

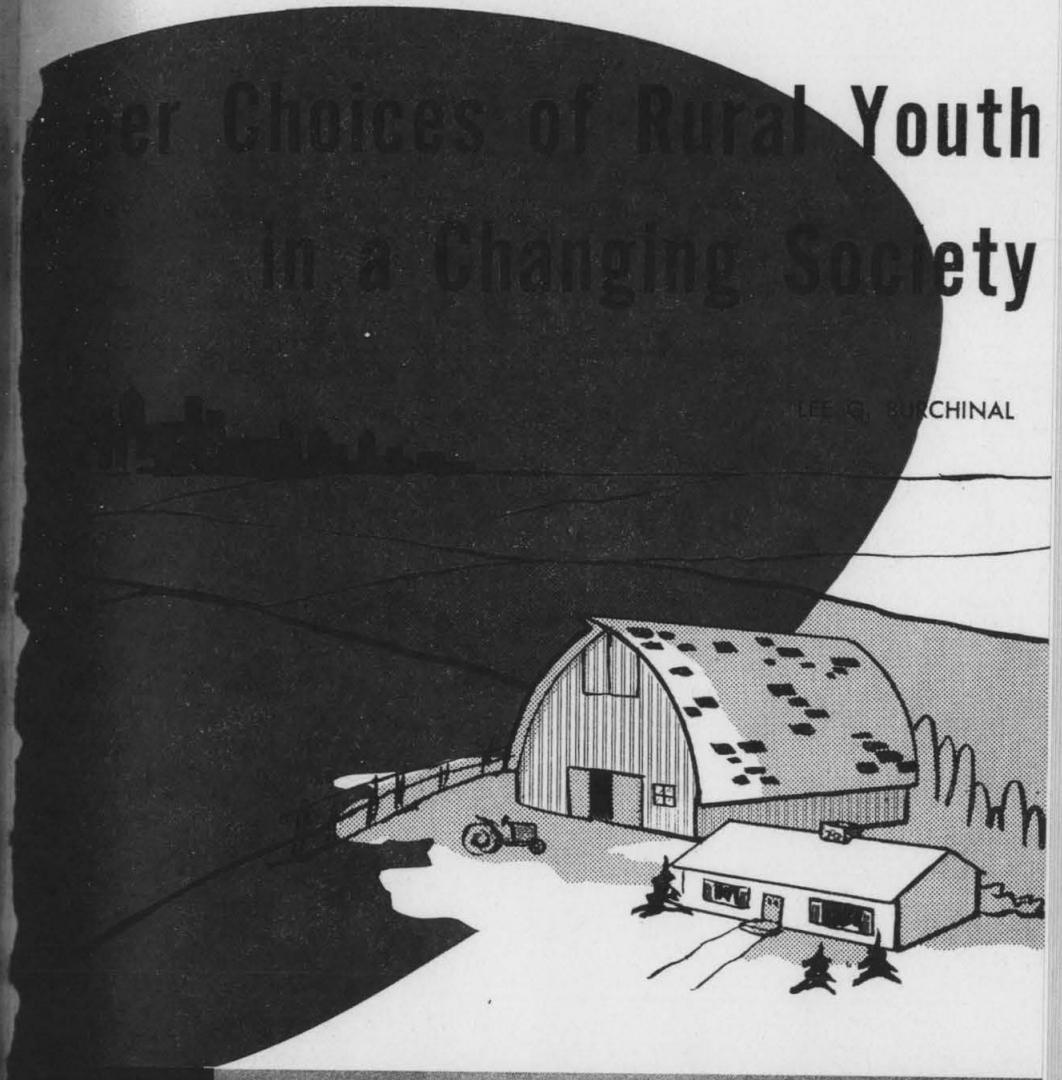
Table 5. Labor used in 1 year for nonchore loose housing dairy work

Number	Task and description of methods	Hours of fixed time required per year	Hours per year to add for each cow in herd
Cleaning out the manure pack			
56	"Usual procedure": 1 major cleanout plus several smaller ones	15.28	1.938*
57	Several major cleanouts spread throughout the year	20.76	3.544*
Opening and cleaning: time per silo			
58	Opening an upright by hand	1.86	
59	Opening an upright with an unloader	4.83	
60	Cleaning and repairing an upright	4.00	
61	Opening a horizontal	2.21	

Lines or tasks from table 5 that are added together to estimate the yearly time to open silos and remove the manure pack in the loose housing system:
 Systems III through VIII include lines 56 and 58.
 System IX includes lines 57 and 58.
 System X includes lines 57 and 61.

* Because of insufficient cooperators using certain milking systems the data were supplemented with task functions developed from the following sources:
 (a) Switch Systems: Unpublished data obtained by Robert Knisely, Dairy Department, Michigan State University, in a survey of Michigan DHIA herds in January 1959.
 (b) Level abreast parlors: Thayer Cleaver, *A Comparison of Milking Practices, East, West and Midwest*, a mimeograph of Farm Buildings Section, AERB, ARS, USDA (post 1954).
 (c) Herringbone Parlors: Earl Fuller and Russell E. Larson, "Herringbone Milking Parlors," *Minnesota Farm and Home Science*, Vol. XVII, No. 2, pp. 7 and 18, February 1960.

Information on labor for evaluating possible changes in farm organization is available for stanchion herds in Minnesota Agricultural Experiment Station Bulletin 449, *Effect of Herd Size on Dairy Chore Labor*. Station Bulletin 451, *Labor Used in Cattle Feeding* provides labor data for alternative beef feeding systems, while Station Bulletin 445, *Planning Farms for Increased Profits* shows how budgeting can be used for organizing labor data and other information into total farming plans. These publications, together with this bulletin, have been published by the Minnesota Station as aids to farm planning. Further bulletins are in process to point out the changes in total farm organization that appear profitable for various areas of the state.



er Choices of Rural Youth in a Changing Society

LEE G. BURCHINAL



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Career Choices of Rural Youth in a Changing Society

Lee G. Burchinal
with Archibald O. Haller and Marvin J. Taves¹

A summary of research for the Subcommittee on Family and Youth of the
North Central States Rural Sociology Committee

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IF ADULTS ARE TO HELP YOUTH make occupational choices, they must understand what factors influence these choices. What is the nature of the choice process? How can teachers, counselors, friends, and relatives assist young people to make intelligent and socially useful occupational decisions?

Fortunately, available research can provide some reliable answers to these questions. This report primarily summarizes and integrates these research findings. It is not a handbook for occupational counseling procedures nor a source of occupational knowledge. Instead, we are describing how occupational choices are made and factors that apparently influence this process among rural youth. Specifically, the report deals with:

1. The process and stages involved in making an occupational choice.

2. Comparison of the process of occupational choice and occupational achievement between rural and urban youth.

3. Some factors related to occupational choices.

4. Comparison of factors which differentiate between farm-reared boys planning to farm and those planning nonfarm careers.

5. Research findings in understanding occupational choices.

6. Some considerations for programs that should improve occupational choices among rural youth.

Personal and Social Significance of Career Selection

Youth are our most precious asset. They represent the future of our communities, states, and nation. The maximum development and utilization of their potentials challenge all those concerned with youth—their education, growth, and careers. Youth need help to become aware of and to prepare for occupations that fit their abilities and interests. This is particularly true for rural youth whose talents are often neither fully developed nor utilized. Most rural youth must choose careers off the farm and many outside their communities if they are to fit their abilities with available opportunities.

The occupational choices of rural youth are not only important for society but also for personal and family reasons. A person's occupation affects the achievement of his life's goals. It influences his family life, income, social relationships, leisure time, freedom in daily decisions, and other satisfactions including health and retirement.

Job selection largely determines where and with whom a person lives and works. It frequently determines the social conditions under which he meets his prospective marriage partner and the conditions under which he raises a family. For women the occupations of their fathers and husbands are usually the significant considerations.

Selection by Free Choice

In some societies, a young man generally followed in his father's occupational footsteps. This is the way many youth still find their work roles in our society. Yet, the efficient functioning of the economy and the attainment of personal and social adjustment

require career selections based upon intelligent choice rather than familial ties or local opportunities.

This essential free choice process involves both personal and national problems. One major problem concerns providing adequate information about occupational fields and training requirements. Furthermore, occupational fields in the United States are rapidly changing. Some occupations are becoming obsolete; new duties are emerging.

Many youth are unaware of their skills or potentials when they choose occupations. Others seek to enter those for which they are not prepared. Some cannot assess different occupations. Some try occupations and then find it difficult to change.

There are often not enough trained men and women in occupations that affect our national well-being and security. Many persons who could contribute more to society and achieve greater personal satisfactions in other fields are attracted to glamorous, prestigious, or lucrative occupations.

For rural youth and persons concerned, risks in occupational choices are intensified by three changes occurring in society.

1. The number of opportunities to enter farming declined during the last decade. Mechanization and increasing farm size reduced the number of operators required. Meanwhile, birth rates remained relatively constant. As a result, fewer farm youth can expect to enter farming—for example, only about one-third of the farm boys in the North Central Region (Kanel, 1960). Shoemaker (1958) estimated that only 10 to 15 percent of farm boys between 10 and 19



years of age could expect to earn reasonably satisfactory incomes in farming from 1955 to 1964. The U. S. Department of Labor predicts a 17-percent net decline in farmers and farmworkers in the present decade.²

Entrance requirements in farming are also changing. Capital investments necessary for successful farm operations are increasing. Furthermore, reduced availability of sufficient farm units limits entry. Successful farming today requires greater production, marketing, and business management skills than ever needed previously.

When thinking about nonfarm occupational opportunities, farm youth may want to consider the vast expansion in farm-related industries. Persons with a farm background and equal levels of training with nonfarm competitors may have an advantage in entering the farm supply, sales, and service fields of agribusiness. Otherwise, the degree that farm-related businesses and other nonfarm occupational fields will absorb farm and rural youth will depend largely on their ability to meet changing job requirements.

2. Another change, affecting rural and urban youth alike, is the composition change of the labor force. Between 1960 and 1970, while employment in farming will decline about 17 percent, the percentage of the labor force composed of unskilled workers will change little. But, large increases will occur among occupations requiring the great-

est education and training—up to 40 percent for professional and technical people. Growth will also continue among proprietors; managers; clerical, sales, skilled, and semiskilled workers. Predicted rates of change for these occupations are shown in figure 1. Each can be compared to the expected 20-percent rise in total employment.

3. The last change involves youth themselves. About 50 percent more young persons, 2.6 to 3.8 million, will reach 18 years of age in the United States by 1965 than did so in 1960. Competition for education and jobs will be keener than for previous generations. But, today's youth cannot merely prepare for today's occupational opportunities. Their preparation must also be for the labor market of the future decades.

These continuing changes require that rural youth assess accurately their interests and abilities and match these closely with developing occupational opportunities. Unless information on careers and vocational guidance programs effectively help this process, problems in occupational choices will increase. At least three kinds of losses are likely to occur:

- Loss in productivity of the economy due to poorly trained persons.
- Unemployment among the unskilled.
- Losses in satisfaction that come from not matching persons with the jobs.

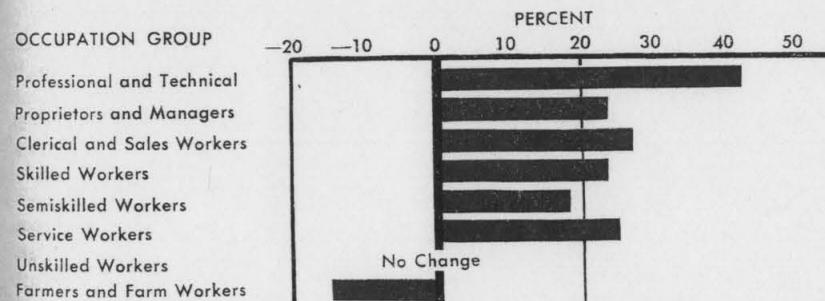
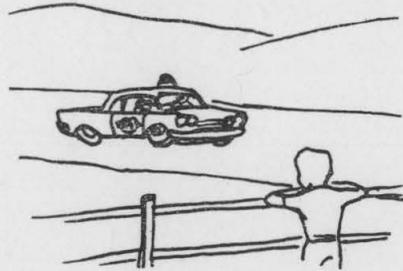


Fig. 1. Percent change in employment 1960-1970.

² *Manpower Challenge of the 1960's*. U. S. Dept. of Labor, October 1960, p. 11.



Any attempt to develop a comprehensive theory of occupational choice must be tentative. Nevertheless, such an attempt organizes our present knowledge. This report attempts to aid by presenting one generalized and tentative description of the occupational choice process.

Personal Choice Context

Free choice of occupation assumes that: (1) there are alternative courses of action, and (2) one is free to choose among available alternatives. The American labor force includes an almost unbelievably large assortment of occupations. Each has its distinguishing pattern of required abilities, interests, values, and work roles. Yet, each occupation can be filled by individuals varying greatly in abilities, interests, etc.

There are certain sociological limitations, such as the generally accepted division of labor. Certain occupations are open to men; others to women. Age and race limitations are found in many fields. Policies of business organizations encourage or discourage employment in various ways. Moreover, present methods of disseminating occupational information limit the number of occupations about which the individual is informed.

Some conditions related to freedom of occupational choice are inherent in the occupational structure itself. Distribution of occupations at any given time limits how many persons can enter various fields. The rate of turnover in occupations and the growth of the economy also determine the number of job opportunities. If the economy is expanding, there are more jobs of various kinds

How Occupational Choices Are Made

than if the business cycle is stationary or declining.

Within these limiting conditions, individual decisions are made.

The Crystallization of Occupational Choice

Generally, occupational choices are not accidental occurrences. They are based upon the development of a progressively specific set of choices. Usually, occupational choices become increasingly specific with adulthood. The factors considered in the choice process increase and become more complex. This process is called the "crystallization of occupational choice" and involves at least three periods of occupational decision making:

1. Choices based on fantasy.
2. Tentative choices.
3. The final trial-stable period of selection.

Fantasy choices are characteristic of a young child. He wants to be a policeman, cowboy, spaceman, etc. Fantasy choices are not usually selected eventually. As numerous learning experiences occur and as the influence of the adult world increases, the child becomes more aware of real conditions. His occupational choices then move out of the fantasy realm. He makes tentative commitments to occupational alternatives of which he is aware. Finally, at some point during or after his educational experiences, he makes more specific occupational choices. Education, work experience, abilities, and the labor market become critical conditions for making tentative choices.

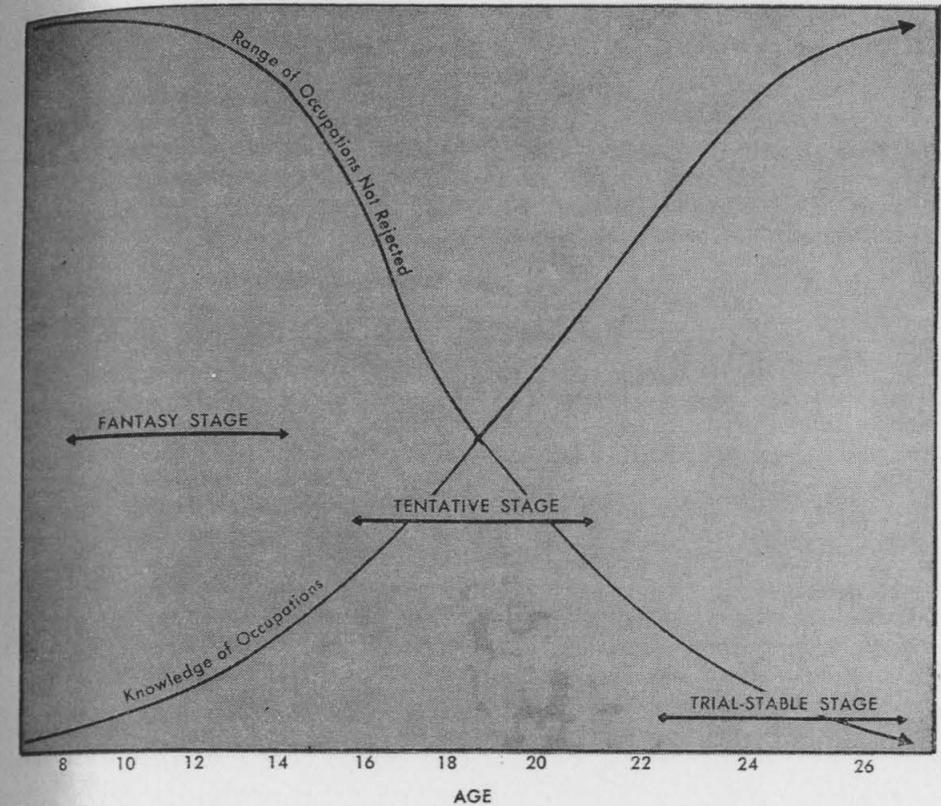


Fig. 2. The crystallization of occupational choices.

For various reasons, such as dissatisfaction in advancement opportunities, about one-fourth of the male labor force under 25 years of age change jobs in a year. Such shifts are part of the trial period of occupational selection. This period continues until the individual secures and holds the best available job by his standards of ability and preference. Then he enters the period of occupational stability. Of course, some workers move directly from the trial stage to a stable stage without their shifting occupations.

Time intervals for each stage vary with different individuals. Figure 2 illustrates four things with respect to the crystallization of occupational choices:

- The three periods are developmental and follow one another chronologically.
- The stages overlap considerably.
- The number of occupations considered is progressively reduced during tentative and trial stages until one occupation is selected.
- Reduction in occupations considered occurs together with increasing knowledge about occupational alternatives.

This outline of the three periods of occupational selection does not explain how occupational decisions are made. However, it provides a basis for considering what influences youth at each period in their decision-making process.

Development of an Occupational Self Concept

Usually, the fantasy period contributes little to serious consideration of occupations. During the tentative, exploratory period, many conditions influence the individual. Specific conditions vary for different individuals, but at least three categories of conditions affect every occupational decision:

1. Amount and accuracy of the individual's knowledge about the work world.
2. His resources, including social and psychological characteristics, insight, and skills as well as personal and family financial resources available for his choice.
3. Variety and intensity of his experiences with other persons relevant to his occupational choice-making process.

Sociologists refer to the latter set of conditions as influences from an individual's reference groups. These are groups with whom he identifies and usually associates; groups from whom he derives ideas about himself, his values, people, things, job preferences, etc. Slocum (1959) elaborated on the importance of reference groups as influences on occupational choices.

Accurate and extensive nonfarm occupational information frequently is not available to rural youth. This is true not only in isolated areas but also near metropolitan centers. State employment offices are concentrated in metropolitan areas and larger towns. Vocational guidance facilities and personnel are more numerous and generally of better quality in urban school systems. Where available rurally, they are disproportionately located in larger schools.

Furthermore, the majority of nonfarm employment opportunities are in metropolitan areas. This limits opportunities for many rural youth to continuously observe the jobs available and their training requirements, working conditions, rewards, and limitations.

Accurate self-knowledge is hard to acquire. This includes reliable estimates of:

1. Intelligence, abilities, and willingness to complete successfully training programs required for various occupations.

2. Availability of financial resources necessary to enter the occupation or to acquire necessary training.

3. Preferences and values concerning day-to-day working conditions, rewards, and disadvantages of various occupations.

4. Living conditions associated with different work.

Whatever concepts a person has regarding himself are not derived from isolated self-introspection. They are based upon how he thinks persons important to him (reference group members) evaluate him. Therefore, it is impossible to discuss the relationship of an individual's ideas about himself and his resources with his occupational plans without considering his reference groups. The "important others" include parents, relatives, school personnel, friends, and perhaps some adult whom the youth takes as a model for his own life.

A person's self-attitudes may not agree with another person's estimates of his abilities, interests, or preferences as these relate to his chances for success in various occupations. A parent, teacher, youth leader, or vocational counselor may appraise a young person more realistically than the young person himself. But the factors that determine the youth's occupational choice are his perceptions of his abilities, resources, and potentialities and his preference between occupational alternatives.

The three sets of conditions mentioned interact with one another in the individual's thought processes. Within his range of occupational alternatives, he weighs alternatives against his conceptions of his abilities, skills, and preferences. These are evaluated in terms of how he thinks his reference groups will regard his occupational decisions.

This leads the individual to think about himself in a particular occupation—occupational role taking. He then assesses his reactions to being in this occupation against his abilities, preferences, resources, expected job satisfactions, and his ideas of how his reference groups would regard him. By this process, occupations are explored; some rejected, others retained. The range of occupations is narrowed and preferences emerge.

However, conflicts frequently arise between preferences and realistic appraisal of chance of entering and remaining in the occupation. This requires departure from a choice based upon what occupation one would like to enter. Instead a choice must be developed for an occupation in which one has a reasonably good chance of success.

Prestige or income-earning preferences must frequently be scaled downward to correspond with potentials of given occupations. On the other hand, one may need to revise occupational preferences upward as more is learned about his abilities and capabilities. To systematize the discussion of specific occupational choices in relation to all possible choices, we shall consider choices in terms of occupational aspiration levels.

Occupational Aspiration Levels

The prestige of the occupation a person chooses is called his occupational aspiration level. Thus, a person preparing to be a doctor, engineer, scientist, business manager, or executive aspires to a high occupational level. Low occupational aspiration levels are reflected in job choices such as gasoline station attendants, truck drivers, unskilled factory workers, or service workers. Many occupations are in the middle range. Tentative and final selections involve selecting the occupation that (1) one prefers most from occupations of similar prestige and (2) one feels he can enter.

Socialization experiences contribute to an individual's level of occupational aspiration. His role taking occurs within a field of occupations with similar prestige levels. Occupational role taking leads to more serious consideration of the occupation(s), training requirements, work characteristics, and monetary and nonmonetary rewards.

Additional commitment to an occupation occurs when a person feels:

1. He can meet the training and work role requirements.
2. The monetary and nonmonetary rewards match or exceed his expectations and preference levels.

3. His entering this occupation will be approved by his reference groups.

4. An opportunity for entering exists.

The absence of one or more of these positive evaluations may lead to rejection of the occupation. Role taking in relation to some other occupation then begins.

In actual practice, the process does not consist of neat, isolated episodes as implied by this description. Instead, events, evaluations, and role taking occur simultaneously. One may imagine roles of several occupations at the same time.

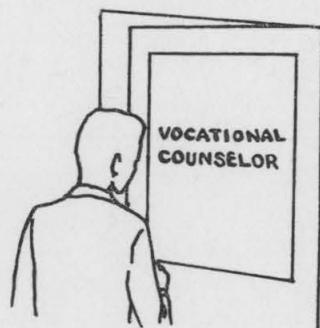
When training programs are necessary for entering an occupation, a further test of role taking occurs. Successful and enjoyable training, whether in college or vocational schools, leads one further toward entry into the occupation. But unsuccessful training experiences, failure in course work, or inability to develop proper skills frequently require adjustment in aspiration.

Trial Stage

Finally, a person enters the trial stage of occupational selection. This involves actually testing occupational aspirations. The trial stage frequently occurs early to the boy who wants to farm because farm-reared boys are close to that occupation. Generally, among nonfarm boys, the trial stage occurs after high school. Among boys aspiring to occupations requiring college or postgraduate training, the trial period does not usually occur until during or after college or postgraduate training.

During the initial trial stage, the combination of abilities, training, and preference is tested against actual job experiences. Either the young worker is reassured that his choice is right or he becomes dissatisfied. If changes are made, he ultimately enters an occupation that better approximates his abilities and aspiration level. Further compromise between aspiration and the actual occupation entered is sometimes necessary.

On the basis of this general description of the occupational choice process, research findings in three areas are summarized in the next three sections.



Residential Differences and Occupational Aspiration and Achievement

At least two conditions limit generalizations related to occupational aspiration and achievement differences of persons from farm, rural nonfarm, and urban homes that can be drawn from available research. First, different researchers studying the same problem sampled different populations. Some studies compare persons from farm, rural nonfarm, and urban homes. Other studies are based on a farm-nonfarm dichotomy and others on a rural-urban dichotomy.

Second, the extensiveness of sampling varied. Only a few investigations are available for national samples. Most data are limited to samples in specific states, counties, or communities. Yet, when available data are summarized, there appears to be sufficient agreement to support the following generalizations.

Occupational Achievement

Considerable evidence indicates that males reared on farms or in rural areas have less success in the urban labor market than urban-reared men. Manual-nonmanual classifications or prestige ratings of occupations were used as criteria of occupational success. Farm- or rural-reared men are disproportionately represented in manual or lower prestige occupations. This was shown by Beers and Heflin in Lexington, Kentucky (1945, 1946); Lipset in Oakland, California (1955); Burchinal and Jacobson in Cedar Rapids, Iowa (1960); Bauder and Burchinal in Des Moines, Iowa (1961); Freedman and Freedman for the United States as a whole (1956).

Subgroups were compared of farm-reared and urban-reared males in the Cedar Rapids study having similar years of education and approximately the same time for occupational mobility. Greater proportions of urban-reared men were found in white-collar and nonmanual occupations. However, different results were obtained in the Des Moines investigation. The occupational achievement advantage of urban-reared males over farm- or rural nonfarm-reared males disappeared when subgroups with similar age and educational levels were compared. Apparently, the larger proportion of urban men in middle and higher status occupations was due to the greater proportion of better educated urban-reared than farm- or rural-reared men in Des Moines. Reasons for the difference in results between the two Iowa studies are not known.

Differences are not restricted to occupational achievement. Other research shows that in comparison with urban-reared persons or urban-migrants, farm- and other rural-reared persons who migrate to urban areas are: (1) less active politically, (2) less likely to join voluntary organizations such as churches and clubs and less active in them, and (3) slower to enter into urban organization life (Beers and Heflin, 1945; Blizzard and John, 1952; Freedman and Freedman, 1956; Heflin and Beers, 1946; Zimmer, 1956). Over time, however, apparently most rural-migrants become as active in formal and informal organizations as urban-migrants and assume leadership positions (Omari, 1956; Zimmer, 1956).

Recent data on youth from farm, rural nonfarm, and urban homes partially answer

why urban youth apparently make better showings in urban occupations.

Occupational Aspirations

Five studies, employing different measurements of occupational aspiration and based on samples of different populations, support the generalization that lower occupational aspiration levels are associated with rurality. Among rural senior boys in a Kentucky sample, farm boys had lower occupational levels than nonfarm boys (Schwarzweiller, September 1960). In his study of occupational aspiration levels of all senior boys in a Michigan county, Haller (1958) used a farm or nonfarm residence classification. The occupational aspiration scores of farm boys were lower than those of nonfarm boys.

Burchinal (1961) compared occupational aspiration scores of farm boys and rural nonfarm boys living in the same county with boys living in Des Moines. All boys were seniors in high school. Farm boys had the lowest scores, rural nonfarm boys were intermediate, and urban boys had the highest scores.

Researchers in Florida studied the occupational plans of ninth grade boys (Grigg and Middleton, 1960). The boys were attending schools in rural communities (under 2,500 population) or in four differently sized urban categories ranging from 2,500 to 10,000 to over 250,000 persons. They found a positive association between community size and occupational aspirations. This relationship remained when controls for the boys' intelligence scores or their fathers' occupations were applied.

The same researchers (Middleton and Grigg, 1959) also studied the occupational aspirations of rural and urban senior boys in Florida. No differences in aspiration levels were found among Negro boys, but rural white boys had lower occupational aspiration scores than white urban boys. Among white boys, the rural-urban difference was still observed after subsamples with similar intelligence scores were compared.

Three other studies, two conducted among youth in Washington (Edlefsen and Crowe,

1960; Slocum, 1956) and one in Michigan (Cowhig, *et al.*, 1960), indirectly support the generalization that lower occupational aspirations are associated with rurality. Only one study, a random sample of Wisconsin seniors in 1947-1948, found no difference in occupational aspiration scores of farm versus nonfarm boys (Haller and Sewell, 1957).

Generally, nonsignificant or only slight differences were found for occupational aspirations of farm versus nonfarm girls or rural versus urban girls (Burchinal, June 1960; Grigg and Middleton, 1960; Haller and Sewell, 1957; Middleton and Grigg, 1959; Sewell, *et al.*, 1957; Slocum, 1956; Taves, 1959). This is not surprising because employment is secondary to women's major adult roles of wives and mothers.

Haller (1958) found that the difference in occupational aspirations between farm and nonfarm boys in his Lenawee County, Michigan sample was apparently due to plans of some farm-reared boys to farm. Nonsignificant differences in occupational aspiration scores were found between farm-reared boys not planning to farm and nonfarm boys. This study was conducted in a highly industrialized Michigan county where rural-urban differences should be minimized.

Opposite results were obtained in a prosperous but relatively nonindustrial Iowa county (Burchinal, 1961). As a group, Greene County, Iowa farm boys had lower occupational aspirations than rural nonfarm and small town boys in the same county. Both of these latter groups had lower occupational aspiration scores than a sample of boys from Des Moines. The farm boys were also divided into those who planned to farm and those who didn't. Occupational aspirations of farm boys planning nonfarm jobs approximated those of rural nonfarm and small town boys. However, they were still lower than those of Des Moines boys.

Some reasons that may help explain rural-urban differences in occupational aspiration levels can be inferred from a few studies. In a Georgia study (Payne, 1956), rural boys were reported to be less likely than urban boys to know where to learn about occupations. Urban boys tended to list formal

sources of information; rural boys, informal sources. The urban boys probably had more accurate and comprehensive knowledge of occupations than rural boys.

Research in Iowa showed that urban boys, compared with farm, rural nonfarm, or small town boys, more frequently reported that their parents discussed occupational plans with them. Farm boys who said they would probably not enter farming least frequently reported such discussions with their parents (Burchinal, 1961).

Preferences among job characteristics are also different for farm and nonfarm boys. In an Iowa investigation (Burchinal, March 1960), farm and nonfarm boys rated "work which will always be interesting to me" as the most important job characteristic. However, there were important differences between farm and nonfarm boys for several other work-related conditions. Farm boys rated "being my own boss" as highly important whereas nonfarm boys attached only moderate importance to this. While farm boys rated "friendship of fellow workers" as moderately important, nonfarm boys rated this as of little importance. On the other hand, farm boys rated "intellectual challenge of the job" as of low importance, whereas nonfarm boys ranked it as of moderate importance.

Researchers in Washington (Edlefsen and Crowe, 1960) observed that students living on farms preferred work involving things. Students living in town preferred work involving people. However, residence apparently was not related to preferences for work principally involving ideas.

Educational Aspirations

Additional research on the educational aspirations of rural and urban youth provides some clues for the lower eventual occupational achievement of farm- or rural-migrant males in contrast with urban-reared males. Present research strongly supports the

generalization that farm and rural nonfarm youth have lower levels of educational aspiration than urban youth.

A recent national sample^{3,4} revealed that 55 percent of urban male high school seniors planned to attend college the following year—44 percent from open-country nonfarm homes and 34 percent from farm homes. Approximately 45 percent of urban girls, 47 percent of rural nonfarm girls, and 29 percent of farm girls planned to attend college the following year.

Data from studies in various states support the national findings and provide additional information. In studies involving Michigan youth (Cowhig, *et al.*, 1960) and Kentucky youth (Schwarzweiler, 1960), smaller proportions of farm-reared boys than rural nonfarm or village boys planned to attend college. In a sample of Florida high school seniors (Middleton and Grigg, 1959), college plans were reported less frequently by rural white males or females than by urban white males or females. These differences were observed independently of intelligence of the youth. When educational plans of farm and nonfarm Wisconsin high school seniors were compared, farm males less frequently planned to attend college than nonfarm males. However, there was no significant difference in the educational plans of farm and nonfarm females (Haller and Sewell, 1957).

A three-fold residential classification was used in studies of educational aspirations of Iowa (Burchinal, 1961) and Washington youth (Slocum, 1956). In both investigations farm youth least frequently planned to attend college, rural nonfarm youth were intermediate, and urban youth most frequently planned to attend. A study under the direction of Sewell in Wisconsin (1960) compared educational aspirations of youth from farm, rural nonfarm, village, and urban homes of three size classifications. Some details of the Sewell study are worth elaboration.

Educational aspirations of farm, rural nonfarm, village, and urban Wisconsin children were compared for separate samples based on sex and intelligence levels. Each sample was then further classified by the social status levels of the children's families. Many separate farm-to-rural nonfarm and village-to-urban comparisons were made. For the total groups, farm children had the lowest level of educational aspiration; rural nonfarm and village children were intermediate; and urban children had the highest level of educational aspiration.

When educational aspiration comparisons were based upon subsamples for low, middle, and high intelligence levels for each sex and further subdivided by low, middle, and high family status levels, the percentage differences among subsamples planning to attend college decreased. Nevertheless, in general, the original pattern remained. Farm children, regardless of sex, intellectual ability, or family status, usually had lower educational aspirations than comparable children from village homes. They almost always had lower levels than comparable urban children.

One intriguing observation is the discovery by Sewell that the greatest differences in college plans among residence groups occurred in high intelligence-high socioeconomic status groups. Sewell did not have additional data to explain why differences among farm, rural nonfarm, village, and urban youth should be greatest in the group generally supplying the largest proportion of college students.

The Florida and Wisconsin studies suggest that intelligence levels of students or the status levels of their families do not explain why smaller proportions of farm or rural than urban youth plan to attend college. Some research suggests that the explanation lies in differences in attitudes of rural and urban people toward the value of education.

For instance, several studies find that farm youth planning to farm are the least likely to consider education beyond high school (Burchinal, 1961; Haller, 1957, 1958, 1959, and 1960). In Michigan, Haller (1957)

found that at each of several differently measured intelligence levels smaller proportions of farm-reared youth intending to farm planned to attend college than did farm-reared youth not planning to farm. The association between planning to farm and not planning to attend college was greatest among the most intelligent farm boys.

These data suggest that differences in educational aspirations between farm and urban students may be due to the lower educational aspirations of farm youth planning to farm. Other data do not support this interpretation. In the Greene County-Des Moines, Iowa study (Burchinal, 1961), farm boys least frequently planned to enter college, the open-country nonfarm boys and small town boys were intermediate, and the urban boys most frequently planned to enter. However, when farm-reared boys were divided into those who planned to farm and those who did not, smaller proportions of farm boys of either group planned to attend college than rural nonfarm and small town boys or Des Moines boys.

Haller (1960) also reported that farm youth themselves give importance to education for those who don't plan to farm in contrast to those who do. Further support for the view that differences in educational plans of farm or rural versus urban students are related more to attitude than economic factors comes from the national survey of educational plans of American youth.⁵ The most important difference was that 45 percent of farm males but only 30 percent of nonfarm males reported "no desire" as their main reason for not planning to attend college. Generally, negligible differences were found for other reasons such as finances, marriage, military service, or having a job.

Parental encouragement may help explain the rural-urban differences in educational aspirations. In an Iowa study (Burchinal, 1961), parental encouragement to attend college was more frequently reported by urban boys than by rural nonfarm and small town boys and least frequently by farm boys. In all three residence groups, mothers were

³ "Educational Status and School Plans of Farm and Nonfarm Youth." *Farm Population*, October 1959. Series Census—AMS(P-27), No. 27. April 29, 1960.

⁴ "Educational Status, College Plans, and Occupational Status of Farm and Nonfarm Youths." *Farm Population*, October 1959. Series Census—ERS(P-27), No. 30. August 1961.

⁵ *Ibid.*, pp. 2-12.

more often reported to have provided definite encouragement to attend college than were fathers. This has been reported by other researchers as well (Kaldor, *et al.*, in press).

Farm-nonfarm or rural-urban differences in educational aspirations are reflected in differences in educational planning and achievement. Among the Iowa farm, rural nonfarm and small town, and urban youth who planned to attend college, fewest farm youth had decided on what college. Rural nonfarm and small town youth were intermediate and urban youth most frequently reported a decision. These data were obtained just 2 months before high school graduation (Burchinal, 1961 and April 1960). Apparently, farm youth were least serious about carrying out their college plans or required a longer time to decide.

The national survey^{6,7} of the educational plans of youth was followed up 1 year later with a study of college attendance. The followup study showed that the significantly higher proportion of urban (51 percent) than rural-farm (32 percent) seniors with plans to attend college was paralleled by a significantly higher proportion enrolled in college (48 and 35 percent, respectively). Among the rural-nonfarm seniors, a significantly higher proportion planned to attend (47 percent) than was enrolled 1 year later (34 percent).

Other data from the national study⁸ showed that of youth 16 to 24 years old not attending school, the rural-farm population had the highest proportion lacking a high school education and the lowest proportion with some college.

Other reasons may be linked both to occupational and educational aspirations and achievement differences between rural and urban youth. These include differences in the extent to which achievement motivation and social mobility are characteristic of rural people (Hathaway, *et al.*, 1959; Haller and Wolff, 1962).

Occupationally Related Value Orientations and Personality Characteristics

There are indications that rural and urban youth differ in personality characteristics. Research on rural-urban differences in child or adolescent personality characteristics present all three possible conclusions:

1. Better adjustment characteristics among rural than urban youth (Mangus, 1948; Mangus and Seeley, 1950; Stott, 1945).
2. Better personality adjustment characteristics among urban than rural youth (Hathaway, *et al.*, 1959; Munson, 1959; Haller and Wolff, 1962).
3. Nonsignificant differences between the personality characteristics of farm, rural nonfarm, and urban youth (Burchinal, 1957).

In comparison with urban youth in Minnesota (Hathaway, *et al.*, 1959), farm and rural youth expressed more feelings of shyness, self-depreciation, and suspicion or distrust of others. Urban youth rebelled more against authority, were less self-critical, and also were less suspicious of the motives of others.

Research results in Michigan generally agree with the Minnesota findings. Haller and Wolff (1962) found that in comparison with village, rural nonfarm, and urban boys, farm boys had the greatest indications of submissiveness, shyness, or withdrawal tendencies. Farm boys tended to be less willing to move from their home communities. They seemed to believe that man does not have much control over events that influence his life. Urban boys scored highest on dominance, aggressiveness, self-confidence, and independent self-sufficiency. They took a more positive attitude toward moving and tended to believe man does have control over events influencing his life.

The Ohio results found less incidence of maladjustment among Miami County farm children as compared with nonfarm children.

However, this must be tempered with other data from the same county. Mangus and Seeley (1950) reported that at both third and sixth grade levels the incidence of maladjustment, as estimated by tests and ratings, was less among farm children than nonfarm children. The advantage enjoyed by farm children was much less among sixth graders than third graders.

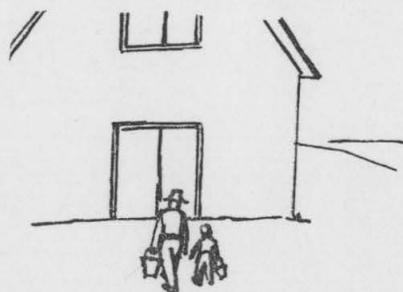
Furthermore, the draft board rejection rates for all causes were higher among farm-employed males (36.1 percent) than among nonfarm-employed males (25.5 percent) in Miami County. The same was true of personality disorders—9.0 percent for farm-employed men compared to 6.1 percent for nonfarm-employed men. This study suggests that for personality development farm residence is an advantage for younger children, but the advantage is lost with increasing age. At the adult level, men in nonfarm occupations exhibited more healthy personality characteristics. The Minnesota (Hathaway, *et al.*, 1959), Michigan (Haller and Wolff, 1962), and New York (Munson, 1959) studies point to a mental health advantage among current populations of urban as compared with rural school children.

Obviously, personality data provide a limited basis for generalization. When all data pertaining to educational and occupational aspirations and achievement as well as personality development and value systems are considered, there is little doubt that rural and urban environments have marked and differential influences on young people.

These influences tend to develop differences in the personality characteristics and values of the two groups of youth. Rural and urban environments differ in density and heterogeneity of their populations. The urban environment also presents more frequent contacts with many occupations. Apparently, urban youth are exposed to conditions which prepare them to function better than rural youth in the urban-industrial society. When rural youth move to urban centers, as most must, they as a group are probably at a disadvantage in competing with urban youth. They adhere to lower levels of educational and occupational aspirations. Moreover, they less frequently have value and personality orientations that are related to effective and satisfying urban living and working experiences.

⁶ "Educational Status, College Plans, and Occupational Status of Farm and Nonfarm Youth," *op. cit.*
⁷ "Factors Related to College Attendance of Farm and Nonfarm High School Graduates: 1960," *Farm Population. Series Census—ERS(P-27)*, No. 32. June 15, 1962.

⁸ "Educational Status and School Plans of Farm and Nonfarm Youth," *op. cit.*



Factors Influencing Occupational Choices

Relations Between Occupational Aspiration and Occupational Achievement

Most available knowledge regarding occupational choices of rural youth is based upon studies of occupational aspirations. Two general and related findings emerged:

- The aspirations of youth point to upward occupational mobility.
- Many more youth desire higher prestige occupations than are available.

American society encourages youth to strive to move up the occupational ladder from their fathers' positions. Another common finding is that more young men and women expect to enter professional, business, managerial, and administrative positions than there are opportunities. For instance, a study of Minnesota rural youth (Taves, 1959) reported that one-third of the high school boys interviewed expected to enter professional work. One-half expected to enter professional, managerial, or administrative occupations. The proportion of high school graduates aspiring to these positions was five times greater than the proportion of their fathers who actually held such positions. Their lack of realism is striking when compared with the fact that only slightly over 10 percent of the U. S. labor force involves professional occupations.

To a degree the disproportionately large number of high aspirers might be expected in an increasingly affluent society. Upper levels of the labor force are expanding more rapidly than lower levels. Nevertheless, rural

youth seem to want more than this trend can provide. Many high aspirers probably lack the training and abilities needed for competing successfully for higher level occupations (Myers, 1947).

These figures do not mean that occupational aspirations of high school youth are entirely unrealistic and unreliable. Occupational aspiration levels are useful for indicating what types of jobs youth probably will enter because: (1) the aspiration level focuses the goal on a narrowed range of occupations, and (2) there is at least a moderate relationship between level of occupational aspiration during youth and later occupational achievement.

In one investigation (Porter, 1954), high school seniors were asked what occupation they expected to enter following high school. Six months later about 80 percent either were in occupations they planned to enter or one of comparable prestige level, 10 percent were in occupations of lower prestige level, and 3 percent were in occupations of higher prestige level. The agreement between occupational expectations and occupational achievement after 6 months was high. This may have resulted because job negotiations may have been underway or completed at the original survey time and because broad occupational categories were used.

Another study reports a moderate relationship between occupational aspiration levels and occupational achievement levels after 7 years (Haller, 1958). While remembering the unrealistic aspiration levels of some youth, these data provide encouragement for using studies based upon occupational

aspiration levels. The latter are associated with occupational achievement levels.

Occupational plans of rural youth are influenced by several factors. These influences may be grouped into three general categories: (1) the social situation of the youth and his family, (2) reference groups of the youth, and (3) characteristics of the youth.

The Social Situation

The general influence of rural and urban environments on educational and occupational aspiration levels of youth already has been described. Educational and occupational aspiration levels are also highly related to social status of families. Youth from higher status families more frequently plan to attend college and aspire to higher prestige and income-earning occupations. This generalization is documented in numerous studies (Edlefsen and Crowe, 1960; Schwarzweller, September 1960; Sewell, *et al.*, 1957; Slocum, 1956; Youmans, 1956 and 1959). One study reported a positive relationship between family socioeconomic level and educational aspirations within subsamples of youth having low, middle, or high measured intelligence levels (Sewell, *et al.*, 1957).

Some studies also indicate that youth from lower social status families make their occupational choices and begin their occupational experiences earlier in life. Youth from higher social status levels apparently are less pressed to make immediate occupational decisions. They tend to enter the labor force later in life.

Nevertheless, family status differences tell us little about how youth acquire different educational and occupational aspiration levels. The family status level tends to set the stage. A person's status level largely defines his social milieu, associations, and reference groups. From social experiences in these associations a person: (1) develops expectations about himself, (2) acquires ideas of the importance of education, (3) learns the ranking of occupations he could consider entering, and (4) discovers other persons' reactions to his role taking and expressed educational and occupational aspirations. Probably the most important reference group within one's social status level is his family.

The Family

In several separate studies, parents were most frequently cited by both males and females as being "helpful" or having "great influence" on occupational plans. Generally, teachers were second, friends third, and vocational counselors fourth (Edlefsen and Crowe, 1960; Slocum, 1956). The poor showing of vocational counselors is probably due to the lack of program development in many schools.

One's position in the family, *i.e.*, being an oldest, youngest, middle, or only child, apparently influences occupational choices. Some limited research indicates that sibling position may be related to occupational choices by affecting college plans. For instance, among one sample of high school students, children who were the oldest in their families were more certain of their college plans than children of any other age or family position. "Only" children also tended to be certain of college plans (Edlefsen and Crowe, 1960).

Educational plans of youth are highly related to their parents' aspirations for them. Rural youth reporting college plans or aspiring to higher prestige nonfarm occupations generally said that their parents had college aspirations for them or encouraged them to consider higher prestige nonfarm occupations (Burchinal, 1957; Haller, 1959; Kaldor, *et al.*, in press).

School Experiences

Second to parents, school-related persons were cited by youth as influencing their occupational choices. Obviously, formal school experiences play a more important role in preparing for occupational choice and competency than indicated in these responses. Communication skills and acquisition of specialized knowledge primarily result from formal education. The school experience provides important influences in still other ways. Expectations of success and development of competency and of educational and occupational aspiration levels result, at least in part, from formal learning experiences and perceptions of teachers' evaluations.

Youth also develop and test their interpersonal skills in the school setting. Some research shows a direct relationship between higher levels of occupational aspiration and various indices of successful school experiences. Students who reported higher levels of occupational aspiration were also those who earned higher grades, were more active in extracurricular school activities, and held more leadership positions in school-related affairs (Schwarzweiler, September 1960; Slocum, 1956, Youmans, 1959).

Friends

Occupational choices of youth and persons cited as their good friends are related to each other (Haller and Butterworth, 1960). This does not necessarily mean that one young person influences the other. They may have become friends because of similar aspiration levels. Yet, from what we know of the impact of reference group ideas upon decisions and behavior, occupational plans and aspirations of friends are probably important influences on occupational decisions.

Work Experience

One important influence on the occupational choices of rural males is their work experience. Parents are cited as the most important persons influencing youth in their job choices. However, actual on-the-job experience seems more decisive in making occupational choices for rural males (Edlensen and Crowe, 1960; Slocum, 1956).

Personality Characteristics and Value Orientations

Although anyone could function relatively effectively in a wide variety of jobs, some personality characteristics better match certain jobs than others. Hence, individually acquired and relatively unique personality characteristics limit the occupational choices a person can make, at least to the extent that the individual is aware of his characteristics. At the same time, a person's awareness of his skills, potentials, interests, and

values leads him to take on roles seriously in relation to specific jobs.

Role taking in relation to higher prestige nonfarm occupations appears related to certain personality characteristics. These are personality characteristics that would probably help youth to function effectively in urban-industrial working and living conditions. For instance, a Michigan study (Haller and Wolff, 1962) was made of rural high school students with high nonfarm occupational aspiration levels. These students tended to have more stable emotional characteristics, more confidence in their abilities to work with others or to mix socially, a greater tendency to achieve success in activities, and more willingness to act independently and assert their ideas or feelings of self-confidence.

These students with high occupational aspiration levels also tended to express:

1. A readiness to move away from relatives or familiar surroundings if necessary to take advantage of opportunities.
2. Positive rather than negative views regarding changes in their patterns of living.
3. Attitudes implying a belief in determination of events by one's own actions rather than by circumstances beyond personal control.

Recall that many of these value orientations and personality characteristics were found more frequently among nonfarm or urban youth than among farm youth.

Plans to enter higher status occupations among a sample of youth from a predominantly New York agricultural community were positively associated with emphasis on "service to society" and "mental work." These plans were negatively related to "hard work" and "security" (Schwarzweiler, 1959). Further research based on Kentucky boys (Schwarzweiler, 1960) indicated that levels of occupational status aspirations were positively related to values placed on creative work, work with people, and service to society. Negative relationships were observed between occupational status choices and values on material comfort, hard work, and external conformity.



The Case of Farm-Reared Boys

Data from many urban areas consistently point to one conclusion: among urban workers, farm-reared males are less often successful than urban-reared males. The farm-reared change jobs more frequently, have lower incomes, and are more often found in unskilled and semiskilled jobs. For these reasons farm-reared boys deserve special attention.

Farm-reared boys have to decide first whether they wish to continue the family tradition in agriculture, assuming they have a realistic opportunity to do so. If they do not, they must then decide what alternative nonfarm job they wish to enter. Available research related to this first decision may be considered in three general areas: (1) the boys' reports of their reasons for choosing farming or nonfarm careers, (2) study of other factors related to the farm or nonfarm occupational choice, and (3) characteristics of boys planning farm and nonfarm occupations.

Reasons for Choosing Farming or Nonfarm Careers

Farm-reared boys planning to farm and those planning nonfarm careers differ in their reasons for job choices. For instance, the first and second choice reasons given by Iowa farm boys planning to farm and those who did not are given in the table. Both groups gave first importance to selecting a job that they were interested in or liked. But, there the similarity ended (see page 20).

The proportion of boys planning to farm who gave "have an opportunity to farm,"

"know more about this occupation," and "be my own boss" as reasons for their occupational choices was greater than the proportion of boys planning nonfarm careers who gave each of these reasons. On the other hand "good incomes," "secure and stable job," and "good working conditions and opportunities for advancement" (included among the "other" responses) were cited more frequently by boys not planning to farm.

Difficulties the boys anticipated in entering a farming or nonfarming career are related to occupational choices. Economic factors appeared to be the most frequent concern among both groups of boys in this Iowa study. For boys planning to farm, economic difficulties centered on the large capital investments needed to begin farming. Among boys planning nonfarm careers, anticipated economic difficulties centered on the costs of obtaining necessary training.

Only two other major differences emerged between the groups of Iowa farm boys. Boys planning nonfarm jobs were more concerned about their abilities to do the work than boys planning to farm. Also, the nonfarm-oriented boys expressed greater concern over their lack of knowledge regarding finding work.

Factors Related to Occupational Choice Between a Farm and Nonfarm Career

How do farm-reared boys who plan to farm differ from farm-reared boys who do not plan to farm? To answer this question we must partly repeat findings already re-

ported in this study. Some major characteristics which differentiate between them include the following points:

1. Two studies found that boys planning to farm come from farm families with higher net assets, greater capital resources, or greater incomes (Kaldor, *et al.*, in press; Straus, 1956). Farm family ownership rates and the average number of acres owned, operated, or harvested are also greater among families of boys planning to farm. Fathers of farm-oriented boys are less likely to have had nonfarm jobs. Mothers are also less likely to have had employment outside the home. Boys planning to farm more frequently reported an opportunity to enter farming with their fathers or had a farm available to them (Kaldor, *et al.*, in press).

One study was done in a highly industrialized area in Michigan. It failed to find a substantial difference in economic resources between families of boys planning to farm and of those who did not (Haller, 1960).

Given today's costs for entering farming, few young men can expect to enter and remain in farming without considerable financial assistance from their families. The availability of capital resources possibly over-

shadows almost all other considerations in the final choice of farming as a career.

2. Usually high economic resources of parents are associated with high educational and occupational aspirations for their children. This does not appear true when the parental aspirations of boys in the farm-plan and nonfarm-plan categories are compared. The parents of boys planning to farm tend to have relatively low levels of educational aspirations and low levels of nonfarm occupational aspirations for their sons (Burchinal, 1961; Haller, 1959 and 1960). Plans not to farm tend to be related to parental encouragement to go to college and to seek higher prestige nonfarm occupations. Nonfarm plans are related more frequently to higher educational and occupational aspirations held by mothers than fathers.

3. Different kinds of adults are important in relation to choosing a farm or a nonfarm career. Two studies (Burchinal, April 1960; Kaldor, *et al.*, in press) reported that boys planning to farm indicated their fathers had the greatest influence on their occupational plans. For these boys, teachers,

mothers, and other persons were less important. In contrast, boys planning nonfarm careers cited mothers, teachers, or vocational counselors as having the most important influence.

4. Generally, little or no relationship was observed between various community-related variables and boys' farm versus nonfarm occupational choices. In several studies, size of the nearest largest town or the proportion of persons in the county in industrial employment were not related to farm boys' occupational plans (Kaldor, *et al.*, in press; Straus, 1956). Length of membership in 4-H Clubs was not greatly different between the two groups of boys in the Iowa statewide sample. However, boys planning to farm more frequently were in FFA programs and had longer experiences in them than boys not planning to farm (Kaldor, *et al.*, in press).

The differences between 4-H and FFA experiences of the two groups may reflect one of three things: (1) the tendency for boys who think they will become farmers to enroll in FFA programs, (2) the impact of the FFA program encouraging boys to go into farming, or (3) the combination of both. Studies have not demonstrated the relative importance of these explanations.

Furthermore, sizes of high school enrollments or the proportion of farm boys in each school appeared unrelated to the occupational plans of the Iowa farm boys (Kaldor, *et al.*, in press).

Characteristics of Boys Planning Farm and Nonfarm Occupations

1. Boys planning to farm generally are less flexible in their occupational role taking than boys planning nonfarm jobs (Burchinal, April 1960; Haller, 1959; Kaldor, *et al.*, in press; Straus, 1956). Farm-plan boys usually consider fewer occupational alternatives, make up their minds earlier in their lives, and are more certain of their plans than nonfarm-plan boys. On the other hand, farm boys who indicate nonfarm occupational plans show more flexibility in their occupational choices and are less committed

to one specific occupation during high school.

2. Planning to farm has a severely depressing effect on plans to attend college. This conclusion emerges from all studies in which the relationship was tested.

3. In comparison with farm boys not planning to farm, boys planning to farm appear less well informed and less actively seek information about nonfarm job opportunities. Studies in Michigan (Haller, 1960) and Iowa (Burchinal, April 1960) found that farm youth who decided to farm sought occupational information less frequently from school sources. These youth also tended to be more satisfied with present sources and levels of occupational information. Farm youth who planned nonfarm jobs desired more extensive job information and were more dissatisfied with present sources and levels of information.

In another investigation (Kaldor, *et al.*, in press) boys planning to farm were less well informed about costs of becoming established in various occupations. These boys were also less aware of the social prestige of and the incomes derived from various occupations. The extent to which more adequate information might have influenced them toward other vocational choices has not been determined.

4. Iowa farm boys who plan to farm are probably more optimistic about incomes derived from farming (Kaldor, *et al.*, in press). To five of six questions related to estimated incomes derived from small, medium, and large farms in Iowa in 1958, and probable incomes in 1965, the farm-plan boys estimated higher mean income levels. The only reversal occurred when boys not planning to farm estimated a slightly higher mean income for large farms in 1965. The ratios of the 1958 to 1965 income estimates for the three sizes of farms showed that boys planning to farm were more optimistic about expected income rises in farming.

This more optimistic view was also indicated when boys were asked to estimate their incomes in farming in 1965 and their best nonfarm occupational alternative. Average ratios of farm to nonfarm incomes

First and second choice reasons for occupational plans reported by Iowa farm boys who planned to and who did not plan to farm

Reasons	First choice		Second choice	
	Farm-plan boys	Nonfarm-plan boys	Farm-plan boys	Nonfarm-plan boys
	percent			
Like it, am interested in it.....	41.2	53.3	24.2	18.2
Have an opportunity to farm.....	15.2	2.8	15.0	3.4
Like the work environment.....	11.6	11.5	17.3	16.7
Born on a farm.....	10.7	0.2	2.6	0.2
Know most about this occupation.....	6.7	3.7	11.8	8.5
Be my own boss.....	5.8	0.5	10.5	1.5
Good income.....	3.7	12.6	7.8	29.8
Secure and stable job.....	1.8	6.9	4.6	8.0
Other reasons.....	3.3	8.5	6.2	13.7
Total.....	100.0	100.0	100.0	100.0
Number of boys answering.....	328	435	306	402

Source: Kaldor, *et al.*, in press.

showed that neither group expected to make as much in farming as in their best nonfarm alternative. But, the ratio for the boys planning to farm was closer to unity (.94) than was the ratio for the boys planning not to farm (.78).

5. There is little question that farm boys who do and who do not plan to farm differ in their value orientations that are related to their work preferences (Burchinal, April 1960; Haller, 1960; Kaldor, *et al.*, in press; Straus, 1956). By value orientations we mean things that the boys consider important to them. For instance, Iowa boys planning to farm preferred to work with things, machinery, or tools and enjoyed physical work activities more than boys planning nonfarm jobs. Farm boys planning nonfarm jobs, on the other hand, preferred to work with people and handle ideas (Burchinal, April 1960). Also, Iowa farm boys planning nonfarm jobs tended to rate the importance of "the intellectual challenge of a job" higher than boys planning to farm. The two groups were closer together on their preference for rural living as compared to urban living. This preference was more pronounced among farm-plan boys although it was shared by almost one-half of the boys planning not to farm (Burchinal, April 1960).

Another Iowa study (Kaldor, *et al.*, in press) found that boys planning to farm more frequently rated: (1) work out-of-doors over indoor work, (2) work involving much physical activity over little physical activity, (3) work involving extensive use of machinery and tools over little use of these, (4) work in their present town over work away from it, (5) work in a small organization over work in a large one, and (6) work involving little contact with people over work involving a lot of contact.

Boys planning for nonfarm jobs more frequently rated: (1) work which required developing relationships with people over work having few responsibilities, and (2) living in a city over living in the country as more important to them.

Iowa boys planning to farm tended to rate "freedom on the job to be your own boss" and the "security of the job to keep

it as long as you want it" as more important than boys planning nonfarm jobs. The latter tended to emphasize "opportunity for advancement on the job" as more important than boys planning to farm (Kaldor, *et al.*, in press).

There are also indications that boys who plan nonfarm jobs place a higher value on change in patterns of living. Or, at least, they are more able to accept changes. They also have a greater interest in events outside of themselves and their own experiences than boys who intend to farm (Haller, 1959).

6. Only one study (Haller, 1960) is available that intensively compared the personality characteristics of boys planning to farm and those planning nonfarm careers. Among these Michigan farm boys, those planning nonfarm work, in contrast to those planning to farm, tended to have greater emotional stability, greater independence and self-sufficiency, more determination to assert themselves, and a greater interest in or at least less fear of people. Youth intending to enter nonfarm careers were more confident of themselves and their relations with others.

These findings agree with those cited earlier. They suggest that farm boys who do not plan to farm are more capable of meeting change and adapting to new situations and new people. The results from this one study in Michigan probably are a minimum estimate of differences between the two groups because of the highly industrialized locale in which they lived. Probably larger differences in personality characteristics would be observed between the two groups in less industrialized areas.

7. Data are contradictory in regard to the relations between school performance and farm or nonfarm occupational plans. One study, based on a statewide sample in Washington (Straus, 1956), found no differences between the two groups of boys in school grades, participation in school activities, or the proportion who considered themselves leaders. Another study reported no differences in measured intelligence levels between boys planning to farm and farm

boys planning nonfarm careers (Haller, 1960).

However, a statewide sample in Iowa found that farm boys planning not to farm had higher measured intelligence scores, higher high school grade averages, and higher achievement scores. They also participated more frequently in high school activities and were more frequently rated by their principals as having high leadership abilities (Kaldor, *et al.*, in press). Similarly, in a statewide Wisconsin study (Haller, 1957), farm boys planning to farm more often had lower intelligence scores.

8. Boys planning to farm and those not planning to farm are probably more alike than different in regard to preferences among community characteristics. In the

Iowa investigation (Kaldor, *et al.*, in press), there were no large differences in percentages in either group placing importance on:

1. Being a short distance from friends.
2. No traffic congestion problems.
3. A quiet neighborhood.
4. Presence of entertainment and recreational facilities.
5. Adequate schools, churches, shopping facilities, transportation facilities, housing, and medical care.

However, two differences were observed. Boys planning to farm more frequently rated being only a short distance from relatives and living a considerable distance from their closest neighbors as important to them.

What These Findings Suggest

Several inferences can be drawn from research findings relative to occupational choices of rural youth. These inferences provide a realistic basis for helping rural youth choose their careers.

1. The majority of rural youth must, by preference or necessity, move to urban areas in pursuit of adult careers.

Among all U.S. occupational opportunities, less than 10 percent are in farming. This percentage is still declining. The majority of occupational opportunities are now found in urban areas. Furthermore, industrialization of rural areas will probably not substantially alter the location of future job opportunities. Those occupational fields expected to expand most—fields requiring the most education—will probably be urban centered.

A study in Washington (Landis, 1944) showed that the larger the city, the greater its drawing power for young adults. Rural areas lost a far greater proportion of their youth than small towns. Metropolitan areas retained the greatest proportion of their youth and attracted the most rural and small town youth.

2. Wide disparity frequently exists between occupational preferences or aspiration levels and available occupational opportunities.

Practically all available data indicate that a far greater proportion of rural and urban youth aspire to professional or other high status occupations than there are opportunities available. To the extent that urban youth generally have higher occupational aspira-

tion levels than rural youth, it would seem that urban youth have more unrealistic occupational aspiration levels. However, a larger proportion of urban youth plan to attend college. College preparation is required for practically all professional, managerial, and scientific occupations. It is also becoming increasingly necessary for many technical, sales, and administrative positions. This suggests that urban youth are better prepared to compete successfully for available high level positions.

3. Rural youth apparently are at a disadvantage when entering an urban labor market and competing with urban youth for available occupations.

Rural youth do not as frequently have the skills, training, value orientation, and personality characteristics necessary for original occupational selection and subsequent movement up the occupational ladder in comparison with urban youth. These differences result from differences in high school training, occupational information levels, educational and occupational aspiration levels, preferences among job and living conditions, and personality characteristics.

With shifts in the occupational structure toward occupations demanding more education, higher skills, and longer training, rural youth face an increasingly competitive labor market.

4. Rural farm youth are frequently at a greater disadvantage than rural nonfarm youth upon entering the urban labor market.

Boys planning to farm represent a special circumstance. They do not have to compete



with nonfarm youth for occupational opportunities when they enter full-time farming. It may be significant that a majority of these boys never seriously consider any job but farming. Generally, they are less interested in information about nonfarm occupations.

This is fine when a young man has the interest, knowledge, ability, and resources for successful farming. But premature commitment can have unfavorable consequences—particularly if the boy later finds he is not equipped to successfully carry out his chosen occupation. It is not a question of whether farming is the right or wrong choice for farm-reared boys. The question is whether these boys choose among alternatives in line with their interests and abilities or simply drift into farming without such considerations.

5. Another disquieting result was reported in all studies that tested it. This was the strong negative influence that plans to farm had on plans to attend college. Yet, these farm boys need all the education, training, and experience they can obtain.

Successful farming today is based upon an intricate combination of: technical know-how; managerial skills; availability of capital; and personality variables such as achievement motivation, flexibility, intelligent risk taking, and change orientation. Some abilities, resources, and personality variables can or must be acquired through experience. Others are acquired only through careful training. Although experience alone can be an excellent teacher, mistakes can be costly.

Farming requires increasing levels of competency. Many changes in production methods and managerial procedures are relatively recent and innovations continue. Thus formal training will probably be increasingly necessary for successful farming operations. High school agricultural education and home economics programs, as well as community adult education and college programs, will continue to supply training for farming or agriculturally related fields.

However, post-high school education for men intending to farm is important for another reason. Some boys who plan to farm may not devote all their lives to farming.

They may prefer to or have to seek their final careers in nonfarm employment. If so, they may compete with those who have had higher education.

6. Occupational choices are based upon tentative occupational choices and arrived at by occupational role taking. This, in turn, is related to the individual's social and psychological development. These highly personal choices are made in context of an individual's experiences and resources; his knowledge of occupational alternatives, training requirements, and financial and non-monetary rewards; and such important variables as his preferences or value systems and personality characteristics.

The influences of family members, school personnel, other adults, and friends also contribute to the development of the occupational role-taking process.

7. Rural youth from lower socioeconomic status families face special problems in occupational decision making. The probabilities of finishing high school, going to college, or entering above-average-paying occupations are considerably less for children from lower social status families. Differences are not based on economic factors alone.

Reference groups within the social status levels greatly influence attitudes toward education or "getting ahead in the world." Lower social status parents encourage their children less to develop favorable attitudes toward high school or higher educational and occupational aspirations. This relative disadvantage of lower social status students is generally compounded at school. Higher social status students usually receive better grades because their parents encourage them to develop favorable attitudes toward education and to identify with its objectives. These students adjust better to the school situation and are more likely to remain and to participate in extracurricular programs.

Currently, about one-fifth of all youth with above average intelligence do not attempt training beyond high school. Considerable talent is thus lost to society each year. These students' abilities are not sufficiently recognized and they are not motivated to plan for higher education.



Programs for Improving Occupational Choices

The summarization and implications of the research data related to the occupational decision-making process of rural youth were already presented. They lead to the question: what must be done if the occupational decisions of rural youth are to be made in a personally satisfying and socially constructive manner? Answers to this question must be based upon general considerations related to the occupational choice process.

Discussion of all specific means of organizing family, school, and community experiences of youth to help them prepare for and to make intelligent occupational decisions would have to include numerous local community considerations. These must lie outside the scope of the present report. However, here are some general needs which must be met if personal and societal goals in relation to occupational choices are to be maximized. These are the responsibilities of adults interested in the future welfare of rural youth.

1. Local communities and American society in general must provide all youth with a comprehensive and diversified education through high school. These programs must also motivate every student for achievement to ensure that he realizes his educational potential, develops basic skills, and discovers and develops his unique interests and abilities.

Generally, few educational systems in rural or urban communities have reached this goal. However, present data indicate that rural educational facilities lag behind urban facilities in this respect. Rural youth deserve equal opportunities and stimulation.

Failure to provide adequate facilities and services contributes to losses to communities, states, and the nation in trained manpower, leadership, civic responsibility, incomes, and purchasing power. One consequence is a weakening of our country. The trained talents of rural youth are needed whether they are engaged in farming, agriculturally related work, or nonfarm careers.

2. Special education programs must be developed that meet long term needs for rural youth.

College is not the answer for all rural youth. Some rural youth never finish high school because existing programs are not compatible with their interests or abilities. Frequently, vocational education programs would be better for them. These programs are also valuable because employment opportunities for technicians and skilled workers are expected to increase.

Men are needed in skilled trades and technical areas. Fortunately, farm youth are interested in entering these occupations. Generally, their value and preference systems lead them more often toward jobs involving machines and tools rather than people and ideas. In a statewide study in Iowa (Kaldor, *et al.*, in press) for instance, about 10 percent of the boys planning to farm preferred going to a trade school immediately after high school rather than entering farming or going to college, business school, or some kind of educational program. This was true of about 16 percent of the farm boys not planning to farm. However, only 4 percent of the farm boys planning to farm but 15 percent of the boys not planning to farm

actually intended to attend some trade school.

The boys were asked if they would be interested in attending a trade school within driving distance from their homes where they could prepare for trades such as auto mechanic, draftsman, electrician, barber, printer, or surveyor. Striking differences in percentages were observed. Approximately 45 percent of the boys planning to farm and 55 percent of the boys planning nonfarm careers said they would be interested in attending such schools.

In addition, new types of educational programs may be needed for those who will not attend college. Occupations not requiring college are undergoing rapid change. Many routine jobs are being taken over by machine; new occupations are emerging; certain old occupations are expanding. Today the basic training a person receives ordinarily is expected to last a lifetime. But what happens when his occupation becomes obsolete or changes? He becomes technologically unemployed.

Evidently, we need two types of programs. One would retrain adults for new occupations. The other would provide a fundamental education that would be useful despite changes in particular occupations. This should stress principles underlying technical and human relations fields. Exploration to determine the exact contents of such programs should be undertaken at once.

3. Preparation for occupational selection by rural youth must be based upon reasonable access to accurate and extensive knowledge about the world of work.

Rural youth should be intimately acquainted with a wide variety of occupations. Many organizations can independently or cooperatively provide such knowledge. Schools or 4-H Clubs, for instance, can use the services of state employment and security commission personnel. Printed materials are available from the Federal Extension Service; Department of Agriculture; Department of Labor; Department of Health, Education, and Welfare; or from private organizations. One pertinent bulletin is, *Helping Rural Youth Choose Careers*, USDA Miscellaneous Publication No. 771, October 1958.

4. Rural youth must also be educated for mobility.

Families, schools, and other community groups must assist rural youth to develop social skills and personality characteristics that help them adapt to new situations and maintain social relationships with all kinds of people. This means:

- Developing feelings of greater self-confidence and self-sufficiency.
- Encouraging positive attitudes toward meeting new people.
- Reducing shyness or withdrawal tendencies.
- Encouraging a positive attitude toward change.
- Developing problem-solving attitudes and skills such as learning to find employment.
- Participating in social activities in any community where they are newcomers.

5. Vocational information and counseling should be available continuously during junior and senior high school.

One important recommendation made by Dr. James Bryant Conant after his extensive study of the American high school system was for more extensive and competent vocational counseling. For farm youth this must come early in junior high school. Boys who plan to farm tend to decide earlier and become less flexible about it than other youth. Also, youth from lower status homes more frequently enter the labor force immediately after high school. If high school training is to be of value to these youths, they must be aided in occupational choices early in their high school careers.

Factual, detailed information related to all aspects of various occupational fields should be provided for rural youth. However, facts alone are not enough. Few decisions are made in a completely rational manner. Occupational choices also involve preferences or values. It cannot be argued that being a farmer is better than being a teacher or vice versa. But it can be argued that some boys planning to enter farming would do better as teachers, given their

abilities, resources, and potentials. The opposite is also true.

In providing occupational information, it is important to be aware of how rural youth view the knowledge, how they evaluate the sources, and how their values facilitate use of the information. Occupational information by itself is a good first step. But, if it is to be fully utilized, it must be accompanied by competent vocational counseling.

6. Programs of providing occupational information and vocational counseling should include both youth and their parents.

The importance of parents as reference groups for youth was previously documented by numerous research studies. Maximum utilization of occupational information and vocational counseling experiences comes only when these experiences are reinforced by parental encouragement. Parents must encourage youth to develop their interests, explore their abilities, and to estimate their chances of success in many occupations. Adult education is necessary to help rural parents appreciate the value of an education in our modern society.

7. Rural action groups can supplement programs designed to aid youth make intelligent occupational decisions.

In most rural communities, school-related programs are and will be the center of oc-

cupational planning and training programs for specific occupational fields. Programs of other community groups can reinforce, extend, or supplement school programs. Educational experiences in any of these settings help rural youth learn of occupational alternatives and provide them with greater opportunities for occupational role taking. Career exploration programs in many 4-H Clubs are excellent examples of the leadership that 4-H Clubs can assume in helping rural youth choose their careers.

If based upon adequate knowledge and counseling experiences, tentative occupational choices that guide educational programs can lead youth in a constructive direction. They help youth avoid occupations for which they are ill prepared or ill fitted.

Rural as well as urban society can better prepare youth to fill needed occupations. On the basis of available studies, youth from urban areas may currently have an edge over farm and rural youth—in their training, educational and occupational plans, and in parents' aspirations for them. But assuming roughly equal abilities, and there is no evidence to the contrary, this edge does not need to continue. Persons interested in rural youth must prepare them for competition with urban youth in educational and occupational fields.

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