types 1 and 3.

APPENDIX 29Data on Sources Type 2 Farmers (Q-sort 3)

N = 7

No.	Age	Loca- tion	County	Prior Att.	Reli- gion	Educa- tion	Acres	Owner- ship	In- come	Organi- zation
3	47	Near	Good	Unf.	Prot.	12	5	Owens	5	NFO
7	76	Med.	Poor	Unf.	Prot.	12	2	Owens	1	FB
12	35	Far	Poor	Unf.	Prot.	12	2	Rents	4	FB
21	60	Med.	Good	Neut.	Prot.	8	4	Rents	6	FB
46	42	Med.	Poor	Fav.	Prot.	8	4	O & R	5	FB
52	48	Far	Good	Neut.	Prot.	12	1	Rents	5	FB
56	49	Med.	Poor	Fav.	Prot.	16	5	O & R	5	FB

Av. age = 51.0

FB = Farm Bureau

NFO = National Farmers Organization

APPENDIX 30Sources Type 2 Item Arrays by Q-1 (CES) Characteristic Categories

	Most Agree Item Nos.	Most Disagree Item Nos.	Total Items
1. Competence		1 -, 36 -	2
2. Practicality			0
3. Effectiveness		25 -	1
4. Value	38 +, 3 +	40 -	3
5. Communication	15 +	6 -	2
6. Up-to-dateness	5 +	41 -*	2
7. Impartiality	8 +, 7 -*	16 -***	3
8. Efficiency	33 +		1
9. Reliability	9 +*, 19+	24 -	3
10. Friendliness	10 +**	26 -	2
11. Organization	44 -***	29 +***	2

9 positive
2 negative

9 negative
1 positive

+ = positive statement
- = negative statement

*Greatest item disagreement, the items that most differ between Sources Types 2 and 1.

**Greatest item disagreement, the items that most differ between Sources Types 2 and 3.

***Both

APPENDIX 31**Sources Type 2 Item Arrays by Q-2 (Adviser) Characteristic Categories**

	Most Agree Item Nos.	Most Disagree Item Nos.	Total Items
1. Competence			0
2. Practicality	8 +**, 29 +***		2
3. Effectiveness	5 +	18 -**	2
4. Value	2 +, 3 +	22 -, 21 -	4
5. Communication	40 +, 1 +		2
6. Up-to-dateness	26 +	25 -, 9 -**	3
7. Impartiality	16 +, 24 +**	19 -, 31 -	4
8. Efficiency	15 +**	32 -	2
9. Reliability	12 +		1
10. Friendliness	17 +*	7 -**	2
	13 positive 0 negative	9 negative 0 positive	

+ = positive statement

- = negative statement

*Greatest item disagreement, the items that most differ between Sources Types 2 and 1.

**Greatest item disagreement, the items that most differ between Sources Types 2 and 3.

***Both

APPENDIX 32Data on Sources Type 3 Farmers (Q-sort 3) N = 7

No.	Age	Loca- tion	County	Prior Att.	Reli- gion	Educa- tion	Acres	Owner- ship	In- come	Organi- zation
2	67	Near	Good	Neut.	Prot.	12	5	Owms	6	FB, G
24	41	Far	Good	Unf.	Prot.	12	4	O & R	6	FB
28	61	Near	Poor	Unf.	Prot.	12	2	Owms	3	none
32	46	Near	Good	Unf.	Prot.	12	2	O & R	4	FB
34	26	Near	Good	Neut.	Mor.	12	5	O & R	5	FB
45	57	Near	Poor	Neut.	Prot.	6	3	O & R	3	FB
60	32	Near	Poor	Neut.	Prot.	16	5	O & R	6	FB

Av. age = 47.0

FB = Farm Bureau

G = Grange

APPENDIX 33Sources Type 3 Item Arrays by Q-1 (CES) Characteristic Categories

	Most Agree Item Nos.	Most Disagree Item Nos.	Total Items
1. Competence	28 +	1 -, 36 -	3
2. Practicality		11 -	1
3. Effectiveness	20 +	22 -	2
4. Value	3 +	40 -	2
5. Communication	15 +	6 -	2
6. Up-to-dateness			0
7. Impartiality	16 -**	13 +*	2
8. Efficiency	33 +		1
9. Reliability	9 +	21 -, 24 -	3
10. Friendliness	10 +**	14 -	2
11. Organization	32 +*, 29 +**	44 -**, 17 -*	4

9 positive
1 negative

11 negative
1 positive

+ = positive statement
- = negative statement

*Greatest item disagreement, the items that most differ between Sources Types 3 and 1.

**Greatest item disagreement, the items that most differ between Sources Types 3 and 2.

APPENDIX 34**Sources Type 3 Item Arrays by Q-2 (Adviser) Characteristic Categories**

	Most Agree Item Nos.	Most Disagree Item Nos.	Total Items
1. Competence	30 +	35 -	2
2. Practicality	29 +**	4 -*, 23 -	3
3. Effectiveness	18 -***		1
4. Value	3 +	22 -	2
5. Communication		39 -	1
6. Up-to-dateness	9 -***	25 -	2
7. Impartiality	16 +		1
8. Efficiency	15 +**		1
9. Reliability			0
10. Friendliness	34 +	7 -**	2
	6 positive 2 negative	7 negative 0 positive	

+ = positive statement
- = negative statement

*Greatest item disagreement, the items that most differ between Sources Types 3 and 1.

**Greatest item disagreement, the items that most differ between Sources Types 3 and 2.

***Both

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