Change-Norm Incompatibility Between Male Michigan Extension Agents and Their Counties

GRAY THOMPSON

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ABSTRACT

CHANGE-NORM INCOMPATIBILITY BETWEEN MALE MICHIGAN EXTENSION AGENTS AND THEIR COUNTIES

By

Gray Thompson

The basic question to which this study addressed itself was, "can role conflict be identified in situations where male Michigan Extension agents are incompatible with their counties?" It was an issue of this study that agent-county incompatibility be based upon their differences in terms of change norms. It was also the intent of this study to measure the agent population's "change propensity" on the basis of its attitude toward involvement in new programs--these programs to be related to problems brought about by a changing social structure.

An assumption of this study was that high change agents would differ from low change agents in their sensitivity toward incompatibility with their counties. This assumption is reflected in the first two hypotheses which deal with role conflict. Since role conflict is being studied within the dimension of change norms, this study also developed and tested several hypotheses dealing with variables proposed by other authors to be correlated with innovativeness.

The instruments used in this study were:

1. A questionnaire mailed to 181 male Michigan Extension agents. This instrument contained scales crucial to testing the relationships predicted in this study. These included (1) Guttman-type scales seeking to measure agent change propensity; (2) job satisfaction scales; (3) agent perception of his county's change orientation scales.
2. A Q-sort developed to permit each of a panel of three judges to place 83 Michigan counties on an 11-place continuum. This continuum ranged from very low to very high change orientation, the end result being change orientation scores for each county involved in the study.

The variables identified were:

1. Independent variables--Agent-county compatibility, agent tenure in present county, professional improvement, and orientation of professional improvement.
2. Dependent variables--job satisfaction, agent's perception of his county's change orientation, and agent's change propensity.

Seven hypotheses were formulated with six being tested using the Chi-square statistic. They are listed with the following results:

1. That county extension agents with a high propensity for change, who are assigned to counties with which they have

high compatibility in the dimension of change orientation, will tend to have higher job satisfaction scores than similar agents who have lower compatibility with their counties in this dimension, supported at the .05 level of significance.

2. That county extension agents having a low propensity for change, assigned to counties with which they have high compatibility in terms of change orientation, will tend to have higher job satisfaction scores than similar agents who have low compatibility with their counties in this dimension. Not supported. The results showed a slight tendency in the opposite direction.
3. That extension agents who have higher tenure in their presently assigned counties will tend to perceive these counties as having a higher change orientation than will agents of lower tenure. Supported at the .01 level of confidence.
4. That county extension agents who have higher tenure in their presently assigned counties will tend to have higher job satisfaction scores than will agents of lower tenure. Not supported at the .05 level of confidence. There was a strong tendency in the predicted direction.
5. That younger county extension agents will tend to have higher propensity for change scores than will older agents.

Not tested--insufficient data.

6. That county extension agents with a higher degree of formal education will tend to have higher change propensity scores than agents with less education. Not supported at the .05 level of confidence. There was a tendency toward the predicted relationship

7. That extension agents whose professional training has emphasized human behavioral studies will tend to have higher change propensity scores than agents whose professional improvement experiences have emphasized the physical sciences. Supported at the .0005 level of confidence.

These findings suggest to extension service administrations that agents should be assigned to counties with consideration given to the background of the agents--that agents who have a high propensity for change are much more subject to become discouraged with their counties than are agents with lower change propensity.

The study also indicates that a county staff heavily orientated to an agricultural technological training is not likely to initiate new programs aimed at social structure problems.

Additional implications and recommendations toward further action and research are discussed in Chapter V of this study.

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Background

> Although he may have majored in some special field of agriculture, he no longer is a specialist when he becomes a county agent. While his love may be soil sciences, his practice must be shared among the dairy interests, farm management and many other fields. He becomes the personification of scientific agricultural practices on one hand and an integrative rural organizer on the other. [1]

Thus Loomis and Beegle point out the dual nature of the role of the county extension agent. Roles have been defined by many sociological writers. Ramsey and Verner describe a role as "an expected pattern of behavior." [2] Gross, Mason and McEachern see a role as having utility in a particular situation. They claim three elements to be necessary for role analysis--social location, behavior and expectations. [3] This suggests that people do not behave in a random manner. Their behavior is influenced by the expectations of themselves and others, depending upon the way they interpret their particular social location.

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[1] Charles P. Loomis and J. Allan Beegle, Rural Sociology-The Strategy of Change. (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1957), p. 374.

[2] Lowry Nelson, Charles Ramsey and Coolie Verner, Community Structure and Change (New York, N. Y.: The Macmillan Co., 1960), p. 13.

[3] Neal Gross, Ward S. Mason and Alexander A. McEachern, Explorations in Role Analysis (New York, N. Y.: John Wiley and Sons, Inc., 1958), p. 17

This thesis concerns itself with the problem which results when the expectations held by the individual occupying the county extension agent position are in conflict with the expectations held by many of his county clients.

The Background and Nature of the Cooperative Extension Service

The Cooperative Extension Service is an educational organization resulting from a cooperative arrangement between the United States Department of Agriculture, the state land-grant universities, and county governments. The Smith-Lever Act of 1914 identified the general purpose of the extension service to be the "diffusing of information pertaining to agriculture and home economics to the people of the United States." The key term which defines clientele is "the people of the United States." This is a broad description and has resulted in a wide range of interpretations regarding the role of the Cooperative Extension Service.

The original interpretation of this act resulted in the extension of the schools of agriculture and home economics of the state land-grant universities into the rural areas of the United States. Supported by national, state, and county financing, these universities assign professional staff members to those counties with which they have a cooperative agreement. Each county is offered informal educational programs designed to meet the needs of men, women, and youth.

A county staff may range from one to many, depending upon the agreement between the county and the university. The situation involving a single member staff calls for a high degree of role versatility on his part. He must attempt educational programs in many phases of agriculture as well as organize 4-H clubs, recruit and train volunteer 4-H leaders to teach both boys and girls, serve home economic groups, and lead in community development.

Situations involving large staffs permit a greater degree of specialization. Some agents may perform basically administrative roles. Other agents may perform roles highly oriented to agricultural technology. Home economists may work specifically with adult homemakers or with 4-H leaders and members. Male and female 4-H agents, although often trained in agriculture and home economics, may become youth workers whose salient role may be more geared to organization and activity coordination than to the teaching of technology.

The County Extension Service Clientele

Since the Cooperative Extension Service features an informal educational program, it originally had no captive audience or ready-made client system. County extension agents had to seek working relations with local leaders who were specifically interested in the various programs offered. These opinion leaders were encouraged to influence others toward adopting the particular innovations being

promoted by the county extension agent. As local acceptance developed, local leaders were encouraged to evaluate extension programs and to serve in an advisory capacity to the county extension staff. Thus the method of operation of the Cooperative Extension Service at the local level has depended upon a high degree of interaction with, and involvement of its clients.

Today the Cooperative Extension Service has a complex set of publics which it services, or with whom it cooperates at the local level. There are those members or participants such as 4-H members and leaders, homemaker club members, and Dairy Herd Improvement Association members. These clients are technically outside of the extension organization, but have regular contact with the extension staff. There is a complex set of advisory groups who help to plan and carry out the program. Agricultural commodity organizations often perceive themselves as having a vested interest in the programs of the Cooperative Extension Service. There is also the public at large, a reservoir of potential clients who are members of the social system in which the extension organization operates.

The broad nature of the Smith-Lever Act, plus the trend toward urbanization, has resulted in a changing concept on the part of the state and national level extension administration regarding the identity of their clientele. The traditional concept limited this clientele to rural people interested in home economics and

agriculture. With rural communities coming more and more under an urban influence, there has been a growing tendency for the extension service to perceive non-rural people to be clients and non-rural problems as legitimate areas of concern.

The County Extension Agent Position--A Brief Analysis

Brown and Boyle suggest that an extension agent is influenced by three major forces: internal forces, external forces and social-psychological variables.[1] The model on the following page shows the position of the extension agent and his interaction with many of these forces.[2]

Internal Forces

The model shown on the following page suggests that a county extension agent is influenced by forces from within his organization. His administrators and supervisory personnel have opinions regarding his role performance in his county. These opinions may reflect the policy of the state extension administration toward extension accepting new responsibilities in accordance with the changing social structure. Specialists may influence the extension agent, and this influence may or may not be in harmony with that of his supervisors.

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[1] Emory J. Brown and Patrick G. Boyle, 4-H in Urban Areas, (Washington, D. C., National 4-H Foundation, 1964), p. 11.

[2] Ibid., p. 12.

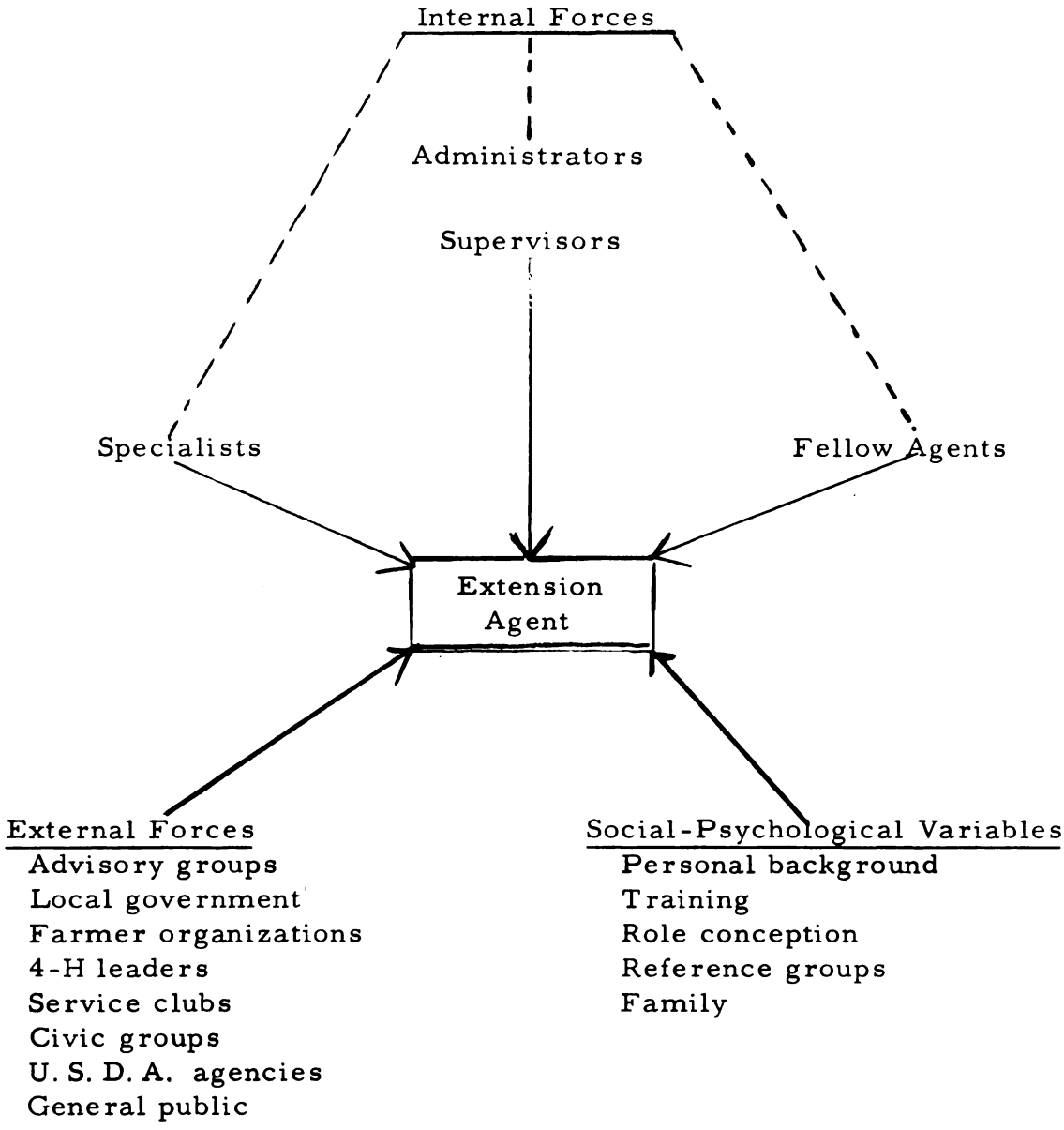

Figure 1. Factors that influence the extension agent's performance.

In general the extension agent is expected to be an innovator. Central extension strategy may demand that he concern himself with a wide variety of innovations involving fields in which he may not be trained. In effect an agent's supervisors may pressure him to be a generalist. On the other hand, the specialist expects him to be an innovator, but within a narrow field. So the specialist may insist that the agent specialize. Each of many specialists may expect the agent to specialize in his particular brand of technology.

External Forces

The model suggests that the agent is simultaneously under pressure from external forces which include organizations and special interest groups within his own county. Some of these interests may see him as an innovator, while others may expect him to support their desired status quo. Some may expect him to perform as an educator. Others may look at him as a sort of social organizer. For instance the Cherry Grower's Association expects him to organize and conduct propagation workshops to help growers rehabilitate frost ruined orchards. On the other hand, the Pomona Grange looks to the extension agent as a helper who should assist Grange lecturers in providing interesting and entertaining programs for subordinate Grange members. Influential individuals in a county often feel that they have a vested interest in the extension agent. These individuals expect the agent to spend time and show interest

in their particular projects.

Social-Psychological Variables

However, the extension agent brings into his position a personalized background and training. He in turn has been influenced by his childhood experiences, his educational background, his friends and family. These influences are identified in the model as social-psychological variables. These variables contribute to the way he interprets his role.

This model suggests that there is a possibility of conflict when an agent is assigned to a county where many key people disagree with him on his role behavior. For instance, an agent's background may influence him to be basically conservative. As such he sees the extension agent to be a representative of the state university responsible to teach farmers how to cope with problems of agricultural production. Being conservative he may be relatively slow to accept new findings and promote new programs suggested by these findings. If he has been assigned to a county which is highly progressive, the people with whom he works may be frustrated by his having such a narrow view of his role as well as by his reluctance to change the traditional pattern of his operations. They may keep constant pressure on him to conform to their ideas concerning an extension agent's role. At the same time this agent is likely getting pressure from administrative staff members who think that he should pursue new

programs more vigorously.

It is the observation of this writer that issues which create conflict between an agent, the county people with whom he works, and his administrators, are frequently change-issues. These are issues which involve problems brought about by changing conditions. An example of this is the change brought about by a much more mobile population. 4-H enrollment is no longer basically rural. In Oregon, a rural state, the 4-H enrollment is equally divided between rural, suburban, and urban youth. Many non-farm families, newcomers to the 4-H program, feel that the traditional 4-H program places too much emphasis on individual competition. They question the values being taught and they feel that the competitive approach tends to disqualify underprivileged children who need the teaching of 4-H club work. This clientele prefers a 4-H program that is more sensitive to the basic needs of all children. They would like to see 4-H serve high-risk type boys and girls. This involves recruiting socially disorganized communities. It also involves re-programing to meet the needs of poverty classes, racial minorities, retarded children, etc.

It is difficult for some agents to feel at home in communities where the people apply so much pressure for them to change familiar program emphasis. Other agents seem to fit readily into a role position that is pressured by change-issues. These agents appear to accept the role consequences of change and seem to get satisfaction from working with new and changing programs. There seems to be

considerable difference among extension agents in their willingness to work with new publics and to accept new responsibilities. It is the opinion of this writer that the acceptance of change and its implication is a very important social-psychological variable--one that influences an agent in the way that he sees his role. Each agent has a certain propensity for change. If this propensity is low, he is probably reluctant to get involved in new programs where the extension service has not had an established tradition of legitimacy. If an agent has a high propensity for change, he may question certain traditional extension programs on the grounds that they are no longer relevant to current problems.

On the other hand, counties differ in their response to changing conditions. Some counties have had a high exposure to change. Other counties have had less exposure. This may be due to isolation, influence of special ethnic groups, economic conditions and educational opportunities. In essence there appears to be social-psychological variables which affect social systems such as counties. One of these is the change orientation of the county. For instance, the leadership of a county may encourage the extension service to initiate programs designed to help people find wise, healthy use of leisure time. This might reflect a growing awareness of mental health problems. The leadership of another county might look upon such programs as a waste of time and money. One conservative legislator from such a county described the extension

service as "degenerating when it occupies itself with such cultural refinements". The reaction of a county to the extension agent's involvement in new programs coping with new problems may reflect its change orientation.

Consequences of Role Conflict

So an agent with a certain change propensity is assigned to a county which has a certain change orientation. It is the concern of this study that a mis-match between agent and county will have serious consequences for the agent in terms of his job performance, peace of mind and attitude toward his job. An agent who survives controversy after controversy probably feels very insecure in terms of his job. An agent who feels that he repeatedly prostitutes his principles to the political realities prevailing in his county, probably feels disillusioned about his job and the people with whom he works. An agent who simply can't get his pet projects off the ground may have a feeling of futility toward his job. An agent who feels that he spends too much time fighting off other people's pet projects also may feel futility.

This study is interested in the way that agents feel about their jobs. It is the opinion of this writer that if an agent experiences much conflict in his work, he will be dissatisfied with his job. If his work can be accomplished with a minimum of conflict, and people seem to appreciate his efforts, he should get satisfaction from his

job. In effect, job satisfaction can be a reward to an agent whose change propensity is compatible with the change orientation of his county. Lack of job satisfaction can, therefore, reflect the consequence of incompatibility between agent and county.

High Tenure and Role Conflict

Some agents retain their position in specific counties for many years. This writer has known several agents who have retired after 35 years of service in a single county. In Oregon there is a tendency for administration to transfer agents occasionally. Staff openings which require an experienced agent are usually filled by transfer from within the state. Yet there are many agents who have served in their present counties for 15 years or more. This would suggest that in many situations agents are compatible with their counties. It might further suggest that if an agent can survive the initial shock of incompatibility, he can learn to adjust. In time an agent's viewpoint may more and more resemble that of his county. This would seem to be consistent with the role analysis model. An agent who has worked 25 years in the same county can credit that county with a large contribution toward his social-psychological variable--"personal background".

It has been this writer's observation that agents with high tenure in one county tend to be content with programs which they and their counties have worked out together over the years. They seldom

look critically at traditional programs, nor do they seek new programs. They seem happy with their county and feel that their job there is a good way of life. These agents usually feel that the pressure for change comes from central staff rather than external forces in their counties. They are easily frustrated by these internal pressures.

Background Summary

In summary of the possibilities suggested in the foregoing paragraphs, the following questions might well be asked:

1. What happens when a county extension agent who has a very high propensity to change is assigned to a county of very low change orientation? Does role conflict result? Can this be identified by an expression of low job satisfaction?

2. Will an extension agent with a low propensity for change, who is assigned to a high-change oriented county tend to have the same reaction as the extension agent described in question one?

3. Will county extension agents who are compatible with their counties in the dimension of change norms tend to be happy with their jobs?

4. Just how innovative is the extension field staff when measured in terms of their attitude toward the problems created by such social structure changes as urbanization, school consolidation, migration from farm to city, rural zoning, etc. ?

5. What effect does tenure have on an extension agent's change propensity, perception of his county's change orientation, and his job satisfaction?

Objectives of This Study

It is the major concern of this thesis to identify role conflict in situations where the role expectations of the male county extension agent in Michigan are incompatible with those of his clientele social system, namely the county in which he works.

To do this the researcher developed instruments to measure basic norms of the individual extension agents as well as those of the county in which he works. Since the extension agent is basically a professional change agent, this study proposed to measure his propensity for change and the change orientation of his county.

An objective of this study was to determine the feasibility of developing an index capable of predicting role conflict based upon incompatibility scores.

In the course of exploring role conflict, it was the intent of this study to seek information regarding certain characteristics associated with: agent tenure, certain specialized county positions, educational levels, and degree of orientation toward the physical or social sciences.

It is hoped that information obtained from this study will provide additional criteria to use in the selection, training, and placement of county extension agents.

II. LITERATURE REVIEW

This study seeks to investigate the existence of role conflict among Michigan male county extension agents. Chapter I describes the position of the extension agent as being centered in a vast assortment of expectations from widely differentiated sources. Expectations salient to this study will be those involving his role as a change agent.

Role Conflict

Gross, Mason and McEachern conducted a comprehensive role analysis study in conjunction with the School Executive Studies at Harvard University, starting in 1952. One area of this study concerned itself with the problem of role conflict, its cause, its consequences and a theory of role conflict resolution. In their definitive concepts Gross et al. speak of the role under study as the "focal position". Positions of those who have important interaction with the focal position are referred to as "counter positions". The authors differentiate between "role conflict" and "role congruency" as follows:[1]

> A role congruency is a situation in which an incumbent of a focal position perceives that the same or highly similar expectations are held for him by those occupying counter positions. A school superintendent who perceived that his teachers, principals, students and school board alike expected him to handle a discipline problem in the same manner would

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[1] Gross, Mason and McEachern, op. cit., p. 248.

> be confronted with a role congruency. There are situations, however, in which a position incumbent perceives that he is exposed to expectations which are incompatible. A school superintendent, for example, may think that teachers and parents hold conflicting expectations for his behavior in dealing with a truant child. Any situation in which the incumbent of a focal position perceives that he is confronted with incompatible expectations from individuals who occupy counter positions will be called a role conflict.

Many researchers who have studied role conflict also distinguish between legitimate and illegitimate expectations. Those expectations which the incumbent of a focal position feels that others have a right to hold are seen as legitimate. Expectations which he feels others do not have a right to hold are considered illegitimate.

Some researchers, including Parsons, specify that in defining role conflict only those incompatible expectations which are "legitimate" should be considered.[1] Others, including Sarbin, do not require that the incompatible expectations be legitimate.[2] While Gross et al., point out the distinction in their conceptual definition of role conflict and its causes, they do not limit their concern to legitimate incompatible expectations. They point out that what may appear to an outside observer to be legitimate may appear in a much different light to the actor occupying the focal point in question. It

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[1] Talcott Parsons, The Social System (Glencoe: The Free Press, 1951), p. 280.

[2] Theodore R. Sarbin, "Role Theory", in Gardner Lindzey (Editor), Handbook of Social Psychology I (Cambridge: Addison-Wesley Publishing Company, 1954), p. 228.

was their judgment that the perceived legitimacy of expectations is a crucial dimension for the explanation of an actor's behavior in the face of incompatible expectations.

It is a concern of this study that the perceived legitimacy of certain expectations may distinguish between sensitivity or insensitivity toward role conflict. For instance, an actor occupying a focal position in question may disregard many conflicting expectations on the grounds of their stemming from a non-legitimate source. On the other hand a different individual occupying the same focal position may see legitimacy in many expectations which conflict with his own. These individuals might differ in their susceptibility to role conflict.

Different writers have proposed different theories in trying to explain role situations which encourage role conflict. Sarbin, for example says, "Role conflict occurs when a person occupies two or more positions simultaneously, and when the role expectations of one are incompatible with the role expectations of the other".[1] Similarly, Stouffer is concerned with, "situations in which a person has simultaneous roles in two or more groups such that simultaneous conformity to the norms of each group may result in inconsistent role performance."[2] Gross et al., suggest that, in addition to the

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[1] Ibid.

[2] Samuel A. Stouffer, "Analysis of Conflicting Social Norms", American Sociological Review, XIV (1949), pp. 707-717.

above, role conflict also results when incompatible expectations are held by individuals in counter positions to the incumbent while he is occupying a single position. The models on the following page illustrate these two views.

The county extension agent then is often subject to role conflict because of the very nature of his profession. He occupies different positions when he:

1. Represents Michigan State University as a professional change agent.
2. Seeks to integrate with a variety of local organizations and individuals.
3. Tries to be an adequate husband and father.

He is subject to role conflict also while occupying a single position. For example, in the field of conservation, the Cattlemen's Association will have one set of expectations for his position, the U. S. Forest Service will have another, and the Wildlife Federation will have yet another.

In exploring role analysis, Gross et al., sought to determine some of the consequences of role conflict among 105 school superintendents. They asked questions pertaining to situations in which the respondents had to make difficult decisions regarding:[1]

Personnel hiring and promotion

After-hour time allocation between home and occupation

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[1] Gross, Mason, and McEachern, op. cit., p. 246.

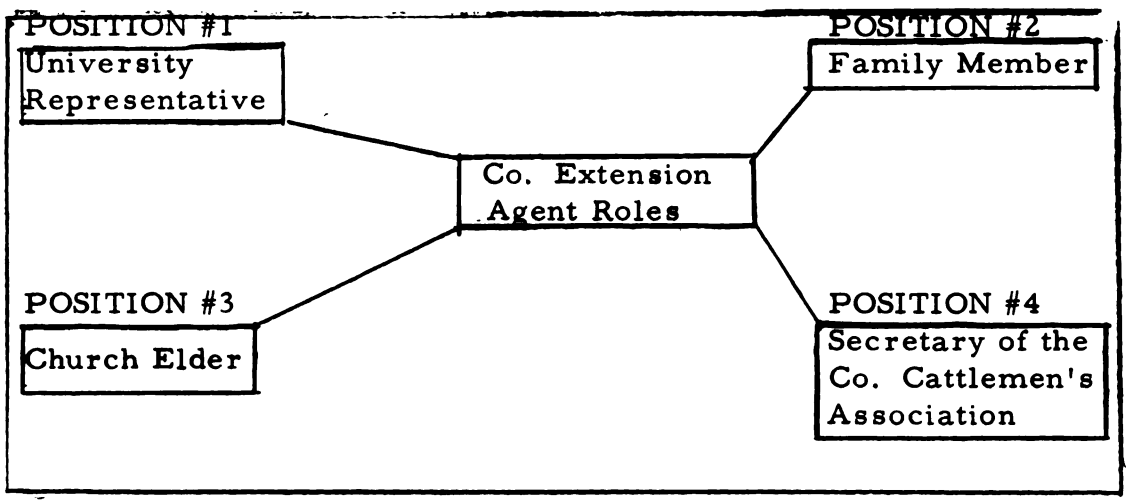

Figure 2. The model illustrates the multi-position nature of the county extension agent role.

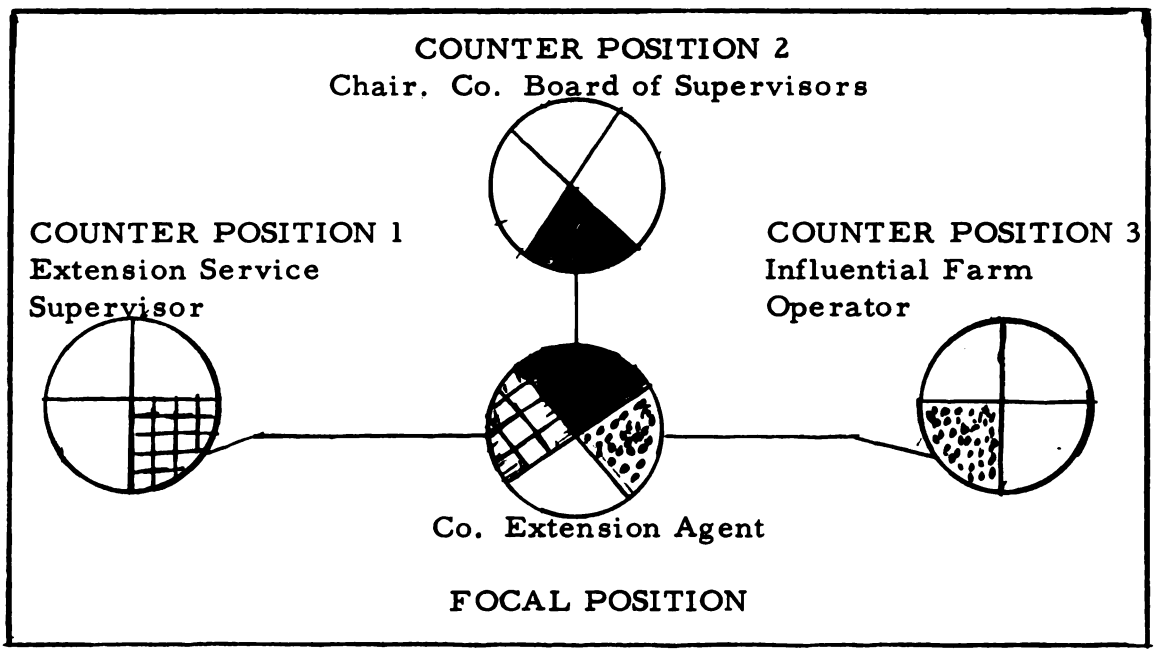

Figure 3. The model illustrates the interrelationship between the occupants of three counter positions and the incument of a focal position.

Recommendations of teacher salary action

Budget recommendations

They were able to determine the existence of role conflict through the superintendents' claim to seeing obvious incompatibility of expectations involving these situations. A significant relationship was found between perception of conflicting expectations and low job satisfaction.[1]

Change Propensity

Role conflict is being studied in this present paper on the basis of expectations centered around the county extension agent's change agent role. In order to determine discrepancies in expectations regarding this role, this study proposed to determine the degree to which each extension agent is disposed to accept or resist change. This will be referred to as the "propensity for change". The propensity for change of the population to be studied will be measured in context with the degree to which they accept certain new extension programs which seek to cope with problems arising from a changing social structure. The degree to which each county involved in the study is disposed to accept or resist change will also be considered. This will be referred to as the "county change orientation".

Previous studies dealing with individual norms on

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[1] Ibid., pp. 258-280.

innovativeness have been concerned with measuring the "traditional-modern" dimension of social system norms. These studies have been consistent in their ability to relate innovativeness (or the acceptance of new ideas) to a modern rather than a traditional norm orientation.[1] Empirical investigations have supported this relationship so overwhelmingly that, in the measuring of specific social systems determinations of modernism have been based upon the innovativeness of the individuals making up the systems.

Norms are expressed through behavior, attitude, and knowledge. At least these seem to be the measurable manifestations of norms. Measuring the behavioral expression of norms on innovativeness has been attempted by some researchers by assigning innovativeness scores to individuals based upon observed adoption behavior. Other researchers have determined the willingness of individuals to accept change based upon a measurement of their attitudes, values, or general frame of mind.

Actual behavior has been studied in its relationship to innovativeness. Innovativeness is defined by Rogers as "the degree to which an individual is relatively earlier in adopting new ideas than the other members of his social system."[2] Rural sociologists have

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[1] Everett M. Rogers, Diffusion of Innovations (New York: The Free Press of Glencoe, 1962), p. 67.

[2] Ibid., p. 20.

often used time of adoption of certain agricultural practices as a measure of individual or social system innovativeness. A classic example of this was the hybrid corn seed study by Ryan and Gross.[1] Here farmers in two small Iowa communities were interviewed in an effort to determine innovativeness based on the date on which they first introduced hybrid corn into their farm operations.

Hoffer studied the adoption of farm practices by Michigan celery growers of Dutch descent. His concern was the reluctance on the part of the celery growers to adopt chemicals recommended by the agricultural experiment station for use in disease control. He concluded that a high value on frugality was responsible for the low adoption behavior.[2]

Van den Ban studied innovative behavior among Wisconsin farmers. He found that innovative behavior appeared positively related to such characteristics as educational level, size of farm operations, and net worth. However, he also found that community norms were even better predictors of innovative behavior than were those social and economic factors. He concluded that a farmer with a high level of education operating a large farm and having a high net

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[1] Bryce Ryan and Neal Gross, "Acceptance and Diffusion of Hybrid Corn Seed in Two Iowa Communities", (Ames, Iowa: Agricultural Experiment Station Research Bulletin #372, 1950).

[2] Charles R. Hoffer, "Acceptance of Approved Farming Practices Among Farmers of Dutch Descent", (East Lansing, Michigan: Experiment Station Special Bulletin #316, 1942).

worth, but residing in a community with a traditional norm, tended to adopt fewer farm innovations. Such characteristics as education level, size of farm operations, and net worth were of less significance than if he lived and farmed in a community where the norms were modern.[1]

Rogers and Burdge attempted to predict innovative behavior on the part of farmers in seven Ohio truck-growing communities. They attempted to relate innovative behavior to five correlates. These were: community norms on innovativeness, size of farm operation, self designated opinion leadership, directness of communication behavior with scientists, and social status. These correlates explained a relatively larger amount of variation of innovative behavior than has been the case of previous studies (64.1 percent). Rogers accredits this to the inclusion of the previously unused variable "community norms on innovativeness".[2]

Rogers, in summarizing some of the studies which have dealt with innovative behavior, proposes that such behavior is motivated by a high value on venturesomeness, or the willingness to accept

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[1] A. W. van den Ban, "Locality Group Differences in the Adoption of New Farm Practices", Rural Sociology, 25 (1960), pp. 308-321.

[2] Everett M. Rogers and Rabel J. Burdge, "Community Norms, Opinion Leadership, and Innovativeness Among Truck Growers", (Wooster, Ohio: Agricultural Experiment Station Research Bulletin, 1962).

risks.[1]

Hobbs, Beal and Bohlen studied the relation of farm operator values and attitudes to their economic performance. They attempted to measure a farmer's frame of mind toward either a traditional or rational approach to decision making. Variables used included attitudes toward science and scientific methods, as well as attitudes oriented to mental as opposed to physical work attributes. It was found that farmers whose attitudes were oriented to scientific methods were more economically successful.[2]

Copp attempted to associate mental flexibility with innovativeness. He tried to relate a condition of mind to behavior. He found this relationship to be highly significant. Using a multiple regression analysis, he determined that the variables studied which explained the highest percent of variance in his respondents were professionalism, mental flexibility, and gross farm income. He recommended further studies involving personality variables and innovativeness. His methodology involved open-ended questions

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[1] Rogers, Diffusion of Innovations, p. 185.

[2] Daryl J. Hobbs, George M. Beal and Joe M. Bohlen, "The Relation of Farm Operator Values and Attitudes to Their Economic Performance", Rural Sociology Report #33, (Ames, Iowa: Department of Economics and Sociology, Iowa State University, June, 1964).

regarding the determinants of success in farming.[1]

Benvenuti investigated the "frame of mind" of individuals in a rapidly changing Dutch rural community. He felt that the cultural background of the individual was more responsible for his progressive decision making than were physical characteristics relating to the farm. He used open-ended questions dealing with public issues. A higher priority was placed on the presence of a conviction regarding public affairs than on the content of the conviction per se. Thus he selected cosmopoliteness as a criterion for modernism, using an attitude type measurement.[2]

Campbell and Holik measured the change orientation of individuals as manifested by their attitude toward change. Respondents were selected from two communities contrasting in norms toward traditionalism and modernism. This study concluded that not only were community norms influential on the individual's change orientation, but even more important were the perceptions of the individual regarding community norms.[3]

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[1] James H. Copp, "Adoption of Recommended Farm Practices Among Kansas Cattlemen", A paper for Midwest Sociological Society, April, 1956.

[2] Bruno Benvenuti, Farming in Cultural Change (Asseh, The Netherlands: Van Gorcum and Co., 1962).

[3] Rex Campbell and John S. Holik, "The Relationship Between Group Structure and the Perception of Community's Willingness to Change", A paper presented to Rural Sociological Society, University Park, Penn., 1960.

According to Rogers, numerous attempts have been made to measure the modernism or traditionalism of social system norms. He reports three different approaches:[1]

1. One method is simply to average the innovativeness scores of the members of a social system. Then the relative traditionalism-modernism of one social system's norms can be compared with another's. Researchers who have utilized the average innovativeness method are Marsh and Coleman (1954a), van den Ban (1960b), Rahudkar (1960), and Rogers and Burdge (1962). One difficulty sometimes encountered with the average innovativeness method is that the same innovations are not equally applicable in all the social systems under study. Farmers in one community, for example, may not raise dairy cows, so dairying ideas cannot be utilized to measure the modernism of that community.

2. Another method of measuring social system norms is an attitude-toward-innovators type of measure. If the members of a social system view innovators favorably, the social system is assumed to have modern norms. For example, van den Ban (in press) asked farmers in three Netherlands communities, "What do people in this community think of the first farmers to adopt new farm ideas?" The percentage of respondents in each community who reported that innovators were viewed favorably was taken as the measure of traditional-modern norms.

3. A third measure of social system norms is judges' ratings. The judges should be acquainted with all the social systems under analysis, and able to rate them on the traditional-modern dimension in terms of their norms. This norm measure was used by Campbell and Holik (1960) in two Missouri farm communities, and by Rogers and Burdge (1962) in seven Ohio communities.

. . . A high degree of similarity among the three measures suggests that almost any one of the three is equally valid.

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[1] Rogers, op. cit., pp. 68-69.

This study proposes to measure the propensity for change of Michigan male extension agents. It proposes to do this within the framework of two dimensions which are somewhat of a departure from the most frequent-reported diffusion studies.

> First, it will concern itself with attitudinal expression of norms. Reasons for this include expedience, recommendations of previous studies, and the nature of the area of change being studied. Time limitation is the major reason for this approach.
>
> Secondly, it concerns itself with change relevant to social structure rather than the traditional change studies which have been oriented to adoption practices involving agricultural technology. The reason for this is the assumption that the broadened image of the extension agent's role is more than ever conducive to role conflict.

In order to examine the nature of role expectations, this study also proposes to measure the counties of Michigan on the basis of their change orientation. Further details of this will be given in Chapter III. However, for the purpose of associating the following hypotheses with the literature review given earlier, it is necessary to point out that the approach to be used will involve the judges' ranking system. Literature review gives evidence of validation in the effectiveness of measurement using this method.[1] Literature available on this subject, however, has never reported so great a number of social systems under study as is the case in this study. The ability to measure the social system norms of 83 counties is

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[1] Ibid.

central to the testing of the following hypotheses which relate specifically to role conflict.

Hypotheses Involved in This Study

Gross et al., found that public school superintendents who perceived that they were exposed to role conflict derived less gratification from the occupancy of their position than incumbents who do not perceive themselves to be exposed to role conflict. There was a significant relationship between perception of role conflict and low job satisfaction. This role conflict was the result of a variance in role expectations between the school superintendents occupying focal positions and significant others occupying counter positions.

The analysis of the county extension agent's position as shown in the model on page 6, Chapter I, of this study suggests that he also is exposed to the role expectations of many occupants of counter positions. Since the county extension agent is basically a change agent, his role expectations should express his norms on change. The same is true of those significant others who occupy counter positions to him. Thus the role expectations held by counter position occupants who are highly influenced by a traditional orientation should differ from those of a focal position occupant who has a progressive orientation. This is supported by many previous studies which sought to establish a relationship between innovativeness and a modern, progressive orientation. When this norm incompatibility

becomes excessive, the occupant of the focal position should become aware of the conflict between himself and significant others. Thus county extension agents who are aware of this conflict should express a low satisfaction in their job.

> Hypothesis 1: That county extension agents with a high propensity for change, who are assigned to counties with which they are compatible in the dimension of change orientation, will tend to have higher job satisfaction scores than similar agents who are incompatible with their counties in this dimension.
>
> Hypothesis 2: That county extension agents having a low propensity for change, assigned to counties with which they are compatible in terms of change orientation, will tend to have higher job satisfaction scores than similar agents who are incompatible with their counties in this dimension.

This study is interested in the possibility that an agent of higher tenure in a given county may react differently to the variety of role expectations to which he is exposed than does the agent of lower tenure. The analysis of the county extension agent position on page 6, Chapter I, lists reference groups as one of the social-psychological variables which contribute to an agent's personal role expectation, as well as his internalized values and attitudes. His general frame of mind reflects the influence of such social-psychological variables as: personal background, training, role conception, reference groups, and family. After spending 15 or more years in the same social system it would seem that those groups to which he refers closely should exert a great deal of influence upon him. As his relationship with those whom he considers to be "significant others" becomes more institutionalized, there may tend to

be a "narrowing of the field" in terms of those expectations that he considers to be legitimate.

This study anticipates the possibility that a county extension agent who has higher tenure will be more insensitive to differences in role expectations than will a county extension agent of lower tenure. If this is true, he may be less objective in evaluating such things as community needs and extension service program emphasis. He may perceive his social system as being highly desirable and not in any particular need of change. He may be happy in his focal position, because over the years he has adjusted to those counter positions that he perceives as having legitimate expectations. Possibly over the years he has managed to find and cultivate a role position system that is reasonably harmonious. This harmony may be present despite basic differences in the norms of the extension agent and that of his social system. He may rationalize many of the differences between himself and his social system by perceiving them as stemming from illegitimate expectations.

> Hypothesis 3: That county extension agents who have higher tenure in the counties to which they have been assigned will tend to perceive these counties as having a higher change orientation.

> Hypothesis 4: That county extension agents who have higher tenure in the counties to which they have been assigned will tend to have higher job satisfaction.

This study is interested in the degree of variance in the innovativeness of the Michigan male extension staff. According to the

introduction and literature review chapters of this study, it appears that the propensity for change of an individual is one manifestation of the influence of several social-psychological variables. Previous studies have pointed out the high correlation of variables such as age and education with innovativeness. Traditionally, the county extension agent has had a rural background and a training in agricultural technology. He has been assigned to a county commissioned to promote desirable innovations in agricultural technology. So, to a degree, there was a central thread of sameness in the background, training, and responsibilities of a state extension staff.

With the changing social structure making new demands upon developmental organizations, extension agents are under increasing pressure to expand their concern into new areas. Responding to these demands requires a new type of innovativeness--one which generates role expectations sympathetic to problems created by changing social structures as well as problems of agricultural technology.

If a modern county extension agent needs a modern set of role expectations, he also needs the influence of more modern social-psychological variables. It is a thesis of this study that level of education, content of education, and general background orientation are very important influences on the modern norms of a county extension agent.

The following hypotheses seek to establish a relationship between several of these social-psychological variables and a propensity for change involving an acceptance of responsibilities toward problems created by the changing social structures.

Hypothesis 5: That younger county extension agents will tend to have a higher propensity for change than will older county extension agents.

Hypothesis 6: That county extension agents with a higher degree of formal education will tend to be more innovative than extension agents with less formal education.

Hypothesis 7: That extension agents whose professional training has emphasized human relations will have higher innovativeness scores than extension agents whose professional improvement work has emphasized the physical sciences.

III. METHODOLOGY

Introduction

It was the over-all plan of this thesis to study the degrees of agent-county innovativeness compatibility in terms of job satisfaction. The researcher intended to arrive at compatibility scores by studying the population of agents, as well as the population of counties in which the agents serve. The type of innovativeness relevant to this study is the acceptance of new programs which attempt to cope with problems created by the changing social structure. In the case of the agents, this study refers to this type of innovativeness as a "propensity for change". County innovativeness will be called "change orientation".

The population of male extension agents studied number 181. Their job responsibilities at the time of the study (1964) were such that they functioned in four basic roles.

1. County Directors--(about 80)
There are about 80 county directors, one per county. These agents differ from the rest of the population in that they are responsible to coordinate the entire extension program in their counties. The county director usually has supervisory responsibilities over other extension agents who may be assigned to the county. He usually represents Michigan State University in contractual negotiations with local government (county board of supervisors). Besides these over-all responsibilities he is generally responsible for some specific area of agricultural technology. In some cases the county director may be the only agent assigned to a given county. In this case he also serves as the 4-H club agent.

2. Agricultural Technologists--(about 40)
These individuals execute responsibilities which demand a high involvement in certain technical subject matter areas of agriculture. For instance in counties where there are more than two male extension agents, one will be assigned primarily subject matter responsibilities. This person tends to specialize. His area of major concern may be soils, crops, livestock, or horticulture. In those counties with smaller staffs, the agent may work in certain subject matter fields, but will have less opportunity to specialize because of the diversity of demands made on his time. These demands might include a high involvement in 4-H club activities as well as administration and public relations.

3. 4-H Agents--(about 46)
Every county in Michigan has a 4-H program. However, there are about 46 male field staff members whose primary concern is the coordination of 4-H work in their counties. These staff members usually have an undergraduate academic background in agricultural technology subject matter. However, their role as 4-H agents involves them to a high degree in such functions as leader recruitment and training, program organization, and the coordination of a multitude of activities. The 4-H club agent is exposed to a high degree of interaction with people. His activities are less oriented to the physical resources than those of either the county director or the agricultural technologist.

4. Special Agents--(about 15)
There are 15 male field staff members who specialize in such program areas as marketing, resource development, and farm management. These staff members have been selected on the basis of having certain specialized skills and training. Some of them have been selected from within the extension service organization. Others have been recruited from outside. Many of these agents work in a district capacity, sharing their services with several counties.

There appear to be considerable role differences in this population. The researcher was concerned about the consequence of possible role differences. For example it is possible that county directors may differ from agricultural technologists in terms of job satisfaction. In order to study possible role differences it seemed

important to have a quite complete representation of each segment as possible. Because of this, a questionnaire type instrument was used which could be mailed to the entire population of male extension agents.

The population of counties studied consisted of all counties in Michigan (83). The origin of the returned questionnaires determined which counties would be used to develop compatibility scores.

The researcher intended to measure the change orientation of each county. Earlier studies, cited in Chapter II, suggest three methods of measuring social system norms. These are average innovativeness scores of members of each social system, attitude-toward-innovators on the part of members in a social system, and rating of systems by a panel of judges. According to Rogers, a high degree of similarity among the results of these three measures suggests that almost any of the three is equally valid.[1] This conclusion was based upon a Spearman rank-order correlation which was completed among these three norm measures by Rogers and Burdge.[2] The latter method--a panel of judges--appeared to be the most practical for the purposes of this thesis. This is because of the large number of counties which had to be measured. The first two methods cited would involve a long laborious process when applied to 83 county social systems.

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[1] Rogers, op. cit., p. 69. [2] Ibid.

Operationalizing of Variables Involved in This Study

Dependent Variables

1. Job Satisfaction. This was measured by four 5-place job satisfaction scales applied as part of a mailed questionnaire. These scales sought reaction to the following areas of job satisfaction:

   A. Satisfaction with the job

   B. Satisfaction with the cooperative extension service

   C. Satisfaction with the county

   D. Satisfaction with fellow workers in the county

Possible scores ranged from a high of 20 to a low of 5. The median point in the response frequency distribution was used to separate high and low job satisfaction.

2. Agent's perception of county's change orientation. This was measured with a 5-place scale which was part of a mailed questionnaire. The scale asked the respondent to rate his county in comparison with others. Scores ranged from 5 for agents who rated their counties as among the most progressive to 1 for agents who rated their counties as among the most conservative.

3. Agent's change propensity. The items used for this variable were meant to measure the respondent's attitude toward extension accepting new responsibilities in the following 11 areas:

   A. Working with low income homemakers

   B. Providing information relative to marriage preparation

C. The diffusion of Telfarm as a farm practice (Telfarm being a computerized record keeping system sponsored by Michigan State University and available to farm operators).

D. Emphasizing the use of dairy herd health record keeping kits

E. Encouraging activities in total resource development

F. Encouraging programs aimed at human resource development

G. Encouraging the emphasis on recreation in 4-H work

H. Working with youth other than those enrolled in 4-H clubs

I. Initiating programs aimed at teaching skills in collective bargaining

J. Encouraging a close working relationship between the extension field staff and agricultural-business

K. Encouraging farm organizations to take an active part in collective bargaining programs

These 11 areas were each represented in the questionnaire by five separate items--for a total of 55 items. The five separate items ranged from negative through neutral to positive. They were constructed with each statement demanding an increasing commitment from the respondent. Respondents checked a 5-place scale for each item, permitting them to be placed on an agree-disagree continuum. This ranged from "very much agree" to "very much disagree". The scale ratings were scored 0, 1, 2, 3, and 4 for negative statements in each area. Positive statements were scored 4, 3, 2, 1, and 0. With 55 items, and a high of 4 given for each item, the highest possible

score was 220.

In the questionnaire, the 55 items were randomized to reduce the halo effect experienced when respondents clearly see the negative to positive nature of the five items used for each area in this study.

Independent Variables

1. Compatibility score. This score expressed the degree of compatibility between the extension agent and his county is terms of change propensity. The process for determining a relative score for each event in which this variable was considered was as follows:

A. Each respondent was given a score based upon the attitudinal instrument described earlier.

B. Each county was given a score based upon its change orientation as perceived by a panel of judges.

C. The agent-county scores were standardized so that they could occupy a common continuum.

The distance between an extension agent's standardized score and that of his county determined the agent-county compatibility score. (The greater the distance between scores, the lower the degree of compatibility.)

2. Agent tenure in his present county. This was determined by information provided by each respondent. For the purpose of data analysis, tenure of 15 years or better in the presently occupied county position was considered to be high tenure. An agent who has

occupied his present county position for less than 15 years was considered as having low tenure. This was an arbitrary judgmental decision. It recognizes the fact that 15 years provides a high degree of orientation to a particular social system. It also sets high tenure at a low enough level to expect an adequate N for testing purposes.

3. Age. This information was obtained also from the demographic section of the measuring instrument. Hypothesis #6 of this study is concerned with the innovativeness scores of younger agents as contrasted with those of older agents. The response population was divided into three groups:

A. Those whose ages are 20-34 years

B. Those whose ages are 35-49 years

C. Those whose ages are 50-65 years

For testing purposes, younger agents were those who are in the 20-34 year age group. The older agents were those in the 50-65 year age group. The researcher decided to study the agents in the extreme ends of the age distribution. The alternative to this would be to separate the entire distribution into two equal parts. Under this procedure a 42-year-old agent with possible 20 years tenure could be considered a younger agent. To avoid this problem the researcher decided to focus on the first and third of the foregoing listed groups.

4. Amount of professional improvement. This information was obtained from the questionnaire. Respondents were divided into groups according to degree of academic attainment. Those respondents who had not acquired a degree beyond the baccalaureate level were considered low in professional improvement. Respondents with a master's degree or higher were considered high in professional improvement.

It is difficult to determine high and low professional improvement from within the group who have only a baccalaureate degree. The current national trend in extension administrative policy it to encourage extension field staff toward acquiring advanced degrees. This is especially true in Michigan. The high value placed on professional improvement in the state of Michigan is attested to by the fact that Michigan State University was the first institution of its kind to offer a master's degree in extension education. This university also encourages its staff members who received their baccalaureate degrees at Michigan State University to seek master's degrees at the same institution. The author concludes from this line of reasoning that it is relatively easy for the members of the Michigan extension field staff to obtain an advanced degree. With favorable opportunities for attaining an advanced degree in Michigan, it is difficult to assign high professional improvement status to a field staff member who holds only a baccalaureate degree. So for the purpose of this study the distinction between high and low professional improvement

attainment was made between those respondents who have only their baccalaureate degrees and those who have acquired an advanced degree.

5. Curriculum orientation of professional improvement experiences. This study compared those respondents whose professional improvement had been oriented to the human behavioral sciences with those who have chosen curricula with a low orientation to these sciences.

It is an assumption of this study that most staff members have had some professional improvement experiences. This includes even those agents who have not acquired an advanced degree. It is also an assumption that many of these experiences have a definite orientation toward or away from the human behavioral sciences. Some professional improvement experiences are oriented toward subject matter related to agricultural technology. Other experiences may be oriented toward understanding and communicating with people--the human behavioral sciences.

Respondents who have not attained an advanced degree, but who did indicate specific professional improvement experiences, were classified according to those experiences. Those who showed a clear-cut preference for agricultural technology experiences were considered as having a low professional improvement orientation to the human behavioral sciences. Responses which gave no specific

description of professional improvement, or those which showed no clear-cut orientation, were deleted from this part of the study.

Many of the respondents had received professional improvement through advanced degree training. Some agents concentrated their advanced study effort in fields heavily oriented to agricultural technology. Some examples of these are: Dairy Science, Horticulture, Soil Science, Plant Science, Agricultural Engineering, etc. Respondents who reported having received a graduate degree in these areas were considered to have a low orientation to the human behavioral sciences.

Other agents study fields such as Communication, Sociology, Education, Extension Education, Public Administration, and Recreation. These respondents were considered to have a high orientation to the human behavioral sciences.

Some agents pursue studies in disciplines involving Marketing, and Resource Development. These areas are more difficult to categorize. For the purpose of this study, they were considered to have a high orientation to the human behavioral sciences. The author bases his reasoning on the belief that most recipients of degrees involving these studies will have received their degrees during the past ten years. Marketing, and Resource Development represent an emerging emphasis in the Michigan Extension Service. Present-day curricula in these disciplines are slanted toward an increasing concern for the human resources. This opinion has been supported

by Dr. Robert Kramer, former Michigan State University Extension Marketing Head and Dr. William Kimball, Extension Resource Development Specialist.

Major Instruments Needed

Two major instruments were used in this study. First, a questionnaire was developed to mail to 181 male Michigan extension agents. This questionnaire included the following scales:

1. Attitudinal scales seeking to measure the change propensity of the respondents - (see appendix, page 91).
2. Job satisfaction scales - (see appendix, page 96).
3. Agent perception of his county's change orientation - (see appendix, page 96).

This questionnaire also sought demographic information. (See appendix, page 100.)

Secondly, a Q-sort was used to obtain change orientation scores for each of 83 Michigan counties. This 11-place Q-sort was used individually by a panel of three judges. Each judge was given:

1. A deck of 83 cards. On each card was typed the name of a different Michigan county.
2. Eleven larger cardboard squares numbered from 1 to 11. Printed on number 1 was "Very Least Progressive", on number 6 "Average in Progressiveness", and on number 11, "Very Most Progressive".
3. A page of instructions giving the criteria to be used in sorting the county cards onto the numbered squares. This criteria was two-fold, including:
    a. The degree to which county leaders promote progressive programs involving change.

b. The degree to which these promotion efforts have been successful in terms of achieving desired goals.

Each judge was instructed to place each county card somewhere on the numbered continuum. This placement was to be made on the basis of the judge's perception of the county's change orientation. In the event a judge felt incapable of placing a county, he was instructed to automatically place it in the six-pile. Judges also were instructed to see that the extreme ends of the continuum were occupied by cards. They were told that they should not be concerned with placing any specific number or percentage of cards in any particular pile.

When each judge completed his sorting, a total score for each county was computed. The placing of each county by each judge resulted in three scores per county. Scores could range from 1 to 11. By totaling scores, each county had a possible score ranging from a low of 3 to a high of 33. The total for a given county served as its change orientation score.

Judges were selected on the basis of their experience and knowledge gained by close working relationships with a large number of Michigan counties. Two of the judges were men professionally associated with counties on the basis of community resource development programs. The third judge was an agricultural economist, and his experience with the counties of Michigan was within the framework of programs in this field. None of the judges had administrative responsibilities involving county extension personnel.

After totaling county scores, coefficients of correlation were run to determine the degree of agreement of each pair of judges. Using the product moment coefficient of correlation (r), Judge A was compared with Judge B, as well as Judge C. Judge B and Judge C also were compared. The results of these correlations are given in Chapter IV.

Pre-testing

The 55-item attitudinal scale was pre-tested with 12 extension agents enrolled in the Institute for Extension Personnel Development at Michigan State University, in June, 1965. Each respondent was asked to:

1. Record scale responses
2. Determine and record the time necessary to make these responses
3. Report any item which was difficult to understand
4. Make any suggestions for improvement

Space was made available for the above responses on the attitudinal test itself and on an attached response form. The results of the responses were summarized. Some points of interest were:

1. With a total potential of 220 the score distribution ranged from 152-192 with a mean of 168.
2. Scalability based on uni-dimensionality was realized at an 89.6 percent level. This is considered minimally adequate, but not satisfactory for the purpose of generalizing from a small, selected population to a large general population.
3. Some items were revealed as lacking in consistency.

4. Some areas of extension program emphasis were failing to distribute the respondents on the basis of their propensity for change.

As a result of this pre-test the instrument was revised in an attempt to eliminate the inadequacies listed above. Items were changed to bring more consistency of response regarding scale unidimensionality. Vague wording was revised for more precision. Program areas which were not distributing respondent scores were reworked with new items. Instructions accompanying the instrument were changed. No further test was given to determine the effect of these changes. The reason for this was a critical shortage of time.

Mailing the Questionnaire

Each questionnaire was sent in a kit including a stamped, addressed return envelope. According to postal regulations an empty questionnaire can be classed as third class mail. However, a filled-out questionnaire automatically becomes first class mail. For this reason the return envelopes each included ten cents worth of stamps. The outgoing kit carried only a five-cent stamp.

A private box was rented at the post office in East Lansing, and all return envelopes were addressed to the researcher at this address. This was done for two reasons. One is based on convenience. The box could be rented for three months at a cost of $2.25. The second reason involved an attempt to establish an impersonal relationship with the respondents. Some of the scale items sought

attitudes which the respondents might not share if they associated the questionnaire with extension administration. It was thought that the detached nature of a post office box number might increase confidence and encourage the percentage of total response.

Statistic Used

Chi-square was used to test relationships hypothesized in this study. However, the instruments produced data which qualify for a statistic with more power than Chi-square. Any hypothesis which a Chi-square test supported at a high level, but short of significance at .05 level of confidence was submitted to an analysis of variance test.

IV. RESULTS AND DISCUSSION

Attitudinal Instrument

The attitudinal test used was a group of 55 items covering 11 different areas of innovativeness. These were arranged with each area represented by five scale items. These five items were constructed to achieve a cumulative effect. This "cumulativeness" reflects the consistency of the attitudes expressed within each group of five items. Scale analysis which show high levels of consistency suggests that the responses involved are reflecting a single dimension. A rough summary comparing consistent versus inconsistent responses involving all 11 areas showed a consistency level of 93%. Individual areas ranged from 99% to 87% consistency. According to Havens, Rogers and Lipmann, a scale should test a minimum of 85% cumulativeness to be considered uni-dimensional.[1]

The instrument generated a frequency distribution on this variable very closely resembling a normal curve. The central tendency was characterized by close similarity in mode, median, and mean; the mode was 143, the median 143.2, and the mean 144.4. The distribution ranged from a low of 104 to a high of 217, with a standard

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[1] A. Eugene Havens, Everett M. Rogers, and Aaron Lipmann, "Guttman Scalogram Analysis", (English abridgement of a paper, Medicion en Sociologia, Bogota, Universidad Nacional de Colombia, Facultad de Sociologia, 1965), p. 7.

deviation of . 5374. Total possible score was 220.

County Measuring Instrument

A Q-sort instrument was given each of three judges as described in Chapter III of this study. Prior to combining the sorts of each judge and developing a frequency distribution, the researcher ran correlations of the county scores given by the judges. Each judge was compared with each of the other judges to determine the level of agreement. Pearson product moment correlation was used to determine the correlation between each pair of judges' ratings. The results were:

rxy . 59 rxz . 68 ryz . 74

According to Rogers, these are acceptable levels of correlation.[1] The stronger relationship between the ratings of Judges Y and Z is probably due to their common experience in programs involving community development. Judge X's experience with these counties, on the other hand, has been related to programs involving agricultural economics.

Compatibility Instrument

This was an arithmetic process. It involved standardizing the change propensity score of each respondent and subtracting from it the standardized score of his county as perceived by the panel of

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[1] Information obtained in interview with Dr. Everett M. Rogers, July 20, 1965.

judges. All scores were standardized into percentiles. These are shown in the frequency distribution tables in Appendix D, page 104.

The frequency distribution developed from data provided by this instrument had the following characteristics. Compatibility scores ranged from a low of 1 to a high of 99. The distribution median was 27. The mean compatibility score was 32.2. For statistical testing purposes this distribution was dichotomized into high and low scores. All scores below 30 were considered low. Scores of 30 and above were considered high. This gave categories of approximately equal size.

Job Satisfaction Instrument

This instrument was described in Chapter III as a 20-item scale. The data resulting from the questionnaire indicated that only 15 items in the scale actually pertained to all respondents. About 10% of the respondents served in one-agent counties and had no other staff members--thus eliminating items concerned with the agent's satisfaction level with fellow workers in the county. This scale and the resulting frequency distribution are shown in Appendix D, page 102.

Demographic Data

Questionnaires were sent to 181 male extension agents in Michigan in July, 1965. Returns were received from 161 (89%), representing 75 or 90.6% of the counties. Only 150 of these were

used due to late arrival of some returns. Also, some of the returns accepted for use in the study could not be used to test all hypotheses for a variety of factors, including the absence of return postmarks, refusal to answer some parts of the questionnaire, and incompletely filled-out forms. The study relied upon return postmarks to identify the county in which each respondent was located.

The composition of the sample in terms of county position held, educational level, tenure on staff, and tenure in county, is shown in Appendix B, page 100.

Testing of Hypotheses

Hypothesis 1

That county extension agents with a high propensity for change who are assigned to counties with which they are compatible in the dimension of change orientation, will tend to have higher job satisfaction than similar agents who are less compatible with their counties.

This hypothesis was supported. The Chi-square level was 4.23, significant at the .05 level on a one-tailed test.

Table 1 suggests that as compatibility becomes very low, there is a decided decrease in job satisfaction. Fourteen of 15 agents with compatibility scores above 45 had low job satisfaction scores. The medium group appears to be inconsistent with this pattern, having the highest job satisfaction level. The researcher was unable to find anything unusual about this group in terms of tenure, county

position, or professional improvement orientation.

Table 1. Levels of compatibility between high change propensity agents and their counties. Comparisons are made in terms of job satisfaction.

Agent-County Compatibility Level	High-Change Agent N	% of Total N	Job Satisfaction Mean Score
Very High (0-10)	12	19.7	13.41
High (11-20)	11	18.0	13.18
Medium (21-29)	12	19.7	14.08
Low (30-49)	14	22.9	13.21
Very Low (50-100)	12	19.7	12.08
Total	61	100.0	13.19

X^2 = 4.23, df 1, significant at .05 level, one-tailed test.

Hypothesis 2

That extension agents having a low propensity for change, assigned to counties with which they are compatible in terms of change orientation, will tend to have higher job satisfaction than similar agents who are less compatible with their counties in this dimension.

This hypothesis was not supported. The Chi-square level was .40, showing a slight tendency in the opposite direction of that predicted.

Table 2 shows the frequency distribution divided into five groups based on varying degrees of compatibility.

Table 2. Levels of compatibility between low change agents and their counties. Comparisons are made in terms of job satisfaction.

Agent-County Compatibility Level	Low-Change Agent N	% of Total N	Job Satisfaction Mean Score
Very High (0-12)	17	25.00	13.39
High (13-29)	13	19.12	12.08
Medium (30-44)	13	19.12	13.16
Low (45-59)	13	19.12	12.92
Very Low (60-100)	12	17.67	13.17
Total	68	100.00	12.94

X^2 = .4 in wrong direction--not significant.

Table 2 suggests that low change agents may have high job satisfaction when there is high compatibility between them and their county. However, decreasing levels of compatibility don't seem to be associated with correspondingly decreasing job satisfaction. Those agents who were most incompatible with their counties had relatively high job satisfaction scores.

Why do agents with a low propensity for change tend to have such a different relationship between job satisfaction and compability than do agents with a higher propensity for change?

It has been the personal observations of this writer that agents with traditional viewpoint working in progressive counties tend to find opinion leaders with matching viewpoints. The agents and this

particular clientele may view themselves as innovative and become, according to Rogers, "pseudo-innovators".[1] Role performance in this social sub-system may lead a low change propensity agent to feel job satisfaction even in a progressive county with a high change orientation. The "true" power-structure of a progressive county may tend to bypass an agent of highly traditional viewpoint, or they may confront him with criticism. They may ignore him, or they may seek his replacement.

An administration, conscious of an agent's reluctance to try new ideas, may also put pressure on him. Agents who are frequently confronted with evidence of conflicting role expectations should express low job satisfaction.

If this observation is accurate, then low change propensity agents in counties of high change orientation might fall into two groups. One might feel high job satisfaction because its members perceive themselves as having much in common with their county social systems. The other might express low job satisfaction because the conflict between themselves and their county social systems is evident to them. In this case, it is reasonable to expect a greater role-disagreement confrontation to take place in situations involving extremely progressive counties. Administration expects a role performance directed toward a highly versatile extension program in

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[1] Rogers, op. cit., p. 188.

this type of county. The power structure in such a county also expects a role performance versatility. Such a power structure is likely to be aggressive in forcing disagreement confrontations.

All of these conditions could equally apply to the high change agent. The writer feels that the high change agent, insisting on action leading to some desired change, more readily perceives situations where he is at cross purposes with the norms of his social system. So, he is more likely to experience role conflict. This is consistent with the findings of Gross, Mason and McEachern. These researchers reported that role conflict was present when the individual in question perceived himself to be exposed to incompatible expectations from those occupying counter positions to him. This is reported and documented on page 18 of this study. The high change agent may perceive role conflict on the basis of a lack of action in response to his ideas. The low change agent may not perceive this unless he is involved in some overt type of confrontation from those occupants of counter positions to him.

Table 3 supports the reasoning that discomfort associated with low compatibility for low change agents is likely to be more acute where the counties involved have a very high change orientation. In these cases, it should be more difficult for such an agent to ignore, or avoid, or overlook the stressful differences between his own change propensity and the change orientation of his clientele. Here a group of low-change agents with compatibility scores of 50 or

higher is divided into two groups depending upon the change orientation of their counties.

Table 3. Low-change agents with low compatibility scores who differ on change orientation scores. Comparisons are made in terms of job satisfaction.

County Change Orientation Scores	Low Change Agent N	% of Total N	Job Satisfaction Mean Score
0-26	11	52.4	14.1
27-32	10	47.6	11.6

These data suggest the presence of an extraneous variable. The logic above suggests the degree of confrontation between an agent and those who disagree with his role expectations as that variable. Such an extraneous variable could seriously influence the relationships predicted in hypotheses 1 and 2. This could be particularly applied to hypothesis 2. Unfortunately, this study does not provide an instrument to measure such a variable.

Referring back to Table 2, there appears to be an inconsistent trend in job satisfaction as agent compatibility decreases. For instance, why is there a marked dip in job satisfaction scores in the low group? One possibility is the fact that six respondents in this group reported their major extension position to be some form of agricultural technology. This was 46% of the respondents in the low group. The total frequency distribution of low change agents had 28%

agricultural technologists. Table 4 below shows that low change agricultural technologists tend to have lower job satisfaction scores than do other low change agents.

Table 4 suggests a relationship between the county position of low change agents and job satisfaction.

Table 4. Low change agents, arranged by county positions. Comparisons are made in terms of job satisfaction.

Low Change Agents' County Position	Agent N	% of Total N	Job Satisfaction Mean Score
County Director	33	47	13.3
4-H Club Agent	17	25	13.0
Agricultural Technology	18	28	12.2
Total	68	100	12.96

It is interesting to note that the average job satisfaction score of the low change agents was very similar to that of the high change agents. The low change agents have a slightly lower job satisfaction mean score (12.96 vs. 13.19). This is surprising since the high change agents appear to be more sensitive to county incompatibility than do the low change agents. However, more of the high change agents seem to be placed in compatible situations than do the low change agents.

Hypothesis 3

That county extension agents who have higher tenure in their counties will tend to perceive these counties as having a high change orientation.

Data indicating the agent's perception of his county's change orientation were provided by a 5-item scale.

The test of the predicted relationship in hypothesis 3 showed a Chi-square value of 6.49 which is significant at the .01 level of confidence.

Table 5. Five different levels of tenure compared in terms of "agent's perception of his county's change orientation".

Tenure in Present County		N	% of Total N	Perception of County Change Orientation
Very low	(0-4 years)	54	40.3	3.19
Low	(5-9 years)	34	35.4	3.35
Average	(10-14 years)	21	15.7	3.44
High	(15-19 years)	12	8.9	3.67
Very high	(20-35 years)	13	9.7	4.15
Total		134	100.0	3.40

$X^2 = 6.49$, df 1, significant at the .01 level.

Table 5 shows consistently higher agent perception scores as agent tenure increases. This is especially true as agents remain

in a county longer than 15 years.

It is interesting to note the judges' panel saw the counties represented in the High and Very high groups as being below average in change orientation. Change orientation mean score for counties in High and Very high groups was 18.0 compared with a mean of 19.6 for all counties. This would suggest that a characteristic of the comfort associated with high agent tenure is a tendency to view the county through "rose colored glasses".

Hypothesis 4

That extension agents who have high tenure in their presently assigned counties will tend to have high job satisfaction.

With a Chi-square value of 2.25, this hypothesis was not supported.

Table 6. The influence of tenure on job satisfaction.

Tenure		N	% of Total N	Job Satisfaction Mean Score
Very low	(0-4)	54	40.3	12.87
Low	(5-9)	34	25.4	13.00
Average	(10-14)	21	15.7	13.09
High	(15-19)	12	8.9	12.42
Very high	(20-35)	13	9.7	14.16
Total		134	100.0	13.06

X^2 = 2.25 df 1, not significant.

Table 6 shows little difference in job satisfaction until tenure becomes very high. The High group is inconsistent with the job satisfaction trend in this table, being lower. A study of this particular group shows that it consists of 50% county directors and 50% non-county director type agents. The county directors all have high job satisfaction scores, while the non-county directors have much lower scores. The following table compares different types of high tenure agents in terms of job satisfaction.

Table 7. Different types of high tenure agents and job satisfaction.

Agent Types	N	% of Total N	Job Satisfaction Mean Score
County Directors	15	60	13.74
4-H Club Agents	8	32	13.13
Agric. Technologists	2	8	11.00
Total	25	100	13.33

This table suggests that there is a relationship between high tenure and high job satisfaction, if the high tenure agents occupy county director positions.

It is interesting to note that low tenure agents exhibited the same trend in job satisfaction as shown in the table above, except that the difference between groups was less. A brief summary shows:

46 County Directors----------with a mean of 13.22

29 4-H Club Agents ----------with a mean of 13.10

26 Agricultural Technologists --------with a mean of 12.54

7 Marketing and Resource Development Agents ----------with a mean of 12.29

Hypothesis 5

That younger county extension agents will tend to have higher innovative scores than older agents.

It was impossible to test this relationship. The questionnaire inadvertently omitted requesting age data. So, it was not possible to determine the age of each respondent.

Hypothesis 6

That county extension agents having a higher degree of formal education will tend to have higher change propensity scores than agents who have less formal education.

This hypothesis was not supported; Chi-square 1.00. There did not seem to be a tendency for agents holding advanced degrees to have a higher change propensity. However, there was a stronger tendency for agents with certain kinds of advanced degrees to have a higher change propensity than other agents. This will be discussed further in the discussion of hypothesis 7.

Hypothesis 7

That extension agents whose professional improvement experiences have emphasized human relationships will have higher change propensity scores than agents whose professional improvement has been oriented to the physical sciences.

This hypothesis was supported, Chi-square 19.74 significant at .0005. Professional improvement orientation is illustrated with five different groups in Table 8. This shows the relationship of each to change propensity.

Table 8. Change propensity in terms of professional improvement orientation.

Professional Improvement Orientation	N	% of Total N	Change Propensity Mean Score
Agricultural Technology	47	36.2	136.9
Extension Education	36	27.7	145.6
Sociology	12	9.2	150.7
Resource Development and Marketing	16	12.3	150.7
Agricultural Education	19	14.6	151.2
Total	130	100.0	144.4

$X^2 = 19.74$, df 1, significant at .0005.

This test considered professional improvement to include special workshops as well as advanced degree work. Some agents

with no advanced degrees were included. The study was also interested in the relationship between agent's change propensity and advanced degree orientation. The same test was made, eliminating those respondents without an advanced degree. Here the tested relationship was supported, Chi-square 11.55, significant, 1 df at .001 level on a one-tailed test.

Several areas of professional improvement included in Table 8 were more difficult than others to assign to a physical or human behavioral orientation. These were: resource development, marketing, agricultural economics and farm management. Resource development and marketing were arbitrarily considered to be human behavioral oriented. Agricultural economics and farm management were considered physical science oriented. Table 9 shows these disciplines in terms of change orientation.

Table 9. Change propensity and certain special disciplines.

Special Professional Improvement Areas	N	% of Total N	Change Propensity Mean Scores
Agricultural Economics and Farm Management	13	44.8	140.0
Marketing	3	10.4	146.0
Resource Development	13	44.8	151.9
Total	29	100.0	145.8

It would be interesting to know the date that each respondent received his degree. With such data, change propensity could be studied in terms of currently awarded degrees. It is possible that all current disciplines have a higher emphasis on social relationships than was the case ten or more years ago. For instance, it is possible that students of resource development curricula had high change propensity scores simply because they did their studies within the past five years. Unfortunately, the questionnaire instrument of this study did not ask for this information.

Additional Findings of Interest to This Study

In testing for possible relationship between tenure in the extension service and change propensity, the researcher found information relevant to the interest of this study, but not closely associated with any particular hypothesis. He investigated the idea that agents with high tenure would tend toward a low change propensity. A Chi-square test failed to support this. Searching further, this relationship was studied in terms of county position. Table 10 shows tenure and county position in terms of change propensity.

Table 10 suggests that:

1. In the few cases where new agents are appointed to county directorships, high priority is placed upon their willingness to accept change.

2. There is a high variance in change propensity between county directors of 0-14 year tenture and those of 15 or more year tenure. This is not noted in the other county positions studied. It is possible that county director appointments of more recent years have placed more importance on change propensity. Agents in this group may have had a different on-the-job orientation than their colleagues of higher tenure. Unfortunately the available data do not indicate the date of appointment to present positions, so it was impossible to test this speculation.
3. 4-H agents differ from all other agents in that those who have served for many years tend to have a higher change propensity than those who have recently joined the Michigan Extension staff. It may be that a beginning 4-H agent usually comes to his position with a recently earned degree in some form of agricultural technology, but his work tendency is such that he spends more time with children, parents and family members than he does in any certain area of agricultural technology. Over time, he may become more of a professional youth-worker than an agricultural technician.
4. There was only slight variance in the tenure groups of the agricultural technicians. All groups had low change propensity scores.

5. There is an interesting similarity in change propensity between high tenure county directors and high tenure agricultural technicians.

Table 10. Tenure and county position in terms of change propensity.

County Position	0-5 yr. Tenure N	0-5 yr. Tenure Change Score Mean	6-14 yr. Tenure N	6-14 yr. Tenure Change Score Mean	15-35 yr. Tenure N	15-35 yr. Tenure Change Score Mean	Total N	Total Change Score Mean
County Director	4	153.0	30	150.7	32	138.1	66	144.8
4-H Club Agent	19	143.8	8	154.0	10	148.5	37	147.3
Agricultural Technologist	10	141.5	9	136.1	5	138.6	24	139.3
Special Agent			8	144.8	5	149.0	13	146.4

V. SUMMARY AND CONCLUSIONS

Summary of Hypotheses Testing

Three of the seven hypotheses tested in this study were supported by statistical test:

1. Agents with a high change propensity did tend to have low job satisfaction in situations where their change norms were incompatible with that of their counties.
2. High tenure agents did differ from low tenure agents in their perception of their county's change orientation. High tenure agents tended to see their counties as being more change prone than did the low tenure agents.
3. Agents whose professional improvement experiences were oriented to the behavioral sciences tended toward a higher change propensity than did agents whose professional improvement experiences were slanted toward the physical sciences.

Statistical test failed to support three hypotheses in the study:

1. Low change agents differed from high change agents in that they did not tend to be dissatisfied in situations where they were incompatible with their counties in terms of change norms. There was a slight tendency for these low change agents to be satisfied even when incompatible with their counties.

2. There was a tendency for high tenure agents to have high job satisfaction but this was not supported at a significant level. There was a more obvious relationship between certain types of agents who have high tenure and job satisfaction. For example, there was a very strong tendency for high tenure county director agents to have high job satisfaction. Conversely, there was a tendency for high tenure agricultural technologists to have low job satisfaction.
3. There was not much difference between agents having a high education level and agents with low education level in terms of change propensity. There was a slight tendency for higher education level agents to have higher change propensity scores.

One hypothesis was not tested because of insufficient data.

Implications Relevant to the Extension Service

Staff Propensity for Change

A major problem confronting the extension service administration today is that involving the degree of emphasis which should be put on problems involving the changing social structure. To operate effectively as a developmental organization, the extension service needs legitimization on the local, state, and national levels. The degree to which legitimization can be obtained for such new programs appears to be a matter of conjecture. On the other hand, it

is equally questionable whether legitimization can be maintained for an effort limited to the continuing of traditional programs.

It is not the purpose of this study to suggest direction or degree of emphasis. However, it should be helpful to administration confronted with this dilemma to know the propensity for change level of the field staff upon which they must rely to conduct current extension programs.

This study suggests that there is a wide range in field staff attitude toward programs directed at problems created by the changing social structure. The low score of 104 reflects a dim view of such programs. The high score of 217 suggests a positive, evangelistic attitude. The staff mean of 144.4 if placed on a continuum between the ideal types "disapprove" and "approve", will occupy a position slightly on the approve side of neutral. This would suggest that the staff as a whole has a relatively low commitment to these particular programs.

The corporate reaction of its male field staff to the particular new programs involved in this study should be of more specific interest to the Michigan State University Cooperative Extension Service. Ranked in order of staff acceptance, these programs are listed below. Mean acceptance scores are based upon a total possible score of 20. These scores show the male staff willingness for extension to be involved in educational programs featuring:

1.	Low income homemakers	mean score 14.2
2.	Youth other than 4-H enrollments	mean score 14.0
3.	Telefarm	mean score 13.8
4.	Involvement with Agri-business	mean score 13.5
5.	Dairy herd record systems	mean score 13.5
6.	Marriage preparation	mean score 13.2
7.	Total resource development	mean score 13.2
8.	Farm organizations and marketing	mean score 13.1
9.	Bargaining power	mean score 12.8
10.	Organizing of human resources	mean score 12.0
11.	Recreation emphasis in 4-H programs	mean score 10.6

Since this study has pointed out a differing viewpoint among county directors, 4-H agents, agricultural technologists and special agents, an agent position breakdown of the above program acceptance ratings is available in Table C, Appendix C, page 101.

To the extension administration which feels compelled to accept new responsibilities based on changing social structures, this study recommends special staff orientation. The highest correlation among the variables involved in this study was found to exist between "the propensity for change" and "orientation toward the human behavioral sciences". Much of this orientation has been accomplished through advanced degree attainment. However, it is the opinion of this researcher that dependence entirely upon advanced degree training is not sufficient to raise the change propensity level of an entire staff.

It appears that an orientation effort aimed at an entire staff must be applied at both the undergraduate level and the advanced degree level, as well as through in-service training programs. Considering the dynamic change taking place in agricultural

technology, it is essential that professional agriculturists be well grounded in technical subject matter. However, it is possible that special courses in sociology, communication and human resources could be offered to those undergraduate students interested in extension service careers.

Characteristic of High Tenure

Another implication relevant to the extension service deals with information in this study concerning staff members of very high tenure. These staff members were found to be relatively high in job satisfaction, tending to feel that their counties have a high change orientation. However, the data studied in this research suggest several interesting implications:

As noted in Chapter IV, a closer study of the tendency for staff members of high tenure to have high job satisfaction shows that this is only true of those staff members serving in position of county extension director. High tenure, non-county directors tended strongly toward low job satisfaction. This should be of concern to extension central staff members responsible for staff morale.

There was a definite tendency for high tenure agents to have lower change propensity than low tenure agents. The exception to this was the 4-H club agents. 4-H club agents with 15-25 years tenure tended to have higher change propensity scores than 4-H club agents with 0-5 years tenure. This is contrary to the writer's

intuitive observations of high tenure 4-H club agents.

Staff Job Satisfaction

An important function of a job satisfaction scale is to measure staff morale. In general the job satisfaction index of the extension agent population seemed to be high. The frequency distribution of this variable generated a mean score of 13 on a 15-point scale.

The following information should be of interest to extension service administrators responsible for personnel:

1. In terms of job satisfaction the extension agent population ranked in the following order from high to low: county directors, 4-H club agents, agricultural technologists and special agents.
2. With increased tenure county directors tend to have higher job satisfaction scores than do other agents. County director job satisfaction tended to increase with added tenure, 4-H agents remained relatively stable, and agricultural technologists tended to have lower job satisfaction scores with high tenure.
3. At all tenure levels the agricultural technologists tended to have lower job satisfaction scores than the county directors or 4-H club agents.

This relationship may be a prestige factor. It may involve a conceived salary inequity. It may simply reflect a feeling of being

by-passed while others were rewarded. It is the opinion of this researcher that this general situation exists in most organizations--that it is impossible to completely avoid, but that it is minimized by those organizations who are aware of it and make a major effort to cope with it.

This study would recommend to the Michigan State University Extension Service that it examine its policies regarding personnel action. An effort should be made to upgrade the image of each position.

An example could be cited relative to the 4-H program in Oregon. For years it has been a matter of policy to upgrade the professional image of 4-H agents. As a result there is a strong tendency for the 4-H agent to see himself as a professional youth worker, with little or no aspirations to attain the position of county staff chairman. This effort to upgrade the 4-H position has been supported by certain policies. Many 4-H agents enjoy as high or higher salaries and academic rank than do many agents occupying the position of staff chairman and agricultural technologist. The position, per se, does not dictate advancement limitations.

Assignment of Staff Members to Counties

Personnel supervisors are concerned with staff compatibility when they consider the assigning of a given staff member into a particular county staff.

This study examined the possibility that differences in change propensity within a given county staff may contribute to dissatisfaction on the part of certain agents toward their co-workers. The data revealed no relationship or even trend in this direction. The exception to this may be the case of the 13 special agents. However it is not possible to conclude that their low job satisfaction and low perception of fellow workers were the direct result of incompatibility in change propensity. It is possible that the specialized nature of their role exposes them to more overt confrontation with those co-workers who are oriented to more traditional norms. It is interesting to note in Table 10 that their change propensity at the high tenure level is much greater than that of the county directors or the agricultural technologist. It is also true that their perception of fellow staff members is much lower at all tenure levels than all other groups studied.

In this study a frequency distribution was developed reflecting compatibility between each agent in the total sample and his county. The median of this frequency distribution is 27. This is low suggesting that in general the Michigan State University Cooperative Extension Service administration has been assigning agents into

compatible situations more often than not.

However, this distribution also shows that 40 agents (27% of the sample) had incompatibility scores of 45 or more. According to the data analyzed in this study, incompatibility scores at this level are significantly related to low job satisfaction. This was more true where agents with a high propensity for change were involved. It appeared that moderate levels of incompatibility can be tolerated without a clear-cut expression of low job satisfaction. It is the opinion of this researcher that improvement in the instruments used in this study will result in the identification of role conflict at lower levels of incompatibility.

It appears that more care is being taken in the placement of high change agents than that of low change agents. Of the low change agents studied, 55.3% had agent-county compatibility scores of 30 or higher. Only 42.2% of the high change agents had scores of 30 or higher.

It is assumed that the district supervisors of the Michigan State University Extension Service did as precise a job as is possible in assigning staff members to compatible situations, using information available to them. Yet, it appears that 27% or more of their assignments have developed into highly incompatible situations. This would suggest merit in using a compatibility measure for agent placement. The availability of an easily administered test to determine the agent's attitude toward change would be reinforcement to

who are responsible for personnel placement. Since counties are constantly in a state of change, it would probably be necessary to re-examine the change orientation of a given group of counties at 5-to-10-year intervals.

It is a conclusion of this study that such measurements of agent-county compatibility are possible--that the instruments used in this study, if improved, could serve for this purpose. The remainder of this chapter is devoted to discussing possible improvements.

A Summary of Strengths and Weaknesses of This Research

Strengths

The researcher feels that he has explored a new area relating to the functioning of a "change agent". The usual pattern of studying a change agent's norms on innovativeness has been to study his record dealing with the adoption of new practices, or the degree of effort he has made to diffuse certain ideas through a social system. This study measured his norms on change in terms of his attitude toward involvement in problems created by a changing social structure. The methodology is unique and if feasible could lead to interesting further research.

Another strength of this study is its potential for accumulating information not presently available to the Michigan State University Cooperative Extension Service administration. In also provides a

basis for possible follow-up experimental research. For example, a job satisfaction test could be given to agents who were respondents in this study several years after being assigned to new counties. This would permit a manipulation of the independent variable, "agent-county compatibility". It would be possible to assign agents to a control group, providing an acceptable research design.

Another example might be to give this attitudinal test to Michigan State University Extension agents upon the completion of an intensive human resources training workshop. Scores could be compared with those scores assigned to agent respondents of this study. It would be interesting to observe for attitudinal change on the part of agricultural technologists after such an experience. Data available from this study could serve as a basis for comparison. Again it would be possible to control for a maturing variable, since many of the respondents of this study would not attend the workshop.

The researcher feels that his 55 scale items used to measure respondent attitudes, were an effective measurement of a certain type of innovativeness. He bases this on:

1. The near normal curve of its frequency distribution.
2. The range in its frequency distribution.
3. In terms of uni-dimensionality there appeared to be a high percentage of consistent responses.
4. These scale items would be subject to suspicion if their measurement of variables reflecting relatively accepted

relationships produced unexpected results. An example is hypothesis 7. The researcher felt that his predicted relationship was relatively "common knowledge" in terms of his personal observations and literature review. Had the data failed to support the hypothesis he would have been concerned about his instrument. In this case the hypothesis was supported at a very high level using both Chi-square and analysis of variance statistics. The 55 scale items provided data which were essential to this test.

A high percentage of respondents filled out and returned the questionnaire. This provided a high N and the opportunity to cross-check for extraneous variables. The researcher felt that his enclosure letter and use of a special post office box number as a return address lent an impersonal atmosphere to the questionnaire and may have contributed toward the high response level.

Weaknesses

One weakness was the inadequacy of available time. The nature of this study demanded considerable time to do justice to the material covered. A sabbatical leave of 12 months limited the available time of the researcher. This was further complicated by the fact that he waited until the third term of his sabbatical year to select his thesis topic. Consequently, many short-cuts were made in terms of methodology. These short-cuts included instruments of

relatively higher risk than would have been the case had more time been available. A short-cut example is the use of Chi-square as the basic statistic of this study. The data provided by the measurement instruments merited the use of analysis of variance. Yet, because of time pressures, the researcher tested all relationships with Chi-square. He used analysis of variance only as an extra test in cases where Chi-square had almost supported the hypothesis at a significant level.

The researcher did not adequately control for extraneous variables. He omitted women agents from the study striving for population homogeneity. However, he permitted other variables to mask the characteristic that he was seeking in his independent variables. Probably the most important of these was "agent position in county". "Tenure" appeared to be an extraneous variable in several of the hypotheses in this study. In the event that this study is repeated, the researcher recommends that county directors, 4-H agents and agricultural technologists be assigned to different groups in the research design.

Improvement in some scales should be made before attempting further studies or even before repeating this study. Recommendations toward improving these scales are given in the next section of this chapter.

Time limitation was not the sole reason for imprecise scales. The author felt that this would have been a better study had he

reviewed more literature relative to job satisfaction and staff morale. Job satisfaction is a highly important variable in a role conflict study. Yet the author failed to seek out studies specifically pertaining to this subject. Had he done this, he might have devised a set of scales more capable of identifying those particular frustrations with which this study concerns itself. This also is explained in detail in the next section of this chapter.

These weaknesses may contribute to the fact that only three of the six hypotheses of this study were supported. If the researcher had the opportunity to repeat this study, he would make several changes. These are discussed in the next section of this chapter under suggestions for future research.

Suggestions Relating to Future Research

It is the opinion of this writer that the findings of this study justify additional research. It was mentioned earlier in this chapter that the data provided by this study can serve as the basis of much future experimental type research. Such studies could provide much additional information to the Michigan Extension Service about its staff. It could also provide information useful to anyone studying innovativeness or role conflict.

However, this writer feels that changes in the design of this study would yield so much improvement in data collecting that he would rather see this study repeated. For one thing, the study

leaves several basic questions unanswered. It revealed new questions which pertain to, but which were not considered in, the study. Some new problems posed by this study which the author thinks justify additional research are:

1. Why do low change agents differ from high change agents in their reaction to low compatibility situations with their counties? (The author made some general speculations on this in Chapter IV, but the design of this study did not generate data upon which to base conclusions.)
2. Why do the agricultural technologists in this study consistently have lower job satisfaction scores than the county directors and 4-H club agents? Regardless of the direction the Michigan State University Extension Service pursues in terms of new areas of responsibility, it seems certain that it must offer an increasingly high quality of agricultural technology support to its clientele. This seems to be a difficult goal if the agents involved have low satisfaction with their jobs.
3. Agents responsible for such programs as marketing, resource development and farm management tended to have high change propensity scores, high county compatibility, and very low job satisfaction scores. Why should these agents, doing work which presumably reflects their special interests and skills, tend to express low satisfaction in

their jobs?

4. Why do high tenure 4-H agents tend to have higher change propensity scores than 4-H agents who have 0-5 years tenure? In this respect they differ markedly from either the county directors or the agricultural technologists.
5. As a change study, the author is curious about the general innovativeness of the respondents in this study. Propensity for change was measured only in terms of reactions to a changing social structure. How much innovativeness generalizing can be done on the basis of these change propensity scores? Is there a tendency for respondents in this study with very low change propensity scores to score equally low on a measurement of general innovativeness? If so, would this be equally true of those respondents with high change propensity scores?

Recommendations to Improve Methodology

The writer feels that by making some changes in the methodology of this study, he could get a better control of extraneous variables, attain more precision in the measurement scales and in one case, at least, develop a more useful instrument. This is based upon the following facts:

1. Two of the three relationships of this study which were unsupported by test, showed definite tendencies in the

predicted direction.

2. The job satisfaction scale, vital to this study, had a potential range of only 15 points. The frequency distribution which it generated had a high score of 15 points and a low score of 8. The job satisfaction scores of 135 respondents were spread over a total of 8 points. Of these, 63.3% had scores ranging from 13-15 inclusive.
3. The writer feels that his agent-county compatibility variable was relatively insensitive in identifying role conflict. This was especially true of the low change agents.

If the writer had the opportunity to repeat this study, he would seek more homogeneity in the agent groups to be studied. He would attempt to study an agent population assigned by randomization into three groups: county directors, 4-H club agents and agricultural technologists. Each group would consist of agents ranging from 3-15 years of tenure in their presently assigned counties under the conditions of this present study. The tenure limitation would permit maximum group populations of county directors--45, 4-H club agents--20, and agricultural technologists--15. This type of design would permit a test for interaction between groups.

Instead of mailing the questionnaire instrument, the researcher would arrange interviews with county staff members assigned to the study groups. This instrument would be expanded to include questions designed to identify the presence and quality of confrontations

each agent has with key individuals and groups who occupy counter positions to him. It would include questions which seek to identify the degree to which agents perceive internal pressures upon their focal positions. This would explore the possibility that pressures on an agent to be innovative beyond his change propensity are contributing to low job satisfaction.

The researcher would measure change propensity using a Guttman-type attitudinal test, but it should include an equal involvement between programs aimed at physical resources and those oriented to human resources. The change propensity scale of the present study included only two items out of 11 which were geared for physical resources. It was heavily loaded toward the human resources. The writer feels that this was a burden in identifying role conflict in situations involving agricultural technicians. The change norms of these agricultural technicians were measured in terms of one dimension, yet they may apply their change propensity to a different dimension in terms of job requirements. Current extension strategy generally places county program demands upon a balance between physical and human resource problems.

The author feels that the job satisfaction scales used in this study did not generate sufficient score range in its frequency distribution. He would recommend the addition of more items, with a heavier emphasis on job satisfaction as it applies to the agent's reaction to working conditions in his particular county.

In the present study the author considered this judges' panel Q-sort instrument to be high risk. It was used only because of time limitations. The fact that it was a key contributor to identifying a significant relationship between high-change agent county incompatibility and low job satisfaction appears to be in its favor. The writer tested this instrument in terms of the degree of agreement between judges. Three agreement percentages were obtained by using the product moment coefficient of correlation (r). The average agreement between judges was 67%. This seems to be an acceptable degree of agreement, but only in terms of the large number and the diverse situations involved in the counties being rated. It is the author's opinion that given more time to apply such a county norm measurement, a lower risk instrument should be devised.

The author recommends that an attitudinal type test, similar to the agent change propensity test, be given to a group of opinion leaders in each of the counties to be studied. The problem here is to select those respondents whose change norms most reflect county change norms.

The writer believes that these recommendations would contribute to a study capable of generating more useful and reliable data than the present study. It would take more time and be more costly to the research team. If undertaken as partial requirement of a master's degree program, the researcher should plan to devote an entire term to the research problem exclusively.

Concluding Statement

This study sought to identify role conflict resulting from situations when the norms of a change agent are in conflict with that of his social system. The study focused upon the norm on change since that is central to the relationship between a change agent and his clientele.

The study did identify role conflict where high change agents were involved. It failed to do so in the case of low change agents. There was enough evidence of role conflict that the researcher feels that additional research is justified.

The study also explored characteristics of Michigan extension agents in terms of tenure, county position, change propensity, professional improvement and job satisfaction. The results of this should increase the understanding that the administration of the Michigan Cooperative Extension Service has of its field staff. However, the study identified some additional problems relating to staff innovativeness and morale which seems to justify additional study.

The writer believes that some methodology changes would improve this study. These changes are not difficult but would be more costly in time and money.

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APPENDICES

APPENDIX A--Instruments Used in This Study

July 12, 1965

Dear Sir:

I am an Oregon county extension agent, attending Michigan State University, working on a master's degree in Extension Education. My present position is located at Pendleton, Oregon, where I do 4-H club as well as adult livestock work. I have been an extension agent for 17 years.

It seems to me that the role of the extension agent is in a state of change in Oregon. What little I have seen of Michigan leads me to believe that this is true to an even greater degree than in Oregon. Because of this, I intend to write my thesis on the changing role of extension agents.

To do this I need your help, and have enclosed a questionnaire that I hope you will fill out, put in the enclosed, stamped envelope, and return to me. I have been on the receiving end of quite a few thesis questionnaires, and have always appreciated those which took a minimum of my time. So I have done my best in wording this questionnaire so that you can fill it out quickly with a minimum of effort. A pre-test showed that it takes about 20 minutes.

Needless to say, this information is confidential. Data from returned questionnaires will immediately be processed onto IBM cards. There is no need for you to sign your name, or identify yourself personnaly with the questionnaire that you return.

Thank you so much in advance for you help.

Yours very truly,

Gray Thompson
Graduate Student
Michigan State University

P. S. - In the event you misplace the addressed return envelope, my address is:

Gray Thompson
P. O. Box 214
East Lansing, Michigan

QUESTIONNAIRE

A. How long have you been an extension agent? _____ years

B. How long have you worked in your present position? _____ years

C. What is your major extension responsibility? (Check the most appropriate description.)

1. ____ County Director
2. ____ Dairy Production
3. ____ Horticultural Production
4. ____ Marketing
5. ____ General Agriculture
6. ____ 4-H Club Work
7. ____ Other. What? _____

D. Please check any of the following professional improvement experiences which apply to you.

1. ____ Regional Extension Summer School
2. ____ Specialized Workshops. What kind? _____
3. ____ Graduate Work (Master's Degree). If so, where and what emphasis? _____
4. ____ Graduate Work (Ph. D. Degree). If so, where and what emphasis? _____

E. I am interested in relatively new areas in which extension agents are being asked to work, and I would like to know how you feel about them.

Please indicate your reaction to the following 55 statements by placing an X in the blank space which most nearly expresses your reaction to each statement. For the sake of uniformity of understanding, please assume competence on the part of the agent to do the work suggested in the statements.

1. An extension agent should promote total resource development by discussing total resource needs with key leaders.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

2. A 4-H agent should spend as little time as possible on youth other than 4-Hers.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

3. An extension agent should promote Telfarm by keeping farm families informed of its advantages.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

4. An extension agent should concentrate on the economic and physical resources of his county, and not get involved in human resource problems.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

5. An extension agent should teach commercial producers principals of the bargaining process of farm marketing.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

6. The home extension agent should only work with those low income homemakers who request help.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

7. An extension agent should promote the use of dairy herd health records to all commercial dairymen.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

8. A 4-H agent should spend a minimum of time promoting recreation programs in 4-H.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

9. An extension agent should encourage farm organizations to sponsor marketing educational programs.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

10. An extension agent should spend a minimum of his time working with agr-business firms.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

11. A home extension agent should offer to counsel older 4-H girls on marriage preparation.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

12. An extension agent should not encourage the use of Telfarm. Interested farmers know about it already.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

13. A 4-H club agent should reserve some time for working with other youth groups.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

14. An extension agent should not become involved in planning for total resource development unless his key leaders insist.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

15. An extension agent should organize and conduct a short course in marketing aimed at teaching producers how to increase their bargaining power.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

16. An extension agent should promote human resource development by interesting key people in the neighborhood study discussion program.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

17. The home extension agent should offer to help small groups of low income homemakers in the use of surplus foods.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

18. An extension agent who works with commercial dairymen should not promote the use of herd health record keeping systems, but should provide the kits upon request.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

19. An extension agent should plan to spend considerable time with representatives of processor and other agri-business firms.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

20. A 4-H agent should try to get all 4-H leaders to include recreation in their program of work.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

21. An extension agent should serve as a panel moderator on the subject of collective bargaining at a joint meeting of all farm organizations.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

22. A home extension agent should not give any information on the subject of marriage preparation, except upon request.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

23. An extension agent should organize a group, representative of the county, to conduct total resource development planning.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

24. An extension agent should promote Telfarm at every opportunity including farm visits and meetings involving farm people.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

25. An extension agent should shun educational programs dealing with the bargaining process of farm marketing.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

26. An extension agent should promote human resource development by organizing a county-wide steering committee to sponsor neighborhood study discussion groups.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

27. A 4-H agent should refuse to work with youth who are not enrolled in 4-H club work.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

28. A home extension agent should organize a series of leader training meetings for low income homemakers in the use of surplus foods.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

29. An extension agent should promote use of dairy herd health records in every extension activity which involves dairymen.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

30. A 4-H agent should stick to education and spend no time promoting recreation in 4-H.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

31. An extension agent should promote and plan a workshop to train managers of processing and agri-business firms in principals of business efficiency.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

32. An extension agent, working with farm organizations, should not get involved in marketing education programs.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

33. A home extension agent should present programs to PTA and other civic groups on the subject of marriage preparation.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

34. An extension agent should give a time priority to serving a total resource development planning group even if it is dominated by interests in conflict with extension.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

35. An extension agent should limit the promotion of Telfarm to answering requests.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

36. A 4-H agent should work with delinquent and dependent children.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

37. An extension agent working with interested producers should organize collective bargaining groups in his county.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

38. If necessary an extension agent should give attention to human resource programs, but his main concern should be the economic and physical developments of the area.

____Very much agree ___Agree ____Uncertain ____Disagree ____Very much disagree

39. The home extension agent should not waste her time working with low income homemakers, she has all she can do already.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

40. An extension agent, who works with commercial dairymen should reserve at least 4 weeks of his time for the promotion of diary herd health record keeping.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

41. An extension agent should work entirely with producers instead of agri-business firms.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

42. A 4-H agent should organize 4-H recreation clubs in his county.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

43. An extension agent should encourage farm organizations to develop collective bargaining programs.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

44. Marriage preparation is an educational field in which home extension agents should not become involved.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

45. An extension agent should not get abosrbed in total resource planning. He should concentrate his planning to commodity and farm organization groups.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

46. An extension agent should reserve 20 percent of his time for the promotion of Telfarm.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

47. A 4-H club agent should assist in public school classrooms where qualified.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

48. An extension agent should refuse to become involved in educational programs dealing with the bargaining process of farm marketing.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

49. An extension agent, failing to get key citizen support, should seek other organizations to help sponsor a neighborhood study program.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

50. A home extension agent should spend at least 30 percent of her time working with low income homemakers.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

51. An extension agent who works with commercial diarymen should now promote the use of herd health record keeping.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

52. An extension agent should encourage the appointment of managers of processing and other agri-business firms on extension planning committees.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

53. A 4-H club agent should spend at least 20 percent of his time developing recreation programs in 4-H.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

54. An extension agent in his work with farm organizations should concentrate entirely on production problems.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

55. A home extension agent should promote educational meetings to discuss marriage preparation with parents and teenage youth.

____Very much agree ____Agree ____Uncertain ____Disagree ____Very much disagree

F. I am interested in several aspects of how you feel about your job. Please put a check by the statement in each of the following areas which most accurately expresses your feelings.

Area 1 - Rate your specific job in relation to other jobs you could hold as a professional person.

_____ a. Job is excellent; very much above the average.
_____ b. Job is fairly good, certainly above the average.
_____ c. Job is average.
_____ d. Job is below average; some jobs are better.
_____ e. Job is very poor; most jobs are better.

Area 2 - Rate your organization, the Extension Service, against other organizations for which you might work such as - agri-business, classroom teaching, etc.

_____ a. One of the poorest I know.
_____ b. Below average -- many others are better.
_____ c. Average -- many other organizations are just as good.
_____ d. A good organization, but not necessarily one of the best.
_____ e. An excellent organization; one of the best.

Area 3 - Rate your county in comparison to other counties in this state as a place to do extension work.

_____ a. Very poor; one of the worst in this state.
_____ b. Poor; below average.
_____ c. About average in comparison to other counties.
_____ d. Good; above average.
_____ e. Excellent, better than most counties.

Area 4 - Rate the staff in your county on the basis of how you enjoy working with them. (If there is more than one agent in your county)

_____ a. An excellent group with which to work
_____ b. Pretty good; better than average.
_____ c. About average.
_____ d. Poor; below average
_____ e. Very poor, worse than most staffs.

G. Counties differ in regard to their willingness to accept new ideas and programs. How would you rate your county in comparison to other counties in this state?

_____ a. Very high in its progressiveness and willingness to accept change.
_____ b. Higher than average.
_____ c. Average; many other counties are just as progressive.
_____ d. Lower than average; quite conservative in regard to change.
_____ e. One of the most conservative counties in regard to change.

The Q-sort Instrument

This instrument was composed of three identical kits. Each kit was given to a member of the judges panel. Each judge responded to the Q-sort independently of the other two judges. Each kit contained:

1. A letter of instructions.
2. A deck of 83 cards. On each card was typed the name of a different Michigan county.
3. Eleven large cardboard squares numbered from 1 to 11. Printed on number 1 was "Very Least Progressive". Printed on number 6 was "Average in Progressiveness". Printed on number 11 was "Very Most Progressive".

Letter of Instructions to the Judges Panel

I need to have the counties of Michigan rated on the basis of their progressiveness. Enclosed is a deck of 83 cards, each representing a county. Please sort these cards into piles representing a continuum from Very Low in Progressiveness" to "Very High in Progressiveness". Progressiveness is defined as the degree to which a county is willing to initiate change programs.

There are 11 piles in this card sort. There is no need for each pile to end up with an equal number of cards. Nor is it necessary that each pile contain cards. However, I do need to have both extremes of my continuum represented with cards. In the event that you feel you are not able to rate a particular county, put it in the middle pile. The following criteria are suggested for determining progressiveness:

1. The degree to which the attitudes of the county opinion leaders are favorable to change.
2. The degree to which new community and county programs have successfully been initiated and carried out in recent years.
3. Cosmopoliteness--the degree to which the county opinion leaders are influenced by contacts outside of their local communities.

TABLE A. Q-sort and judges rating summary

County	Judge X	Judge Y	Judge Z	Total
Alcona	4	6	4	14
Allegan	6	6	8	20
Alger	7	8	10	25
Alpena	11	8	11	30
Antrim	5	4	4	13
Arenac	4	6	6	16
Baraga	9	6	4	19
Barry	9	6	5	20
Bay	8	8	10	26
Berrien	3	4	8	15
Benzie	7	8	10	25
Branch	10	11	11	32
Calhoun	9	8	10	27
Cass	1	1	1	3
Charlevoix	4	4	6	14
Cheboygan	4	4	6	14
Chippewa	7	4	8	19
Clare	5	6	6	17
Clinton	7	4	4	15
Crawford	3	6	6	15
Delta	9	11	11	31
Dickinson	8	11	11	30
Eaton	7	1	4	12
Emmet	5	8	8	21
Genessee	11	6	8	25
Gratiot	7	8	6	21
Gladwin	5	6	6	17
Grand Traverse	6	6	11	23
Gogebic	6	11	11	28
Hillsdale	3	1	2	6
Houghton	5	6	4	15
Ingham	6	4	8	18
Ionia	4	6	6	16
Isabelle	7	6	8	21
Iosco	4	6	8	18
Iron	7	8	10	25
Jackson	9	6	10	25
Keweenaw	4	6	4	14
Huron	3	1	1	5
Kalamazoo	7	11	11	29
Kent	6	8	10	24

TABLE A. Cont.

County	Judge X	Judge Y	Judge Z	Total
Kalkaska	8	6	4	18
Lenawee	7	4	4	15
Livingston	10	11	10	31
Lapeer	6	6	2	14
Lake	4	6	8	18
Leelanau	5	1	1	7
Luce	6	11	8	25
Monroe	8	6	8	22
Macomb	10	11	11	32
Montcalm	4	6	6	16
Muskegon	8	11	10	29
Mecosta	5	6	6	17
Midland	9	8	11	28
Mason	4	4	2	10
Manistique	6	6	8	20
Missaukee	4	6	6	16
Montmorency	2	1	1	4
Mackinac	6	6	10	22
Menominee	4	1	2	7
Marquette	6	4	4	14
Newayge	6	6	6	18
Oakland	10	11	11	32
Ottawa	6	4	4	14
Oceana	4	6	1	11
Osceda	4	6	4	14
Ogemaw	7	8	10	25
Oscoda	3	6	2	11
Otsego	4	6	4	14
Ontonagon	5	4	8	17
Presque Isle	6	8	10	24
Roscommon	3	3	6	12
St. Joseph	3	1	1	5
St. Clair	8	6	8	22
Shiawasee	7	6	4	17
Sanilac	6	6	4	16
Saginaw	8	4	8	20
Schoolcraft	6	4	6	16
Tuscola	5	1	4	10
Van Buren	2	4	2	8
Washentaw	8	11	11	30
Wayne	10	6	11	27
Wexford	5	6	4	15

Correlation between Judges: $r_{XY} = .59$; $r_{XZ} = .68$; $r_{YZ} = .74$.

APPENDIX B--Demographic Information Tables.

TABLE B-1. The sample in terms of county position and tenure on Michigan staff.

	TENURE																								
COUNTY POSITION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25 & over	TOTAL
County Director	2		1	1		2	2	2	5	10	5	4		1	3	4	2	1	1	6			2	4	11	69
4-H Agent	6	3	2	3	5		1			1	1	1	1	3	1	2		1	1	2	1			1	1	37
Subject Matter Agent	3	5	2	2	3	5	1		1	2	1					1	1	2							1	30
Special Agent						1		1	2	1	1		1	1	2	2	1									13
Total	11	8	5	6	8	7	4	3	8	14	8	5	2	5	5	9	4	4	2	8	1	0	2	5	13	149
% of Sample	8	6	3	4	6	5	3	2	6	9	6	3	1	3	3	6	3	3	1	6	1	0	1	3	9	100

TABLE B-2. The sample in terms of county position and tenure in current county.

	TENURE																								
COUNTY POSITION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25 & over	TOTAL
County Director	8	3	6	2	5	5	4	3	3	8	2	1	0	3	1	3	1	2		3			1	2	3	69
4-H Agent	9	3	2	4	4	2	1	0	0	2	1	0	0	1	1	2	0	0	1	1	2	0	0	0	1	37
Subject Matter Agent	5	9	3	1	3	2	0	0	1	2	1	1	0	0	0	1	0	1	0	0	0	0	0	0	0	30
Special Agent	1	4	1	1	2	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Total	23	19	12	8	14	12	5	3	4	13	4	2	0	4	2	6	1	3	1	4	2	0	1	2	4	149
% of Sample	16	13	8	6	9	8	3	2	3	9	3	1	0	3	1	4	1	2	1	3	1	0	1	1	2	100

TABLE B-3. The sample in terms of educational level.

	EDUCATIONAL LEVEL					
COUNTY POSITION	BA	BS	MA	MS	Ph. D.	TOTAL
County Director	0	18	5	45	1	69
4-H Agent	0	17	9	11	0	37
Subject Matter Agent	0	3	4	22	1	30
Special Agent	0	0	1	11	1	13
Total	0	38	19	89	3	149
% of Sample	0	25	13	60	2	100

APPENDIX C--Staff Acceptance of 11 New Programs.

TABLE C. Program acceptance is shown by agent position in terms of mean acceptance scores. Also shown is the rank order given each program by each agent group.

PROGRAM	All Agents N = 149		Co. Directors N = 69		4-H Agents N = 37		Ag. Technol. N = 30		Special Agents N = 13	
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
Low Income Homemakers	14.2	1	13.8	2	14.65	1	11.5	1	13.90	6
Youth Other Than 4-H	14.0	2	13.73	5	14.62	2	11.2	3	13.92	5
Telfarm	13.8	3	13.74	4	13.35	6	11.3	2	14.30	3
Agri-Business	13.5	4	13.77	3	13.32	7	10.2	6	14.60	2
Dairy Herd Records	13.5	5	13.50	6	13.40	5	10.9	4	13.30	8
Marriage Prep. Education	13.2	6	13.30	7	14.00	3	10.00	8	12.30	9
Total Resource Development	13.2	7	13.85	1	13.70	4	9.10	9	14.00	4
Farm Organization & Marketing	13.1	8	13.00	8	12.90	9	10.50	5	14.90	1
Bargaining Power Education	12.8	9	12.90	9	12.60	10	10.20	6	13.80	7
Human Resources Education	12.2	10	12.30	10	13.20	8	8.30	11	11.10	10
Recreational Emphasis in 4-H Programs	10.6	11	10.60	11	11.40	11	8.50	10	9.80	11

APPENDIX D--Frequency Distribution Tables

TABLE D-1. Frequency distribution for the job satisfaction variable.

Score Value	Number	Cumulative Distribution	% of Distribution
8	1	1	.7
9	4	5	3.5
10	9	14	9.9
11	15	29	21.0
12	17	46	33.0
13	35	81	58.0
14	27	108	78.0
15	31	139	100.0

TABLE D-2. Frequency distribution for the agent's perception of county change orientation variable.

Score Value	Number	Cumulative Distribution	% of Distribution
1	1	1	.7
2	18	19	14.0
3	46	65	49.0
4	43	108	81.0
5	26	134	100.0

TABLE D-3. Frequency distribution for the agent change propensity variable.

Score Value	Number	Cum. Dist.	Cum. % of Dist.	Score Value	Number	Cum. Dist.	Cum. % of Dist.
1-	..	..	....	145	5	85	58.6
103				146	1	86	59.3
104	1	1	.7	147	3	89	61.4
105	..	1	..	148	4	93	64.1
106	..	1	...	149	5	98	67.6
107	1	2	1.3	150	..	98	67.6
108	..	2	1.3	151	2	100	68.9
109	..	2	1.3	152	5	105	72.3
110	..	2	1.3	153	3	108	74.4
111	1	3	2.0	154	3	111	76.5
112	..	3	2.0	155	5	116	79.9
113	2	5	3.4	156	2	118	81.3
114	...	5	3.4	157	..	118	81.3
115	1	6	4.1	158	2	120	82.6
116	1	7	4.8	159	1	121	83.3
117	1	8	5.5	160	3	124	85.4
118	..	8	5.5	161	1	125	86.1
119..	..	8	5.5	162	2	127	87.5
120	1	9	6.2	163	..	127	87.5
121	3	12	8.2	164	1	128	88.2
122	1	13	8.9	165	1	129	88.9
123	1	14	9.6	166	2	131	90.4
124	..	14	9.6	167	2	133	91.7
125	1	15	10.3	168	3	136	93.7
126	..	15	10.3	169	1	137	94.4
127	1	16	11.0	170	..	137	94.4
128	..	16	11.0	171	1	138	95.1
129	2	18	12.4	172	1	139	95.8
130	4	22	15.2	173	1	140	96.5
131	2	24	16.7	174..	..	140	96.5
132	5	29	20.0	7			
133	6	35	24.1	178	1	141	97.2
134	3	38	26.3	179	1	142	97.9
135	2	40	27.6	180	..	142	97.9
136	8	48	33.1	181	..	142	97.9
137	1	49	33.8	182	1	143	98.6
138	4	53	36.6	183-	..	143	98.6
139	4	57	39.3	197			
140	4	61	42.1	198	1	144	99.3
141	2	63	43.4	199-	..	144	99.3
142	3	66	45.7	216			
143	12	78	53.8	217	1	145	100.0
144	2	80	55.2	218-	..	145	100.0
				220			

TABLE D-4. Frequency distribution for the agent-county compatibility variable.

Score Value	Number	Cum. Dist.	Cum. % of Dist.	Score Value	Number	Cum. Dist.	Cum. % of Dist.
1	4	4	3.08	45	1	90	69.72
2	1	5	3.85	46	3	93	72.03
3	1	6	4.62	47	2	95	73.57
4	2	8	6.16	48	..	95	73.57
5	3	11	8.47	49	1	96	74.34
6	4	15	11.55	50	..	96	74.34
7	2	17	13.09	51	1	97	75.11
8	..	17	13.09	52	2	99	76.65
9	4	21	16.28	53	..	99	76.65
10	5	26	20.13	54	2	101	78.29
11	2	28	21.67	55	3	104	80.60
12	3	31	23.98	56	..	104	80.60
13	3	34	26.29	57	..	104	80.60
14	1	35	27.06	58	2	106	82.14
15	2	37	28.60	59	..	106	82.14
16	1	38	29.37	60	1	107	82.91
17	2	40	31.01	61	..	107	82.91
18	3	43	33.32	62	3	110	85.22
19	..	43	33.32	63	2	112	86.76
20	1	44	34.09	64	1	113	87.53
21	1	45	34.16	65	2	115	89.07
22	3	48	36.47	66	..	115	89.07
23	3	51	38.78	67	1	116	89.84
24	1	52	39.55	68	2	118	91.38
25	6	58	44.17	69-	..	118	91.38
26	..	58	44.17	70			
27	2	60	46.51	71	1	119	92.15
28	1	61	47.28	72	..	119	92.15
29	4	65	50.36	73	1	120	92.92
30	1	66	51.13	74	..	120	92.92
31	2	68	52.67	75	1	121	93.69
32	3	71	54.98	76	..	121	93.69
33	3	74	57.29	77	1	122	94.46
34	..	74	57.29	78-	..	122	94.46
35	4	78	60.67	83			
36	1	49	61.44	84	1	123	95.35
37	..	79	61.44	85	1	124	96.12
38	2	81	62.79	86	..	124	96.12
39	1	82	63.56	87	2	126	97.66
40	2	84	65.10	88	1	127	98.43
41	..	84	65.10	89	1	128	99.20
42	1	85	65.87	90-	..	128	99.20
43	3	88	68.18	98			
44	1	89	68.95	99	1	129	100.00

TABLE D-5. Frequency distribution for the agent tenure in present county variable

Score Value	Number	Cumulative Distribution	% of Distribution
1	19	19	14.2
2	15	34	24.5
3	11	45	33.3
4	9	54	40.3
5	13	67	50.0
6	12	79	58.9
7	3	82	61.1
8	4	86	64.0
9	4	90	67.0
10	10	100	74.6
11	4	104	77.6
12	1	105	78.3
13	--	105	78.3
14	3	108	80.5
15	2	110	82.0
16	6	116	86.6
17	1	117	87.3
18	3	120	89.6
19	1	121	90.4
20	4	125	93.4
21	2	127	94.9
22	--	127	94.9
23	1	128	95.6
24	2	130	97.0
25	--	130	97.0
26	1	131	97.7
27	--	131	97.7
28	1	132	98.4
29	--	132	98.4
30	1	133	99.2
31-33	--	133	99.2
34	1	134	100.0

APPENDIX E--Master Lists

TABLE E. Scores for primary variables by individual agent subject.

Sample Number	Job Sat.	Perception of County Change Orientation	Change Propensity	Agent County Compatibility	Tenure in Present County High-Low	Professional Improvement High-Low	Orientation of Prof. Improve. Social-Physical Sciences
1	14	4	149	28.8	L	H	S
2	15	3	139	3.2	L	H	S
3	13	3	146	23.2	L	H	S
4	--	--	--	--	--	--	--
5	13	5	133	57.8	H	L	P
6	14	4	161	12.7	L	L	S
7	9	3	133	25.3	H	H	S
8	14	3	166	7.3	L	H	P
9	11	3	136	54.8	L	L	--
10	--	--	--	--	--	--	--
11	15	2	143	37.7	L	H	P
12	13	3	145	46.6	L	L	--
13	13	2	155	71.7	L	L	S
14	12	2	159	9.8	L	L	S
15	13	3	133	38.7	L	H	P
16	15	3	137	29.0	H	H	S
17	9	4	167	86.9	L	H	P
18	10	3	154	62.1	L	H	S
19	12	4	143	42.6	L	H	P
20	15	4	130	67.9	H	H	S
21	14	2	160	30.0	L	H	P
22	15	5	116	50.6	L	H	S
23	13	5	167	62.8	L	H	S
24	11	5	133	4.8	L	H	P
25	13	3	173	11.0	L	H	P
26	14	4	136	52.4	L	L	P
27	13	4	168	88.9	H	L	S
28	14	4	143	44.2	L	L	--
29	14	4	143	9.0	H	H	S
30	12	--	123	--	--	H	P
31	12	4	155	2.0	L	H	P
32	12	4	122	27.2	H	L	P
33	14	5	156	31.9	L	H	S
34	13	4	134	23.1	L	H	P
35	15	4	144	26.7	L	L	S
36	13	1	217	18.1	L	H	S
37	15	3	155	13.6	L	L	S
38	12	--	131	--	--	H	P
39	14	5	111	64.3	L	L	--
40	13	2	160	42.1	L	H	S
41	12	4	166	.1	L	L	S
42	15	4	198	9.0	L	H	S
43	13	5	153	45.5	H	H	S

(continued)

TABLE E. Continued.

Sample Number	Job Sat.	Perception of County Change Orientation	Change Propensity	Agent County Compatibility	Tenure in Present County High-Low	Professional Improvement High-Low	Orientation of Prof. Improve. Social-Physical Sciences
44	13	4	138	34.5	L	H	P
45	13	5	115	67.0	H	H	P
46	14	5	136	16.3	H	H	S
47	13	4	155	22.1	H	H	S
48	11	4	139	54.6	H	H	S
49	13	2	149	9.8	L	H	S
50	14	3	132	61.9	L	L	--
51	13	3	148	17.8	L	H	S
52	12	--	158	--	--	H	S
53	15	4	130	5.6	L	L	--
54	12	5	113	86.9	L	H	P
55	15	5	147	32.5	H	H	S
56	9	--	145	--	--	H	S
57	14	4	141	--	L	L	P
58	10	3	132	8.9	L	L	--
59	11	5	148	54.5	H	H	S
60	13	3	140	6.0	L	H	S
61	14	2	149	60.4	L	H	S
62	12	5	136	22.3	L	H	P
63	15	3	145	23.3	L	H	S
64	13	3	130	--	L	L	--
65	11	3	132	15.2	L	H	P
66	13	3	165	84.1	L	H	S
67	15	5	148	21.8	L	H	S
68	13	3	143	45.3	H	H	S
69	14	4	143	42.6	H	H	S
70	12	3	168	85.3	H	L	P
71	10	4	132	35.4	L	H	S
72	14	3	130	75.4	L	L	S
73	--	--	--	--	--	--	--
74	13	3	153	--	--	H	S
75	15	3	131	7.1	L	H	P
76	10	--	136	--	--	H	P
77	12	2	138	63.4	L	L	--
78	11	--	135	--	--	H	P
79	13	4	172	4.2	L	H	S
80	15	5	140	20.7	H	H	S
81	15	5	162	24.7	H	L	S
82	12	2	127	17.9	L	H	S
83	11	3	133	31.3	L	L	S
84	12	3	153	45.5	L	H	P
85	13	4	158	70.6	L	H	S
86	12	2	143	24.9	L	H	P
87	14	4	138	32.8	L	H	S
88	10	5	136	52.4	H	H	P
89	11	3	168	64.8	L	L	S
90	15	2	152	1.2	L	H	S
91	14	--	143	--	--	H	S

(continued)

TABLE E. Continued.

Sample Number	Job Sat.	Perception of County Change Orientation	Change Propensity	Agent County Compatibility	Tenure in Present County High-Low	Professional Improvement High-Low	Orientation of Prof. Improve. Social-Physical Sciences
92	13	4	144	35.1	L	H	S
93	13	4	143	24.9	L	H	P
94	13	2	133	57.8	L	L	P
95	14	4	117	68.0	L	L	P
96	15	4	149	31.5	L	L	S
97	14	5	134	9.8	L	H	P
98	9	3	136	17.0	L	H	P
99	15	3	154	32.2	L	L	S
100	13	2	141	12.0	H	H	P
101	14	2	151	25.0	L	H	S
102	11	3	178	11.7	L	H	S
103	15	4	155	20.1	L	H	S
104	10	3	104	99.3	L	H	P
105	14	3	143	46.2	L	H	S
106	14	4	120	76.9	L	L	P
107	--	--	--	--	--	--	--
108	13	5	142	17.1	L	H	P
109	13	3	140	39.8	L	L	--
110	14	3	179	35.1	L	H	S
111	15	5	107	5.9	H	L	P
112	15	3	145	29.3	L	H	S
113	15	4	152	13.2	L	H	S
114	8	4	182	27.9	L	H	S
115	15	3	149	4.8	L	H	S
116	13	5	136	48.8	L	H	P
117	10	--	138	--	--	H	S
118	14	3	142	9.7	L	H	P
119	15	2	152	--	L	H	P
120	12	4	160	.1	L	H	S
121	15	4	113	54.4	H	L	P
122	14	3	169	--	--	H	S
123	13	4	143	12.5	L	L	S
124	11	3	143	4.4	L	H	P
125	15	4	151	40.0	H	H	S
126	10	4	156	15.1	L	H	S
127	14	5	142	36.2	L	H	P
128	14	3	171	4.9	L	H	S
129	13	3	154	64.5	L	L	P
130	11	2	152	43.4	L	H	S
131	15	4	113	1.3	L	L	P
132	10	--	132	--	--	H	P
133	15	--	--	--	--	H	P
134	11	3	145	11.2	L	H	S
135	11	4	140	54.3	L	H	P
136	14	3	164	36.3	L	H	S
137	15	4	148	28.0	L	H	S
138	15	5	121	9.9	H	L	P
139	15	5	139	30.6	L	H	S

(continued)

TABLE E. Continued.

Sample Number	Job Sat.	Perception of County Change Orientation	Change Propensity	Agent County Compatibility	Tenure in Present County High-Low	Professional Improvement High-Low	Orientation of Prof. Improve. Social-Physical Sciences
140	15	4	147	12.0	L	H	S
141	11	3	162	24.7	L	H	P
142	12	3	139	23.5	L	H	P
143	13	--	147	--	L	H	P
144	13	2	125	33.0	L	H	S
145	15	5	121	61.6	L	H	S
146	11	2	129	87.6	L	H	P
147	14	3	152	29.0	L	H	S
148	13	5	129	8.6	L	L	P
149	14	--	121	--	H	L	--
150	15	4	134	47.2	L	H	S

APPENDIX F--Tables of Statistical Analysis

TABLE F-1. Agent-county compatibility of high change agents related to job satisfaction.

Compatibility	Job Satisfaction Level		Total
	0-13 Low	14-15 High	
30-100 Low	18 (14.04)	8 (11.96)	26
0-29 High	15 (18.96)	20 (16.04)	35
TOTAL	33	28	61

x^2 = 4.23, df 1, significant at .05 level on a one-tailed test.

TABLE F-2. Agent-county compatibility of low change agents related to job satisfaction.

Compatibility	Job Satisfaction Level		Total
	0-13 Low	14-15 High	
0-29 High	20 (21.28)	18 (16.72)	38
30-100 Low	18 (19.28)	12 (11.72)	30
TOTAL	38	30	68

x^2 = .4 in the wrong direction, not significant

TABLE F-3. Agent tenure in present county related to agent perception of county change orientation.

Tenure	Perception of Change Orientation Level		Total
	0-3 Low	4-5 High	
0-14 Low	61 (55.24)	48 (53.76)	109
15-35 High	7 (12.76)	18 (12.24)	25
TOTAL	68	66	134

$x^2 = 6.49$, df 1, significant at .01 level, one-tailed test

TABLE F-4. Agent tenure in present county related to agent job satisfaction.

Tenure	Job Satisfaction		Total
	0-13 Low	14-15 High	
0-14 Low	63 (59.75)	46 (49.25)	109
15-35 High	13 (16.25)	12 (8.75)	25
TOTAL	76	58	134

$x^2 = 2.25$, not significant

TABLE F-5. Educational level of agents related to change propensity.

Educational Level	Change Propensity Level		Total
	0-143 Low	144-220 High	
Low	22 (19.38)	15 (17.62)	37
High	53 (55.62)	50 (47.38)	103
TOTAL	75	65	140

$x^2 = 1.00$, not significant

TABLE F-6. Agent professional improvement orientation (social sciences vs physical sciences) related to change propensity.

Professional Improvement Orientation	Change Propensity Level		Total
	0-143 Low	144-220 High	
Social Sciences	31 (43.16)	52 (39.84)	83
Physical Sciences	36 (23.84)	11 (23.16)	47
TOTAL	67	63	130

$x^2 = 19.74$, df 1, significant at .0005 on a one-tailed test