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# SOCIAL STRUCTURE AND DIFFUSION OF FARM INFORMATION

*Based on Study of a Farm Community  
in Northeast Missouri*

HERBERT F. LIONBERGER AND C. MILTON COUGHENOUR



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# SOCIAL STRUCTURE AND DIFFUSION OF FARM INFORMATION

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## Introduction

Attention has been directed repeatedly to the importance of social structure as a factor affecting the success of educational programs. During the late 1920's and early 1930's several large scale attempts were made to promote agricultural extension work through community organization (1, 2, 3). At the same time many rural sociologists extolled the rural community as the structural unit through and by which conditions of rural life could be improved (4). In recent years there has been a revival of effort to promote community organization as a means of preserving basic values of rural life and as a means of rendering rural people less dependent on governmental help (5, 6).

With limitations on travel during World War II, neighborhoods and neighborhood leadership were emphasized in programs designed to implement the war effort. At least one government agency has continued to emphasize the neighborhood as the social unit best adapted to the attainment of action program objectives and neighborhood leaders as the appropriate persons with whom to work. However, with increasing evidence of dwindling of neighborhoods and their functions in rural society, some sociologists are recommending that attention be directed to social cliques and social classes as factors of greatest importance for educational programming (7).

The importance of social groups in educational procedure has been further emphasized by an increasing general knowledge of how social groups form and operate. This, together with an increasing body of knowledge concerning group work and leadership techniques, has opened the way for greater accomplishments through planned group activity. Although reliable information concerning the influence of specific kinds of social groups, particularly the informal ones, on the diffusion and use of

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farm and home information is sketchy, some valuable contributions regarding general group influences have been made. Lewin has demonstrated the superiority of the group discussion and decision method over prepared lectures as a means of activating people to change food habits and related attitudes (8). Ensminger found evidence that the diffusion of ideas could be facilitated by giving proper attention to community boundaries in planning programs designed to incite social action (9). Hoffer has shown that the success of extension programs may be impaired when administrative lines cut across natural community boundaries and that the effectiveness of agricultural extension work is increased when programs are associated with the activities of groups and organizations already in existence (10, 11). Loomis and Beagle have demonstrated that social cliques sometimes play an important role in decision making. Evidence that participation in farm organizations and broad social orientation are positively associated with the acceptance of improved farm practice is also available (12, 13).

Despite these contributions, information concerning the role of informal structural elements in the diffusion and use of farm information is still meager. Inferences bearing on the way in which informal social structures affect the diffusion-use process seem to be generally sound, but scientific verification has been either inadequate or entirely lacking. Neighborhoods and communities have been delineated and studied extensively, but only recently has any attempt been made to assess their influence on the diffusion and use of farm information (14, 15, 16, 17).

Social clique leaders have been extolled as "handles" for program promoters to use in promoting program objectives, but their role in the decision making and farm practice acceptance process has not been carefully assessed. Neither have studies sought to evaluate the influence of social strata and social classes, which appear to be increasingly in evidence. Yet it is within the informal social structures that most of the interpersonal exchange of farm information takes place. This, plus the fact that friends and neighbors have been named repeatedly as the most generally used sources of farm information, clearly portrays the need for more accurate knowledge concerning the role of structural elements in the diffusion processes.

## Purpose and Scope of the Study

### The General Objectives of This Study Were:

1. To define elements in the social structure of a northeast Missouri farming community which might have a bearing on the interpersonal exchange of farm information.
2. To determine how these elements operated in the farm information diffusion-use process. More specifically, the problem involved: (a) delineation of community and neighborhood boundaries; (b) definition of social classes and social strata; (c) determination of cliques, kinship, and work group membership; (d) examination of personal attributes which tended to structure personal contacts and thus the exchange of farm information; and finally, (e) determination of how each of these structural elements was related to the diffusion and use of farm information. Some consideration also was given to the relative influence of the factors considered.

Data were obtained from interviews with 279 of the 285 full-time farm operators and wives living in the community; also, from prestige ratings, and from such secondary sources as farm organization and newspaper records. Analysis of the data is strongly flavored with the concepts and approaches of structure-functional theory familiar in the writings of Parsons, Merton, and others. Although justice may not always be done to the theory and some of the conclusions may not stand the test of time, the authors feel that the need for a more usable theory in this field warrants the risks taken.

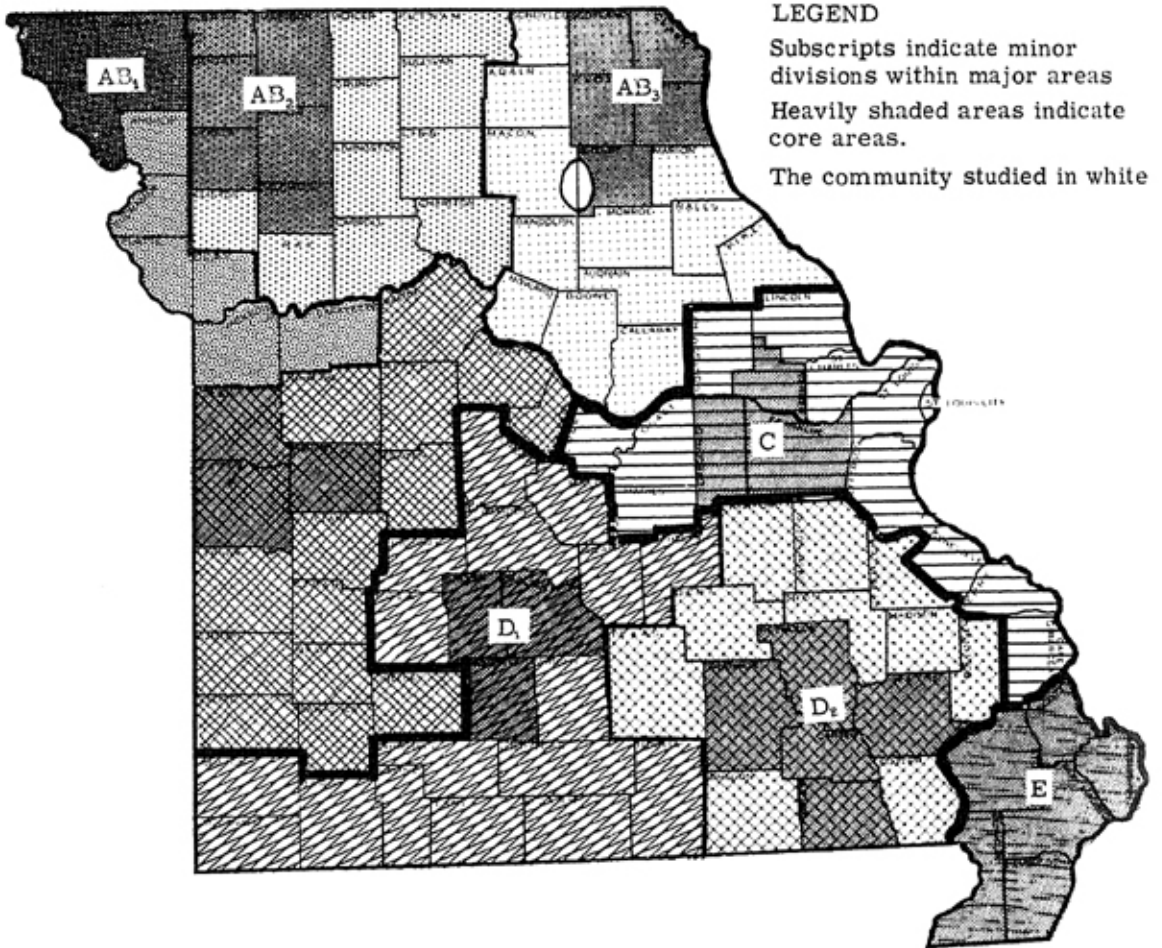
## The Community Studied

In addition to the approximately 285 full-time farm operator families living in this community, the village center contained 1123 people not directly considered in the study. The community boundary cut across two northeast Missouri counties in a general farming area where livestock and grain production prevailed as the chief sources of farm income. Corn and soybeans constituted the chief grain crops, while cattle and hog production represented the most important livestock enterprises. The prevailing level of living was generally above the state average.

Although the community selected cannot be strictly regarded as a random sample of either the culture core or of the social area of which it is a part, it is fairly representative of a culture core area comprising Clark, Knox, Lewis, Scotland, and Shelby Counties. These have been designated by C. L. Gregory as counties most distinctive with respect to salient cultural factors which characterize a larger 11-county area in northeast Missouri (18). (Also see Figure 1.)

The Hagood level of living index based on 1945 census data for the community was estimated at 124 compared to 125 for the five core counties, and 118 for the larger social area of which the core is a part (19). This index probably represents the best measure of similarity available, inasmuch as it is comprised of a number of cultural variables of known discriminatory value. For farms in the survey community, the average value of products sold during the survey year was \$3424, compared to a median \$3998 reported for the counties in the core area by the U. S. Census of 1950, and \$3646 for the counties in the entire area. The median size of farm for the community was 212 acres, compared to 205 for the core area alone, and 187 for the entire social area. Some of this difference in acreage is probably due to the use of a more restricted definition of farm operators in the study than was used by the U. S. Census. The latter included many part-time farmers, usually operating small acreages. These were excluded from this study. In general, differences between the community and the area of which it is a part are a matter of degree rather than of kind.

Although no distinctive nationality or ethnic elements were in evidence in the community, other cultural differences were apparent. One segment in particular, containing approximately 50 families, possessed characteristics which were distinctive. Gross farm incomes averaged about one-third less than the community average. Farmers were less inclined to use institutionalized sources of farm information, and social participation



**Figure 1—The community studied in relation to social areas in Missouri.**

in formal groups was more locally oriented. Although much the same type of farming prevailed, production standards and levels of family living were generally below the community average. Nevertheless, those residing in this area considered themselves a part of the community. They frequented the village center, which formed the nucleus of the community for many services available there, and their children attended the local high school, also located at the village center.

As is frequently the case elsewhere, farm operators in this community claimed that equalitarian relationships were maintained among all so-called "respectable" people in the community. Those considered non-respectable were few in number and were notorious for their failure to abide by locally accepted standards of conduct. Despite such verbalizations, local judges were able to rate acquaintances on the basis of community prestige with a high degree of agreement. Status differences were further reflected by wide income differentials prevailing in the community. From the standpoint of gross farm income, the upper third had incomes twice those of the lower third. The lower 10 percent were living at no more than a subsistence level while the upper 10 percent had gross annual incomes in excess of \$8000.

The community possessed the conventional media for obtaining farm and home information. A staff of county agents, a Farmer's Home Administration Office, and a Production Marketing Administration Office were available in each of the county seat towns representing sections of the community. A local Soil Conservation Service Office was available to farm operators residing in the county in which the greater part of the community area was located. However, the division of the community between counties undoubtedly tended to minimize the use made of the services available from county offices. This situation was further aggravated by the fact that a majority of the farmers lived in areas at nearly maximum distance from the county seat towns. Perhaps a third of the farmers lived as much as 25 miles distant by the usual routes of travel.

A vocational agriculture teacher and a staff of veteran teachers were also available at the local high school. One local newspaper, to which a very high proportion of farm operators subscribed, was published at the community center. Each of the county seat towns also supported a local newspaper. A number of metropolitan papers and farm journals were delivered to farmers living in the community. All were within easy range of several radio broadcasting stations, both local and metropolitan. A large proportion of the households had radios in operation and had the opportunity to hear a variety of farm information programs.



# Informal Social Structures and the Diffusion of Farm Information

## THE COMMUNITY

### The Community Concept in Relation to the Study Area:

To the farmers interviewed, *community* was more than a geographic area. It was the locus of their work, their homes, their families, and their social activities. Their contacts with other people were largely confined to the area. Four-fifths of the farm operators interviewed participated in one or more formal organizations, but only 15.6 percent participated in one that took them outside the community. Participation in community-contained organizations was over six times the participation in extra-community organizations. Viewed in still another manner, five out of every six organizations in which farm people participated were those rendering services to community residents. A majority of the remaining number were special boards and commissions in which members acted as representatives of community interest. This congruence of organizational activity provided a supporting emotional identification with the commonly recognized geographical area. This, in turn, provided the basis for the operational definition of the community used in this study.

From a sociological standpoint, the significance of community membership involved two elements, namely, a locality status ascribed to the individual and a characteristic in-group orientation. The latter carried with it an obligation to give support and assistance in various ways to the organizations and institutions contained within the community. Thus, as a cultural phenomenon, the community was a geographical area in which the people had a vague set of values and attitudes that oriented them toward combining their efforts on community tasks.

Structurally, it included a multitude of organizations having significance for the daily activities of rural people. However, the significant aspect with respect to the community was the integration provided for these activities. Businessmen, clergymen, leading farmers, and others established amicable relationships in working toward common goals. Such cooperation or attitude toward cooperation provided the essential framework for community organization.

Typically, community orientation requires the familiar "neighbor response" in the everyday activities of living. The strength of these norms

was well exemplified by responses of farm operators in the study area who rated "being a good neighbor," "being willing to help others in time of need," and "doing good things for others" very high as factors contributing to community prestige; also by their strong sanctions against "driving a hard bargain with neighbors."

In the absence of community-wide organization and the universal presence of neighborhood organization, norms of neighboring were made functionally significant through membership in formal organizations. For example, the church might initiate a wood cutting or fuel gathering operation for an incapacitated bread winner who was not a church member. In such a case the appeal for help would probably be made on the basis of common community membership.

It is in terms of the linking together of local organizations and the attendant area identification that the procedure used for defining the community may be understood.

The technique used was relatively simple. A detailed map of the geographical area was placed before selected informants who were requested to indicate whether they considered specific farmers to be inside or outside the community. Viewed in theoretical terms, the question required the judges to indicate those who had status as community residents and those who did not. The informants were able to perform this task with a remarkable degree of agreement. A line drawn between the families indicated as being inside and outside the community was regarded as the community boundary. It should be observed that this procedure does not confuse residence in the community with membership in sociologically significant kinds of social organizations, nor does it imply the fallacy that some kind of over-all community organization exists in which all members participate. Such organization seldom occurs even in a neighborhood.\*

Such a phenomenon is likely to occur only in conjunction with a pseudo-corporate structure such as a community-wide planning group. Otherwise, for local people, the community meant the locality in which a large number of common local institutions and agencies were loosely integrated, plus a weak, diffuse feeling of obligation to support the people and institutions in that locality. Local residents demonstrated they could easily define the community in these terms with a high degree of agreement.

### **Aspects of Community Function in the Diffusion of Farm Information:**

Direct evidence of the significance of community structure in diffusion of farm information was reflected in choice of persons as sources of farm information. Almost all of those chosen resided in the community.

\*While the writers are appreciative of the data presented by Slocum and Case, they disagree with their conclusions as to the proposed limited use of the term community. The authors feel that in this case, at least, a typology of community and neighborhood is required. See reference 21.

Even farmers living at the periphery (within one-fourth mile of the community boundary) showed a preference for fellow community members. Over three-fourths of their selections were farm operators who also lived in the community. Less than one-fourth of the choices involved non-members.

Further data on community function in relation to the diffusion of farm information was limited. Nevertheless, certain other aspects of function were suggested by the nature of community interaction and the nature of prevailing norms regarding change in farm practices. These may be tentatively stated as (1) a definitive or permissive function with respect to the kind of decisions the community permitted and the nature of group sanctions imposed upon those who decided to change; (2) an evaluative or reinforcement function which stemmed from having associates who could be trusted to help those considering change to arrive at socially acceptable decisions regarding alternate goals and/or means; and (3) an interaction facilitating, structural function derived from established patterns of association and communication within the community.

Concerning the definitive-permissive function, a wide latitude in choice of farming practices was accorded the individual; i.e., he was permitted to make many changes in farm practices and proceed at a relatively rapid rate without censure on the part of associates. The importance of such permissive standards is more fully realized when compared with the more restrictive ones found by Wilkening in a North Carolina study (22). Perhaps even more important in this respect was the fact that alertness to new developments in farming and quick adoption of new farm practices, at least those that worked, actually was a status factor. To be out ahead in this respect enhanced one's prestige. Group sanctions thus encouraged change. Although such sanctions could not be regarded as the exclusive province of the community's norms and interaction, the exercise of them tended to be limited by the community boundary.

The second suggested community function involved the kind of support that doubters and skeptics needed to swing the balance in favor of change. Since techniques are varied and new ones are continually being developed, a farmer who makes rational choices is constantly faced with these questions: "Is my information complete? Have I taken everything into consideration and given proper weight to all the alternatives?" Moreover, doubts often arise concerning the alternatives to which the resources of time, money, and energy should be put. Should they be used to pursue economic or social ends? For example, should the farmer emphasize hog production during the coming year or depend upon a cash grain crop and use the extra time to enhance his personal influence by participating more

widely in community activities. Clearly, decisions which involve choices among various goals also involve integrative values. These in turn raise doubts with regard to one's moral rightness; i.e., "Am I doing the *right* thing." The person who can reassure or can both reassure and inform is indispensable under such circumstances. Choice is limited to those with whom one can identify and upon whom one's own values and desires can be projected—the friend, neighbor, or community member. Membership in the community supplies a basis for the choice of other persons who can be called upon for consultation. It is, of course, possible that cliques and neighborhoods serve much the same function. In any case, the provision of other persons for consultation is not the exclusive province of community interaction and identification.

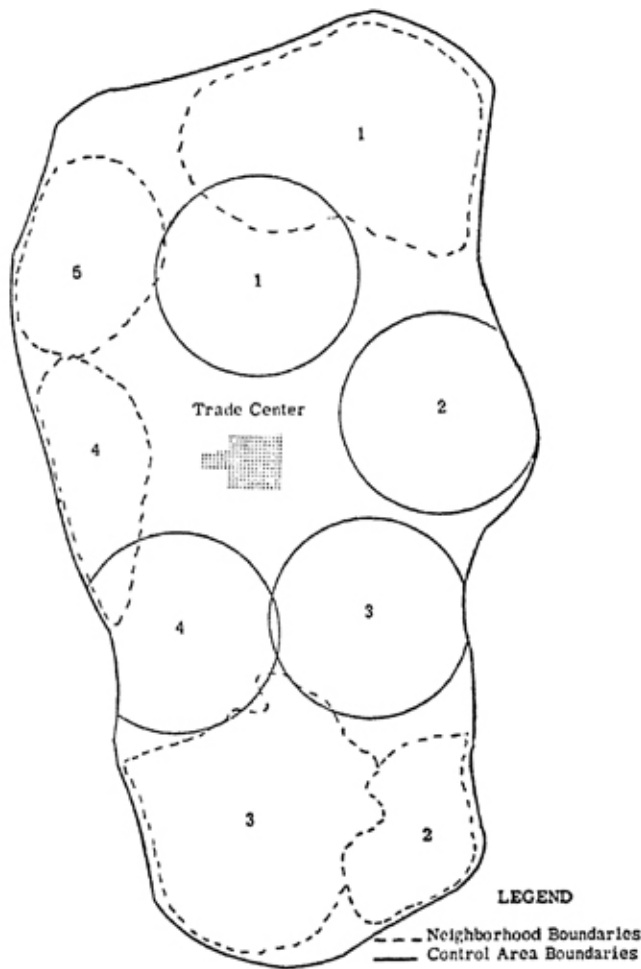
From a somewhat different point of view, the process of developing an integrated community organization can be viewed as a process of establishing channels of communication between organizations and persons of influence in the local area. Herein lies the interaction facilitating function of community structure.

## NEIGHBORHOODS

### Size, Nature, and Distribution:

Repeated reference to specific neighborhoods provided the original clue to their location and existence. However, for investigative purposes inquiry was made into whether or not specific persons near the periphery actually resided inside or outside each of the neighborhoods. Since this was essentially the same technique used to delimit the community boundary, it was characterized by the same assets and limitations. As in the case of the community boundary, residents were able to delimit the area with rather remarkable agreement. The results, of course, indicated little, if anything, about the social organization existing within the neighborhood. Nor could it be inferred that everyone living within the area was of the neighborhood in the sense of participating extensively in its activities. The extent of participation in formal and informal organizations constitutes important data concerning neighborhoods but need not be part of the initial operational definition of them.

The largest of the delimited neighborhood localities included 45 farm operators and their families and the smallest 15. The average was 27. In general, neighborhood residents differed little from non-residents. In average prestige they were neither significantly different from each other nor from the community mean. In like manner, the average age, improved practice score, years schooling completed, and amount of social participa-



**Figure 2—Neighborhoods and control areas in the survey community.**

tion of neighborhood residents were similar to the respective averages for the community. In one neighborhood only (No. 5, Figure 2) did the average income differ significantly from the community mean.

Although the neighborhoods were supplied unequally with organizations and service agencies, each had two or more serving as focal points of social activity. Two neighborhoods had a store, a blacksmith shop, a church, and a school. Two had a general store and one had only a church and a school. In general, these formal organizations and service agencies provided convenient meeting places for neighborhood residents. Informal visiting at the neighborhood center, apart from the specific needs supplied by the organizations and agencies, was frequently mentioned as an important part of local activity in four of the five neighborhoods. In the remaining one, informal visiting seemed to exist largely as a by-product of local organization and agency activity.

Like the community, the neighborhood is a locality within which a significant number of organizations and agencies are located. However, neighborhoods differ from the community in that they have fewer organizations and agencies, and are small enough to permit the informal association of each person with a higher proportion of other local residents than would be possible in the larger community. The constituent organizations of the neighborhoods under discussion were characterized by a minimum of formal organization. This limited amount of formal organization was supported by, and in turn supported, a pattern of informal association focalized at the neighborhood center. As a social phenomenon, distinctive on the one hand from a mere locality and on the other hand from random occurrence of various organizations and service agencies, these neighborhoods provided a supra-added element of meaning to the locality and to the local formal social structure. They provided the formal mechanisms for interchange of personal information among neighborhood residents. Also, neighborhood orientation and feeling of belonging brought a degree of loyalty obligation to neighbors and neighborhood organizations not enjoyed by a geographic locality, alone, or by the larger, encompassing community.

#### Structure in Relation to Diffusion of Farm Information.

The major objective of this portion of the study centered about the manner in which neighborhood structure functioned in the diffusion and use of farm information. Three types of data made an analysis of this kind possible in some degree: (1) a detailed census of persons involved in the search for farm information, including both the seekers of information and those sought; (2) an indication of places where each farm operator talked to other farmers about matters related to farming; and (3) the source or sources of farm information found most useful by each operator.

(1) *The Localizing Influence of Neighborhood Structure:* The inward orientation of neighborhood residents with respect to their choice of sources may be examined in terms of the relative proportions of contacts that neighborhood and non-neighborhood residents made within the immediate locality.

Direct comparisons, however, are complicated by the fact that physical distance alone operated to localize such relationships. This is demonstrated by an average distance of 1.33 miles between those naming and those named as sources of farm information. Eighty-nine percent of the seeker-sought pairs lived within three miles of each other. Some control of the distance factor therefore was necessary. This was done by establishing control areas inside the community as nearly comparable in size (geo-

graphic space) and location as possible to existing neighborhoods for comparative purposes. (See Figure 2.) [For a more detailed explanation see reference 17]. The average spatial area of the five control areas was equal to the average area of the five neighborhoods or approximately 12 square miles. Although the average number of farm operators residing in the five neighborhoods was 27, compared to 21 for the four control areas, there seemed to be no clear-cut relationship between number of persons per neighborhood or control area and the proportion of information seeking relationships within the area.

As the basis for the first type of information seeking relationship, all farm operators in the community were asked the following question: "Did you obtain useful farm information from friends and neighbors during the past year?" Whenever an affirmative reply was given, the person was asked to specify from whom the information was obtained. Whether the information obtained was the result of active seeking or of passive overhearing of a discussion may be an important consideration but was not determined.

For purposes of analysis, the respondent and the person (or persons) named as a source were designated as *seeker* and *sought* respectively. The term ISR (*information seeking relationship*) will be used throughout this report to refer to the relationship between each of the 430 seeker-sought pairs. The meaning of the word relationship as used here is limited by this operational definition. No assumptions are made with respect to frequency of contact or permanency of the relationship.

Responses to the question above revealed that 73 percent of the ISRs of neighborhood residents involved other farm operators living in the same neighborhood as the seeker. (See Table 1.) At the same time, only 52.1 percent of the ISRs of seekers living in the control areas were with other farm operators of the same area. (Since in this case, we are dealing with all the farm operators in the various localities the differences given

TABLE 1. PERSONS NAMED AS SOURCES OF FARM INFORMATION,  
BY RESIDENCE OF THE PERSON NAMED AND RESIDENCE  
OF THE FARMER NAMING HIM

Residence of person named	Farm operators living in:			
	Neighborhoods		Control areas	
	Number named	Percent	Number named	Percent
All persons named . . . . .	209	100.0	146	100.0
Lived in same neighborhood or control area as farmer naming him . . . . .	153	73.2	76	52.1
Did not live in same neigh- borhood or control area as farmer naming him . . . . .	56	26.8	70	47.9

Chi-square = 16.9; df = 1; p<.001.

are real. However, on the assumption that these findings might be generalized to the entire Northeastern portion of Missouri, some degree of confidence in this assumption is provided by the chi-square test which indicates that the difference in the percentage is significant at the 0.001 level.) Thus, neighborhood residents were much more inclined to confine choices of persons as sources of farm information to fellow residents than was the case for control area residents.

A second ISR was obtained by asking each farm operator to indicate to whom he talked most frequently about farm problems. Persons named in response to this question are referred to as *most frequently sought* sources in order to distinguish them from those named previously as *all persons sought*. For these contacts, the nature of the ISR is more definite. The question clearly implies a relationship which has a reasonable probability of recurring. There is also an implication that some kind of social relationship or organization exists. No assumptions are made, however, concerning the usefulness of any information obtained by means of the 159 ISRs thus defined. This qualification should be noted as a limitation on inferences made throughout the study.

The ISR pattern for neighborhood and control group residents involving *most frequently sought* sources was essentially like the pattern involving *all* sources. Tabulations showed 78.5 percent of the people named as *most frequently sought* by neighborhood residents lived within the same neighborhood, compared to 52.5 percent of those named by residents of control areas (Table 2). However, neighborhoods varied somewhat in the proportion of ISRs confined to neighborhood members (Table 3). Interestingly enough, the one neighborhood (No. 5) that had no informal visiting at the neighborhood center apart from that associated with church and school activities showed the least confinement of ISRs within the neighborhood. However, with only one exception, neighborhood residents indicated a consistently greater tendency to select fellow residents as

TABLE 2. PERSONS NAMED AS SOURCES OF FARM INFORMATION, MOST FREQUENTLY SOUGHT BY RESIDENCE OF THE PERSON NAMED AND RESIDENCE OF THE FARMER NAMING HIM

Residence of person named	Farm operators living in:			
	Neighborhoods		Control areas	
	Number named	Percent	Number named	Percent
All persons named . . . . .	65	100.0	59	100.0
Lived in same neighborhood or control area as farmer naming him . . . . .	51	78.5	31	52.5
Did not live in same neighborhood or control area as farmer naming him . . . . .	14	21.5	28	47.5

Chi-square = 9.2; df = 1; P < .01.



TABLE 3. THE PROPORTION OF PERSONS NAMED AS SOURCES OF FARM INFORMATION WHO LIVE  
IN THE SAME NEIGHBORHOOD OR CONTROL AREA AS THE FARMER NAMING THEM--  
FOR EACH NEIGHBORHOOD AND CONTROL AREA SEPARATELY

Neighborhood number	Persons named as sources		Control area number	Persons named as sources	
	Lived in same neighborhood	Not in same neighborhood		Lived in same control area	Not in same control area
	Percent	Percent		Percent	Percent
1. ....	81.4	18.6	1. ....	35.3	65.7
2. ....	67.7	32.3	2. ....	69.2	30.8
3. ....	71.2	28.8	3. ....	55.0	45.0
4. ....	71.4	28.6	4. ....	45.0	54.4
5. ....	61.9	38.1			

sources of farm information than residents of the control areas.

The one exception was control area 2. (See Table 3.) In this case, the percent of farm operators seeking information from residents of the same locality was greater than the percent for two of the neighborhoods. A plausible explanation for this occurrence was the association of some residents in the control area on a near locality basis. A party telephone line provided the basis for local identification and communication. In a sense these families comprised a locality based clique.

Previous research in the study community had shown that 22 of the farm operators who were named by five or more other farmers as *most frequently sought* sources of farm information were so distinctly different from the others considered—with respect to characteristics related to the diffusion and use of farm information—that they could properly be regarded as “local influentials” (13). Their receptivity to new ideas about farming and their position in the informal social structure of the community were such that they served as low-resistance avenues through which farm information was channeled to others who were slower to accept innovations in farming. They were also in closer contact with direct sources of farm information than other farmers. Because of these and other reasons, relationships with them were more important than sheer numbers implied. However, from this standpoint alone, 84 (40.2 percent) of the information seeking contacts by neighborhood residents were with “local influentials.” Meanwhile, as Table 4 reveals, 60.7 percent of the ISRs involving neighborhood residents as seekers were with “local influentials” living in the same neighborhood contrasted with 48.6 percent of the ISRs in the control areas. Relationships of neighborhood residents with “local influentials” living outside of neighborhoods represented 39.3 percent of the total, compared with 51.4 percent of the relationships in the control areas. These differences, under the hypothesis of assumed generality of the findings, are significant below the 5 percent level.

The localizing influence of neighborhoods on different types of information seeking relationships is thus indicated by the extent to which ISRs with “local influentials,” the *most frequently sought*, and *all* ISRs are confined to residents of the same neighborhood. (See Tables 1, 2 and 4.) Some disparity in the localizing influence of neighborhoods is evident, depending upon the kind of person sought. While 60.7 percent of the ISRs with “local influentials” were confined to persons with a common neighborhood residence, 73.2 percent of *all* ISRs, and 78.5 percent of those designated as *most frequently sought* were confined to neighborhood contacts. This is a sizeable difference in view of the fact that the latter two figures included relationships with “local influentials.” It undoubtedly

TABLE 4. "LOCAL INFLUENTIALS" NAMED AS SOURCES OF FARM INFORMATION BY RESIDENCE OF "INFLUENTIAL" NAMED AND RESIDENCE OF THE FARMER NAMING HIM

Residence of "Influential" Named	"Local Influentials" Living in:			
	Neighborhoods		Control Areas	
	Number named	Percent	Number named	Percent
All "Influentials" Named . . . . .	78	100.0	70	100.0
Lived in same neighborhood or control area as farmer naming him	48	61.5	34	48.6
Did not live in same neighborhood or control area as farmer naming him . . . . .	30	38.5	36	51.4

would have been higher had they been excluded.

(2) *Focal Points of Association*: Another way of describing significant interaction in the search for farm information is to determine where it occurs. Since a high proportion of the social organization and activity occurring in neighborhoods is focalized at the neighborhood center it is reasonable to expect it to be the place where farmers most often talk to others about farm problems. Responses to the question, "Where do you most frequently see and talk to other farmers about farm problems?" was intended to provide the basis for determining the specific spatial referent of the information seeking relationships. However, examination of these responses showed that farmers frequently named occasions rather than places where the significant interaction occurred. (See Table 5.)

TABLE 5. PLACES WHERE FARM OPERATORS SAID THEY MOST OFTEN TALKED WITH OTHER FARM OPERATORS, BY RESIDENCE OF THOSE REPORTING

Place where talking most frequently occurred	Percentage of all farm operators in each residence group naming designated places*	
	Neighborhoods (N = 136)	Non-neighborhood areas (N = 143)
Neighborhood center . . . . .	44.1	9.8
Community center (village) . . . . .	11.0	32.2
Neighbors' homes, and along roads and fences	32.4	29.4
Farm meetings, "GI school," adult farm school, FMA. . . . .	12.5	26.6
Work-exchange groups . . . . .	10.3	29.4
P.T.A. meetings . . . . .	7.4	0.0
Sunday school and church . . . . .	4.4	4.2
Public sales . . . . .	1.5	1.4

\*Percentages add up to more than 100, since some operators named more than one place.

Since physical distance was not a factor in the study of focal points of association direct comparison between neighborhood and non-neighborhood residents could be made. The 136 neighborhood residents mentioned

a total of 168 places and occasions where they most frequently discussed farm problems compared to a total of 190 places and/or occasions mentioned by the 143 non-neighborhood residents. From this it can be seen that the average neighborhood farmer named somewhat fewer places and/or occasions (1.2) than the average non-neighborhood farmer (1.3). Since compensation for this disparity made no significant difference in the conclusions drawn, figures are reported in Table 5 and elsewhere as the farmers gave them.

For the interpretation of data, a further reasonable assumption was made that the various places and occasions served essentially the same functions for both neighborhood and non-neighborhood residents. This, of course, is not to say that the total functions of social organizations at neighborhood and community centers were necessarily the same for residents inside and outside neighborhoods.

Examination of Table 5 reveals rather large differences in the proportions of neighborhood and non-neighborhood residents naming various places and occasions where farm problems were most frequently discussed. Nevertheless, a tendency to name places similar in type and accessibility was apparent. Thus, for residents outside of neighborhoods, the community center presumably served much the same function as the neighborhood center for neighborhood residents. However, in the total scheme, farm information exchange at the community center was less important for residents outside of neighborhoods than the neighborhood center was for neighborhood residents.

Such formal organizations as farm meetings, "GI school," adult farm school, and Production Marketing Administration (Agricultural Stabilization and Conservation Service) function in a different manner in supplying farm information than informal or chance meetings and organizations dedicated largely to social activities. Diffusion of farm information is likely to be a manifest (intended or planned) function of the former while for the latter it is likely to occur, if at all, as a more or less fortuitous consequence of meeting for other purposes.\*\*

With this distinction in manifest and latent function of places and occasions in mind we may observe that 26.6 percent of the farm operators residing outside of neighborhoods mentioned such things as farm meetings as occasions where they most frequently talked with other farm operators about farm problems compared to only 12.5 percent of the residents of neighborhoods. On the other hand, places and occasions not specifically constituted for the purpose of disseminating farm information were relatively more important for neighborhood residents. It would thus appear that information supplied as a latent function of informal organizations

\*\*The concepts of manifest and latent function is familiar in the writing of Robert K. Merton. See especially Chapter I in *Social Theory and Social Structure*, Glencoe, Ill.: The Free Press, 1949

focalized at the neighborhood center was more important for neighborhood residents than that supplied as a manifest function of formal organizations.

Perhaps most difficult to explain in the light of this reasoning is the difference in proportion of neighborhood and non-neighborhood residents naming work exchange situations as the occasion for most frequent discussion of farm problems. Work exchange is a type of informal activity one might readily associate with neighborhood residence. Yet 27.3 percent of the non-neighborhood residents compared to 10.3 percent of the neighborhood residents named this as an occasion used most frequently to discuss farm matters with other farmers. The question therefore arose whether work exchange was less important in neighborhoods because it occurred less frequently or because of a relatively greater availability of other places and occasions regarded as more important. The latter explanation seemed most plausible because the number of persons with whom work was exchanged was about the same for farmers within and outside of neighborhoods. In other words, so far as the discussion of farm problems is concerned it is likely that the system of organization focalized at the neighborhood center has a functional dominance over other avenues of communication used by neighborhood residents that is not matched by the community center.

Thus, neighborhood structure apparently provided special avenues through which farm information was exchanged on an informal, interpersonal basis. However, as most of the ISRs were confined to other neighborhood members (approximately 75 percent) and the neighborhood center was regarded as the place where information was obtained, neighborhoods tended to localize information seeking relationships within the neighborhood. This would indicate that choice of personal sources tended to be limited to the quality of advice available within the neighborhood. In the community studied, it is perhaps significant that the technological competence of farmers within neighborhoods compared favorably with the competence of non-neighborhood residents.

### Value Orientations in Relation to Sources.

(1) *Historical Perspective:* Historically, the advantages of living on the farm have been thought of in terms of farming as a "way of life." The prevailing focus in the past was upon "social" values of honesty, neighborliness, frugality, virtue, and the like rather than upon monetary success. Due to rigors of life on the frontier, a survival value was placed on cooperation. Since economic success by present day standards was out of the question, the tendency was to judge a farmer in terms of his ability

as a "provider." In addition to engendering support for these norms, neighborhoods provided the organizational basis for insuring mutual assistance in obtaining needed farm labor and in the achievement of modest goals of education, religion, and recreation. Accordingly, any influence of traditional values on the farm objectives of today is likely in the direction of farming as a means of making a good living.

Somewhat opposed to this view is the modern tendency to regard farming as a business enterprise in which the profit motive predominates as the guiding principle. Farm management decisions tend to be made in terms of business reality and future prospects rather than in terms of the traditional standards of farming as a "way of life." Some evidence of a shift to this concept in the community studied was provided by Hepple and Bright (23) who concluded that "the changing philosophy of cooperation among farmers seems to be away from concern for one's neighbors and toward more efficient means of agricultural production at a lower cost." "This change," they add, "is related to changes in agriculture, particularly the trend toward greater commercialization of farming. . . . It is also related to the increased diversification of interests and methods among individual farmers."

If such a shift in values is occurring and if neighborhoods represent the survival of a traditional aspect of farm life as some have assumed, one might expect some variation in the sources of farm information preferred and used by neighborhood and non-neighborhood residents. Two sets of data were analyzed with this in mind. These included sources of farm information considered most useful by neighborhood and non-neighborhood residents and sources of farm information actually used by them.

(2) *Sources Considered Most Useful:* In relation to source preference, each farm operator was asked the following question: "You have named \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, etc. as sources of farm information which you have found useful during the past year. Which of these have you found most useful?" For purpose of analysis, responses were classified as follows: (a) intimate associates including friends, neighbors, and relatives; (b) mass communication media which included newspapers, magazines, and radio; (c) institutionalized sources including county agents, vocational agriculture teachers, farm organization meetings, farm bulletins, adult farm classes, and a number of adult educational and service agencies. A fourth category, of questionable meaning as a source of information,—"*Own Experience*"—completed the classification.

Analysis of the data revealed that the proportion of neighborhood and non-neighborhood residents reporting institutionalized sources of farm

TABLE 6. SOURCES OF FARM INFORMATION THAT FARM OPERATORS SAID WERE MOST VALUABLE, BY RESIDENCE OF THOSE REPORTING

Most valuable source	Percentage of all farm operators in each residence group naming designated source*	
	Neighborhoods (N=136)	Non-neighborhood areas (N=143)
Intimate associates . . . . .	47.8	28.0
Mass communication media . . . . .	25.0	42.0
Institutionalized sources . . . . .	30.1	32.2
Own experience . . . . .	2.9	5.6

Chi-square = 14.5; df = 3; P<.01.

\*Percentages add up to more than 100, since some operators named more than one source.

information as most useful was about the same, but there were large differences in the number reporting intimate associates and mass media as most useful. (See Table 6.) Neighborhood residents showed a distinctive preference for intimate associates (47.8 percent) and non-neighborhood residents for mass media sources (42.0 percent).

The question of, why this difference, is immediately suggested. Since there is no reason to assume a difference in the availability of the mass media, nor to assume any significant difference in the quality and kind of information obtained from intimate associates by neighborhood and non-neighborhood residents, explanation on either basis is not warranted. Furthermore, an explanation on the basis of relative accessibility of intimate associates is negated by the fact that both neighborhood and non-neighborhood residents named approximately an equal number of persons as sources of farm information. With these possibilities ruled out, a difference in value placed upon the two kinds of sources by neighborhood and non-neighborhood residents is suggested even though the nature of this difference may be only inferred.

(3) *Sources Used:* A count of sources of farm information used and named by each operator indicated that non-neighborhood residents used more sources than neighborhood residents. Median numbers in each case were 6.13 and 5.66. However, the median by neighborhoods ranged from 5.25 to 7.33.

The difference was more marked and more consistent in use of institutionalized sources. Fifty-five percent of the neighborhood residents named one or more of the institutionalized sources compared to two-thirds of the non-neighborhood residents. The median numbers were 1.20 and 1.62, respectively. The median number used by specific neighborhood residence ranged from 1.00 to 1.40. Thus the median for each of the five neighborhoods was below a comparable statistic for non-neighborhood residents.

Use of the mass media as sources was much more universal than use made of the institutionalized sources. Ninety-three percent of the neighborhood residents and 94 percent of those not living in neighborhoods used one or more of the mass media as a means of obtaining farm information. The median numbers were 2.54 and 2.65, respectively, with a range by neighborhood from 2.07 to 3.0.

Perhaps, number of persons named as sources means less than number of other kinds of sources named because of their accessibility. Nevertheless, in accord with the pattern of analysis used above, 91 percent of the neighborhood residents and 93 percent of the non-neighborhood residents named one or more persons as sources of farm information. Those living within neighborhoods named 2.84 persons and those outside named 2.71. Variation by neighborhoods ranged from 2.42 to 3.25.

The evidence pointed to a slightly greater emphasis in use of institutionalized sources by non-neighborhood residents. Use of the other two types of sources was highly variant by specific neighborhoods; comparisons of neighborhood and non-neighborhood totals also were generally inconclusive. Thus, some of the data do and some do not lend credence to the suggested traditionalistic-rationalistic difference in orientation to farming between neighborhood and non-neighborhood residents.

When the comparative technological competence of persons sought as sources of farm information by neighborhood and non-neighborhood residents were compared the results again were inconclusive. When viewed in the aggregate, non-neighborhood residents were inclined to look higher on the scale for advice than neighborhood residents. In the ISR involving *all* persons sought as sources, the comparative improved practice ratings for neighborhood and non-neighborhood residents were 21.7 and 24.2, respectively; for the *most frequently sought* persons ratings were 20.6 and 22.8, respectively, and for persons whose opinions were valued most highly, 29.8 and 35.1, respectively. However, the tendency to look up the scale was not equally prevalent in all neighborhoods. Residents in three of the five neighborhoods exceeded the level set by non-neighborhood residents for two of the three interpersonal relationships discussed. Therefore, no conclusion of a consistent neighborhood non-neighborhood difference is warranted.

(4) *Values and Function:* The function of intimate associates as sources of farm information must be viewed in the light of what they are able to contribute to the attainment of objectives in farming. Also, if the goal of the enterprise is merely "to make a living," the kind of information sought with respect to a particular practice is likely to be quite different from that sought if the primary goal is to make large profits. The first implies a tra-



ditionalistic orientation to farming and the legitimation of techniques in terms of established practices. The second implies an instrumental orientation which means that matters of efficiency become important in evaluating the practice. If the information obtained pertains to those who have used it locally, and whether it disrupts established social practices, this information will no doubt be functional for the farm operator who wants to adapt to the traditional norms of neighborhood living. However, the same information will be dysfunctional for the farmer whose objective requires the rational evaluation of practices as instruments for worldly success. Therefore, a complete functional analysis must be directed to both the value orientation of the individual and of the neighborhood in which he lives.

The fact that sanctions governing the use of ideas regarding agricultural techniques tend to be permissive is significant in this respect. Within broad limits, the question whether or not a particular practice will be used is a decision which the farmer himself can and must make. Consequently, it is likely that if information tends to be dysfunctional, the farmer will utilize other channels of information, depending upon his degree of commitment to neighborhood as contrasted with success norms, in cases where they differ. Thus, one may find, as did Wilkening in North Carolina (22), that there are multiple channels of interpersonal influence in the same neighborhood. That is, a channel of interpersonal influence through which farmers with traditionalistic orientations obtain information as well as other channels through which farmers with instrumental orientations obtain information.

However, the data from this study indicated that persons sought tended to rank higher in both prestige and technical competence than those seeking them. This is as would be expected where farmers are seeking information conducive to economic success in farming (22, 13, 36). It suggests a single broad channel of information seeking, and a major set of agricultural values which emphasize the value of new technology in farming. Apparently, the differences in rational orientation occurring among people in different neighborhoods and between neighborhood and non-neighborhood residents were differences in degree only.

## SOCIAL CLASS AND COMMUNITY PRESTIGE

### Nature of the Prestige Structure.

Among the important social structures in rural communities are social classes. While they infrequently, if ever, exist as real functioning social groups, they consist of a multiplicity of individuals of similar prestige

who regard themselves as members of the same social class. Others are regarded as members of a different class or classes. As such, social classes operate as constructed reference groups (25) which are functionally important in the selection of associates and the choice of behavioral norms. Being recognized as social entities by local people, they serve as objects of orientation in the selection of associates and, perhaps, as sources of information. Therefore, the existence of well-defined social classes in a community is likely to restrict the range of choice of individuals as sources of information. Whether this hinders or facilitates the diffusion of scientific farm information cannot be predicted accurately from this information alone. As when considering the function of the neighborhood, it is necessary to know (1) the distribution of qualified persons throughout the social class hierarchy, (2) the norms and objectives of local farmers, and (3) whether in reality the selectivity of associates on a class basis does influence the activity of seeking scientific farm information.

Among the many methods which have been used to investigate social class structures of rural and urban communities, the one using ratings of individual farm families by selected judges was chosen as most feasible for this study. This was supplemented by questioning farm operators concerning the existence of symbols of social class placement. However, conclusions concerning the hierarchical social structure in the community depended primarily upon the ratings made by 16 judges. Although an attempt was made to select judges in a manner representative of socio-economic status, length of residence, education, income, age, and spatial location in the community, final choice had to be made primarily on the basis of willingness to cooperate. Therefore, no claim is made for random selection of judges. Similar difficulties seem to have accompanied all studies of social classes in rural communities. In fact, the enforced selectivity of judges has elsewhere been taken as a significant indication of a value orientation characteristic of persons possessing social class images. In other words, willingness to cooperate depends to some extent upon holding value orientations that are both a source and a result of the hierarchical ranking of individuals in the community. (For a detailed analysis of the rating procedure used see reference 20).

Eleven farm operators and five sons of farm operators complied with the request to rate every farm operator with whom they were sufficiently well acquainted. The five youthful raters were students at the University of Missouri at the time. Names of heads of farm households were placed on index cards and individual raters were given free choice in selecting the number of hierarchical categories to be used in ranking the persons. Permitting this element of choice to remain in the hands of the judges en-

abled the investigators to study the degree of consensus among the judges regarding their respective images of the social strata in the community.

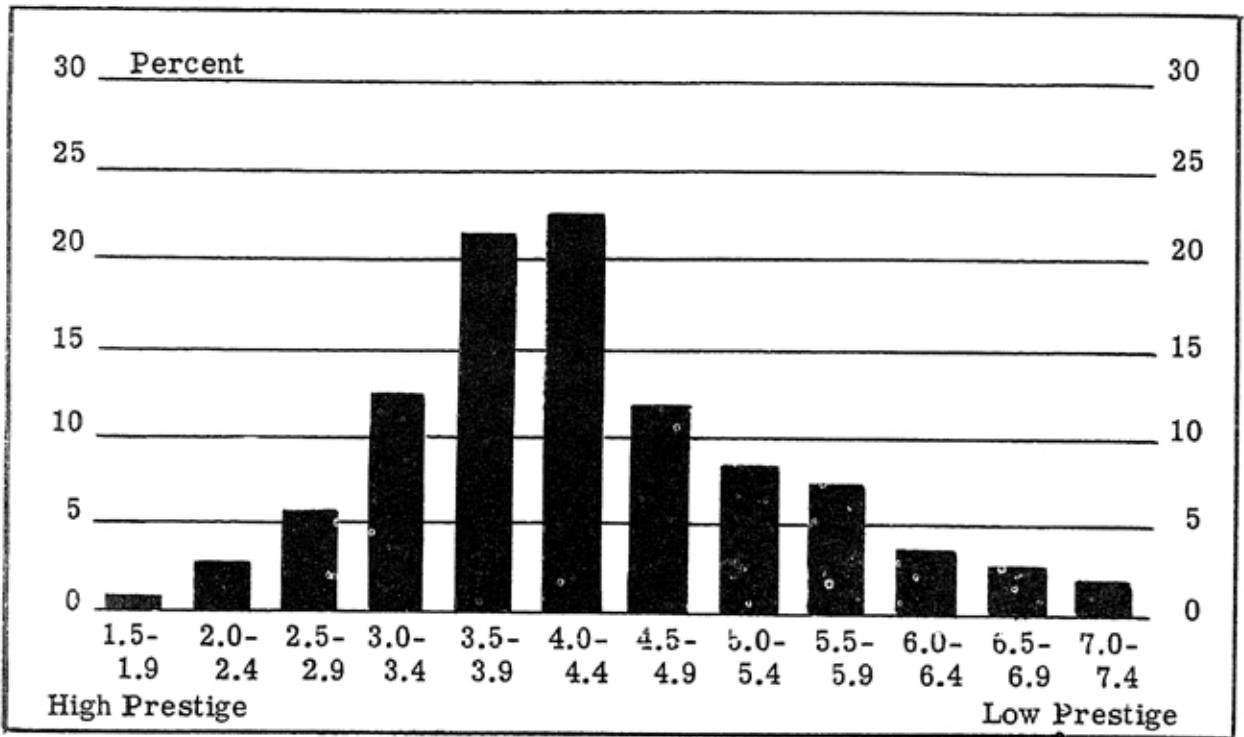
Where distinct social classes exist, a rather high degree of agreement is expected concerning the number of categories to be used in the placement of individuals. Lack of such agreement may be taken as evidence of the non-existence of commonly recognized social class images. In this study, one judge used two classes in rating heads of farm households, three judges used three classes, four used four, three used five, one used six, two used seven and two used eight.

In view of the disparity in the categories used by judges, it seems likely that commonly recognized social classes did not exist. A gradation in prestige quite devoid of class structure seemed to be indicated. This conclusion was further supported by the failure of the respondents to employ class names in locating particular persons in the prestige hierarchy. Parenthetically, widespread use of common class designations frequently has been taken as significant evidence of the existence of social classes, and the lack of such designations as evidence of their absence.

Since the evidence discounts the existence of social classes one may assume that each judge was attempting to place the heads of farm households in a hierarchical arrangement similar to his image of the prestige structure of the community. Therefore, in order to arrive at a common measure of the position of every individual, some means had to be used to convert all ratings to a common scale. One means of determining a composite score is to average the rank scores for every individual. However, this is hardly satisfactory because it accords the same weight to each rank score irrespective of whether a given rank may occur in a series of three, four, five, . . . or eight. Obviously, being placed in the second rank of a hierarchy of three does not have the same meaning as being placed second in a hierarchy of eight. Consequently, a way had to be devised to convert ratings to a common scale. After considering various techniques it was decided to change each judge's ratings to standard scores by use of the following formula: (26)

$$T\text{-score} = \frac{(\text{assumed new standard deviation}) (\text{Rank score} - \text{mean})}{\text{standard deviation} + \text{new assumed mean}}$$

To retain some degree of conventionality in numbering, rank scores were converted to standard scores having a range from 0 to 10 and a mean of five. Standard scores computed from rank positions assigned to each operator were then added and averaged to determine his composite prestige score. These scores will be referred to subsequently as community pres-



**Figure 3—Community prestige ratings of the farm operators studied.**

tige ratings or simply as prestige ratings. For descriptive purposes, individuals were placed in one-half unit class intervals ranging from 1.5 to 7.5 with low scores representing high prestige. (See Figure 3.)

#### Prestige Rating of Seeker in Relation to Person Sought.

Despite the absence of social classes, some rather clear cut relationships occurred between the prestige ratings of seekers of information and those named as sources. Briefly, in all three of the information seeking relationships with which we have been concerned, the persons sought had higher prestige ratings than the community average.

The average prestige rating was 3.9 for all farm operators named as sources and the same for those named as *most frequently sought*. For the most highly qualified persons, the "local influentials," the average rating was 3.0. The average for all farmers in the community was 4.2, so farmers named as sources in each of the three relationships were well above the community average.

It follows that the most common form of information seeking pattern was for a seeker to choose someone ranking higher in community prestige than himself.

In the ISR (information seeking relationship) involving *all* information seekers and *all* persons named as sources, the average prestige rat-

ing of the sources was 0.67 points higher than that of the seekers. For the ISRs involving persons named as *most frequently sought* the figure was similar, but for ISRs involving "local influentials" the average upward look was 1.4 prestige points. Often, the farm operator chosen as a source ranked much higher than the 0.67 prestige units above his advisee. Sometimes, as was particularly true in information seeking from "local influentials" (See Figure 4), the choice of a source actually spanned the entire scale of community prestige.

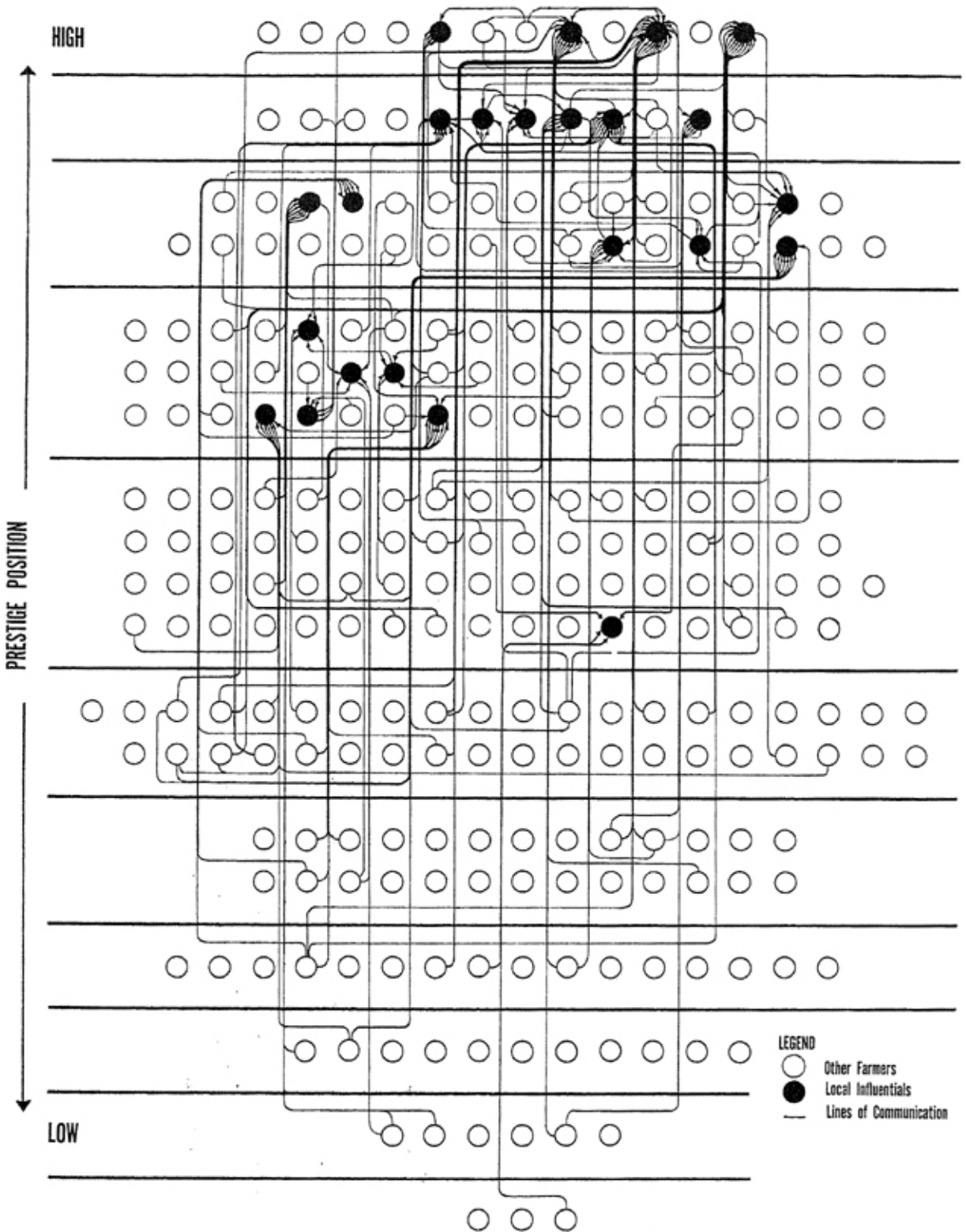
On the other hand, farm operators frequently sought the advice of others possessing less community prestige than themselves; it was not uncommon for the disparity to be as much as 1.5 to 2.0 prestige units. The inclination to seek information from farm operators lower on the scale than themselves diminished as the selectiveness increased. (ISRs involving *all* persons sought were regarded as the least selective, those with "local influentials" the most selective, and those with persons named as *most frequently sought* intermediate.) The tendency to choose farmers at greater distances up the prestige scale increased with increase in selectivity of the relationship. This, in a sense, was illustrated by the greater distance seekers looked when seeking advice from "local influentials" than when seeking information from farm operators not so designated. The major limitation to this general principle was the prestige position of the seeker. For example, seekers at the top of the prestige scale could choose only from prestige equals or those lower than themselves.

### Prestige as a Barrier.

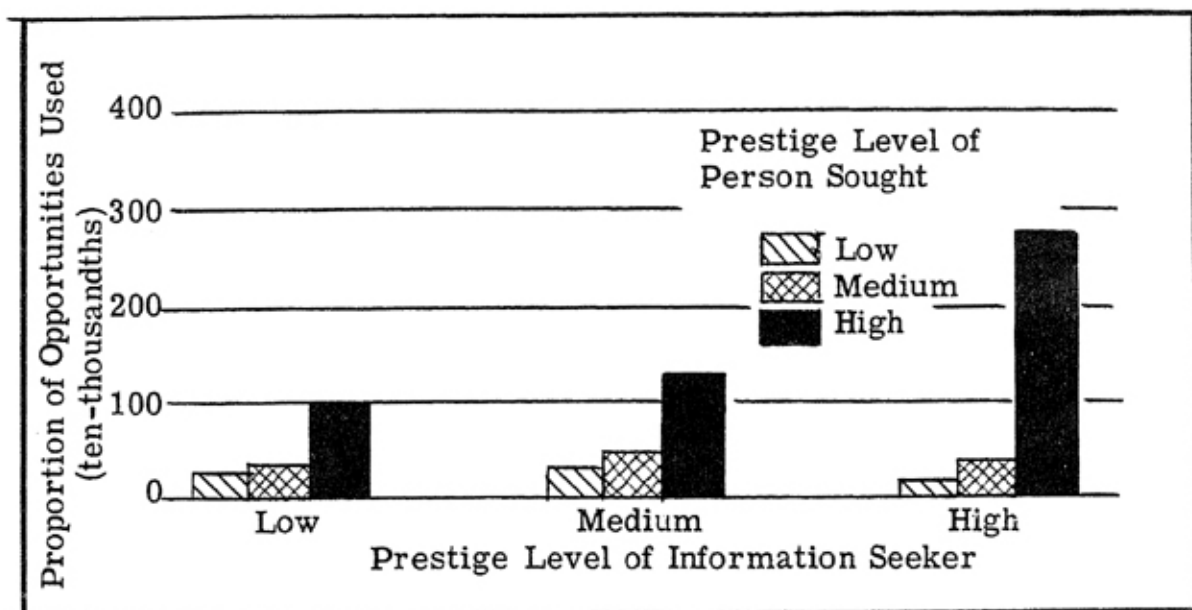
It was obvious from the foregoing that prestige was a structuring factor in interpersonal relations involving the communication of farm information. But whether it served to the advantage of some information seekers and to the disadvantage of others is a question to be investigated. Although data suggested that it did not serve as a barrier, definite conclusions were not warranted until allowance was made for differences in opportunities for selection of sources. Consequently, the choice of persons as sources was compared with the numerical opportunities for selection. It was believed that if use rates were not proportionate to the possible number of persons from whom choice could be made, there would be some reason to believe that prestige differences did restrict communication.

From the standpoint of procedure, it was a relatively simple matter to compute the number of contacts between farm operators holding different positions on the prestige scale.† However, computation of the possible number of persons with whom contacts might be made posed the

†For convenience and simplicity three prestige categories were used, high (1.5 to 3.4), medium (3.5 to 4.4), and low (4.5 to 7.4).



**Figure 4—Prestige position of “local influentials” and farm operators seeking farm information from them.**



**Figure 5—Proportionate use of high , medium, and low prestige persons as sources of farm information by high, medium, and low prestige seekers.**

additional problem of defining the universe of contact opportunity. As suggested elsewhere, such a universe ideally should be one "in which there is ample opportunity for interpersonal contact among all the persons involved and one in which patterns of association are relatively self-contained. These ideals can, of course, only be approximated in actuality." (For a more detailed consideration of this matter see reference 27.) Although the area included within the boundaries of the community fell somewhat short of this ideal, it proved to have considerable merit. As already shown, a high proportion of the information seeking relationships of those living on the extremities of the community (76 percent) were confined to the residents of the community. Also, the opportunities for personal contact within the community were many and recurrent.††

Accordingly, the possibilities for contacts among farm operators within each prestige category were computed. For example, the possible number of contacts of farm operators with other members of the same category is equal to  $N(N-1)$ , where  $N$  equals the number of farm operators in the prestige category. The possible number of persons of different prestige categories with whom contacts may be made is equal to the total number of farm operators in one prestige category times the number in another category. The ratio of the actual number of persons sought as personal sources to the total that could be sought was computed from these data.

The results of this analysis, for all persons sought as sources (Figure 5), suggest three conclusions concerning the effect of difference in com-

††The assumption of relative equality of opportunity is basic to the analysis here and elsewhere in the bulletin. Also there is an implied assumption of equality of need for information which seems a safe assumption here but which may not be true under other circumstances.

munity prestige. First, it is evident that farm operators of all three prestige categories—high, medium, and low—used more of their opportunities for ISRs with farm operators in a higher prestige category than with operators in their own, or a lower category. High prestige farm operators, of course, were limited to persons of their own or lower prestige categories for their choices. Thus, they showed a much greater preference for other members of their own prestige category. This is merely a reflection of the previously observed tendency for farm operators to choose persons "standing higher" in terms of community prestige than themselves. A chi square test applied to the data indicated that the over-all distribution of information seeking relationships among various prestige categories was significantly different from what might have been expected to occur due to random variation. ( $X^2=381.08$ ;  $df=9$ ;  $P < .01$ )

Notwithstanding the inclination to look up the prestige scale for sources of information, the evidence suggested that prestige differentials did restrict contacts. Medium prestige farm operators utilized a smaller proportion of their opportunities to contact high prestige farmers than did those of high prestige; low prestige farm operators used even fewer of their opportunities to contact high prestige farmers. (The percentage of opportunities utilized in each case was small but the actual figures were less important than the relationship among them. Upper class farm operators made use of 263 ten-thousandths of their possible opportunities to contact other upper class farm operators, compared with 135 and 94 ten-thousandths for middle and lower class farm operators, respectively.)

Furthermore, the progressive decline in proportionate use of high prestige farmers by low and medium prestige farmers was balanced by a graduated increase in the proportionate use of the opportunities with members of their own classes; i.e., the less they contacted high prestige operators, the more they contacted farmers in their own prestige class. This could be interpreted to mean that the general upward look for sources of farm information was tempered by distance on the prestige scale. Although this slight but significant tendency was in evidence, it was subordinate to the dominant pattern in which farm operators at all prestige levels used many more of their ISRs with high prestige farmers than with those at or below their own level.

The general significance of this structural pattern necessitates an examination of the relationship between prestige and competence to give advice.

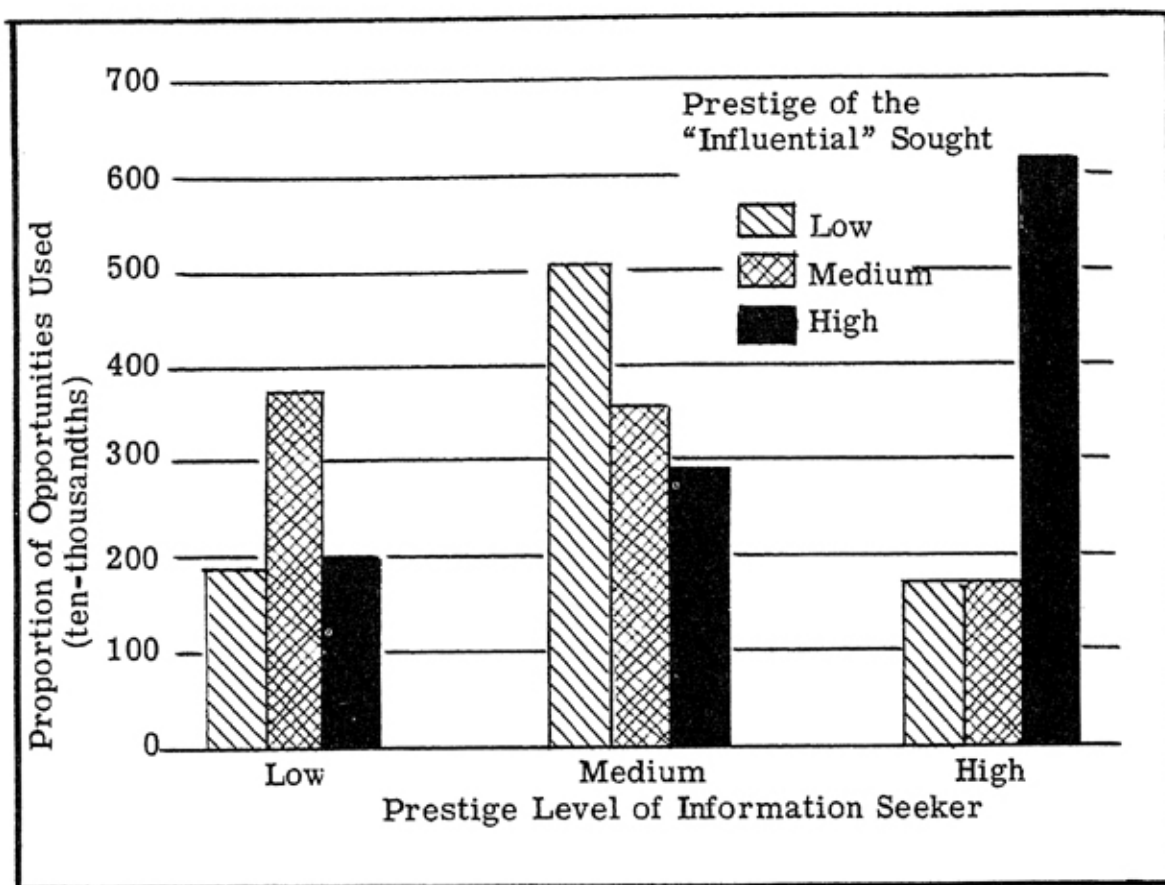
Technological competence was defined previously in terms of the use of appropriate improved farm practices. Defined in this manner, it is possible to say that a simple correlation of 0.40 occurred between com-



munity prestige and technological competence. This shows a low but significant relationship between the two factors. In other words, the practice of looking up the prestige hierarchy to sources of information denoted a willingness to transgress prestige barriers in the interest of obtaining information from competent sources. At the same time, the relatively limited degree of the association between improved practice ratings and community prestige suggested that failure to look to higher prestige sources did not necessarily deprive the farm operators of the possibility of associating with qualified sources. This latter conclusion is substantiated by a direct comparison of the prestige ratings of farm operators seeking information and the rates at which highly competent sources of information were utilized. Significantly, farm operators from all three prestige categories—high, medium, and low—made relatively greater use of opportunities for contacts with highly competent persons as sources of information than with less competent ones.

In further pursuit of the manner in which prestige may structure the communication of farm information we now turn to the second type of information seeking relationship (ISR), namely, those in which farm operators were named as *most frequently sought sources*. The selectivity in this case is primarily one of frequency of contact. Therefore, it does not necessarily mean these farmers were technologically more competent to give advice than those who were named as sources without regard to frequency of contact. In any case, the patterns of association in so far as prestige was a factor, were much the same as for those involving *all* persons named as sources of farm information. The most noteworthy difference was the smaller proportion of total opportunities used by seekers. This is a logical result of the limited number of persons any individual can "most frequently seek." It does not affect our conclusion concerning the effect of prestige on patterns of information seeking. The smaller size of the chi square for this type of relationship ( $X^2=117.8$ ;  $df=9$ ;  $P < .01$ ) as compared to that for relationships involving *all* personal sources was likely due to the smaller number of cases involved and not to a reduction in significance of prestige in relation to the selection of persons as most frequently sought sources of farm information.

The third ISR type considered in an effort to determine the possible restrictive influence of prestige on choice of persons as sources of farm information was the type involving "local influentials." This type of relationship assumed a salient importance because of the key positions held by "local influentials" in the communicative structure and because of their likely competence to give advice on matters related to farming. Not only did "local influentials" stand high on the prestige scale, but their average



**Figure 6—Proportionate use of high, medium, and low prestige “influentials” as sources of farm information by high, medium, and low prestige seekers.**

improved practice rating was twice that of other people in the community. (13) While previously we indicated that people seeking information looked to “local influentials” higher in the prestige scale than themselves, the question of whether or not prestige differentials tended to restrict communication with them was not determined. Figure 6, which is a graphic portrayal of the proportion of contact opportunities utilized by high, medium, and low prestige seekers and “influentials,” reveals that no single clear cut pattern of relationship existed in the community studied. In view of this inconsistency, the meaning of an otherwise significant chi square is somewhat obscure. ( $X^2=9.4$ ;  $df=4$ ;  $P < .05$ ). Nevertheless, of the three ISR types considered, the tendency to ignore prestige differences was strongest in the one involving “local influentials.”

## SOCIAL CLIQUES

### Nature of the Clique Structure.

Social cliques are composed of a small number of families that accept each other as social equals and associate with each other as “friends,”

largely to the exclusion of the rest of the community. Basically, they are non-kindred groups which satisfy many of the socio-psychological needs which presumably were satisfied by the neighborhood before the advent of cliques. There are several important similarities as well as equally important differences between social cliques or friendship groups, and neighborhoods. These should be made clear at the outset. Both are what in many respects might be called *gemeinschaft* groups; but whereas the neighborhood in the ideal case is a *gemeinschaft* inclusive of all those in the same locality, the clique is a *gemeinschaft* of those who have similar interests and esteem to the exclusion of others in the same locality. The neighborhood derives from people who have common locality status, while the clique derives from those having mutual interests not directly associated with a given locality. For example, it was noted with respect to many status characteristics, as well as with the prestige of farm operators, that neighborhood residents did not differ by specific neighborhoods or from all farm operators in the community in so far as average ratings were concerned. However, such was not the case for members of social cliques. As will be shown, clique members ranked higher in prestige than the average of all farm operators. Moreover, as has been shown elsewhere, social cliques differed significantly among themselves with regard to the mean prestige of their membership (20). Generally speaking, neighborhoods have a permanence beyond the life span of any one individual, whereas cliques have no permanence beyond the existence of the persons who share common interests.

From one point of view, neighborhoods and cliques are manifestations of two divergent types of society. The neighborhood, ideally, is the product of a society which institutionalizes strong particularistic, or ascriptive values, or both, while the clique functions as an adaptive structure in a society which institutionalizes universalistic or achievement values, or both. From this point of view the clique may not be a neglected phenomenon in rural society as some have felt (28) but rather it represents a new phenomenon which is an accompaniment of the change from a traditionalistic, self-sufficing agriculture to a commercialized agriculture and an urbanized rural society (20) that has become spatially more mobile and more selective with respect to intimate association.

The clique, like the neighborhood, is likely to become an important social structure in the diffusion of farm information since, like all social systems, it has both passive and active mechanisms of social control. On the passive side, the clique serves as an object of orientation in social relationships which involve expressive friendship interests. At the same time, norms of the clique specify attitudes of superiority and exclusive-

ness toward outsiders, primarily on the basis of differences in prestige. Group members also may be actively subjected to ridicule and expulsion for association with "the wrong people." Clearly, mechanisms of inclusion and exclusion such as these may be very important, in the one case restricting and in the other facilitating the diffusion of farm information.

Cliques were determined in the community by first asking the question, "Who are your best friends?" On the basis of the replies, interlocking pairs of mutual "best friend" choices were established. An additional requirement was met by establishing the fact and nature of association. When subsequent analysis indicated that the latter was lacking, follow-up interviews were taken with selected key people in the community to fill in the gaps. Thus, the existence of mutual interlocking choices, along with evidence of actual group association, constituted the basis for the determination of cliques.

In this manner 18 mutual "best friend" groups were determined. They included 69, or nearly one-fifth of the farm families in the community. In addition to these groups, which may be called cliques in the strict sense of the term, there were 11 additional "best friend" arrangements which might better be described as kinship groups, work exchange groups, and chains of best friends that were not mutually interlocking, or did not participate together as if they were social equals. Structurally, and in many respects functionally, this latter type of informal social group is quite different from the clique. However, since it had been shown elsewhere (28) that both functioned in much the same manner in the diffusion of farm information, they were treated under the designation of "informal social groups." Separate designation was used only when differences in the influence of the two types of structures were apparent.

Social cliques in the community studied were characteristically a middle and upper class phenomenon. Almost half of *all* clique members, were members of the upper prestige class, i.e., with a prestige rating above 3.5. On the other hand, less than 15 percent were members of the lower prestige class, i.e., with prestige ratings 4.5 and below. The average prestige of the 69 clique members was 3.7, compared to 4.2 for all farm operators. Thus, in the aggregate, those who belonged to social cliques were held in higher esteem than those who did not.

While social cliques are undeniably an important and permanent part of the community social structure, the impression gained from a variety of observations is that they represent a relatively new phenomenon. In the first place, with one exception, cliques were not recalled by proper names, such as the "Four Hundred" or "Hill Crowd." Naming is one of the most elementary bases by which socially important entities are identi-

fied. Thus, the absence suggested that the cliques were not permanently established.

Along with this absence of names there was a general lack of awareness that cliques existed in the community. Ordinarily, farmers could identify few people who were members of cliques even though about one-fourth of them were members of one. This may be partially understandable in view of the traditional antipathy that rural people have maintained toward "cliquishness," "snobbishness," and other similar traits generally assumed to be associated with the evils of urbanity as contrasted with the friendliness and "wholesomeness" of rural neighborhood and community living. Thus, farm people were not inclined to identify these social groups as cliques even when their existence was known.

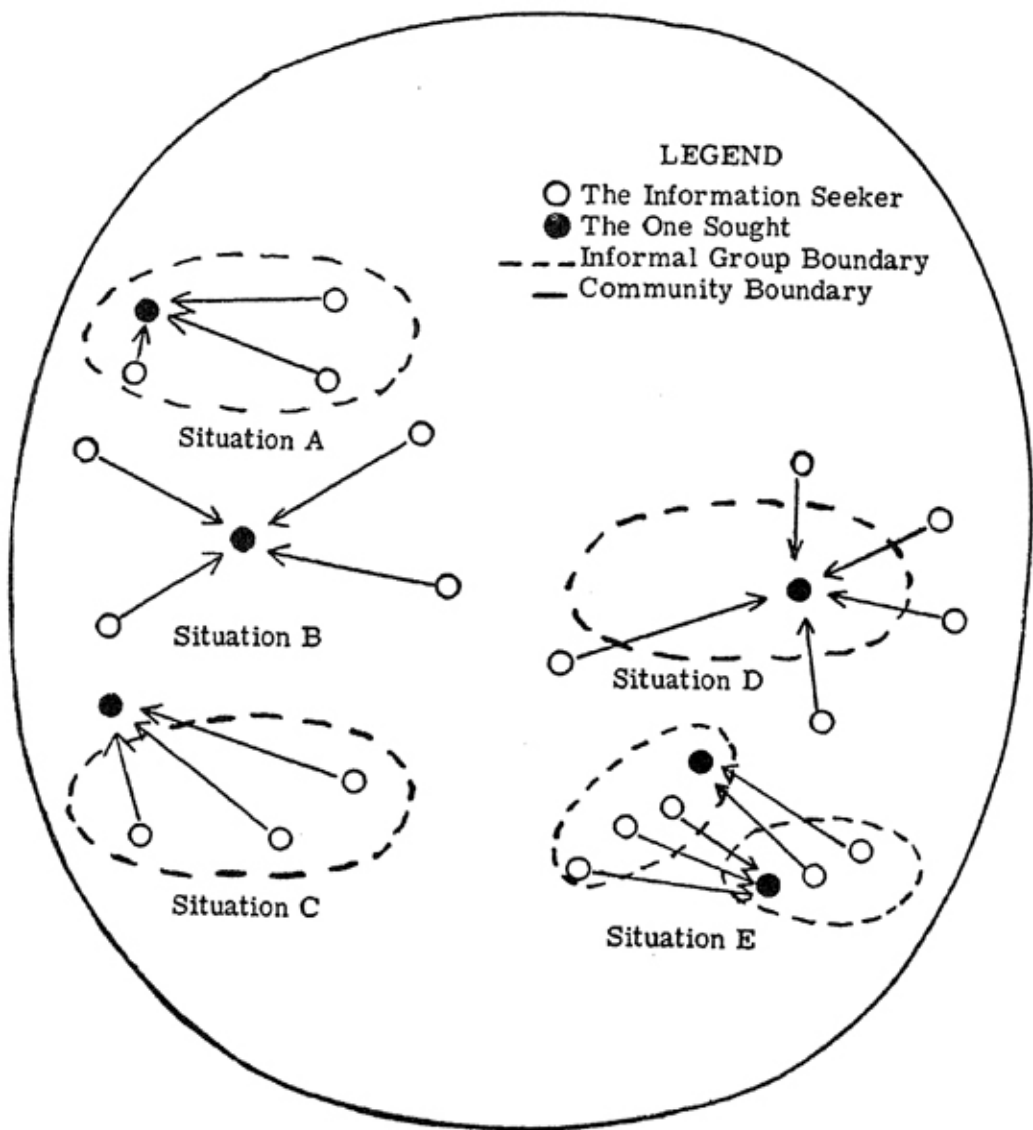
The fact that clique membership was largely confined to young farm operators in the community was further evidence that clique participation was representative of a newer set of values. Whereas, 62.0 percent of the farm operators in the area studied were under age 55, a total of 81.2 percent of the clique members were under this age limit. Data of this type, of course, must not be taken as proof that cliques are indicative of a newer secularized rural society in which monetary success in farming is the most important basis of esteem. However, they are consistent with it.

### Clique Structure in Relation to the Diffusion of Farm Information

Regarding the relation of cliques and other elementary informal social arrangements to the diffusion of farm information, there seemed to be five different situations involving mechanisms of group inclusion and exclusion. They were:

- A. Situations where both the information seeker and the person sought were members of the same informal group.
- B. Situations where neither the seeker nor the person sought was a member of any informal group.
- C. Situations where the seeker was a member of an informal group, but the person sought was not.
- D. Situations where the person sought was a member of an informal group, but the seeker was not.
- E. Situations where the information seeker and the person sought were members of different informal groups.

These alternatives will be referred to as situations A, B, C, D, and E in the following discussion. Figure 7 may help visualize the five different situations in which aspects of the social control of informal social groups may be involved.



**Figure 7—Informal social groups and the interpersonal communication of farm information: A diagrammatic representation of possible situations.**

Situation A might be considered most favorable to the diffusion of farm information. Basic to this reasoning is the relatively homogeneous composition of informal groups, the facilitation of personal contacts within, and the reliance farmers commonly place upon the opinion of close friends and associates. Since no informal group social structures of the type considered are involved in Situation B, it may be assumed that this situation represents somewhat of a neutral point on a gradient between Situation A which may facilitate communication and the remaining situations which may tend to inhibit it. Situations C and D in one sense are the reverse of each other. Analytically, Situation C portrays the condition in which clique members are subject to informal group sanctions against interacting with persons outside the group. On the other hand, Situation

D describes the case in which persons outside the group are met with attitudes of superiority or exclusiveness which tend to inhibit the contact and interaction of those within and without the informal group structures. Finally, both the inclusive and exclusive informal group sanctions are involved in Situation E where a person seeking information is a member of one informal group and the individual sought as a source of information is a member of another such group. Analytically, this situation would seem to represent an extremity of inhibition imposed by informal group structures of the type considered.

This hypothesized gradient of informal group influence may be examined in terms of the three previously used types of person-to-person relationships (IRs) and one additional personal preference relationship. It will be recalled that the three IRs were:

1. Contacts with farm operators designated as personal sources of farm information.
2. Contacts with farm operators named as those *most frequently sought* as sources of information.
3. Contacts with farm operators operationally defined as "local influentials."

The personal preference relationship concerns farm operators who were named as those whose opinions were most highly valued on matters related to farming. Although no direct contact is indicated in this evaluative relationship, it seems reasonable to assume that, in the absence of informal group sanctions of one kind or another, farm operators would most frequently seek the advice of those whose opinions they valued most highly. Any failure to name a number proportionate to opportunities available in any of the Situations A through E might be regarded as evidence of the presence of restrictive informal group sanctions.

The problem for analysis was to determine for each of the five situations, the relative proportion of the persons who *could have been named* and those *actually named* as sources for each of the IRs considered. This was similar to the problem encountered with the structuring influence of prestige on information seeking relationships. As before, using the community as the practical limit of contact opportunity, a utilization rate was computed for each of the five situations involving informal group sanctions. (For a more complete description of procedure see reference.27.)

Of the 430 persons named as sources of farm information, 33 percent were Situation B cases in which no informal group sanctions of the types considered were involved. Situation D cases, where operators sought were members of informal groups but operators seeking them were not, comprised slightly over 25 percent of the responses. The remaining cases were

divided almost equally among situations A, C, and E.

Rates of persons named in relation to the number possible in each of the analytical situations indicated that only Situation A, in which informal group sanctions were assumed to facilitate communication, was significantly different from the others. (See Table 7.) More than 16 percent of the

TABLE 7. INFORMATION-SEEKING RELATIONSHIPS OF FARM OPERATORS WITH OTHER OPERATORS NAMED AS SOURCES OF INFORMATION: ACTUAL AND POSSIBLE RELATIONSHIPS AND THEIR RATIO, BY TYPE OF GROUP PATTERN INVOLVED

Informal group pattern	Possible relationships	Actual relationships	Ratio, actual to possible*
	Number	Number	Percent
A. Seeker and person sought belonged to same informal group . . . . .	534	86	16.1
B. Neither seeker nor person sought belonged to any informal group . . . . .	21,756	144	0.66
C. Seeker belonged to an informal group, but the person sought did not . . . . .	19,388	49	0.25
D. Seeker did not belong to an informal group, but the person sought did . . . . .	19,388	108	0.56
E. Seeker and the person sought belonged to different informal groups . . . . .	16,496	43	0.26
All five patterns . . . . .	77,562	430	0.55

\*Percent actual contact relationships are of those possible.

possible relationships in Situation A were utilized, compared with less than 1 percent in each of the other situations. The differences from Situation A are all significant below the 1 percent level. Thus, in the ISRs involving all persons named as sources of farm information, informal group structure seemed to facilitate the exchange of information among group members. There was no evidence to indicate that they restricted relationships in situations which involved the crossing of informal group lines. Separate consideration of social cliques and informal aggregates of a non-clique nature revealed nothing to change these general conclusions. However, there was an indication that the facilitating influence on the exchange of farm information was somewhat greater for social cliques than for informal groups of a non-clique nature.

Informal group structures functioned much the same in ISRs involving persons *most frequently sought* as in those involving *all* persons. The 159 information seeking relationships involving persons *most frequently named* were distributed among situations A through E in the following manner: 31, 30, 7, 21, and 11 percent, respectively. Thus, over two-thirds of the relationships involved informal group structures of one kind or another. When ISRs with *all* persons named as sources of farm information were considered, only Situation A possibilities were utilized in a manner significantly different from the others (See Table 8.). Over 9 percent of



TABLE 8. INFORMATION-SEEKING RELATIONSHIPS OF FARM OPERATORS WITH OTHER OPERATORS NAMED AS MOST FREQUENT SOURCE OF INFORMATION: ACTUAL AND POSSIBLE RELATIONSHIPS AND THEIR RATIO, BY TYPE OF GROUP PATTERN INVOLVED

Informal group pattern	Possible	Actual	Ratio,
	relation- ships Number	relation- ships Number	actual to possible* Percent
A. Seeker and person sought belonged to same informal group . . . . .	534	50	9.36
B. Neither seeker nor person sought belonged to any informal group . . . . .	21,756	48	0.22
C. Seeker belonged to an informal group, but the one sought did not . . . . .	19,388	11	0.06
D. Seeker did not belong to an informal group, but the one sought did . . . . .	19,388	33	0.17
E. Seeker and the one sought belonged to different informal groups . . . . .	16,496	17	0.10
All five patterns . . . . .	77,562	159	0.20

\*Percent actual contact relationships are of those possible.

the opportunities were utilized in Situation A compared to less than 1 percent of the opportunities utilized in each of the other situations. When the utilizations of contact opportunities were analyzed separately for social cliques and associations of a non-clique nature, the results were essentially the same. That is, only information seeking relationships of Situation A proved to be distinctively different regarding the proportion of opportunities utilized. However, a small but significant difference was also found between neutral Situation B and situations C, D, and E which involved group barriers of one kind or another. Since this difference was very small and was found only in patterns involving associations of a non-clique nature, no inference of inhibition due to group sanctions was justified.

The third and, in many respects, the most important ISRs to be considered were those involving "local influentials." "Local influentials," being above average in prestige, were more likely than others to be members of cliques and other types of informal association. This was demonstrated by the fact that 77 percent were members of informal groups of one kind or another compared to 35 percent of the non-influentials. One or more "local influentials" were members of 10 out of the 29 informal social groups considered in this section.

One hundred ninety of the 430 information seeking relationships (42.4 percent) were with "local influentials." These ISRs were divided among analytic situations A through E in the proportions of 19, 16, 18, 31, and 14 percent, respectively. Thus, the greatest number were of type D in which the "local influential" was a clique member and the seeker was not. About five-sixths of these ISRs involved informal social group structures of one kind or another.

TABLE 9. INFORMATION-SEEKING RELATIONSHIPS OF FARM OPERATORS WITH "LOCAL INFLUENTIALS:" ACTUAL AND POSSIBLE RELATIONSHIPS AND THEIR RATIO, BY TYPE OF GROUP PATTERN INVOLVED

Informal group pattern	Possible relation- ships	Actual relation- ships	Ratio, actual to possible*
	Number	Number	Percent
A. Influential and seeker belonged to same informal group . . . . .	86	36	41.9
B. Neither influential nor seeker belonged to any informal group . . . . .	294	30	10.2
C. Influential did not belong to an informal group, but the seeker did . . . . .	262	34	13.0
D. Influential belonged to an informal group, but the seeker did not . . . . .	2,960	58	2.0
E. Influential and seeker belonged to different informal groups . . . . .	2,515	27	0.9
All five patterns . . . . .	6,117	185**	3.0

\*Percent actual contact relationships are of those possible.

\*\*Five unknowns excluded from total.

It was in this, the most selective ISR, that the greatest diversity of utilization rates occurred in analytical situations A through E. Table 9 shows that 41.9 percent of the ISR possibilities were used in Situation A. This figure may be compared with 10.2 percent in neutral Situation B and 13.0 percent in Situation C where the seeker had to go outside his own informal social group. However, in situations D and E where the seeker was faced with informal social group sanctions against interaction with outsiders, only 2.0 percent and 0.9 percent of the ISR opportunities were used. Both of these last two percentages are significantly smaller at the 1 percent level than the 13.0 percent of the ISR opportunities utilized in Situation C. Moreover, small as it is, the difference between situations D and E is significant at the 5 percent level.

When ISRs with "local influentials" involving social cliques were considered apart from those involving informal social arrangements of a non-clique nature, the ISR utilization gradient was even more in evidence. The rates at which opportunities were utilized in situations A through E were 40.4, 14.1, 4.3, 2.1, and 1.8 percent, respectively. Except for the difference between D and E, all were statistically significant at the 1 percent level. The only significant difference in utilization rates involving informal social arrangements of a non-clique nature was between Situation A and all of the others.

Heretofore, we have been concerned with the manner in which actual information seeking relationships were affected by clique and other informal social structures. Another aspect of the problem involves the relationship of these structures to the attitudes that farm operators have toward

those regarded as the most valued sources of farm information. There are two phases of the analysis of this relationship in the present context. The first concerns the location, with respect to the five analytical situations, of the persons named and the persons naming most-valued sources. The second relates to the extent to which most-valued sources are actually *most frequently sought* as sources of farm information in each of the five analytical situations.

As might be expected farm operators who were informal group members named more fellow group members as most-valued sources of farm information than did those who were members of other groups or were members of no informal social group. About 9 percent of the choice opportunities were utilized in Situation A compared with less than 1 percent in situations B through E. These differences are statistically significant. The same kind of difference was in evidence when only social cliques were considered. With informal groups of a non-clique nature, the only significant difference was between situations A and B on one hand and all others on the other.

The preference that farm operators had for members of the same informal group was accompanied by a similar preferential pattern for persons named as most-valued sources; i.e., persons whose opinions were valued most highly. In Situation A, 43 percent of the farm operators named as most-valued personal sources of farm information were also named as *most frequently sought*. Comparable percentages for situations B, C, and D were 15, 12, and 9, respectively. In Situation E where the seeker and the person sought were in different informal social groups, which presumably is the situation where group barriers are maximized, the rate was 25 percent. Large as it may seem, the percent was not significantly different from those occurring in situations B, C, and D. Thus, farm operators most frequently tended to pick most-valued personal sources of farm information from their own informal group. Moreover, having made the selection, they consulted with them more frequently than in situations where informal groups were involved in other ways. However, there was little evidence that informal groups operated as important barriers in this respect.

A review of the data substantiates only in part the hypothesis of a facilitation-inhibition gradient. At most points the analysis has pointed to the existence of dichotomous differences rather than a continuum, with Situation A representing the most opportune condition for the use of contact opportunities and the remaining situations, B through E, representing the least opportune. Significantly, the most clear-cut evidence for the existence of a gradient comes from the analysis of informal group structures and

ISRs involving "local influentials," which is the most selective and in many respects the most significant ISR considered. The gradient was particularly in evidence when cliques, alone, were considered.

Although statistical significance cannot be claimed for most of the differences, utilization rates involving *all* persons named as sources of farm information (See Table 7) revealed a close approximation to the hypothesized gradient. In this case the gradient was A-B-D-E-C. For ISRs with persons *most frequently sought* as sources of farm information the gradient order of the five situations was A-B-D-E-C. (See Table 8.) With "local influentials" the gradient was in perfect order when social cliques were considered independently. Although some differences were small, they were all statistically significant at or above the 5 percent level. When all informal groups were considered, the order was A-C-B-D-E. (See Table 9.) Differences in the percentages of opportunities used in each of the five situations were generally very small. Nevertheless, in only one of the three types of information-seeking relationships was more than one situation out of position in the hypothetical gradient. These tendencies, of course, do not establish the presence of an empirically valid gradient. However, the presence of one is strongly suggested by the ISRs involving "local influentials."

It appeared that social cliques were as strongly institutionalized in the study community as they may be in some communities. If so, this could account for the absence of large differences among the five hypothetical situations. Perhaps, as cliques become more established in rural society, their effect on the pattern of information seeking will likely become more manifest in the hypothesized manner.

### Comparative Function of Social Cliques and Neighborhoods.

In some respects, social cliques served much the same function as neighborhoods. Both tended to increase the proportion of ISRs utilized where both the seeker and the person sought were members of the same informal social group. Social cliques (as well as informal groups of a non-clique nature) also functioned in a manner comparable to neighborhoods by tending to restrict contacts to in-group members. Although both ideally are *gemeinschaft* social systems, they seem to be institutionalized in different types of society where different general value systems prevail. In accord with the general theory used in this study it would seem that locality types of social structure should be strongest where particularistic and ascriptive values are dominant, while social cliques and special interest groups seem to flourish where universalistic and achievement values predominate. Where the latter prevails, the occupational system

becomes the focus of the most important social structures; but in *gemeinschaft* social systems, intimate associates are selected on the basis of common interests and esteem, rather than on the basis of common status in a locality.

If the assumption of a similar function performed by both social cliques and the neighborhood is valid, then, irrespective of whether in practice they tend to occur where different value systems predominate, a reasonable hypothesis is that clique membership will be more prevalent among farmers living outside than among those living inside neighborhoods. This was the case. Thirty-nine percent of the farm operators living in neighborhoods were members of cliques compared to 61 percent for farm operators living outside of neighborhoods. Since this difference is significant at the 0.1 percent level, the conclusion that clique membership differs inside and outside of neighborhood boundaries seems valid.

A final datum is the relation of each type of social structure to the pattern of ISRs. This has a bearing on the contention that cliques and neighborhoods function similarly, yet ideally are products of different dominant systems of values which produce different effects on the pattern of information seeking. It may be remembered that both informal group and neighborhood structures tended to focus ISRs with *all* persons named and those named as *most frequently sought* toward fellow members. The same tendency was in evidence when relationships with "local influentials" were considered. However, neighborhood patterns influenced ISRs with "local influentials" to a much smaller degree than ISRs with *all* personal sources of farm information and with those *most frequently sought*. Yet, it was precisely this pattern involving ISRs with "local influentials" that informal groups, particularly social cliques, influenced most. In the latter case, all of the proportional differences between the analytical situations, A through E, were statistically significant, and in the hypothesized direction except one.

In view of the proposed theoretical divergence between the function of social cliques and neighborhoods, an explanation is needed for differing influence of neighborhoods and informal social groups. One possible answer is that the quest for information from "local influentials" is based upon a different type of norms than the quest for information from *all* and *most frequently sought persons*. It may be that choice of "local influentials" is based largely on rational instrumental norms relating to the use of agricultural technology while the choice of other persons is based more on traditional, non-rational norms, such as considerations of prestige and friendship.

But, it is the rational instrumental norms that are important in a

system of values emphasizing occupational system and economic institutions. These in turn, as we have suggested, institutionalize social cliques as adaptive social structures, preserving as it were a *gemeinschaft* element in a *gesellschaft* society.

Universalistic and achievement values bring an extreme individualizing pressure to bear on the person.‡ The pressure of these values tends to cut the person off from family, community, and ethnic group since the basis for choice is placed on achievement or performance rather than on ascribed characteristics, e.g., locality. In other words, the selection of intimate associates is made on the basis of mutually approved behavior-performance coordinated with common interests and esteem. Although membership in a particular locality does not provide the basis for feelings of exclusiveness in a society dominated by universalistic and achievement values, such attitudes are legitimated on the basis of differential performance (achievement). Consequently, cliques, which are based on assumed equivalent rewards, exist as an adaptive structure limiting accessibility of persons in a rationalistic social structure. In this sense, they minimize the individualizing tendencies of the dominant social structures. This being so, is it any wonder that the clique is more successful than the neighborhood in preserving exclusiveness and in-group solidarity? In the context of this type of selective interpersonal association, the exchange of information likely occurs, as in neighborhoods, both as a latent and as a manifest function of the affective relationships.

‡The interpretation here draws heavily from Talcott Parsons, *The Social System*: Glencoe, Ill., The Free Press, 1951.

# Formal Social Structure and the Diffusion of Farm Information

## GENERAL NATURE AND FUNCTION

Some groups are organized for the express purpose of disseminating farm information. As such they represent one kind of special interest organization. In the community studied, organizations of this type included the Adult Farm School, Balanced Farming groups, and a county livestock association.

Other organizations, dedicated to the more general objectives of marketing, welfare, and even to that of having a good time, sometimes promoted the exchange of farm information indirectly. Moreover, the local Grange, grain company, drainage association, extension association, and MFA Producers Cooperative occasionally dispensed farm information as a secondary function. However, their importance to the diffusion of farm information stemmed from their general orientation and social setting which facilitated discussion of farm problems and, consequently, the diffusion of some farm information. Other organizations, such as the local civic club, Parent-Teacher Associations, study clubs, and local churches, were multipurpose and generally directed their energies in other directions.

A few organizations embodied a manifest function of disseminating farm information. In this regard 26 percent of the farm operators got information from the Adult Farm School or the Veterans Farm Training Program, 7 percent from soils and crops meetings, and 8.6 percent from Balanced Farming Groups.

Farm operators who participated in organizations with broader and more general objectives than dissemination of farm information also were in a position to learn new things about farming as an indirect consequence of their activities. Farm problems of a technical nature often were a direct order of business at Grange meetings, just as they might be dealt with directly as a part of the business of a marketing cooperative. But the manifest function of such organizations with respect to the dissemination of farm information probably was not as important as their latent function. In this respect, the organization provides a time and place of meeting,

along with an orientation to farm problems and an atmosphere conducive to the exchange of ideas related to farming.

Highly qualified personal sources and a permissive social atmosphere cannot be claimed as the exclusive province of organizations with broad and general objectives. All formal organizations involving farmers as members exercise this function in some degree. Thus, the latent function of many formal organizations is similar to functions performed by such informal organizations as the clique and neighborhood.

Since almost all such organizations perform both manifest and latent functions with respect to the dissemination of farm information, participation in them is likely to increase the possession of up-to-date farming information, if the member cares to pursue this objective. Consequently, although other elements of selectivity were undoubtedly involved, farmers who participated in formal social groups were more technologically competent than those who did not; those who participated most were generally the most competent. The median improved practice rating of participants was 14.7 and the median for non-participants was 9.4. The Pearsonian correlation between the use of improved practices (improved practice ratings) and social participation (composite score) was 0.52.

Another matter pertinent to the diffusion of farm information was that persons sought as sources participated more in formal organizations than those who sought their advice. In the ISRs involving *all* persons sought as sources, comparative participation scores were 6.2 for those seeking farm information and 13.6 for those sought. For the ISRs involving persons designated as *most frequently sought*, comparative scores were 7.1 for seekers and 13.3 for those sought; for the most selective ISRs, those with "local influentials," scores were 7.05 and 24.0.

Thus, from one point of view, persons sought as sources of information were generally more accessible to farmers seeking information than were other farmers in the community. From another point of view, participation in formal organizations multiplied opportunities for obtaining farm information from the more competent personal sources. Obviously, the benefits of accessibility and opportunity for personal contact accrue to all participants in organizations.

Another matter pertinent to the latent function of formal groups in the diffusion of farm information is related to the area from which membership is drawn. The prospect for getting new ideas from outside the immediate locality is likely to be greater where membership is drawn from a large geographic area than when drawn from a small one. A classification based upon such area differences in membership appears later in the text.



## SPECIAL PROBLEMS OF MEASUREMENT AND ANALYSIS

The importance of social participation as a factor in the choice of persons as sources can be investigated by regarding it as a status factor and observing how varying degrees of participation by persons seeking information and those sought are related to the utilization of contact opportunities.

However, some special problems of measurement and analysis should be examined first. These relate to: (1) the measurement of social participation itself, (2) the difficulty of treating social participation as a status factor, and (3) the control of factors related to social participation in the choice of persons as sources of farm information.

### Measurement of Social Participation.

In measuring participation by individual farmers, consideration was given to the number of memberships and amount of participation in the organizations reported. The scoring scheme used was similar to that used by other sociologists (29 & 30). Scores assigned for participation were:

Membership	1 point
Occasional attendance	2 points
Regular attendance	3 points
Committee membership	4 points
Holding an office	5 points

Monetary contribution, ordinarily included as a measure of participation, was omitted here because it was synonymous with membership for most of the organizations considered.

Roughly, scores ranged from 0 to 50. For purposes of analysis, a classification of none (zero score), low (1 to 9), and high (10 and over) participation was used.

### Treating Social Participation as a Status Factor.

The number of opportunities farmers in each of the participation categories had for naming farmers in their own and the other categories as sources was computed. Proportions of possible relationships that actually were used in each of the nine resulting categories were then computed. This provided the basis for comparison of categories.

When using a classification system that does not provide varying opportunity for contact, the proportions defined have a clear and unambiguous meaning. However, when this sort of analysis is applied to social participation as a status factor a second element of opportunity for contact is added. Clearly, participants in a formal organization have situational opportunities to contact fellow members which non-participants do not

have. While the analysis is not concerned with participation and non-participation in specific organizations, the same general principle applies when dealing collectively with participation in formal social organizations. In other words, the classification of none, low, and high participation itself directly implies varying degrees of situational opportunities for contacts quite apart from the numbers of people involved in each cross-classification of seekers and persons sought.

Thus, even a constant utilization rate of physical opportunities by all categories of seekers, from low to high, would appear in the statistical analysis as a progressively increasing utilization rate (physical) because of the increasing underevaluation of "total" opportunities.

### **Factors Associated with Participation in the Choice of Sources.**

If the farmer who seeks the most technically competent persons considers social participation of potential sources at all, he may do so only because it is associated with or symbolizes technological competence. Thus, to the extent that organizational participation is taken as a symbol of authority or competence, individuals who place a high value upon instrumental information may select persons who participate most in formal organizations.

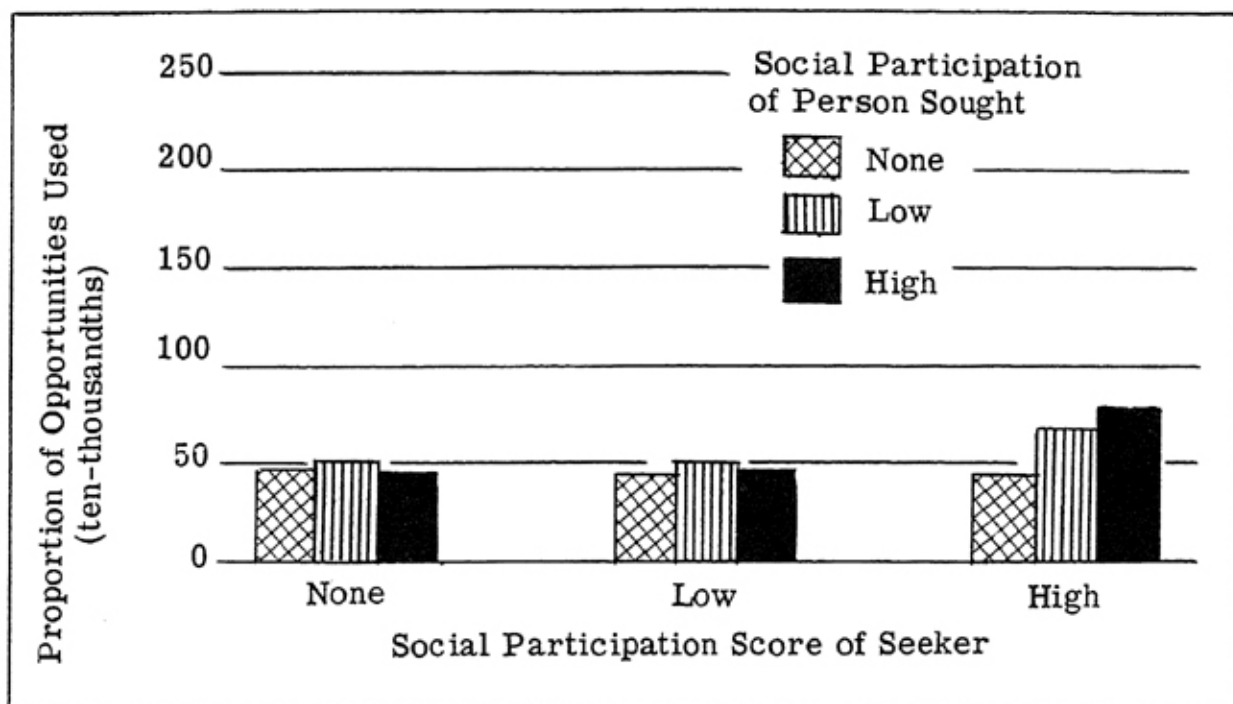
Participation in social organizations also symbolizes social standing or prestige and other things, such as civic mindedness. Whenever individuals are inclined to select sources on the basis of similar social standing, wide differentials of social participation may produce a dual orientation to the use of others as sources. That is, farm operators with high participation levels may show preference for farmers having equal or higher participation than themselves while those low on the participation scale may prefer others as sources who are on their own level.

In this connection it should also be noted that social participation was related positively to both technological competence and social standing. Therefore, both could provide a rational basis for selecting persons as sources of information. This means that a simple association between the participational status of farmers seeking information and the persons they seek may be due in part to the joint association of other status characteristics with social participation scores.

## **SOCIAL PARTICIPATION STATUS AS A FACTOR IN THE CHOICE OF PERSONS AS SOURCES**

### **Total Participation in Formal Groups.**

As in previous sections, utilization of contact opportunities in the following three information seeking relationships served as the basis for



**Figure 8—Proportionate use of persons with no, low, and high participation in formal social organizations as sources of farm information by seekers with no, low, and high participation.**

comparison: (1) *all* persons named as sources of farm information, (2) persons most frequently sought, and (3) "local influentials."

We may hypothesize that the use of opportunities for contacts that the organization offers will increase as the seeker's participation in the organization increases. However, with respect to ISRs involving *all* persons named as sources, the anticipated increase occurred only between *some* and *no* participation. The proportions of possible persons to numbers named as sources by farmers with zero, low (1 to 9), and high (10 and over) social participation scores were 46, 56, and 56 ten-thousandths, respectively. Other than this difference between information seekers with *some* and *no* social participation, there was no indication that amount of participation was a factor in increasing the number of possible relations used. Furthermore, here as in subsequent findings, we could not be sure whether the difference in utilization rates between seekers with *no* participation and *some* participation was due to a difference in information seeking activity or to situational opportunities provided by the formal groups.

However, additional light was thrown on the basis for choice by close examination of choices made by those who participated in no formal organizations. With differences in situational opportunity (i.e., those due to social participation) ruled out, proportional differences in participation categories of persons they named could be attributed to source preferences.

Figure 8 reveals that seekers who had not participated in organiza-

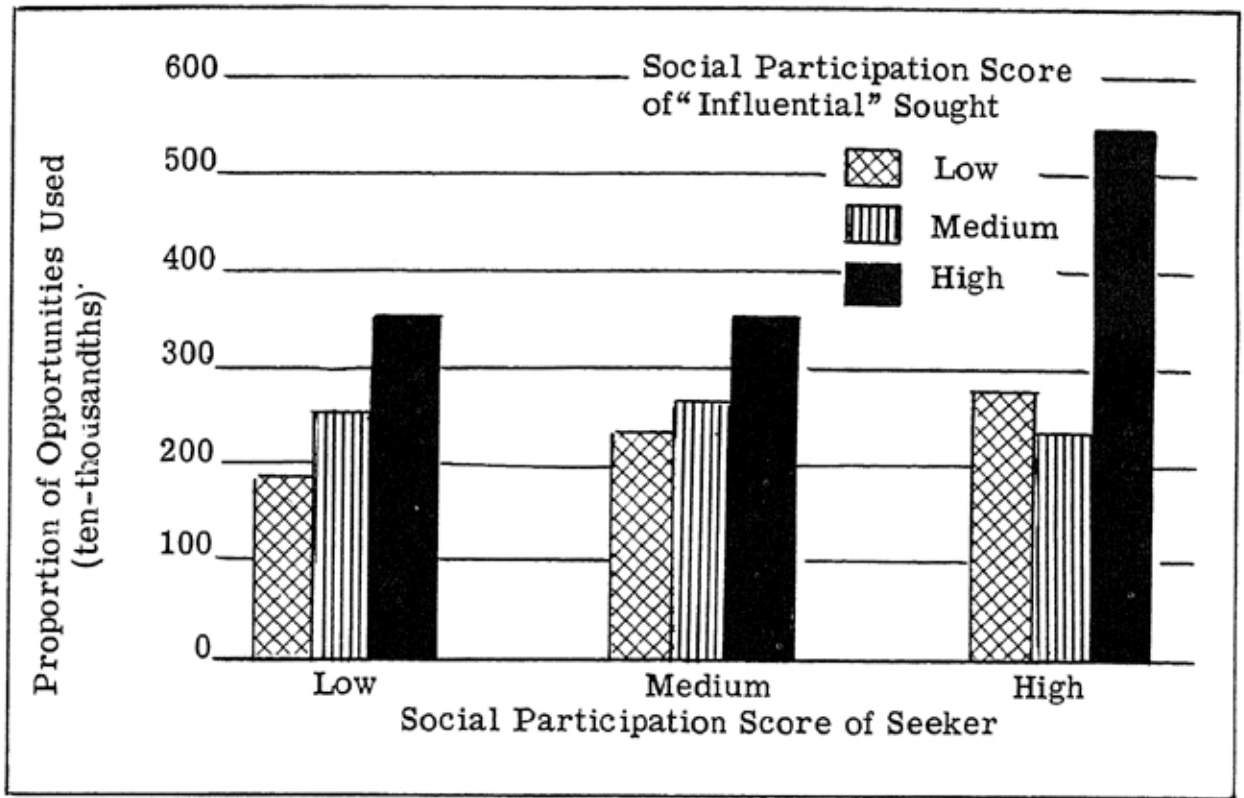
tions showed little variation in choice of persons with varying amounts of social participation. Apparently, social participation, as a symbol of status, was not an important factor in the non-participants' choice of persons as sources of farm information. Because of the complication of situational opportunities, no definite conclusion could be reached on whether the tendency for low and high participation seekers to name persons of equal or higher participation status than themselves was due to personal preference or to the increased situational opportunities involved.

Since there is a definite relationship between participation in formal organizations and technological competence ( $r = 0.40$ ), it is possible that part of the tendency to pick participants is due to their competence rather than their participation. With regard to this point, there are two significant facts. First, information seekers at all participation levels (i.e., none, low, and high) made greatest use of opportunities for contact with persons who had the highest improved practice ratings. Second, the relationship between the social participation of the seeker and the technological competence of persons sought was more pronounced than the relationship between their amounts of social participation. Prestige took a dominant position over social participation as a factor in the choice of persons as sources. Consequently, if participational status was involved in choices, probably the most important ideas symbolized were technological competence and prestige rather than accessibility or a general preference for the "joiner."

Except for a somewhat sharper relationship between use of opportunities and social participation, the ISR pattern involving persons *most frequently sought* was much the same as the one for *all* persons named as sources. Seekers not participating in organizations utilized 12 ten-thousandths of their total physical opportunities compared to 18 and 24 used by low and high participation seekers, respectively. Otherwise the use configuration of contact opportunities by each category of seekers was much the same ( $X^2 = 42.23$ ,  $df = 9$ ,  $P < .01$ ).

As in the two ISRs considered previously, high social participation was associated with frequent use of "local influentials" as sources of farm information. Information seekers in all three of the participation categories looked primarily to "local influentials" who had participation scores of 20 or more as sources of information. With the exception of seekers with scores of 20 or more, there was a graduated increase in the use made of physical opportunities with increasing participation of persons sought.

However, since high social participation among "local influentials" was associated with high technological competence, choices which appear to have been made on the basis of participation status also may have involved considerations of technical competence. This hypothesis is sup-



**Figure 9—Proportionate use of "influentials" with low, medium, and high participation in formal social organizations by persons with low, medium, and high participation.**

ported by the preference shown for "local influentials" with high technological competence by information seekers at all but the lowest participation levels. Except for seekers with scores of less than 10, the greatest use was made of contact opportunities with "local influentials" possessing the highest improved practice ratings.

#### Localistic and Extra-Localistic Social Participation.

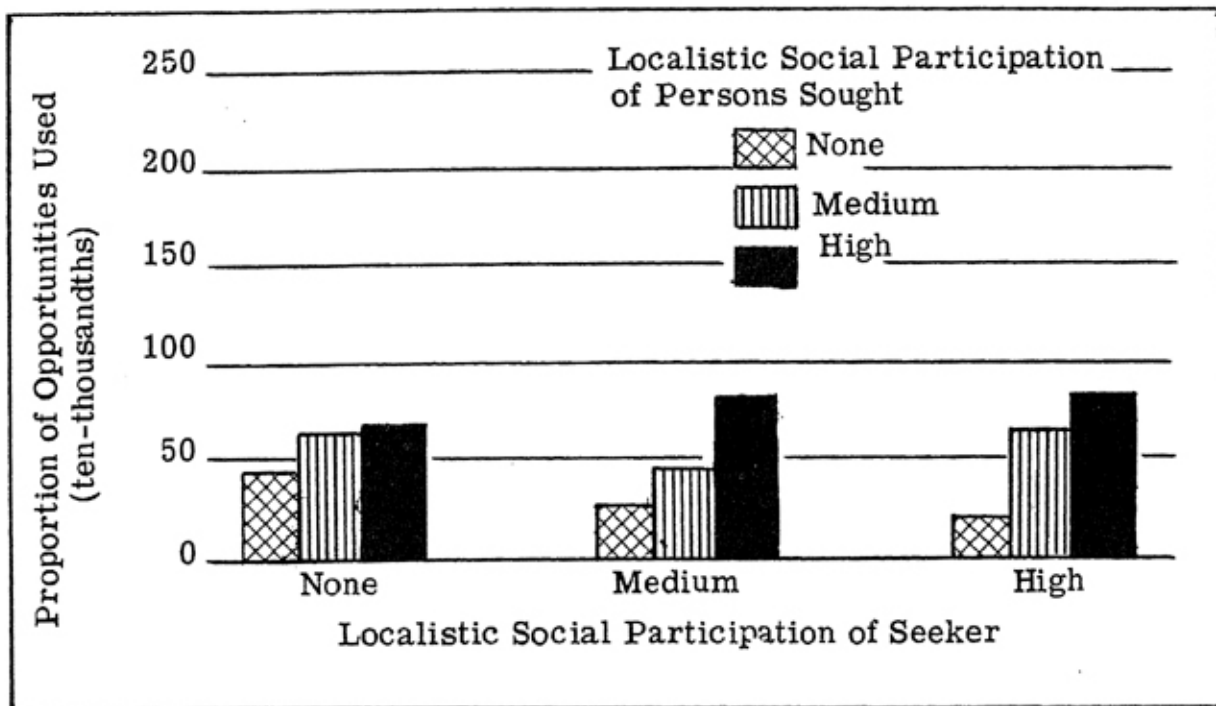
The membership and activity of some formal organizations were more limited in areal locus than others. Some, like the local Parent Teachers Association, were ordinarily limited to the immediate locality. Open country churches likewise drew their membership from limited areas within the community. On the other hand, such formal organizations as the Extension Association, the Livestock Improvement Association, and the county advisory committees, had a much broader coverage. They served the interests of a more widely scattered group of farmers. Participation in them implied an orientation and interest that extended to problems transcending the local community. (For a more complete description of the classification scheme see reference 13.)

In view of the different orientations involved, a divergence might be expected in the patterns of information seeking involving the two organi-

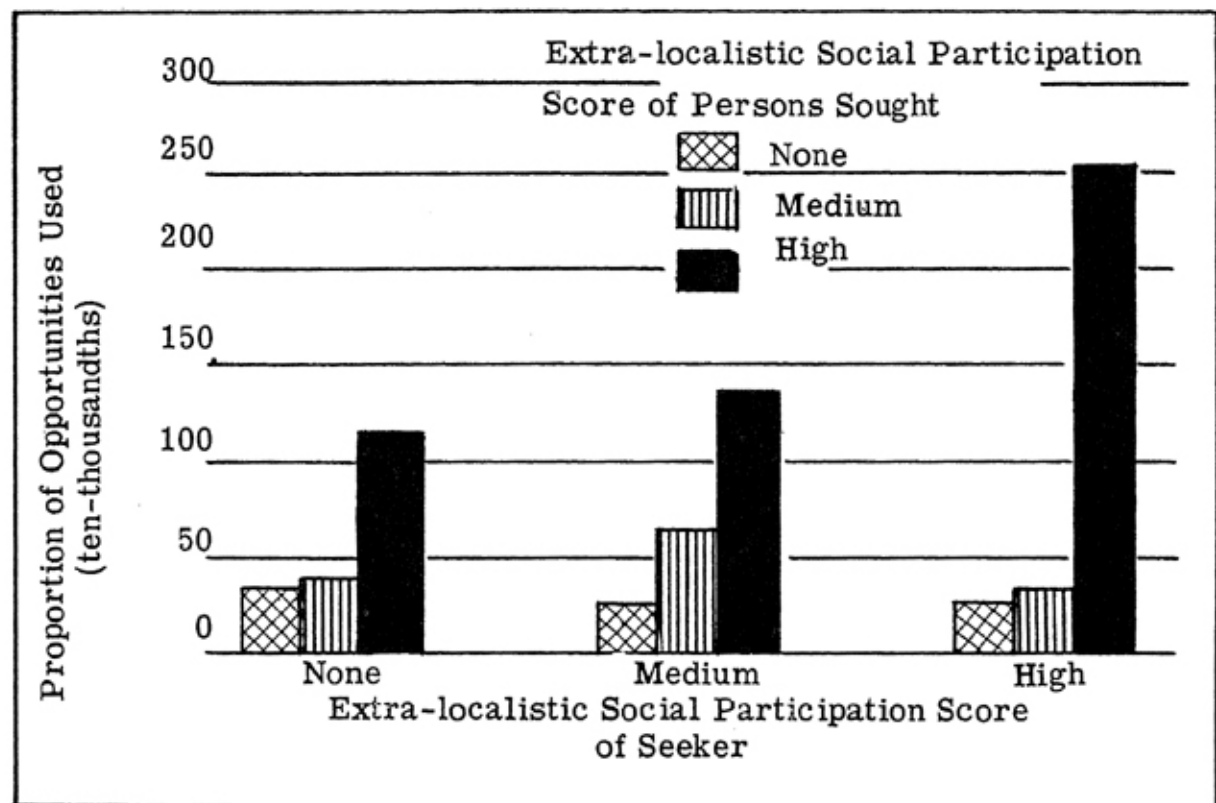
zational types. Whether this is the case or not can be determined by comparing the proportions of information seeking opportunities used in each type of organization. General observation suggests a positive association between participation in both localistic and extra-localistic organizations and the utilization of contact opportunities. At the same time, if the assumption concerning the instrumental character of most extra-localistic organizations is correct, it is reasonable to expect that the gradient of contact utilization rates will rise more sharply with an increase in extra-localistic participation than with an increase in localistic participation (first hypothesis). Also, seekers who participate in extra-localistic social organizations may be expected to focalize more attention on fellow participants in these organizations than participants in localistic organizations focalize on those of their own kind (second hypothesis). Due to the high concentration of no-participation cases in the extra-localistic social organization category, a classification of no, medium, and high seeker-sought relations was used instead of the usual low, medium, and high.

Validity of the first hypothesis was suggested by a comparison of the contact utilization rates of information seekers having various degrees of participation in localistic and extra-localistic organizations. Information seekers with localistic participation scores 0, 1 to 9 (medium), and 10 and over (high) used 59, 52, and 58 ten-thousandths of the possible contact opportunities in the ISRs involving *all* persons named as sources (See Figure 10). Farmers with extra-localistic participation scores of 0, 1 to 4, and 5 and over used 49, 57, and 69 ten-thousandths, respectively. Thus, an increase in the use of total opportunities was not associated with an increase in localistic participation. And, as expected, the use of total opportunities not only increased as extra-localistic participation increased; but was markedly greater for each category. This pattern was also characteristic of ISRs involving sources *most frequently sought* and "local influentials."

Relevant to the second hypothesis was the clear tendency for information seekers at all levels of extra-localistic participation to make greater use of sources of information in the highest participation category than seekers in the localistic social participation category. (See Figure 11). Thus, farm operators with zero, medium (1-4), and high extra-localistic social participation scores (5 and over) used 112, 132, and 256 ten-thousandths of their opportunities, respectively, for contacts with farmers who rated in the highest category. This increase was considerably greater than the one occurring in localistic participation categories. Comparable proportions of farm operators with zero, medium and high localistic social participation scores who used persons with a high score (10 or more) were 64, 81, and 87 ten-thousandths, respectively. (See Figure 10.)



**Figure 10—Proportionate use of persons with no, medium, and high participation in localistic formal organizations as sources of farm information by seekers with no, medium, and high participation.**



**Figure 11—Proportionate use of persons with no, medium, and high participation in extra-localistic formal organizations as sources of farm information by seekers with no, medium, and high participation.**

It should be noted further that as participation of the seeker increased the proportion of possible relationships with non-participants decreased. This was true for both localistic and extra-localistic participation. Thus farmers generally sought information from others who had higher participation ratings than themselves. Nevertheless, within the dominant pattern were cases where farmers sought persons who rated lower than themselves. This suggests that choice of sources was made on the basis of numerous considerations, which included participation status as one factor.

A similar analysis of ISRs relating to farm operators named as *most frequently sought* and those relating to "local influentials" generally corroborated the foregoing conclusions.

## Status Factors and the Diffusion of Farm Information

This section is devoted to an examination of the manner in which the following selected status characteristics are related to the quest for farm information from other persons: gross cash income, size of farm, age, years schooling, tenure status, and technological competence. For purposes of analysis, the three ISRs (Information Seeking Relationships) previously defined are used: (1) all persons sought as sources, (2) those *most frequently sought*, and (3) "local influentials."

### METHODOLOGICAL CONSIDERATIONS

Except for a statistic used for comparing the relative importance of status factors as a structuring influence on information seeking relationships, the method used in this section was little different from that used previously. Primarily, the analysis consisted of a comparison of the proportion of contact opportunities utilized by arbitrarily designated status categories of farm operators seeking farm information, and those sought as sources of this information. The community was taken as the universe of contact opportunity for reasons given previously. The so-called opportunities were purely physical or mathematical in nature and were derived from the fact that there were only so many people in the community who had specified characteristics and with whom contacts were possible. As previously indicated, the percentages of contact opportunities actually



utilized in each case were small. However, this seemed unimportant because (1) empirical experimentation had shown that the findings would not be altered if a smaller universe were used and (2) because it was the pattern of relationship and not size of the rates that was of primary concern.

It is true, however, that when considering statistics of relationships some criteria of significance needs to be given. This posed a problem because some of the status variables used were continuous and some were not. Partial correlation is the common measure of association used for two continuous variables where control over a third (possibilities for contacts in this case) is desired. However, for non-continuous variables, chi square or analysis of variance methods must be used. If the analysis of all of the variables is to be comparable for continuous variables, it is necessary to form a series of classes to conform to a non-continuous model.

Chi square was chosen as the basis for comparison. In view of the nature of the distributions involving the status variables and the three ISRs, it was desirable to use tables with cells ranging from 4 to 16. Since number of cells is a factor in the interpretation of chi square, chi squares were converted to T-coefficients of association. The method and reasons for it are discussed in connection with actual use of the coefficients later in this section.

In addition to the usual assumptions accompanying the employment of chi square, several other considerations were pertinent in this study. First, while chi square is a sampling statistic, we applied it, in one sense, to a population. That is, all the farm operators in the community studied were enumerated. Thus, any differences in the relationships shown were real so far as information seeking in the community was concerned. However, one of the reasons mentioned for selecting the community for study was its location in a culture core area in the northeast section of the state. While in a rigorous sense it was not a sample of the area, it nevertheless was typical of that area in level of living and many other pertinent respects. Thus the chi square test provided some basis for judging the significance of the data in relation to the larger core area.

## INFLUENCE OF STATUS FACTORS

### Gross Farm Income.

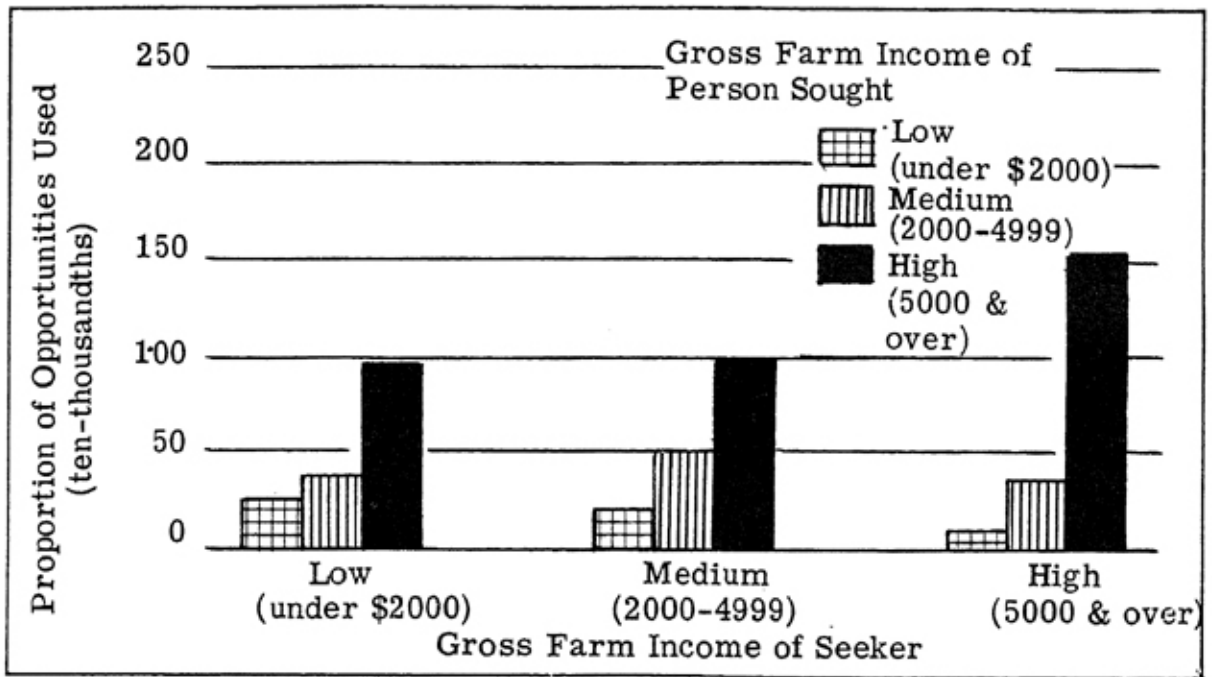
To the extent that it is known, or inferred, gross farm income is taken as a symbol of a farm operator's success in farming. A farmer desiring information that will help him achieve success is likely to choose farmers wealthier than himself as sources of farm information. At the same

time, it is entirely possible that large income differences may be accompanied by social distances of such magnitude that the information seeker may hesitate to speak to those who rank high above him in income. In other words, there may be an undefined limit to the distance up the income hierarchy a person is likely to go to get farm information.

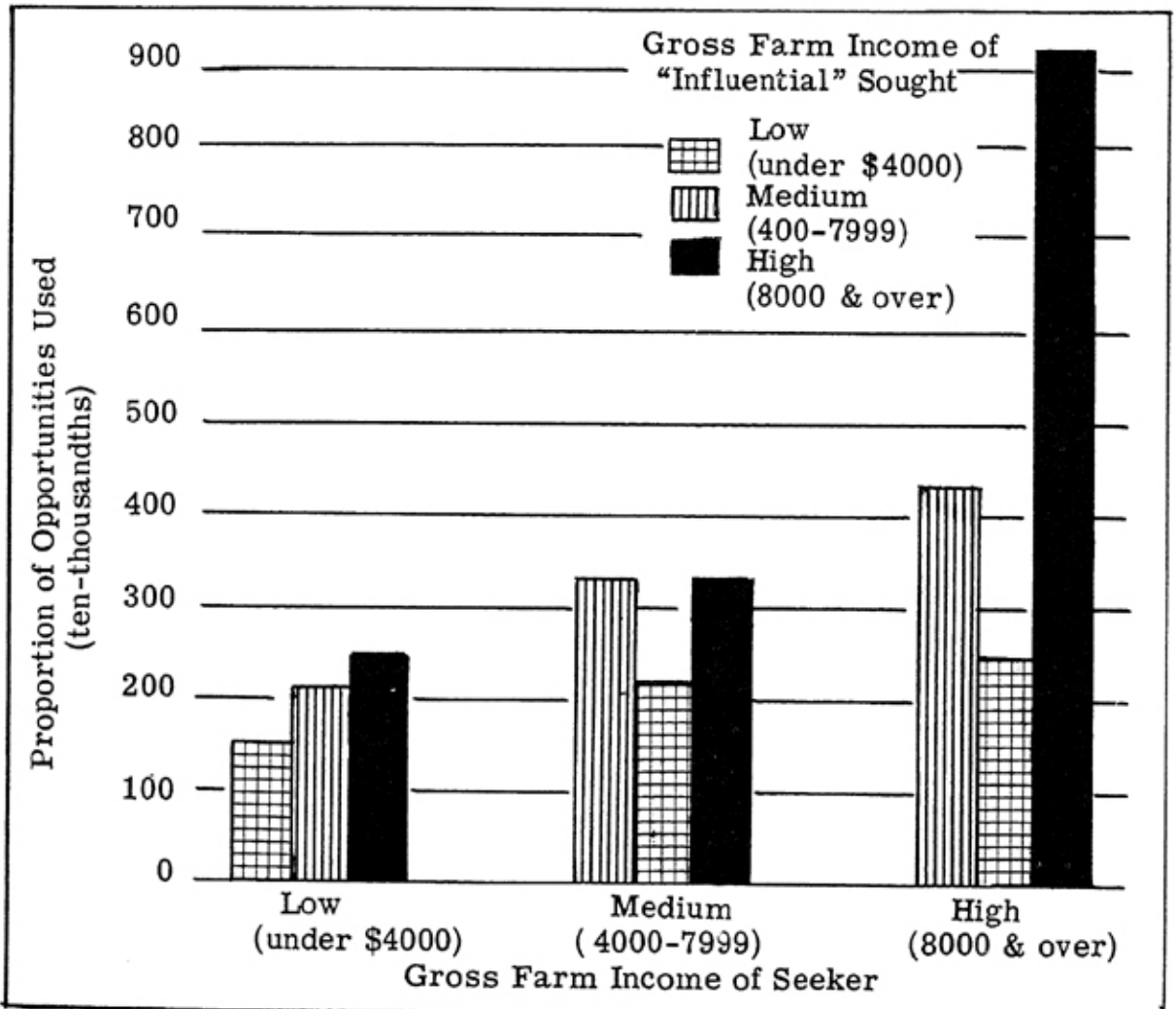
ISRs involving *all* persons named as sources of information revealed that high income farmers were more active information seekers than those with lower incomes. Those with low (less than \$2000), medium (\$2000 to \$4999), and high incomes (\$5000 or more) utilized a total of 49, 55, and 59 ten-thousandths of their total possible opportunities for contacts with other farmers.

A second significant phenomenon appeared in the different rates at which information seekers with various income levels made of farmers having varying amounts of income. Figure 12 reveals that farmers of every income level made relatively greater use of their contact opportunities with high income farmers than with those at their own or lower levels. For example, low income farmers used 96 ten-thousandths of their opportunities for contacts with high income farmers (\$5000 and over), but only 32 ten-thousandths with medium income (\$2000-\$4999) farmers and 25 ten-thousandths with farm operators in their own income category. Farm operators who made the most money during the year (1949), were limited to those in their own or in a lower income category. But in accord with the general pattern, high income farmers used 152 ten-thousandths of their opportunities for seeking information from farmers in their own income category and only 31 and 4 ten-thousandths of their opportunities with middle and low income farmers, respectively.

While the general ISR pattern was for low and medium income farmers to look to high income farmers as sources of farm information, there was some evidence that differences in income inhibited communication. For example, low income seekers utilized 96 ten-thousandths of their opportunities for contacts with high income farmers, while high income seekers used 152 ten-thousandths of their possible ISRs with other farmers in their own income category. Although, as noted earlier, a part of this difference undoubtedly was due to greater information seeking activity on the part of high income seekers, the difference was too small to explain the large variation in the use made of possible ISRs. Figure 12 also reveals that as the income of the information seeker increases the proportion of possible ISRs used with low income farmers decreases. Thus, low income farmers apparently appealed less to middle and upper income farm operators as sources of farm information than they did to other farmers of their own income level.



**Figure 12—Proportionate use of low, medium, and high income persons as sources of farm information by low, medium, and high income seekers.**



**Figure 13—Proportionate use of low, medium, and high income "influentials" as sources of farm information by low, medium, and high income seekers.**

From a statistical point of view, the association (See Fig. 12) between the gross cash income of the farm operator seeking farm information and the one sought, was sizable. A chi square test computed from a 4 by 4 table was 396.7—a value much larger than is required to reflect a significant systematic association.

To an indeterminant degree, the selection of a farmer with a high income may also represent the choice of a technically competent source of information. A correlation of 0.53 between the gross cash incomes of farm operators and their improved practice ratings indicated that this was likely true. More concrete evidence of this occurrence is provided by a comparison of the differential manner in which low, high, and medium income farmers utilize persons with varying degrees of technological competence as sources of farm information. Information seekers from all three income levels showed about an equal preference for technologically competent persons as sources of farm information. This tended to minimize the importance of income as a barrier and to emphasize the importance of technological competence as the basis for selection.

In most respects the utilization pattern of ISRs involving farm operators named as *most frequently sought* was quite similar to the pattern involving *all* persons named as sources. High income farm operators used more opportunities for contact than low income farm operators although the difference was not great. Also, as in the ISR type considered previously farmers of every income level used the greatest proportion of their possible contact opportunities with farmers earning the most money.

In addition, with regard to the seeking of information from *most frequently sought* sources, there was no indication that disparities in income between seeker and sought acted as barriers to communication. Proportionately, farm operators with gross incomes under \$2000 utilized as many opportunities as high income operators for contacts with farmers earning \$5000 or more. Nor was there any systematic indication that high income farmers were less inclined than low income farmers to name low income persons as those *most frequently sought*. Thus, the major relationship indicated by the data was a general tendency for farmers at every income level to make the greatest use of farmers with the highest income as their information sources. The significance of this pattern is suggested by the size of the chi square computed from a 4 by 4 table. ( $X^2 = 119.9$ ,  $df = 3$ ,  $P < .01$ .)

In view of the key role that "local influentials" play in the diffusion of farm information, the differential use made of them assumes salient importance. Consequently, it is significant that farmers from all levels of income made some use of opportunities to contact "local influentials." It

is equally noteworthy, however, that the quest for information from them was predominately a phenomenon of high income seekers. In terms of possible opportunities used, high income farmers utilized more than three times as many as low income seekers.

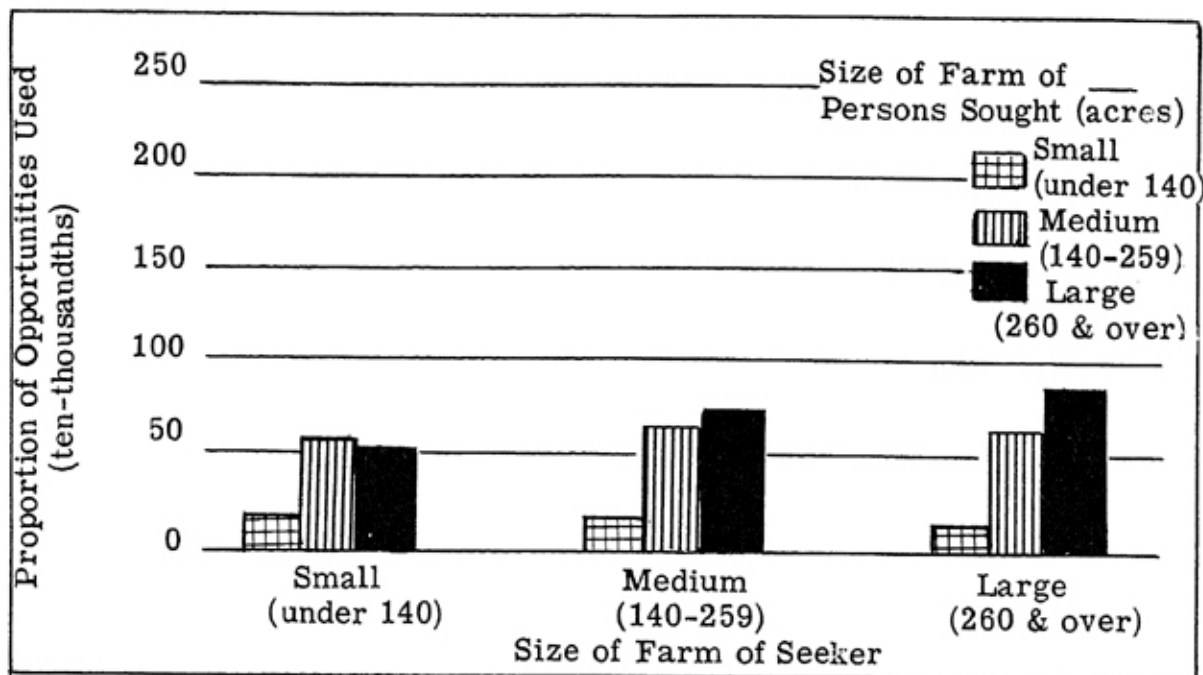
At the same time, farmers in all three income categories utilized the greatest percentage of their contact opportunities with "local influentials" in the highest income category. (See Figure 13.) Those with low incomes were less in demand as sources by information seekers at all income levels. The significance of this pattern of interpersonal influence is suggested by the magnitude of the value of Chi square computed from a 3 by 3 table. ( $X^2 = 13.98$ ,  $df = 4$ ,  $P < .01$ .) It should be realized, however, that the preference displayed for high income farmers probably also involves considerations of technological competence.

In general, three conclusions were supported by the analysis of ISRs involving *all* persons named as sources, those named as *most frequently sought* and those involving "local influentials": (1) information seeking on a person-to-person basis was more prevalent among high income seekers than among those with low incomes; (2) persons with the highest incomes and/or the highest improved practice ratings were the most sought by farmers at all income levels; and (3) there was little evidence to indicate that wide differences in income acted as barriers to the communication of farm information.

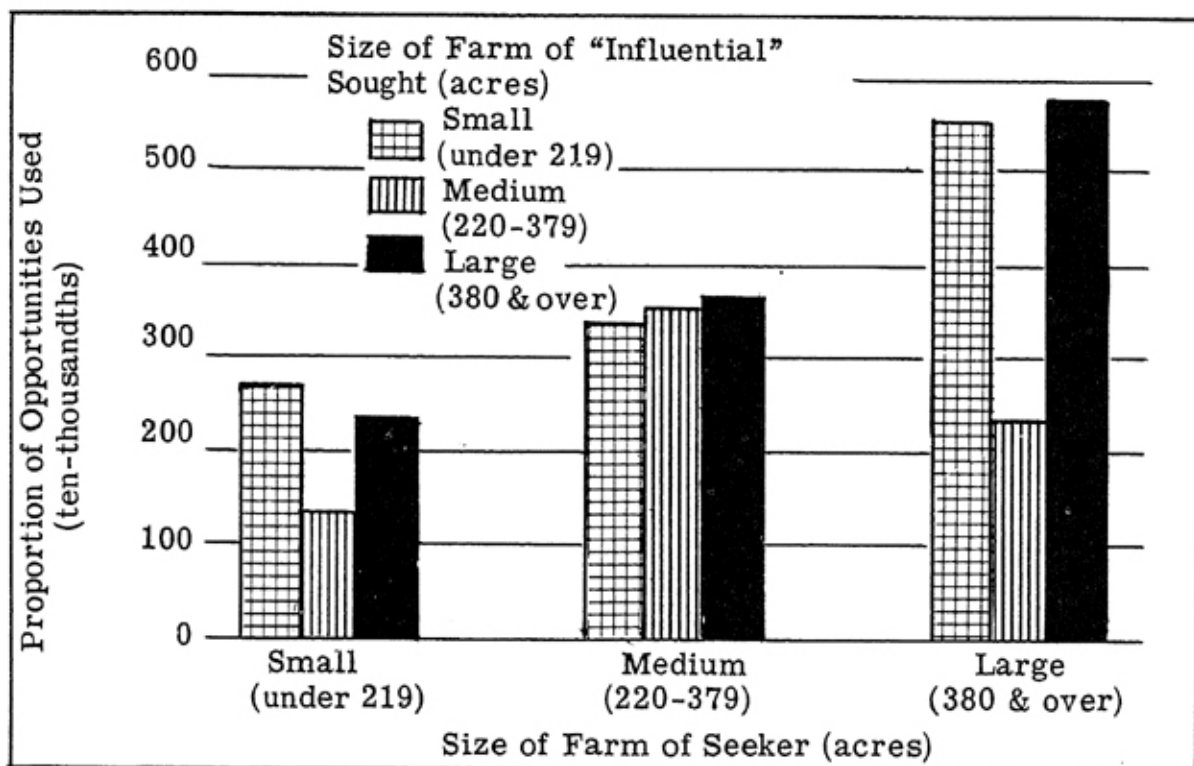
### Number of Acres Operated.

Since size of farm at least gives a visible impression of achievement, information seekers might be expected to exhibit a preference for operators of large farms. At the same time, large differences may impose barriers to interpersonal communication. Feelings of inferiority may cause small operators to look to other farmers near their own operational level for information. Even when communication is not inhibited, small farm operators may feel that the operators of large ones do not understand their problems.

In terms of the tri-part classification of size of farms used here—small (less than 140 acres), medium (140-259 acres), and large (260 acres and over)—it was evident that the use of contact opportunities involving *all* sources increased in direct relation to the size of the farm operated. Operators of small, medium, and large farms used a total of 48, 57, and 59 ten-thousandths of their contact opportunities, respectively. Operators of middle and large scale farms were selected in preference to operators of small farms. (Figure 14.) There was some inclination for the proportion of choices made to increase with size of the farm of the information seek-



**Figure 14—Proportionate use of persons operating small, medium, and large farms as sources of farm information by seekers operating small, medium, and large farms.**



**Figure 15—Proportionate use of "influentials" operating small, medium, and large farms as sources of farm information by seekers operating small, medium, and large farms.**

er. Conversely, the proportion of contact opportunities used with small farmers decreased as the size of the farm of the seeker increased. Although the differences in utilization rates were small, they suggested that differences in size of farms of seekers and persons sought might inhibit communication about matters related to farming. However, this limitation on personal choice operated within a pattern in which the general tendency was for farmers to look to operators of farms larger than their own for farm information. The statistical significance of the aggregate differences in contact utilization rates by size of farm was demonstrated by a chi square test. ( $X^2 = 155.3$ ,  $df = 9$ ,  $P < .01$ .)

As in the association between gross cash income of farm operators and their improved practice ratings, a low correlation existed between size of farm operated (acreage) and improved practice ratings ( $r = 0.28$ ). Consequently, it is possible that a choice on the basis of the size of operations also may have involved considerations of technological competence. Due to the nature of the analysis a precise determination of this point could not be made. Nevertheless, it was notable that farmers utilized the highest percentages of their opportunities with the most competent sources of information irrespective of farm size.

The pattern of relationships involving size of farm as a factor in the selection of *most frequently sought* sources of information was essentially the same as the one involving *all* farm operators sought. The significance of the relationship is indicated by a chi square of 62.40 computed from a 4 by 4 table.

The most noteworthy variation in the pattern involving "local influentials" from the patterns for *all* sources and those *most frequently sought*, was a sharper increase in contact utilization rates with increase in the size of farm operated. The use of contact opportunities for seekers operating farms ranging in size from less than 220, 220 to 379 acres, and 380 acres and over increased from 2.3 to 3.7 and 4.9 percent, respectively. Thus, information seeking activity involving "local influentials" was most characteristic of farmers operating large acreages.

Otherwise, the use of contact opportunities with "local influentials" by size of farm was very erratic. (See Figure 15.) For example, one would hardly expect that farmers operating less than 220 acres and those operating 380 acres or more would show a preference for "local influentials" operating farms similar in size to their own, and that farmers operating medium sized farms would show almost no preference at all with respect to size of farm operated. It was evident, therefore, that factors other than size of farm were important in structuring the choice of "local influentials" as sources of information.

Nevertheless, size of farm was a factor of psychological significance in ISRs involving *all* sources and those *most frequently sought*. In these two ISR types, farmers looked to farmers operating farms larger than their own as preferred sources. Yet size of farm posed little or no restrictive barrier. While in the overall pattern size of farm showed some relationship to choice of "local influentials" as sources, the relationship was too inconsistent to have much meaning. Other choice factors seemed to be more important. There was a strong possibility that technological competence was a more important element in the choice of *all*, *most frequently sought*, and "local influentials" as sources.

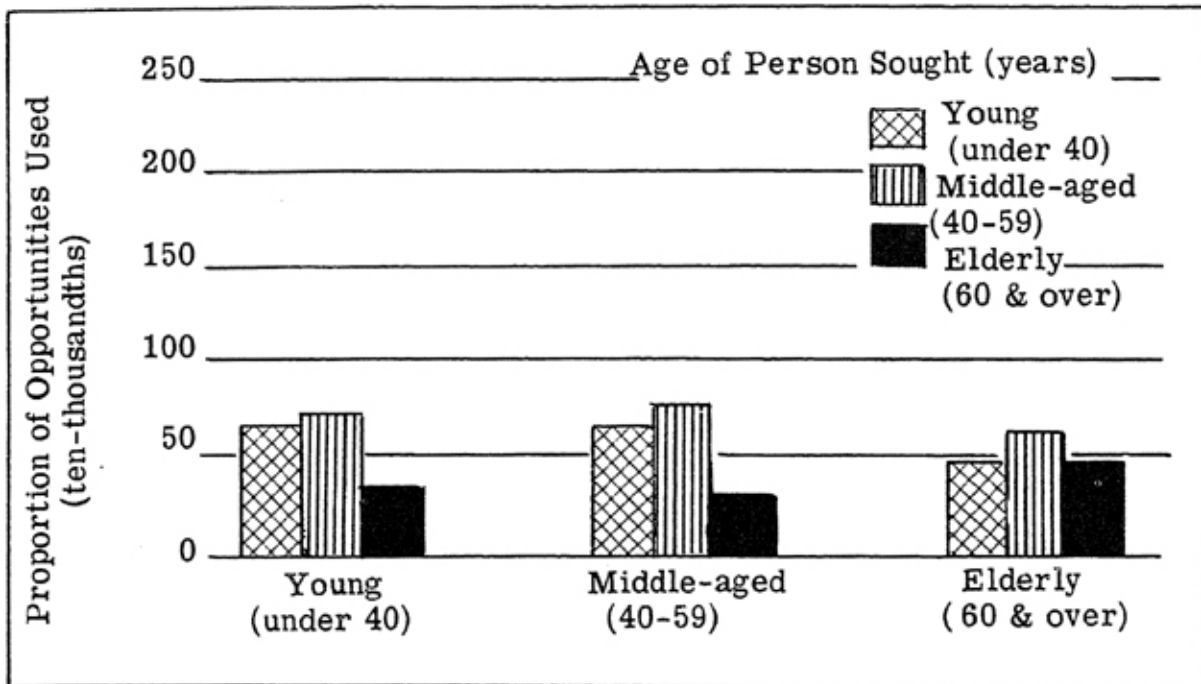
### Age of the Farm Operator.

Although not as true in our society as in others, age is an ascribed status characteristic which has considerable meaning. The social import of age can be understood by reflecting upon the behavior role normally expected of children, youth, and adults. It will not be fruitful to engage in a detailed explanation of such expectations here, but two short reconstructions may suffice as pertinent illustrations. When questioned about possible personal sources of farm information it was not uncommon to hear farm people express the feeling that it would be wise to observe a certain individual's farming operations because he was older and had been farming a long time. In this case, age of the farmers symbolized wisdom gained through practical experience. Other farmers took an alternative point of view, saying, in effect, that older farmers were set in their ways and had not kept up with new ideas. Thus two contrasting notions about age status as a symbol of wisdom in matters related to agriculture were expressed.

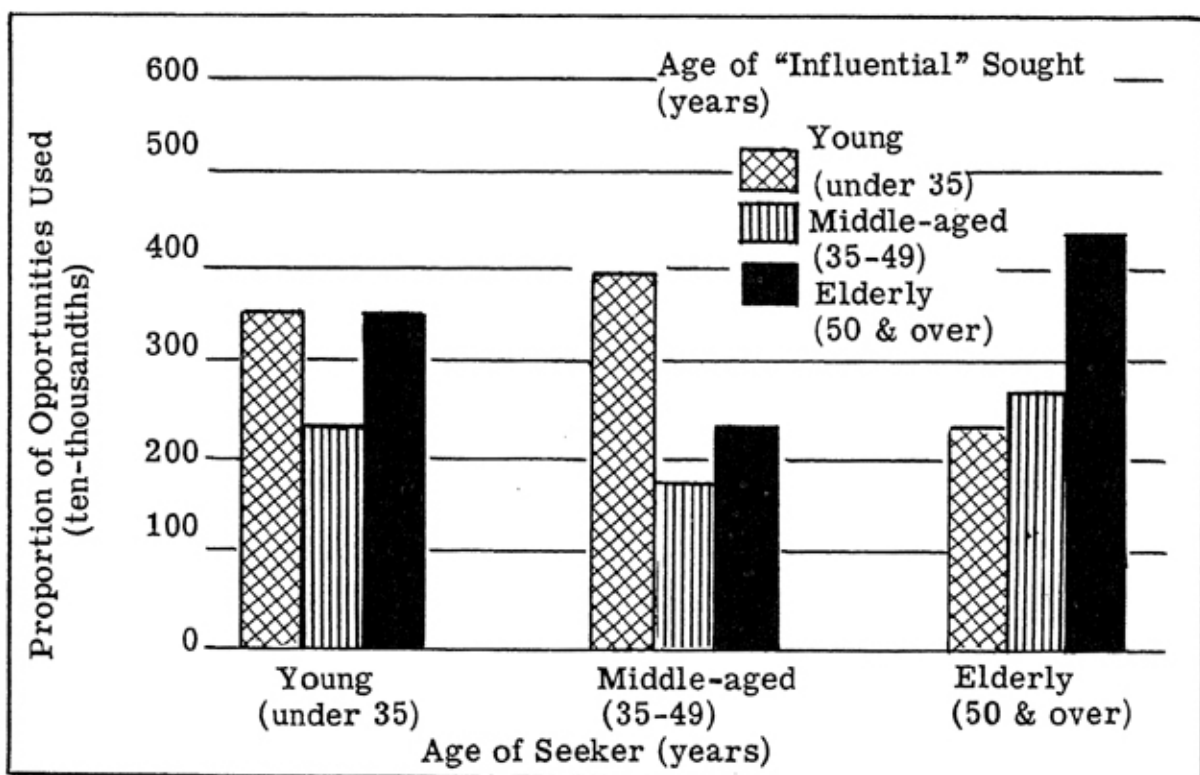
Although the data revealed little variation in relative use made of contact opportunities by age of the information seeker, young farmers were somewhat more active than older ones in their quest for information. In the ISR involving *all* persons named as sources, middle aged farm operators were sought most by all age levels. The youngest and oldest followed in order. (See Figure 16.) Even elderly farmers used more young and middle aged farmers than those of their own age. While diversities in use rates by age appeared small, the association in the overall pattern was considerable. ( $X^2 = 38.13$ ,  $df = 9$ ,  $P < .01$ .)

These age-choice differentials took on a somewhat different meaning when comparative technological competence was considered. Using improved practice ratings as the measure, median scores for young, middle aged, and old farmers were 16.4, 13.8, and 8.3, respectively. Thus, to the extent that both age and technological competence were involved in the selection of farmers as sources of information, they produced divergent





**Figure 16—Proportionate use of young, middle-aged, and elderly persons as sources of farm information by young, middle-aged, and elderly seekers.**



**Figure 17—Proportionate use of young, middle-aged, and elderly "influentials" as sources of farm information by young, middle-aged, and elderly information seekers.**

patterns of choice. While the youngest farmers, generally speaking, were the most competent technologically, they were not used most frequently as information sources, even in their own age category. From this one might infer that youthfulness tended to negate the reliance others placed upon them as competent sources of farm information. However, farm operators who were 60 years of age and over were sought even less often. It should also be noted that older farm operators participated much less in formal social organizations than the middle aged and younger ones, thereby making them less available as sources of information.

As a result, the middle aged farmers (40 to 59 years) seemed to have incorporated the most opportune combination of age, technological competence and availability to make them the most used personal sources of farm information.

The age relationships involving information seekers and *all* farm operators sought as sources forecast the pattern involving age and persons *most frequently sought*. The only important difference was in proportion of total contact opportunities used. Middle aged farmers, rather than the oldest operators, evidenced the smallest total amount of information seeking activity. However, of more importance was the age of persons who were sought the most by farmers of all ages. Even the older farmers made more use of middle aged and younger farmers than of those their own age. (A chi square test indicated differences in the overall distribution significant at the 1 percent level of confidence.)

Some distinct differences appeared in the information seeking activity centering about "local influentials." This ISR type was the only one in which the total amount of information seeking activity increased irregularly by age of the seeker. "Local influentials" also represented the only type of personal source of information for which the oldest farmers were sought as frequently as the youngest ones by at least some age group. (See Figure 17.) By way of illustration, the youngest age category of seekers made use of approximately equal percentages of the youngest and oldest "local influentials." The direction of choice was reversed by the middle aged group (35-49 years). For them, youthful "local influentials" appeared to be most preferred. Seekers 50 years of age and over showed a consistent inclination to make the most use of "local influentials" in their own age group. The use made of older "local influentials" as sources of farm information by both old and young seekers apparently occurred because "local influentials" aged 50 years and over represented the only category of farmers in which the older ones approach an acceptable level of technological competence. Furthermore, only with respect to the ISR involving "local influentials" did a farmer's youthfulness not seem to serve as a deterrent

to his selection as a source. A chi square test indicated that the relationship of age to choice was not random. ( $X^2 = 13.81$ ,  $df = 4$ ,  $P < .01$ ). However, it was apparent that choice was influenced as much by technological competence as by age.

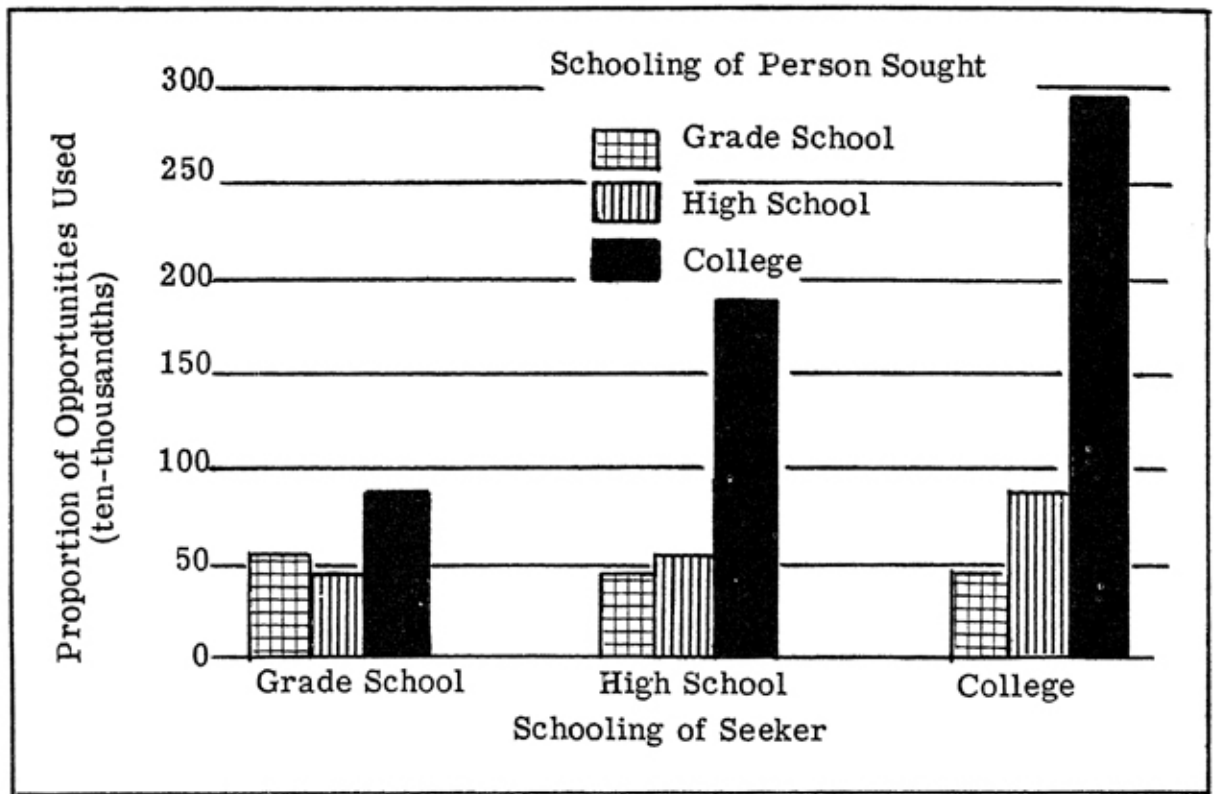
### Education of Farm Operators

As with most of the status characteristics considered, there was more than one way in which a farmer's education could operate as a factor in the choice of persons as sources of farm information. Two contrasting sets of cultural values define alternate expectations for the role of educated farm operators as sources of farm information. On the one hand, education may be greatly admired as an avenue to success, in which case the educated farmer may be highly respected. On the other hand, some farmers decry the value of education, in which case the educated farmer may be regarded as impractical. Furthermore, it is possible for differences in education to inhibit contact between people. A well educated farmer possesses a fund of experience which his neighbors with less education may not be able to appreciate. Frequently his interests and approach to farm problems are so different that other farmers find him odd, lofty, or abstract in his analysis of these problems. As a result, they may become reluctant to converse with him, fearing damage to their own self-respect, or inability to fully comprehend his thoughts. [The problem of communication between persons with divergent levels of education is concretely illustrated in a recent study by Schatzman and Strauss (32).]

For the purpose of analysis, farm operators were divided into three groups: those having completed eight grades or less (grade school), those having completed 9-12 years (high school), and those who had completed 13 years or more (college). The total possible contact opportunities used by farmers with eight grades of school or less was 52 ten-thousandths; while farmers with some high school training used 56 ten-thousandths of their opportunities, and those with some college training used 73 ten-thousandths. Clearly the amount of information seeking activity with respect to *all* sources was related to the educational level of the seeker.

Aside from a clear tendency to seek information from farmers with the most years of schooling, some rather marked differences were noted in the extent to which opportunities for contacts were used. (Figure 18.) While farm operators who had completed eight grades or less selected approximately equal proportions of sources from the three levels of schooling, such differences as did occur suggested that the farmers with some college training were most often sought.

Farm operators with high school training communicated more often

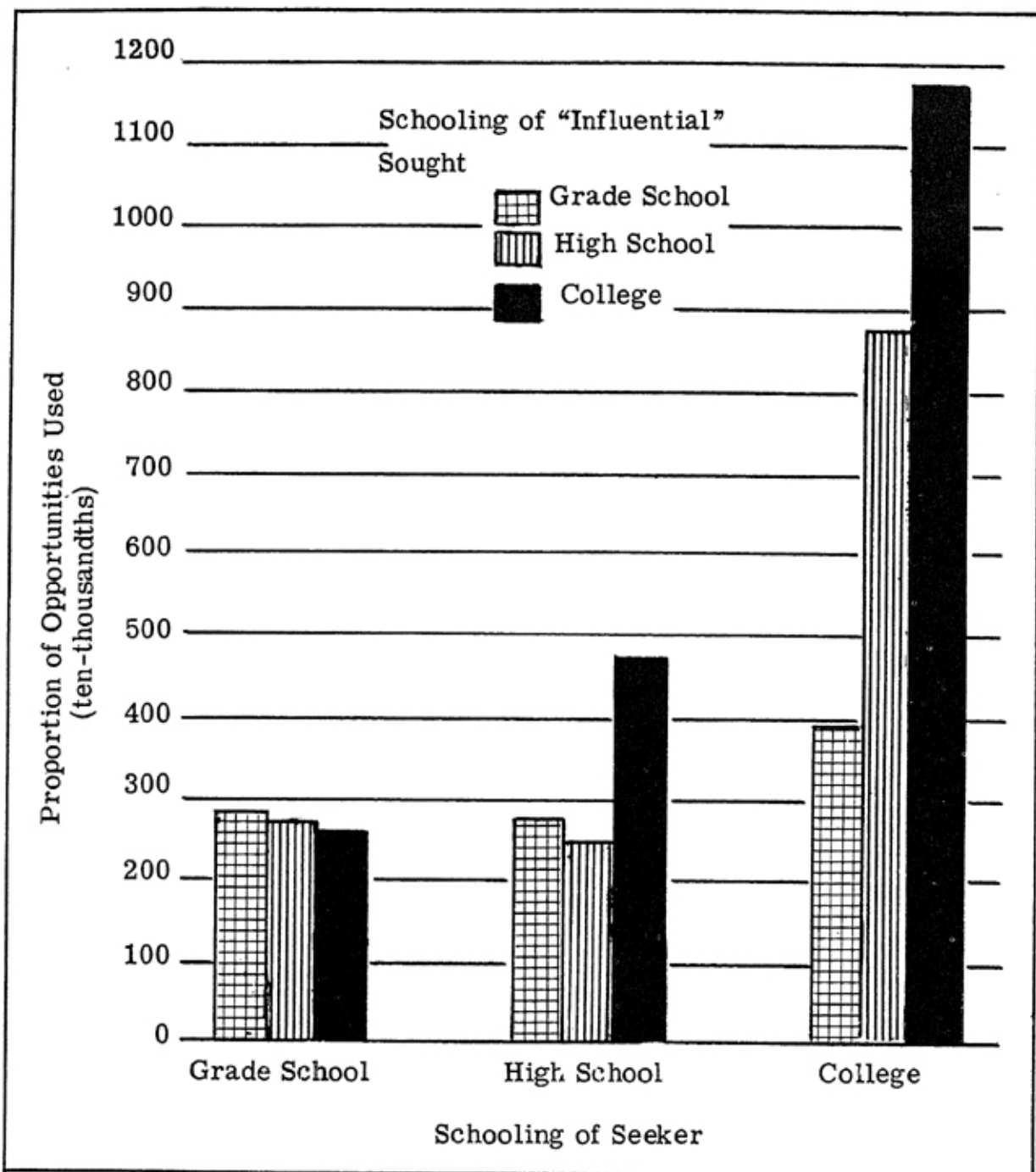


**Figure 18—Proportionate use of persons with grade , high school, and college training as sources of farm information by seekers with grade, high school, and college training.**

with persons who had some college training (185 ten-thousandths of possible ISRs) than with farm operators on their own educational level (55 ten-thousandths of the possible ISRs), or those with a lesser amount of education (45 ten-thousandths).

Farm operators having some college training utilized 292 ten-thousandths of their contact opportunities with sources who had as much schooling as themselves, compared with 89 and 45 ten-thousandths of the opportunities used with those who had some high school or grade school training, respectively. Since the data were based upon a total population the differences were real; however, as a basis for further generalization, the chi square is noteworthy ( $X^2 = 85.03$ ,  $df = 4$ ,  $P < .01$ ).

In view of the preference for the more highly educated farmers as sources, it was obvious that disparities in education did not constitute an important barrier. Moreover, because of the correlation between years of schooling and improved practice ratings ( $r = 0.25$ ), we might assume that the choice of a farmer who had completed some high school or college training also meant, to some degree at least, the choice of a person who had above average technological competence. This conclusion was



**Figure 19—Proportionate use of “influentials” with grade, high school, and college training as sources of farm information by seekers with grade, high school, and college training.**

further supported by the more frequent use made of farmers with high technological competence by information seekers at all educational levels. Although farmers at all times were inclined to make greatest use of highly qualified farmers as sources, determination of the relative degree to which choice was based upon considerations of schooling, technological

competence, or related factors was difficult. This subject is discussed further in another section.

In seeking information from farm operators designated as sources *most frequently sought*, farmers exhibited essentially the same pattern of preferences in their choices. Farm operators with eight grades of schooling or less made use of a total of 17 ten-thousandths of their opportunities for contacts compared with 22 ten-thousandths and 39 ten-thousandths for farmers with some high school training and some college training, respectively. The degree of association involved in the entire configuration of relationships is indicated by the use of chi square ( $X^2 = 25.26$ ,  $df = 9$ ,  $P < .01$ ).

Much the same tendencies were evident in ISRs involving "local influentials." Information seeking activity increased with years of schooling. The increase was somewhat sharper than in the case of ISRs involving *all* persons sought and those *most frequently sought*. The proportions of contact opportunities used by grade, high school, and college trained information seekers were 2.9, 3.0, and 6.3 percent, respectively. Use rates further indicated that farmers with some high school or some college training were inclined to use "local influentials" who had college training the most. (See Figure 19.) This tendency to make the most use of the best educated "local influentials" was greatest among seekers with college training. Seekers with a grade school education exhibited very little difference in preference for "local influentials" with varying amounts of schooling. Such variation as did exist suggested that "local influentials" with less formal schooling might have been preferred over those with more training. In spite of a somewhat smaller chi square than usual, the greater use that seekers with some high school or some college training made of the most highly educated "local influentials" should not be discounted ( $X^2 = 9.86$ ,  $df = 4$ ,  $P < .05$ ).

### Technological Competence.

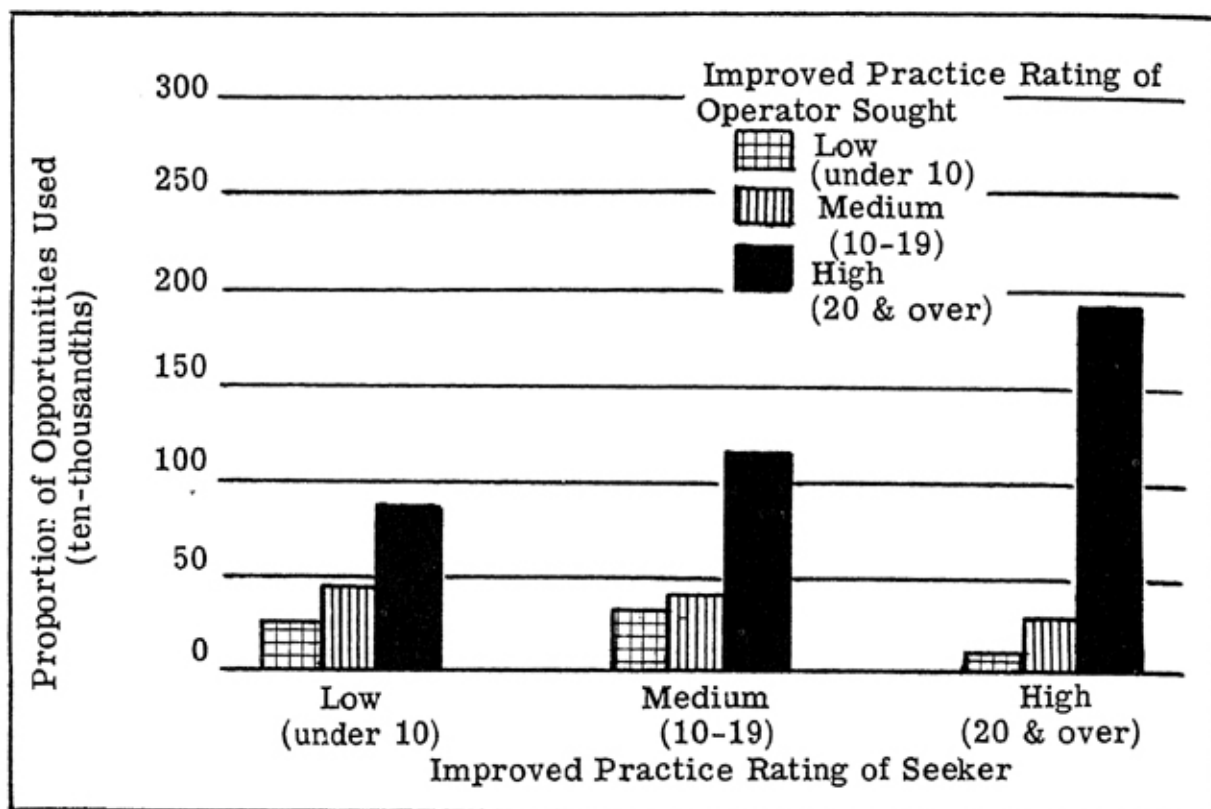
A set of standards which places a high value upon financial success in agriculture is likely to be accompanied by a corresponding emphasis upon agricultural technology, which makes this goal possible. Emphasis would also be expected on the sources from which a knowledge of this technology could be obtained. If these values existed in the community studied, then it should have been reflected in the information seeking behavior of community members. By and large, the preceding analysis has indicated this to be true, even though a direct analysis of the relationship between the technological competence of the seeker and the person sought has not been made.

The pattern indicated was to be expected where considerations of technological competence predominated in the choice of personal sources. Nevertheless, to the extent that non-rationalistic and non-instrumental factors enter into the selection of sources of information, the most competent sources may be unused and even ignored. For illustration, when persons are selected because they belong to the same neighborhood, clique, locality, or social class, a single direct relationship between the seekers and the technical competence of their sources may not exist. Less competent sources may be chosen because they belong to the same group. However, when the non-rational bases for selection of sources are associated with the technological bases, because the channels of communication are identical, then the factors in the choice of sources are mutually supportive. The interpretation of data concerning neighborhoods and cliques, given earlier in the text, bolsters this conclusion.

To assess the importance of technological competence as a factor in the choice of sources, a single objective measure was required. Technological competence was defined as the use of specified improved farm practices. These practices, which were all appropriate for the kind of farming done in the community, included: the use of sodium fluoride as a treatment for worms in hogs; the planting of Ladino clover; the use of commercial fertilizer according to soil test; the planting of one of the new oat varieties; a systematic pasture improvement program roughly in accord with Production Marketing Administration (ASC) standards; terracing or contouring; planting Wabash, Lincoln, or Chief soybeans; the use of chemicals to control weeds; and the use of methoxychlor fly spray on dairy cattle. Each farm operator was given an arbitrary credit for using each of these practices and for the length of time he had used it. Total scores ranged from 0 to 50.

As might be expected, information seeking on a person-to-person basis was somewhat more prevalent among the more competent than among the less competent farmers. Operators with high (20 and over), medium (10-19), and low (under 10) improved farm practice ratings used 60, 56, and 49 ten-thousandths, respectively, of their possible ISRs with other farmers in the community. But, as Figure 20 demonstrates, the most notable fact was that farm operators from all three levels of technological competence used a preponderance of their contact opportunities with the most competent sources of information.

The strength of preference, in this case, was greater for the most competent seekers than it was for those of lesser technical competence. Farmers with low improved practice scores used 88 ten-thousandths of their opportunities to contact sources of information who have improved practice

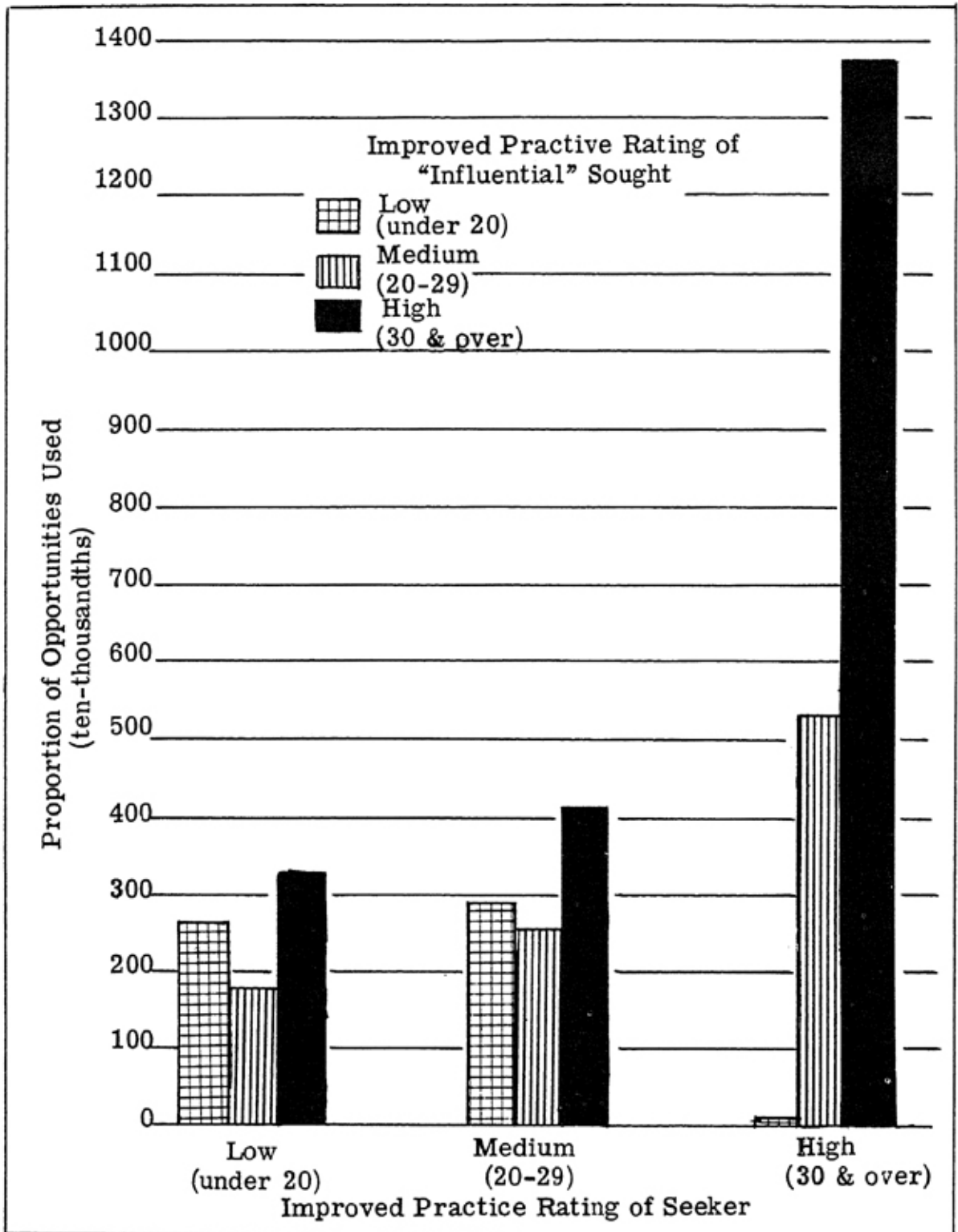


**Figure 20—Proportionate use of persons with low, medium, and high improved practice ratings as sources of farm information by information seekers with low, medium, and high ratings.**

scores of 20 and over compared to 122 and 184 ten-thousandths for farmers having medium and high technological competence ratings, respectively. Only part of this increased use of the most competent sources could be attributed to the increased information seeking activity on the part of the most competent seekers. Much of the differences was undoubtedly due to the tendency for farmers with high improved practice ratings to choose persons similar in technological competence to themselves as sources. In any case, the predominant pattern of making greatest use of the most competent persons was evident in the choice of information seekers at all competence levels ( $X^2 = 551.52$ ,  $df = 3$ ,  $P < .01$ ).

Communication patterns between farm operators and others denoted as *most frequently sought* were quite similar to the foregoing. Information seeking activity increased slightly with the increasing competence of seekers. Furthermore, information seekers at every competence level made relatively greater use of persons most technically competent to give advice. The more technologically competent the seeker, the more selective he was with respect to the competence of those he sought. Chi square for the configuration of relationships computed from a 4 by 4 table is 130.39. ( $P < .01$ ).





**Figure 21—Proportionate use of "influentials" with low, medium, and high improved practice ratings as sources of farm information by information seekers with low, medium, and high ratings.**

The relative use of contact opportunities with "local influentials", when structured by diversities in technological competence, was essentially the same. Again the most active information seekers were the most com-

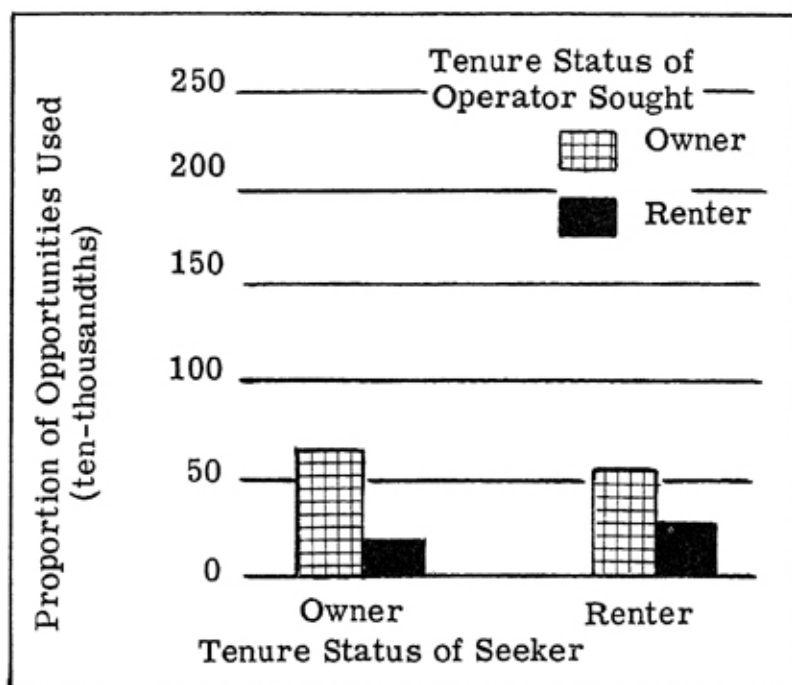
petent farmers. Use rates were 8.8, 3.4, and 2.6 percent for farmers with practice ratings of 30 and over, 20 to 29, and less than 20, respectively. It seems certain that the more competent a farmer becomes the more he focuses upon highly competent "local influentials" as sources. A graphic portrayal of the pattern of seeking information from various competence levels of "local influentials" is given in Figure 21. Chi square computed for the over-all configuration of information seeking based on a 3 by 3 table is 29.89. It is likely to occur by chance in a random sample less than one time in a thousand.

### Tenure Status.

To the degree that tenure status enters into the selection of a particular farm operator as a source of information, it may be expected to act as a symbol of achievement (or, lack of it) and, hence, of competence. Wherever competence is the primary element associated with tenure status, a higher proportion of contacts would be expected with owners than with renters. (A farmer owning any part of the land he operated was considered an owner; those renting all the land they operated were classified as renters.) However, in some sections of the United States tenure status is a symbol of class position, thereby tending to limit interpersonal communication. In such cases, renters may be expected to make relatively more use of other renters despite a lesser degree of technical competence on their part.

The data revealed that owners made more use of possible ISRs involving *all* persons named as sources than renters. Comparative proportions of possible opportunities used were 55 ten-thousandths and 50 ten-thousandths, respectively. The importance of tenure status as a factor in the choice of persons as sources seemed to stem from its relation to technological competence and not to considerations of social class. Both owners and renters showed a greater inclination to use opportunities for contact with the group of owners than with renters. ( $X^2 = 41.67$ ,  $df = 1$ ,  $P < .01$ ) However, renters used owners as sources a little less (56 ten-thousandths) than other owners did (63 ten-thousandths) and other renters relatively more. Thus, a small preference of renters for renters and owners for owners as sources of information was indicated.

The renters fell far short in the use made of ISRs involving *most frequently sought* sources. Proportions of contact opportunities used were 16 ten-thousandths for renters and 23 ten-thousandths for owners. The lower use rate for renters was primarily due to a decline in their use of opportunities for contact with owners. Nevertheless, renters still used relatively more opportunities for contact with owners (18 ten-thousandths)



**Figure 22—Proportionate use of farm owners and renters as sources of farm information by owner and renter information seekers.**

than with members of their own tenure class (7 ten-thousandths). Owners used 25 ten-thousandths of their contact opportunities with other owners, compared to only 6 ten-thousandths with renter operators. (See Figure 22.) Chi square for the 2 by 2 table is 18.15. ( $P < .01$ ).

None of the "local influentials" was a renter-operator. Since "local influentials" were selected on the basis of choice as sources of farm information, the absence of renter-operators among these ranks was significant. The influence of tenure status on the quest for information from "local influentials" was further indicated by the greater use of such ISRs by owners than renters. Comparative proportions of opportunities used were 3.3 percent for owners and 2.3 percent for renters.

In summary, owner-operators made greater use than renters of opportunities for contact in each of the three ISR types. Ownership status on the part of the person sought was associated with the more frequent use of opportunities by both owners and renters. However, there was insufficient evidence to indicate that tenure status served as a serious barrier to the communication of farm information.

#### Comparative Influence of Selected Factors on Choice of Sources.

In the foregoing analysis, the relationship of various social structure and status characteristics to the use of three types of information seeking

relationships was investigated. The factors studied were: gross farm income, size of farm, age, education, tenure status, prestige, improved practice rating, total social participation, and a sub-classification of the latter—localistic and extra-localistic social participation. Although all of these status characteristics were found to have a significant bearing upon the utilization of opportunities for contacts, their relative importance was undetermined. Investigation of this matter was the major purpose of the analyses which follow.

Thus far, chi square has been employed to indicate the degree and significance of association between status factors and choice of sources. When computed from relationships involving the same number of cells (columns and rows), size of the chi square provides a measure of the relative degree to which each status characteristic was associated with the choice of personal sources of farm information. However, since the size of chi square is a partial function of the number of cells in the table, and since it was otherwise advisable to compute chi square from tables with four, nine, and sixteen cells, direct comparisons could not be made in a systematic manner. Consequently, some advantage is gained by converting the chi squares to T-coefficients of association based upon the formula:

$$T^2 = \frac{1}{N} \frac{X^2}{\sqrt{(s-1)(t-1)}}$$

In the formula  $s$  refers to the number of rows,  $t$  to the number of columns, and  $N$  to the number of cases. The virtue of the coefficient  $T$ , in this case, lies in its applicability to a table of any number of rows and columns and the fact that the upper limit is always 1.0 (33). Since the value of  $N$  is a constant for contacts with each type of personal source,‡ a direct comparison of T-scores with respect to the status characteristics can be made.

Table 10a shows the values of  $T$  for each of the status characteristics and each of the three types of sources. The relative size of T-scores on each status characteristic and information seeking relationship with *all* sources indicates that they may be ranked in terms of size as follows: improved practice ratings, extra-localistic social participation, gross cash income, prestige, size of farm, tenure status, localistic social participation, education, total social participation, and age. It also may be assumed that this constituted for the farmers studied, a hierarchy of importance of the status characteristics in the selection of persons as sources of farm information.

An examination of the comparative sizes of T-scores and sources *most frequently sought* suggests a similar although not identical ranking of the status characteristics.

‡N equals 430 for *all* persons as sources, 159 for *most frequently sought*, and 190 for "local influentials".

T-scores based on relationships of each status characteristic and contacts with "local influentials" exhibited a somewhat different order of importance, principally because total social participation and age had greater relative importance when ISRs with this source were considered. Prestige and size of farm were of less importance. The rank of T-scores was: improved practice rating, extra-localistic social participation, total social participation, gross farm income, age, localistic social participation, education, prestige, and size of farm.

It is evident that the general level of importance of some status variables was relatively stable, regardless of the ISR type involved. For example, improved practice rating and extra-localistic social participation of the seeker and person sought were highly important considerations in all three ISR relationships. This tends to substantiate an earlier conclusion that the choice of a source was highly dependent upon the technological competence of the source. It should also be observed that the degree of association between technological competence of the seeker and sought was very definitely greater than the association for any other status factor, even social participation, the one of second importance. Those following third and fourth, gross cash income and prestige, were about equally important as status variables with respect to ISRs involving *all* persons sought as sources and those *most frequently sought*. The relative importance of tenure status, localistic social participation, and size of farm as factors associated with choice was minimal in all three of the information seeking relationships.

By way of contrast, the degree of association and, therefore, the importance in the choice of sources varied somewhat by ISR type. This was notably true for total social participation, age, prestige, income, and size of farm. In general, the differences that occurred were most evident between ISRs involving *all* persons sought and those *most frequently sought* on the one hand and those involving "local influentials" on the other. For example, for relationships involving "local influentials," coefficients of association between age and choice and between income and choice were of much the same magnitude. However, for the other two ISRs differences were considerable. Table 10a reveals other differences. This divergence in degree of association of status variables with choice of sources in different ISR types suggests either a difference in the essential nature of the three channels of interpersonal communication or, the unique nature of "local influentials" as personal sources of farm information.

Since virtually all of the farm operators in the community studied were enumerated, no question of sampling error was involved in con-

clusions regarding the community. The difference in degrees of association expressed in Table 10a are real and represent the actual community situation. However, if we assume that the relationships reported also may have some validity for the larger cultural area of which this one was a part, determination of statistical significance of the T-scores is justified.

TABLE 10a. "COEFFICIENT T" ASSOCIATION BETWEEN SELECTED STATUS CHARACTERISTICS OF PERSONS SEEKING INFORMATION AND THOSE SOUGHT AS SOURCES, BY SPECIFIED TYPE OF PERSON INVOLVED

Selected Status Characteristic	Type of Person Involved		
	All Persons Named as Sources	Persons Most Frequently Sought	Influentials Only
Improved Farm Practice Rating	.742*	.523*	.280*
Extra-Localistic Social Participation . . . . .	.632*	.660*	.269*
Gross Farm Income . . . . .	.554*	.501*	.191+
Community Prestige . . . . .	.544*	.508*	.158
Size of Farm Operated . . . . .	.347*	.362*	.153
Tenure Status . . . . .	.311*	.338*	---
Localistic Social Participation	.284*	.295*	.182+
Years Schooling Completed . . . .	.258*	.283*	.161+
Total Social Participation . . . . .	.257*	.289*	.216+
Age of Operator . . . . .	.172*	.206+	.191+

\*P > 0.001

+P > 0.01

+P > 0.05

Statistical significance of the amount of association reflected in the T-scores is directly dependent upon the statistical significance of the chi squares on which they are based; i.e., when the chi squares are significant, the T-scores are also significant. The statistical significance of many of the chi squares has been indicated previously in the report and all appear in footnotes to Table 10b. Note that the association of all the status variables in the ISR type involving *all* persons named as sources are significant below the one percent level. Moreover, with the exception of age, the degrees of association for all status characteristics of information seekers and persons *most frequently sought* as sources were significant at the same level. Only two of the associations, involving improved practice ratings and extra-localistic social participation and the seeking of information from "local influentials", were significant at the one percent level. On the other hand, only the prestige and size of farm status factors of seekers and "local influentials" failed to exhibit a degree of association that might be considered significantly greater than that occurring due to random variation at the 5 percent level of confidence.

The statistical analyses may be summarized as follows: While there was considerable variation in the relative importance of status character-

istics in the choice of personal sources of farm information, all status variables but two were significantly associated with choices made in each of the three ISR types considered.

TABLE 10b. CHI-SQUARES OF THE RELATIONSHIP BETWEEN SELECTED STATUS CHARACTERISTICS OF PERSONS SEEKING OTHER FARMERS AS SOURCES OF FARM INFORMATION AND THOSE SOUGHT AS SOURCES BY TYPE OF PERSON INVOLVED

Selected Status Characteristics	Type of Person Involved		
	All Persons Named as Sources	Persons Most Frequently Sought	Influentials Only
Improved Farm Practice Rating	710.35*	130.47*	29.89*
Extra-Localistic Social Participation . . . . .	516.06*	207.56*	27.50*
Gross Farm Income . . . . .	395.33*	119.67*	13.98+
Community Prestige . . . . .	381.08*	123.23*	9.43
Size of Farm Operated . . . . .	155.45*	62.40*	8.90
Localistic Social Participation	103.78*	41.56*	12.65+
Years Schooling Completed . . .	85.64*	38.29*	9.86+
Total Social Participation . . . .	85.09*	39.82*	17.78+
Tenure Status . . . . .	41.57*	18.15*	-----
Age of Operator . . . . .	38.23*	20.31+	13.81+

\*P> 0.001

+P> 0.01

+P> 0.05

# Relationship of Status Characteristics to Technological Competence

In the previous section it was shown that choice of persons as sources of farm information was structured to a considerable degree by status factors. The structuring influence often appeared to be due in part to an interactional association between these factors and technological competence. Therefore it was difficult to determine just how much of the association was due to each. Following is a consideration of this relationship which will provide some basis for clarification. Relationships between technological competence and the following status factors were considered: gross farm income, size of farm operated, tenure status, age, years of schooling completed, participation in formal organizations, community prestige, and socio-economic status measured by the Sewell scale (34).

## SPECIFIC STATUS CHARACTERISTICS OF FARM OPERATORS

### Age.

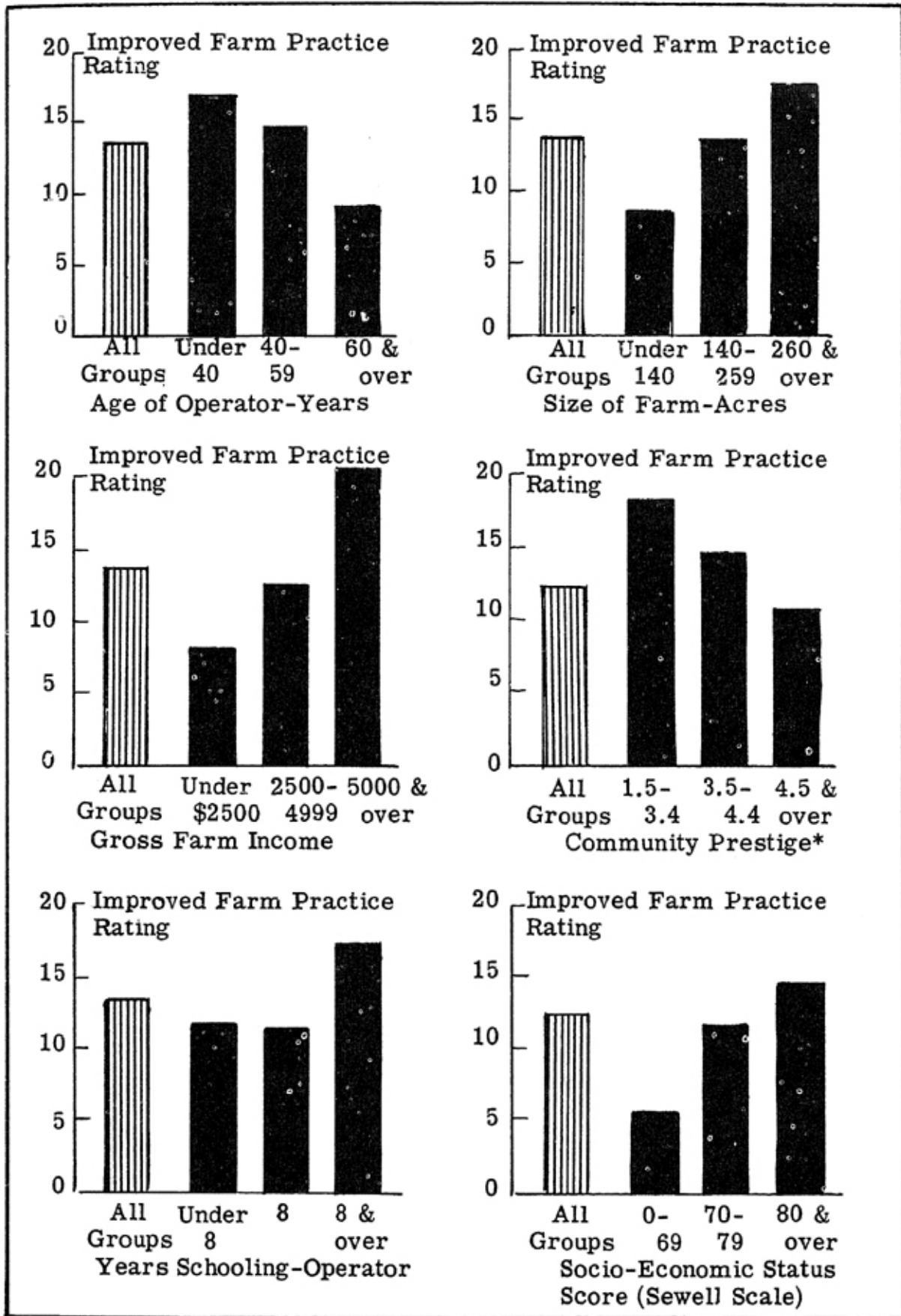
The relationship between age and improved practice rating of farm operators was small and negative, as indicated by an "r" of -0.32. This relationship is illustrated graphically in Figure 23. Average ratings declined progressively with age. Differences were greatest between farmers aged 60 and over and those in the two younger age categories.

TABLE 11. PROPORTION OF FARM OPERATORS USING SPECIFIED IMPROVED FARM PRACTICES CLASSIFIED BY AGE OF FARM OPERATOR

Improved Farm Practice Used	Age of Farm Operator (Years)		
	Under 40 (Percent)	40-59 (Percent)	60 and over (Percent)
Application of Commercial Fertilizer			
According to Soil Test . . . . .	22.6	24.4	7.9
Systematic Pasture Improvement Program	23.8	30.3	14.5
Contour Farming or Use of Terraces . . . . .	29.8	26.1	5.3
New Soybean Varieties . . . . .	75.0	57.1	50.0
New Oat Varieties . . . . .	80.9	71.4	76.3
Chemical Spray on Weeds . . . . .	29.8	30.3	17.1
Ladino Clover . . . . .	13.1	17.6	11.8
Sodium Fluoride Treatment for Control of Worms in Hogs* . . . . .	52.4	70.6	61.8
Methoxychlor Spray for Flies on Dairy Cattle . . . . .	8.3	4.2	2.6

\*Based on Those Producing Hogs





\* Low score represents high prestige

Figure 23—Median improved farm practice rating of farm operators by designated status characteristics.

### Size of Farm.

The Pearsonian correlation between size of farm and improved practice scores was 0.28. This was about the same as the correlation between age and improved practice ratings, though positive rather than negative. The greatest difference by size of farm was between farmers operating relatively small acreages (less than 140 acres) and those operating middle-sized and large farms. (See Figure 23.) Although large farms apparently encouraged the use of more improved practices, differences in improved practice ratings of farmers operating medium and large farms were quite small. Data suggested that the minimum critical size of farm was about 140 acres for the use of the improved farm practices considered. The relationship between size of farm and use made of specific practices may be observed in Table 12.

TABLE 12. PROPORTION OF FARM OPERATORS USING SPECIFIED IMPROVED FARM PRACTICES CLASSIFIED BY SIZE OF FARM OPERATED

Improved Farm Practice Used	Size of Farm Operated (Acres)		
	Under 140 (Percent)	140-259 (Percent)	260 and over (Percent)
Application of Commercial Fertilizer			
According to Soil Test . . . . .	12.0	18.2	26.6
Systematic Pasture Improvement Program	10.7	25.5	33.0
Contour Farming or Use of Terraces . . . .	14.7	22.7	25.5
New Soybean Varieties . . . . .	44.0	58.2	76.6
New Oat Varieties . . . . .	80.0	73.6	74.5
Chemical Spray on Weeds . . . . .	22.7	27.3	28.7
Ladino Clover . . . . .	10.7	13.6	19.1
Sodium Fluoride Treatment for Control of Worms in Hogs . . . . .	8.0	35.5	36.2
Methoxychlor Spray for Flies on Dairy Cattle . . . . .	0.0	7.3	6.4

### Gross Farm Income.

The Pearsonian correlation between gross farm income and technological competence of operators was 0.53. This was the largest simple relationship found among all the status factors considered. Slightly more than 28 percent of the variation in improved practice scores was explained by this factor.

The size and nature of this income-technological competence relationship was further illustrated by the median improved practice ratings of farmers in different income categories. Figure 23 shows that the relationship was most marked at the high income levels and least at the low. As can be seen in Table 13, this relationship was also consistent with the use made of most specific practices.

TABLE 13. PROPORTION OF FARM OPERATORS USING SPECIFIED IMPROVED FARM PRACTICES CLASSIFIED BY GROSS FARM INCOME

Improved Farm Practice Used	Gross Farm Income (Dollars)		
	Under 2000 (Percent)	200-4999 (Percent)	5000 and Over (Percent)
Application of Commercial Fertilizer			
According to Soil Test . . . . .	4.3	16.9	35.3
Systematic Pasture Improvement Program	7.1	18.5	47.6
Contour Farming or Use of Terraces . . . . .	5.7	22.6	31.8
New Soybean Varieties . . . . .	41.4	61.3	71.8
New Oat Varieties . . . . .	27.1	48.4	61.2
Chemical Spray on Weeds . . . . .	15.7	21.8	42.4
Ladino Clover . . . . .	4.3	9.7	23.5
Sodium Fluoride Treatment for Control of Worms in Hogs . . . . .	12.8	25.8	25.9
Methoxychlor Spray for Flies on Dairy Cattle . . . . .	1.4	6.5	5.9

### Tenure Status.

A chi square test revealed a significant difference between the improved practice scores of farm owners and renters ( $X^2 = 24.08$ ,  $df = 5$ ,  $P < .01$ ). Yet median improved practice scores were much the same, being 13.9 for owners and 12.4 for renters. The comparative use of specific practices tended to confirm the conclusion of small but somewhat inconsistent differences in use rates between owners and renters. (See Table 14.)

TABLE 14. PROPORTION OF FARM OPERATORS USING SPECIFIED IMPROVED FARM PRACTICES CLASSIFIED BY TENURE STATUS OF OPERATOR

Improved Farm Practice Used	Tenure Status of Operator	
	Owner (Percent)	Renter (Percent)
Application of Commercial Fertilizer		
According to Soil Test . . . . .	21.5	10.7
Systematic Pasture Improvement Program . .	28.7	5.4
Contour Farming or Use of Terraces . . . . .	22.0	19.6
New Soybean Varieties . . . . .	56.5	76.8
New Oat Varieties . . . . .	44.8	55.4
Chemical Spray on Weeds . . . . .	29.6	14.3
Ladino Clover . . . . .	14.3	5.4
Sodium Fluoride Treatment for Control of Worms in Hogs . . . . .	20.6	30.4
Methoxychlor Spray for Flies on Dairy Cattle . . . . .	5.4	3.6

### Years of Schooling.

A small but expected relationship between years of schooling completed by the operator and his technological competence was indicated by a correlation coefficient of 0.25. However, the size of the correlation was

negated somewhat by a high concentration of cases in the category of eight years of schooling. Figure 23 shows that the greatest change in improved practice rating occurred at the eight-year level of schooling. Differences below the 8th grade level were very small. High school and college educated farmers made more use of improved practices than farm operators who had eight years of schooling or less, even though the differences were often small. (See Table 15.)

TABLE 15. PROPORTION OF FARM OPERATORS USING SPECIFIED IMPROVED FARM PRACTICES CLASSIFIED BY YEARS SCHOOLING COMPLETED BY OPERATOR

Improved Farm Practice Used	Years Schooling Completed by Operator		
	Under 8 (Percent)	8 (Percent)	9 and over (Percent)
Application of Commercial Fertilizer			
According to Soil Test . . . . .	7.3	17.3	26.1
Systematic Pasture Improvement Program	9.8	18.1	36.4
Contour Farming or Use of Terraces . . .	12.2	14.2	33.6
New Soybean Varieties . . . . .	43.9	62.2	65.4
New Oat Varieties . . . . .	31.7	41.7	58.9
Chemical Spray on Weeds . . . . .	22.0	26.0	30.0
Ladino Clover . . . . .	7.3	12.6	14.4
Sodium Fluoride Treatment for Control of Worms in Hogs . . . . .	9.7	15.7	35.1
Methoxychlor Spray for Flies on Dairy Cattle . . . . .	2.4	3.1	8.4

### Prestige.

The correlation between improved practice scores and prestige ratings of farm operators was 0.38. The nature of the relationship was further apparent in the graphical representation of median improved farm practice ratings of farmers with varying prestige. (See Figure 23.) Although the re-

TABLE 16. PROPORTION OF FARM OPERATORS USING SPECIFIED IMPROVED FARM PRACTICES CLASSIFIED BY PRESTIGE RATING OF OPERATORS

Improved Farm Practice Used	Prestige Rating of Operator		
	1.5-3.4 (Percent)	3.5-4.4 (Percent)	4.5 and over (Percent)
Application of Commercial Fertilizer			
According to Soil Test . . . . .	32.2	18.7	12.4
Systematic Pasture Improvement Program	52.4	24.4	12.4
Contour Farming or Use of Terraces . . .	32.2	23.6	12.4
New Soybean Varieties . . . . .	62.7	66.7	51.5
New Oat Varieties . . . . .	72.9	71.5	79.4
Chemical Spray on Weeds . . . . .	35.6	29.3	13.4
Ladino Clover . . . . .	27.1	12.2	10.3
Sodium Fluoride Treatment for Control of Worms in Hogs . . . . .	40.7	29.3	19.6
Methoxychlor Spray for Flies on Dairy Cattle . . . . .	1.7	8.1	3.1

relationship was only moderate, both statistics tended to substantiate the positive relationship between prestige and technological competence. In like manner, high social standing was associated with high use of all except two improved practices. (See Table 16.)

### Participation in Formal Organizations.

The correlation coefficient between improved farm practice and formal social participation scores of farm operators was 0.40. Although this was one of the highest coefficients obtained, it explained only 16 percent of the total variation in technological competence. In the familiar fashion, this relationship can be represented by means of the median improved practice scores of farm operators with low, medium, and high rates of social participation in formal organizations. Figure 24 reveals the rather marked increase in improved farm practice scores by social participation levels. Although the relationship of participation in organizations to the use of particular practices varied considerably from practice to practice, the only reversal of the general pattern was in the proportion using methoxychlor spray for dairy cattle, a practice which, incidentally, added little to the index used. (See Table 17.)

TABLE 17. PROPORTION OF FARM OPERATORS USING SPECIFIED IMPROVED FARM PRACTICES CLASSIFIED BY TOTAL SOCIAL PARTICIPATION SCORE OF OPERATOR IN FORMAL SOCIAL ORGANIZATIONS

Improved Farm Practice Used	Total Social Participation Score of Operator		
	0-4 (Percent)	5-19 (Percent)	20 and over (Percent)
Application of Commercial Fertilizer			
According to Soil Test . . . . .	10.4	23.0	52.2
Systematic Pasture Improvement Program	13.4	30.3	52.2
Contour Farming or Use of Terraces . . .	14.2	25.4	39.1
New Soybean Varieties . . . . .	58.0	59.6	64.6
New Oat Varieties . . . . .	41.0	54.9	56.5
Chemical Spray on Weeds . . . . .	17.2	32.0	52.2
Ladino Clover . . . . .	6.0	18.0	47.8
Sodium Fluoride Treatment for Control of Worms in Hogs . . . . .	31.3	42.6	43.5
Methoxychlor Spray for Flies on Dairy Cattle . . . . .	5.2	5.7	4.3

*Instrumental Social Participation:* In general, this classification included participation in organizations dedicated to objectives growing out of the farm enterprise. Typical of the organizations included were buying, selling, and service coops. (The rationale of the classification is fully explained in reference 20, pp. 74-76.) Since the distribution of these social participation scores does not even approach the basic requirement of nor-

mality, a statistic is needed which is not bound by that requirement and which will give some indication of the degree of association. Chi square is such a statistic.

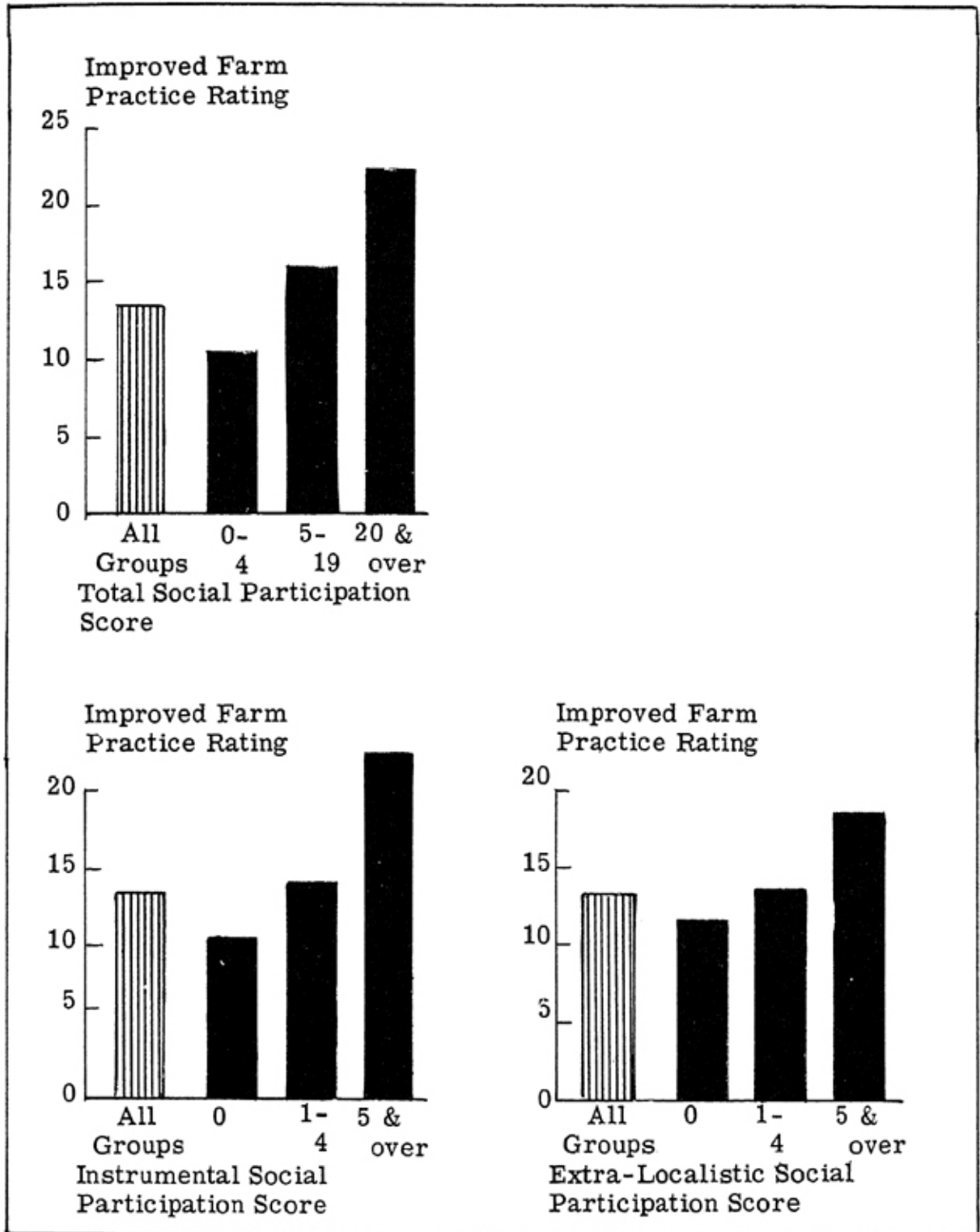
When computed from a 3 x 4 table for instrumental social participation and the improved practice rating of the farmers studied, chi square was 58.35. This value may then be compared with the chi square computed from a similar 3 x 4 table of total social participation and the improved practice rating of farmers. In this case chi square was 45.25. The larger figure for instrumental social participation supports the expectation that participation in organizations oriented to the provision of useful farm information was indeed more highly associated with technological competence than participation in *all* formal organizations.

The comparative association of participation in instrumental organizations with the improved practice ratings and the association of total social participation in formal organizations with technological competence may be observed in Figure 24.

*Extra-Localistic Social Participation:* As previously explained, organizations in the community studied were classified into localistic and extra-localistic types. This made it possible to test whether or not participation in the latter was more closely associated with technological competence than participation in all kinds of formal organizations. Thereafter, the usual tests of association were made. As in the case of instrumental participation, the chi square test provided a suitable statistic for comparison. Such a statistic computed from a 3 x 4 table was 45.71 for the relationship between participation in extra-localistic organizations and improved practice ratings. This does not indicate an appreciably greater association than participation in all kinds of social organizations had with technological competence. ( $X^2 = 45.25$ ,  $df = 6$ ,  $P < .01$ ) Consequently, recognition of this particular aspect of membership in formal social organizations does not increase ability to predict technological competence of participants over that provided by mere consideration of total social participation.

The relationship between different degrees of extra-localistic social participation and median improved practice scores of farm operators is shown in Figure 24. Although the relationship was very much in evidence it was not as marked as in the case of instrumental social participation or even total social participation. Also, the general relationship between extra-localistic social participation and improved farm practice scores holds for the use of most specific practices.

Discussion of the relationship between the participation of farm operators in formal organizations and their technological competence may be



**Figure 24—Median improved farm practice rating of farm operators by designated social participation score in formal groups.**

summarized as follows: (1) Participation in formal social organizations is more closely associated with technological competence than any other

single factor except income of the farmer; (2) the most important fact of organizational participation seems to be the opportunity for farmers to meet and talk to each other rather than the functional purposes of the organizations considered. This conclusion is drawn despite some evidence that participation in instrumental social organizations was a little more closely associated with technological competence than was participation in all organizations.

### Socio-Economic Status

In a sense the status factors considered may be combined into a single measure of socio-economic status. One such measure is provided by the Sewell Socio-Economic Status Scale. (34) Farm operators' scores computed in accord with scale requirements were found to be moderately correlated with their improved practice ratings. ( $r = .40$ )

Median improved practice scores by socio-economic status shown in Figure 23 are consistent with this finding. Another consistency was the fact that high socio-economic status was associated with high use of all of the specific practices considered.

## ANALYSIS OF VARIANCE OF SELECTED SOCIO-ECONOMIC STATUS FACTORS WITH TECHNOLOGICAL COMPETENCE

As a means for further examination of independent and joint effects of status factors on technological competence, analysis of variance was chosen as an appropriate technique. While it would have been desirable to include all of the socio-economic factors in the analysis, the number of cases involved made it impractical to do so. Four of the ten independent variables were selected, gross farm income, age, years schooling, and total social participation. Gross farm income and social participation were selected because they produced the highest simple association with technological competence. Age was selected because it was the only variable which was negatively associated with technological competence. Education was used because of the general significance usually attached to it. To reduce the number of cells in the cross-classification table to a minimum, each of the variables was dichotomized.

The analysis indicated that only gross farm income and total social participation were significantly related to the level of technological competence. (See Table 18.) Although the preliminary analysis of the simple association of age and years of schooling with technological competence showed significant relationships, these disappeared when the effect of



TABLE 18. ANALYSIS OF VARIANCE OF IMPROVED FARM PRACTICE RATING OF 233 FARM OPERATORS BY AGE, YEARS SCHOOLING COMPLETED, GROSS FARM INCOME AND PARTICIPATION IN FORMAL SOCIAL GROUPS

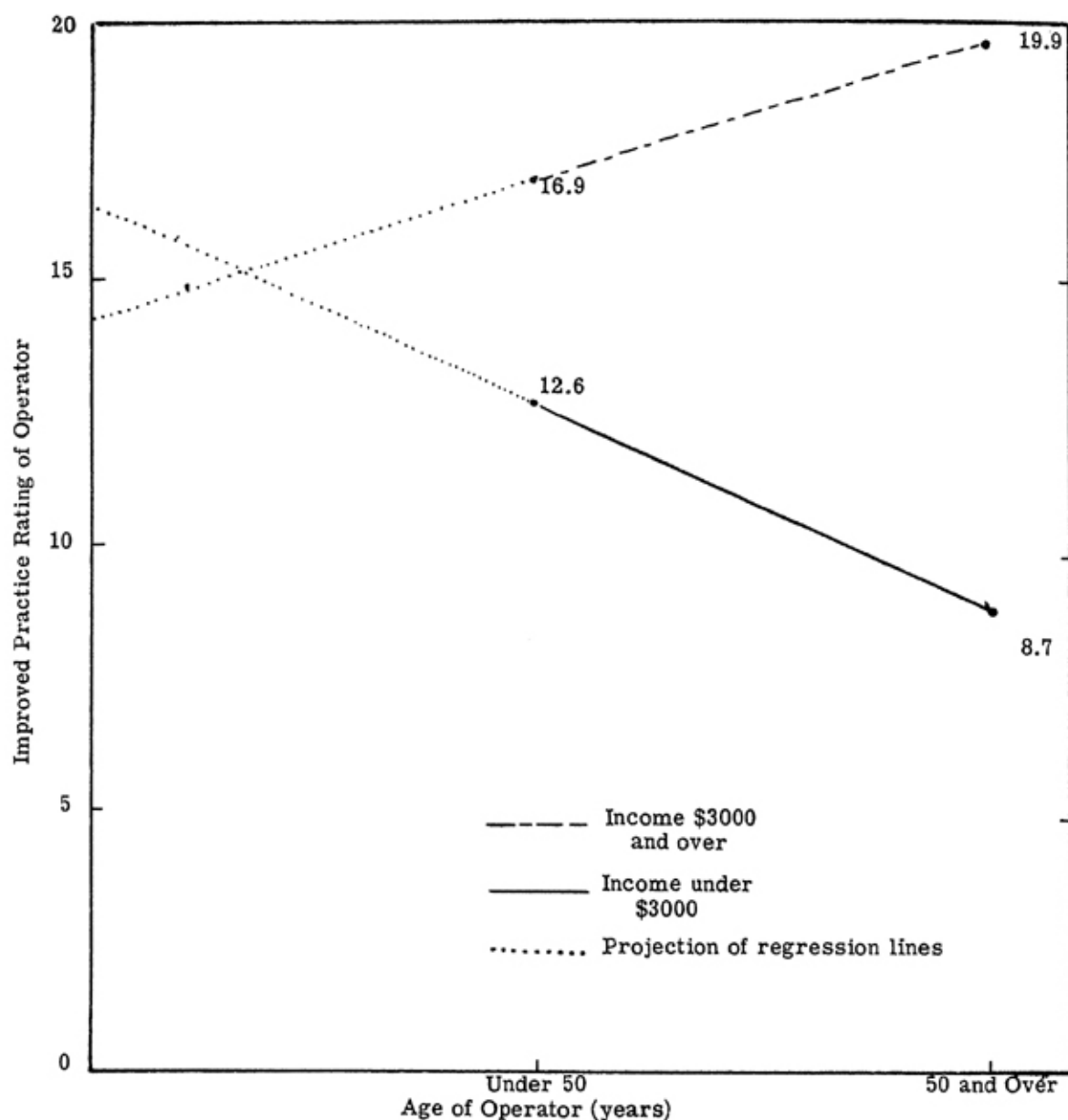
Source	Sums of Squares	Degrees of Freedom	Mean Squares	F-ratio
TOTAL	8,837.86	111		
(A) Age	5.002	1	5.00	
(E) Years Schooling Completed	153.04	1	153.04	
(I) Gross Farm Income	1,397.037	1	1397.04	23.19*
(S) Total Social Participation Score in Formal Organizations	792.893	1	792.89	13.16**
Two-way Interactions				
(A) x (E)	8.41	1	8.41	
(A) x (I)	310.52	1	310.52	5.15***
(A) x (S)	5.01	1	5.01	
(E) x (I)	116.99	1	116.99	
(E) x (S)	2.23	1	2.23	
(I) x (S)	.20		.20	
Three-way Interactions				
(A)x(E)x(I)	.00	1	.00	
(A)x(E)x(S)	108.05	1	108.05	
(E)x(I)x(S)	47.15	1	47.15	
(A)x(I)x(S)	108.92	1	108.92	
Four-way Interaction				
(A)x(E)x(I)x(S)	.28	1	.28	
Within	5,783.14	96	60.23	

*	P	[ F	1,96 = 23.19 ]	<	.001
**	P	[ F	1,96 = 13.16 ]	<	.01
***	P	[ F	1,96 = 5.15 ]	<	0.05

other variables was at least partially removed (by holding other variables constant).

The first order interactions in Table 18 indicate the possible joint effects of the four main variables on technological competence. Only one of the six possible joint effects, however, was significantly more than might be expected from random variation. This one was age and income of the farm operators. These results may be interpreted to mean that the nature of the relationship between age and the technological competence of farmers was significantly different for farmers with low and high incomes. This difference is apparent in Figure 25. Evidently age and improved practice rating were negatively associated for farmers with incomes of less than \$3000, whereas, the relationship was positive for farmers with incomes of \$3000 or more.

Since none of the other first order interactions were significant, any variation in technological competence arising from any of the five other



**Figure 25—Interaction of gross farm income of farm operator on improved practice rating.**

possible combinations of any two of the main factors was merely random variation. In addition, since none of the second or third order interactions were significant, no further explanation of Table 18 is required.

## Summary and Conclusions

The purpose of this study was to define elements in the social structure of a northeast Missouri farming community and to determine how they influenced the interpersonal exchange of farm information. Data were obtained from interviews with 279 farm operators and wives living in the community, from prestige ratings supplied by local judges, and from such secondary sources as farm organization and newspaper records. All but six of the bona fide farm operators in the community were interviewed.

### The Community.

Although the area studied could not be strictly regarded as a random sample of the larger 11-county area of which it was a part, it was closely representative of the area with respect to level of living and selected factors related to farming. Therefore, the findings would likely apply in large measure to the extended culture area. The use of statistical tests of significance was based upon this assumption.

The community was well supplied with conventional sources of farm and home information, such as newspapers, farm journals, county agents, vocational agriculture teachers, and government agencies.

Six out of ten took a daily newspaper, 85 percent subscribed to a local newspaper, 92 percent took one or more farm journals, and 98 percent had radios in operation. Satisfactory television reception was not possible in the area at the time of the study. Livestock and grain production prevailed as the chief source of farm income. Corn and soybeans constituted the chief grain crops; cattle and hog production represented the most important livestock enterprises. Although prevailing levels of living and conditions of farming were not the highest in the state, they were generally above the state average.

There were no distinctive racial elements but socio-economic differences were considerable. This was reflected in wide income differentials. While the lower 10 percent enjoyed no more than a subsistence level of income, the upper 10 percent had gross incomes well in excess of \$8000 for the 1949 crop year.

As a sociological entity, the community may have consisted of little more than a feeling of identification growing out of a congruence of life activities and emotional attachments. But this feeling's significance as a structural unit in the communication of farm information was well illus-

trated by the proportion of information seeking contacts contained within the community. Even those living one-fourth mile inside the operationally delineated boundary made 76 percent of their information seeking contacts within the community.

Subjective observation of attitude and behavior during interviews and analysis of more objective data collected in the study suggested three community functions in the communication of farm information, (1) a definitive or permissive function with respect to the kind of decisions permitted, (2) an evaluative or reinforcement function which stemmed from the availability of associates who could be trusted to help those considering change to arrive at socially accepted decisions regarding alternative goals and/or means, and (3) an interaction facilitating function derived from established patterns of association and communication existing within the community.

### Neighborhoods.

Five neighborhood areas were delineated by asking farm operators to indicate who resided within the neighborhoods mentioned. The largest included 45 farm operators and their families and the smallest 15. The average was 27. Although the sociological significance of the operationally defined areas may be in doubt, their significance for the communication of farm information was demonstrated by the localizing influence they exerted on information seeking relationships. Three types of overt information seeking relationships were used for this purpose: seeker-sought pairs defined by asking farm operators who they talked to about farm problems, those they talked to most frequently, and the "local influentials" whom they consulted about matters related to farming.

For all three types of relationships, residents made significantly more use of opportunities for contact within their neighborhood members than residents in control areas of comparable size and location. Comparative figures for *all* ISRs (information seeking relationships) were 73 percent for neighborhood residents against 52 percent for the control areas. For those *most frequently sought*, the figures were 79 and 53 percent and for those with "local influentials" 61 against 49, respectively.

For neighborhood members, exchange of farm information most frequently took place at the neighborhood center, which usually was a general store, school, church or blacksmith shop, or at a combination of such centers. For non-neighborhood residents, the village center seemed to serve a substitute function in this respect. Formal organization meetings also were indicated frequently as an occasion for information exchange by non-neighborhood residents. Exchange of farm information at informal

meetings seemed to occur as an unintended by-product of association rather than as a recognized and intended consequence. Nevertheless, there were a few organizations where dissemination of farm information was a recognized and intended objective.

Although the question of differential values and orientation to farming as an occupation between neighborhood and non-neighborhood residents was raised, the evidence available was not conclusive. From the standpoint of technological competence, differences between residents and non-residents of neighborhoods were small. The latter rated only slightly higher on an improved farm practice rating scale than neighborhood residents. Comparative scores were 12.9 and 14.1, respectively. Both were about equally inclined to pick those better qualified than themselves (technologically) as sources of farm information, thus suggesting a rational orientation to farm technology on the part of both.

A second kind of data from which orientation toward farm technology may be inferred related to sources of farm information considered most useful. Neighborhood members rated other farmers at the top of the list by a substantial margin while non-neighborhood members put mass media at the top of the list by an equally decisive margin. About equal proportions named institutionalized sources such as the county agent and the teacher of vocational agriculture.

It is possible that neighborhood members were relatively more concerned about adopting new farm practices to keep up with the neighbors, while non-neighborhood members were more inclined to make decisions on the basis of internalized norms of efficiency. This would also help explain the inward focusing of information seeking relationships among local residents, and the frequency with which neighborhood centers and functions were named as places where farm matters were most frequently discussed. The problem of adapting information is another factor. It is more difficult to adapt information obtained from mass media to local conditions than information obtained from a friend or neighbor. Those psychologically less inclined to independent rational action and those not well qualified to do such thinking may fall back on tried and trusted sources, their friends and neighbors.

### Social Cliques.

A third structural element considered in the study was social cliques. These were non-kinship, informally organized groups composed of a small number of families who associated together as social equals. They were defined by claims of interlocking pairs of mutual best friends, supplemented by evidence of actual association. About 20 percent of the farm opera-

tors in the community were members of such cliques.

Like neighborhoods, cliques are *gemeinschaft* groups. However, the former tend to be a *gemeinschaft* of persons in the same locality while cliques tend to be a *gemeinschaft* of persons of similar interests and esteem. In a sense, the two are manifestations of two divergent types of societies. Neighborhoods "ideally" are products of a society which institutionalizes strong particularistic or ascriptive values, or both, while cliques are more likely to be the product of universalistic or achievement values, or both. Data of an inferential nature tended to support this supposition.

Social cliques in the sample community were essentially a middle and upper class phenomena. They appeared to be relatively new structural developments and more characteristic of the young generation than the old.

To test the influence of these structures on the exchange of farm information, five situations involving exchange within, without, and across clique lines were postulated and arranged on an assumed continuum from facilitation, through neutrality, to greatest inhibition. The three types of interpersonal relationship—those with *all* persons named as sources, those most frequently sought, and those with "local influentials"—were used to test the hypothetical gradient. The proportions of persons chosen as sources of information to those possible in each of the situations were used as the basis for conclusions.

In all three relationships, the proportion of persons seeking fellow-clique members was distinctively greater than the proportion seeking persons outside of cliques or across clique lines. Occasional evidence indicated some tendency for contacts to decline when barriers of clique exclusion were involved. Significantly, it was in the most selective type of relationship, those with "local influentials," that the gradient was most in evidence. With only one exception, differences in the proportion of possible relationships used were consistently in the direction of the hypothesized resistance gradient. All were statistically significant from each other except the last one in the series which was the situation where the clique member sought information from a farmer who was a member of another clique.

The influence of informal clique-like groups was considered separately but results were essentially the same. Further analysis revealed that farm operators were more likely to name fellow clique members as most valued sources than persons in other situations involving social cliques, and having done so to name them as most frequently sought sources.

It was also significant that of the three ISRs considered, those with "local influentials" were most structured by cliques and least by neighborhoods. A possible explanation is that a different set of norms operates in

the quest for information from "local influentials" than in the quest for information from other persons. Perhaps with "local influentials," rational considerations of farm technology predominate while the choice of other persons as sources is largely based on traditional, non-rational norms such as prestige and friendship. The rational, instrumental norms which may be institutionalized in clique structure are also the type which tend to cut individuals off from locality oriented associational patterns. This may be due to the individualizing influence exerted upon them.

### Community Prestige.

Aside from informal social groups or systems of a readily distinguishable nature, a variety of status factors tend to structure interpersonal information seeking relationships. Of particular importance in this respect is "community prestige" which simply relates to personal standing in the community as those living there see it. Ratings were obtained by the usual method of having selected judges rate persons and were characterized by a high degree of agreement among judges, as well as the usual upper class bias.

In the exercise of complete freedom in the choice of categories for rating purposes, one judge used two categories, three used three, four used four, three used five, one used six, two used seven, and two used eight. The absence of agreement concerning clear-cut prestige distinctions was taken to indicate that no clear-cut social classes existed. The diverse pattern suggested a prestige hierarchy or continuum rather than discrete hierarchical social classes.

Since ratings generally met standards of normality of distribution, they were converted to standard scores (T-scores), added, and averaged for a single composite rating for each individual. Ratings were arranged on a scale from 1.5 to 7.4 with high scores representing low prestige. Farm operators named as personal sources of farm information, and also those named as most frequently sought, had average ratings of 3.9. "Local influentials" had a rating of 3.0 while the average for the community was 4.2.

For the ISRs involving *all* persons named and those involving persons named as *most frequently sought*, the average prestige rating of persons sought was about 0.67 points higher than that of the information seekers. For the ISRs involving "local influentials," the average upward look was 1.4 prestige points. Occasionally the choice of an informant actually spanned the entire prestige range. On the other hand, there were cases where persons looked down the prestige scale. However, this inclination diminished as the selectiveness of the person sought increased. In other words, the tendency was less in evidence with "local influentials" whose

prestige tended to be high than in the other two ISR relationships where the prestige of persons sought was generally lower.

Examination of the distribution of relationships used to obtain information revealed that upper class information seekers made more use of persons with similar prestige than middle and low prestige farmers. The same tendency was observed among middle prestige seekers. On the other hand, the progressively lower proportionate use of high prestige farmers by those with medium and low prestige was balanced by a graduated increase in the proportionate use of opportunities with members of the same class. This suggests that the general upward look to persons as sources of information was tempered by distance between seeker and sought on the prestige scale. However, this slight restricting influence operated within the dominant pattern in which farm operators at all prestige levels except the very highest used many more of the possible ISRs with high prestige farmers than with those at or below their own level. This same pattern prevailed for ISRs with *all* persons as sources and with those *most frequently sought*. The restrictive pattern for contacts with "local influentials" was not clear-cut. Therefore no definite generalizations can be made at this time.

### Other Status Characteristics

When such status factors as gross farm income, size of farm, years of schooling completed by operator, age of operator, technological competence, and social participation score in formal organizations were subjected to a similar type of analysis, it was generally found that high status persons made more use of opportunities for contacts than middle and lower status ones. Also, in general, the higher the status the more selective information seekers were in choosing sources of farm information. For example, the higher the income of the seekers the more inclined they were to choose high income persons as sources of farm information. However, in general, status differences did not serve as important barriers to the communication of farm information across status lines.

The general tendency was to look up the status scale for advice and assistance. Age proved to be somewhat of an exception to the rule. The oldest farmers were not preferred as sources by any age group, not even their own, in the information seeking relationships involving *all* persons sought as sources, and those *most frequently sought*. However, among "influentials" elderly farmers were as much sought as sources of farm information as younger ones. Obviously, "local influentials" had not permitted their knowledge of agricultural technology to become outdated nor had they allowed increasing age to greatly hamper their willingness to change.



To determine the relative structuring influence of status factors in the selection of personal sources of farm information, T-coefficients of association between status characteristics of seekers and persons sought were used. It was demonstrated that technological competence was more closely associated with choice of persons than any other status factor in the ISR involving *all* persons named as sources. Other status factors in the order of their significance were: participation in formal social groups, gross farm income, and community prestige. The association of size of farm, tenure status, localistic social participation, and total social participation in formal groups with technological competence was minimal.

The rank of the factors was much the same in the ISR involving persons named as *most frequently sought*.

For contacts with "local influentials," the order was, improved farm practice rating, extra-localistic social participation, total social participation (in formal social groups), gross farm income, age, localistic social participation (in formal groups), years schooling, prestige, and size of farm, with the first mentioned having a substantial lead. Thus age and total social participation were of relatively greater importance as a structuring influence in contacts with "local influentials" than in the other two ISR types, while prestige and size of farm were of less importance.

### Status Characteristics and Technological Competence.

Since technological competence (use of improved farm practices), itself a status factor, was associated with the other status factors considered, the question of joint effects on the choice of persons as sources of farm information continually arose. To throw some light on this subject, the nature of the interrelationship of selected status factors with technological competence was investigated. The analysis of variance technique was used. However, due to inherent difficulties in method of handling many variables, only four factors were included in the analysis. Gross farm income and social participation in formal social organizations were selected because they produced the highest single association with technological competence. Age was selected because it was the only variable negatively associated with technological competence. Years of schooling was used because of the significance generally attached to schooling and what it can do for people.

The analysis indicated that only gross cash income and total social participation were significantly related to technological competence when the influence of the other two factors were at least partially controlled. Although the preliminary analysis of the simple association of age and years of schooling with technological competence showed a significant relation-

ship, it disappeared when the association of other variables was removed. Only one of the six possible joint effects was significantly greater than chance—the combination of age and income of farm operators. This may be interpreted to mean that the nature of the relationship between age and technological competence of farmers is significantly different for farmers with low and high incomes. For farmers with incomes under \$3000, age and improved practice ratings were negatively related, whereas for farmers with incomes of \$3000 or more, the relationship was positive. The fact that none of the first order interactions were significant means that any variation in technological competence of farm operators arising from any two of the main factors of the five combinations possible was in the nature of random variation.

### Formal Social Groups.

A final consideration concerned the influence of formal social groups in the interpersonal communication of farm information. Some of these organizations were specifically organized for the purpose of disseminating farm information and therefore performed a manifest or intended function in this respect. Twenty-six percent of the farmers got information from the adult farm schools associated with the local department of vocational agriculture, 7 percent got information from soils and crops meetings, and 17 percent said they got help from a "Balanced Farming Action Day" program held in the community.

Formal organizations with purely social or broad objectives performed a latent (unplanned and in some degree unintended) function in the dissemination of farm information. They provided a time and place of meeting and an atmosphere conducive to the discussion of farm problems and thus facilitated the dissemination of farm information. The existence of such associations made highly qualified sources of farm information accessible to more people than they otherwise might have been.

Farm operators who participated in formal organizations had an improved farm practice rating of 14.7 compared to 9.4 for non-participants. The Pearsonian correlation between the practice rating and participation in formal organizations was 0.52. Chi square tests of significance indicated an even higher association between technological competence on the one hand and participation in extra-localistic and instrumental social organizations on the other.

Treatment of social participation as a status factor in the choice of persons as sources was complicated by the fact that participation in itself provided a means of facilitating contacts. An added increment of opportunity for contact was therefore involved.

When preferences of persons with no social participation were considered, little selectivity in choice on the basis of social participation was in evidence. Also, a decreasing preference for non-participants was associated with increased social participation of the information seeker. The tendency to make a disproportionately high number of selections from high participation categories was even more in evidence when participation in extra-localistic formal organizations was considered. Also, as might be expected, the proportion of total possible contacts increased as social participation increased. However, since choice was complicated by the close association between social participation and technological competence, it was difficult to conclude how important social participation actually was in the choice of persons as sources of farm information. Therefore, the real reasons for the selection of a disproportionately high number of farm operators with high participation scores remained somewhat obscure.

# Implications

## FOR ACTION

### Use of "Local Influentials."

Broadly oriented farmers who are frequently sought as sources of farm information by other farmers are in a strategic position to facilitate desired changes. Their position in the informal social structure is such that they exercise influence out of proportion to their numbers. Educational effort directed to convincing them and securing their cooperation should show an additional increment of success over that obtained by working with the rank and file farmer. However, in choosing persons with whom to work it is not safe to assume that all eager followers and good cooperators are people with more than average local influence.

### Community Structure and Process.

Since the community tends to be a self-contained unit with respect to interpersonal relationships through which information is exchanged and since formal activities tend to be concentrated in the village center, these centers provide excellent places for communicating with local residents. Meetings held in the village center are likely to be better attended by residents over a wide area than meetings held elsewhere. Informal patterns of association among residents and the social processes which facilitate decisions, such as discussions with trusted friends and neighbors, are likely to be highly in evidence at this point.

### Neighborhood Patterns of Interaction.

Neighborhood systems of social interaction tend to be somewhat removed from the village centers and have a tendency to localize interpersonal information seeking contacts. If technologically competent persons are available within a neighborhood and are sought as sources of information by fellow residents, the localizing influence of neighborhoods may not be a serious barrier to the dissemination of farm information. However, if the technological competence of local residents is low, or if farmers are not highly selective of competent sources within the neighborhood, the prospects are that the quality of advice will be poor.

In situations like the latter, stimulation and new information from the outside are especially needed. Since great reliance is placed on intimate associates and mass media as sources of farm information, both should be

used to the best advantage possible.

Where neighborhoods exist and have some place within them where people tend to congregate on an informal basis, such centers provide excellent places to hold meetings. Local attendance is likely to be greater than if held elsewhere, but is likely to be confined largely to residents within the neighborhood. But regardless of where meetings are held, preliminary work in convincing persons to whom others turn for guidance in matters related to farming is time well spent. Whether "local influentials" speak or remain silent at a meeting, their influence is likely multiplied many times in the group situation. If they express or imply an opposing opinion, the negative influence is likewise magnified.

### Social Cliques.

Social cliques, like neighborhoods, tend to facilitate the exchange of farm information among members. Although there was only slight evidence that they operated as barriers to the communication of farm information between members and non-members and between members of different cliques in the community studied it is not safe to assume that this is universally true. Where clique lines are more clearly drawn and where class consciousness is greater, cliques are likely to exercise considerable influence. If the level of technological competence of persons within cliques is much higher than the technological competence of those outside, as was true in this study, the quality of information exchanged is likely to be superior. Since clique identification has no locality basis, and since cliques do not generally have a common meeting place, they do not lend themselves readily to group meetings. Also, they may be composed of relatively few farmers. In the community studied only about 20 percent of the farmers were members of such groups.

Other research has shown that cliques have a very important bearing on the decision making processes and that they exercise considerable influence toward conformity, once a decision is made. Loomis and Beegle have greatly stressed clique leaders as key people with whom to work in implementing social change. Where cliques do exist and where they include people likely to influence local opinion, as they usually do, it is important to exercise care not to alienate important clique members or else be prepared to abide by the consequences. It is also evident that an idea acquired by a clique member is much more likely to be communicated to a fellow member than to non-members. Some aid in bringing about desired changes can be expected from well directed effort toward clique members, but the effort is less likely to be helpful in reaching non-clique members or persons who are members of other cliques.

### Social Class.

The finding that no clear-cut social classes existed was of considerable importance from an educational standpoint. Where distinctive social classes do exist, they are likely to impede communication between classes and thus impede the free exchange of ideas. This may occur in areas like southeast Missouri where class lines are more clearly drawn and where social and economic differentials are greater. Also the "Plainville USA" study of a southwest Missouri community revealed evidence of conscious class differences. Just what the conditions in this respect in other sections of the state are, it is not safe to say.

### Formal Groups.

Formal groups perform a hidden function with respect to the dissemination of farm information in that they provide places where farmers frequently meet and talk about farm problems and practices. Since they are already organized and in operation, they provide a ready-made social structure through which new proposals may be implemented. Also, they provide a more favorable atmosphere of receptivity than is generally prevalent in the community.

Although it may be unwise to conclude that high social participation in formal organizations, particularly those crossing neighborhood and community lines, causes adoption rates of new practices to increase, there is a close association between the two. For the action agency representative this means that membership in such organizations is likely to be highly selective of the more progressive farmers and those most alert to new developments in farming.

### Community Status Factors.

Results from this study suggest that educators may be more instrumental in facilitating the indirect diffusion of farm information by working through middle aged farmers than by working through either the older or younger ones. One exception is the older farmers who have continued to demonstrate a high degree of technological competence. Young farmers may be good followers but are less likely to be sought for advice than middle aged or elderly farmers who have changed with the times.

With respect to all other status factors (gross farm income, community prestige, years schooling completed, size of farm operated, amount of social participation in formal groups, and tenure status) there was a decided tendency to look up the scale for advice and counsel. However, in no case did status differences appear to serve as serious barriers to the selection of high status persons as sources of farm information.

This puts high status persons in a highly favorable position for implementing the diffusion of farm information. The educator may reasonably expect to influence those at the bottom indirectly in due time, by working with those at the top of the scale. The reverse is much less likely. Inherent in this pattern of diffusion is the danger that practices suited to large farms and/or wealthy farmers may not be especially suited to the smaller ones, and that valuable time may be lost in effecting change by the indirect method.

The higher operators rated on the prestige or status scale, the more discriminating they were with respect to the choice of persons as sources of farm information. This means that information seeking for high status persons tended to be something of a closed system and that they were more adequately supplied with competent persons as sources of information than low status persons. Some means of supplementing the personal sources of the latter is, therefore, suggested. Perhaps, this can be done through the mass communication media. The difficulty of reaching them directly is greater because of an inclination to avoid institutionalized sources of information (such as educational organizations and agencies) or to view them with disfavor.

Of all the status factors considered, technological competence was the most important in the choice of persons as sources of information in the community studied. So long as this is true, the net effect should be to raise the general level of technological competence prevailing in a given area. When those most frequently sought for advice are also more broadly oriented socially and are much more frequent users of institutionalized sources of farm information than those who seek their advice, as was true in this study, they provide ready avenues for reaching less technologically competent farmers with educational materials.

Participation in formal social organizations was the status factor of second most importance in the choice of other persons as sources of farm information. This suggests that those sought are more likely than others to learn about new developments in farming and to put them into practice, thus retaining their lead technologically. This assumption is further substantiated by the very high correlation between technological competence (improved practice ratings) and participation in formal social organizations, particularly in the instrumentally oriented ones (those whose purpose is to improve farm technology). Although farmers may participate in such organizations for the same reasons that they have high improved practice ratings, the assumption of some degree of cause and effect perhaps is not unreasonable. To the extent that a cause-effect relationship does hold, change in farm technology may be facilitated by encouraging

participation in formal social groups, particularly those specifically directed to instrumental objectives.

### IMPLICATIONS FOR RESEARCH

Although the community studied was fairly representative of the larger culture area of which it was a part, generalization applied to the latter must be regarded as tentative. Replication is needed both within and between areas. What may be true concerning the influence of structural factors on the interpersonal exchange of farm information in one area may not be true in another. Also, in subsequent studies more attention should be given to local norms regarding change in farm operations.

Much of the manner in which communities and neighborhoods function in the diffusion and use of farm information centers about what is permitted and what is regarded as desirable with respect to change. Mention has been made of the permissive nature of neighborhood and community norms but the necessary support and desired specificity is lacking. It has also been inferred that the community may serve a reinforcement function, providing the needed moral support for decisions involving alternative values. The approval of significant other persons may remove some of the risk of being wrong. Furthermore, an interaction, facilitating function deriving from established patterns of association and communication existing within the community has been suggested. Subsequent investigation may or may not substantiate these tentative observations. Nevertheless, an effort should be made to determine just what neighborhood and community functions really are, as well as what norms, if any, are specific to the community, to neighborhoods, or to entire culture areas. It should then, in turn, be shown how such differences, if any, are related to patterns of communication and influence regarding changes in farm operations.

More specifically, consideration of norms should include an examination of the status position of innovators and adoption leaders as well as what is permitted and expected with respect to change and conformity. The question of whether or not alertness to new developments in farming and quick successful adoption is a status factor or not, is important.

Also, there is the important consideration of how people regard the farming enterprise itself and what they expect it to provide for them. In common parlance, some may tend to regard it essentially as a business enterprise operated strictly for profit. Others may think of farming more as a way of life which offers many subjective rewards that outweigh high monetary compensation.

Although facilitation of information exchange within neighborhoods and a tendency to self containment of contacts were demonstrated in this



study, the consequences of the latter were not entirely clear. Proper appraisal will require examination of the quality of information exchanged and the role of other persons in decisions to change. Examination of channels of communication and influence emanating from outside sources and the manner in which they are tied in to the interpersonal channels of communication within neighborhoods will also be necessary.

Finally, variation among neighborhoods with respect to all of the foregoing must not be neglected. Considerable variation with respect to sources of information used, levels of technological competence among residents, and emphasis placed upon qualified persons as sources of farm information was in evidence in this study.

Social cliques are sometimes assumed to be the product of a different kind of society from that which produced the neighborhood. An effort should be made to find out whether or not this is true. If it is, differences should be defined in terms suited to objective measurement. If adequate measures are not available they should be developed. It is also desirable to know more about the social strata and/or classes existing in rural society. All should be further assessed in terms of their influence on interpersonal patterns of communication and influence.

Observation and study of norms relative to the acceptance and use of farm information inevitably leads to a consideration of personal motivation and reluctance to change. Certainly, better methods of studying motives and of assessing motivating influences is needed. An expansion of knowledge along these lines may well provide the basis for establishing personality types and for defining roles of other persons in the farm practice-use processes.

With respect to status characteristics in the choice of persons as sources of farm information, two general areas for further research are suggested: (1) determination of the extent to which status characteristics, both singly and in combination, are conscious considerations in the choices of persons together with the psychological, situational, and normative conditions of recognition, and (2) determination of how status factors pertinent to the choice of persons as sources of farm information are related to local values, particularly those upon which prestige (community standing) is accorded. A corollary of the latter refers to the functional relationship of status characteristics to the role played by such agents as innovator, counselor, and adoption leader in the processes of change. A further general suggestion is that more attention probably should be directed to the influence of status characteristics at specific stages in the process of change.

Finally, conditions and processes of change should be interpreted within the framework of some overall theory of rural society. Some mistakes are almost certain but the need warrants the risk. Perhaps, nothing would be more practical for furthering the kind of research proposed than a workable general theory of rural society.

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