ABSTRACT

OCCUPATIONAL MOBILITY IN RURAL MICHIGAN

by Ralph Arthur Loomis

This is a study of the process by which labor transfers from farm to nonfarm employment. More specifically the analyses focus on: (1) the employment practices of nonfarm firms that may affect the ability of farm people to compete for nonfarm employment, (2) the effect of selected socio-economic differences between communities on the transition from farm to nonfarm work, (3) the uses of farm resources that are controlled by operators who have transferred partly from farming to off-farm work, (4) farm residents' interest in and qualifications for nonfarm employment, and (5) measures designed to facilitate the transfer of farm operators to nonfarm work. Primary data were obtained from a sample of industrial employers, part-time farmers, low-income full-time farmers, community leaders, and members of various institutions in Kalamazoo and Muskegon Counties, Michigan.

This analysis suggests that the nonfarm labor market has functioned with equal effectiveness for farmers in the two counties studied in spite of significantly different levels of unemployment, differences in farm structure, population growth,

educational levels, and a number of differences in the overall socio-economic patterns of the two areas. Furthermore, in neither county do the employment policies and practices of industrial employers appear to discriminate between farm and nonfarm employees or employee applicants. The processes of employing and promoting are based on criteria that are equally applicable to all.

The findings of this study do not contradict the theory that money income differentials stimulate occupational mobility, but they do substantially qualify the relationship. The qualifications include such variables as: opportunities for employment at higher income earning activities, the matching of job requirements with employee qualifications, and the importance of non-money income preferences. It was found, for example, that it would take approximately $1200 less annual income to induce part-time farmers to quit their non-farm job than to quit farming in favor of a single income earning activity.

The results further suggest that neither training facilities related to nonfarm job requirements nor increased information about nonfarm job vacancies will have a substantial impact on the off-farm migration rate of those already committed to farming. The support for this position rests with such variables as: the existence of a high level of general unemployment, lack of interest in receiving additional training, relatively advanced age of the rural farm population, relatively high incidence of physical handicap among low-income farmers,

existing familiarity with the nonfarm job market within commuting distance, and the uncertainty regarding change. This is not to say that improved information and training facilities may not have an impact on the number of people who become committed to farming in the future.

This investigation lends credence to the position that combining off-farm work and some degree of farming is becoming an increasingly feasible means of fulfilling a broader range of goals or desires than is possible by limiting oneself to one or the other activity. Therefore, this type of multi-jobholding is becoming an increasingly more permanent institutional arrangement on the rural scene, particularly in areas of industrialization such as typifies southern Michigan.

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By

Ralph Arthur Loomis

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Ralph Arthur Loomis

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CHAPTER I

THE STUDY

Introduction

Industrialization is a process of reallocating economically productive resources from primarily agrarian employment to manufacturing, commerce, and services. Most important among these resources is people. In the United States the transfer of people from farm to nonfarm employment has occurred at a dramatic rate. In the 50-year period prior to 1960 the proportion of the total U.S. labor force engaged in agriculture decreased from 31 to 8 percent.[1] For the same period the absolute number of agricultural workers declined from 13.6 to 7.3 million.[2] This trend continues in the decade of the 1960's. Continuing increases in agricultural productivity suggests that fewer and fewer people will be needed to produce the nation's increasing requirements for food and fiber.

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[1] Manpower Report of the President, by the U. S. Department of Labor, March 1963, Table A-1, p. 139; and Statistical Abstract of the United States, 1957, Table 237, p. 195.

[2] Farm Employment, Statistical Bul. No. 334, Statistical Reporting Service, United States Department of Agriculture, Table 1, p. 7 (undated).

The transfer of labor from farm to nonfarm employment has been rapid--but not rapid enough. Labor as an input in farming is redundant. The effect of this over-commitment is low returns to labor and capital--returns substantially below those earned by labor and capital employed in nonfarm pursuits.

The primary question becomes, "Why don't more farmers leave farming--why do they accept such substandard remuneration for their labor and capital?" Do low-income marginal farmers stay in farming because there is no demand for their skills in industry? Do they stay on the farm simply because they are unaware of other alternatives, or is farming--even with substandard money income--preferred to the extent that it represents real rewards that are comparable?

These are important questions that need answers. Policies and programs for solving the low-income problem in agriculture are doomed to failure until we better understand the fundamental reasons why low-income submarginal farmers remain in farming. The primary purpose of this study is to investigate these reasons. More specifically the analysis will focus on: (1) the employment practices of nonfarm firms that may affect the ability of farm people to compete for nonfarm employment, (2) the effect of selected socio-economic differences between communities on the transition from farm to nonfarm work, (3) the uses of farm resources that are controlled by operators who have transferred partly from farming to off-farm work, (4) farm resident's interest in and qualifications for nonfarm employment, and (5) measures designed to facilitate

the transfer of farm operators to nonfarm work.

There are extensive writings, ranging from popular to technical, on the innumerable ramifications of the changing sociological, economic, and institutional structure of American agriculture. Within these writings is an abundance of literature concerned with low-income farm families, the transfer of labor from farm to nonfarm uses, the role of public agencies in servicing people in the process of occupational transition, the interdependence of the farm and nonfarm sectors of the economy, and so forth. Nevertheless, largely due to the dynamic nature of our society, time renders irrelevance to much that has been written and generates, if not new, at least change in the shape and character of problems and their solutions. And because of the complexity of human behavior, the validity of any single utterance must of necessity depend upon assumptions, with varying degrees of reality, which also change over time.

The general context of writings to date suggest that in addition to money income other factors are important in explaining occupational mobility. However, little has been done to identify or quantify these "other" variables. Much remains to be done in analyzing the importance of forces such as: motivation, expectations, uncertainty, and opportunity as they relate to occupational mobility. Some of the following hypotheses stem from this arena. Time and again the literature points to the need for greater availability of information about nonfarm job opportunities in order to facilitate the

transfer of labor from agriculture to nonagricultural uses. Yet little has been done to evaluate the importance of public versus private sources of information in the occupational decision making process of individuals. Much is written about the hiatus between job requirements and employee qualifications, and in fact we are witnessing public programs designed to close this gap. It is assumed that all people who in some sense "need" retraining so as to improve their lot will respond to these programs, thereby substantially alleviating the low-income problem, even in agriculture. There is need for analyses of farmers' attitudes toward these efforts in order to evaluate the potential effectiveness with respect to farm people.

While the above comments on literature are very brief, they are intended to merely illustrate, but in no sense exhaust, the genesis of hypothesis formulation for this study. The objectives of this investigation will be met by the testing and subsequent acceptance or rejection of the following hypotheses:

1. Industrial employers do not discriminate against farmers, vis-a-vis nonfarmers, when hiring new employees.
2. Examination of wage-rate differentials, or relative earnings, will not provide an adequate explanation of employment mobility, or immobility patterns.
3. For those combining farm and nonfarm income earning activities, the farm income is viewed as supplementary to the off-farm income.

4. Increasing the availability of information about nonfarm employment opportunities would have little impact on the farm to nonfarm employment flow.
5. Increased nonfarm job training facilities would have little impact on the movement of farmers out of farming.
6. An off-farm labor market characterized by a relatively stable and low unemployment pattern will facilitate the adjustment problems of the surrounding agricultural sector to a greater degree than will a labor market characterized by an unstable employment pattern with periods of high unemployment.

Procedure

The data used in testing the hypotheses were obtained from both primary and secondary sources. Secondary data sources were largely population and agricultural census in origin, along with data regularly published by the Michigan Employment Security Commission. Primary data were obtained from farmers, nonfarm employers, and a number of institutions, community leaders, and the like.

Two Michigan counties were selected for study. Each county has a major urban center which functions as the nucleus of economic activity for the rural regions of the county. One of the counties had a relatively low unemployment pattern during the past decade, while the other county had a relatively

high unemployment pattern.[3]

Management was interviewed in all the industrial firms employing 500 or more workers.[4] In addition, the management of several smaller firms outside the urban centers were interviewed. This pattern of data collection on the nonfarm labor market enabled maximum coverage of the nonfarm job market opportunities. Limiting the nonfarm labor demand set to large industrial employers has the disadvantage of omitting types of nonfarm employment which have different qualification requirements. However, to have expanded the study to include service and other types of employment would have added excessively to the data gathering process.

Labor supply, or potential supply, from the farm sector may be conveniently classified into four groups: (1) the group of farm operators who have left agriculture entirely in favor of nonfarm employment, (2) the children of farm families, (3) the group of operators who have made a partial adjustment in the farm to nonfarm labor shift, i.e., those who combine the two income-earning activities, and (4) low-income, full-time farmers who, on an a priori basis,

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[3]A detailed comparison of these counties is made in a subsequent chapter.

[4]Management, usually the personnel officer, was interviewed using a conversational approach rather than a stylized questionnaire. Continuity was maintained by use of informal guidelines for directing the conversations. Substantially more information was obtained in this manner than would be the case if a set questionnaire had been utilized.

seem to have an economic incentive to move to other employment but have not made the transition. For purposes of this investigation, the group of operators who have left agriculture completely are not included as part of the population to be studied because of the extreme difficulty of identifying and contacting them. Likewise, the children of farm families were not interviewed, per se. However, information about adult children was obtained from the farmers who were sampled. A random sample of the other two groups, i.e., part-time farmers and low-income full-time farmers residing in the two counties delineated for study, was interviewed.

In addition to gathering cross-sectional and historical primary data from employers, part-time farmers, and low income, full-time farmers, information was obtained from a number of sources to facilitate analyses of the general socio-economic structure of the areas as related to farm and nonfarm employment mobility. For example, interviews were held with officials representing chambers of commerce, labor unions, city government, Michigan Employment Security Commission, banks, community development oriented institutions, agricultural agents, adult education leaders, and the like.

While the investigation is not designed to be a morphological analysis of the areas involved, substantial reliance was placed on the use and interpretation of historical information. Various statistical measures and tests were used as the situations warranted.

In Chapter II we will examine some of the economic and

sociological theory relevant to the analysis. In Chapter III we examine the demographic and economic structure among regions or areas, pointing out that major differences may dictate substantial variation in problem-solving measures. The theoretical systems and regional structural characteristic will then be related to the major analyses of primary data in Chapters IV, V and VI. The final chapter is concerned with inferences, policy implications and concluding observations.

CHAPTER II

OCCUPATIONAL MOBILITY--SOME THEORETICAL CONSIDERATIONS

Introduction

"The quality of life most useful in nature, from the point of view of the domination of a wider environment is the quality of changeableness, plasticity, mobility, or versatility."[1] Hawley has written, "It is largely, if not entirely, through the development of his capacity for movement that man has arrived at a position of world domination."[2]

The conceptual core of this investigation rests within this framework of man's facility to initiate and subsequently adapt to change. Understanding of this adjustment process takes on added importance with the realization that change becomes increasingly rapid as our culture has more elements to work with. The dynamics of our material and social culture harbors the challenges for the social sciences. As the conditions for change become more favorable, the resistance to

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[1]George W. Crile, Man! An Adapting Mechanism (New York: 1916), p. 18.

[2]Amos H. Hawley, Human Ecology, A Theory of Community Structure (The Ronald Press Company, 1950), p. 325.

change also becomes greater because of the increased interdependency of our cultural parts, fear of the new, and respect for the traditional.

Within this process of change, for which progress is the optimistic name, this investigation is focused on the occupational mobility of farmers. The term occupation encompasses at least three sets of phenomena: (1) technological, (2) economic, and (3) social. As such, occupation is a constituent element of our general social history, for it reflects the efforts of man to engage in a specific, relatively continuous activity in order to earn a livelihood and to maintain a definite social status. Likewise, the term mobility embraces the three concepts of technological, economic, and social. For purposes of this study, occupational mobility may involve all of these phenomena. For example, a shift in major income earning activities from farming to industrial employment is technological in the sense that the machine-man relationship is dramatically altered. It is economic in the sense of increased specialization in the productive contribution of labor, and it is social in the sense of changing the personal relationships and social identity of those involved.

Changing occupations may be viewed from different levels of aggregation and different time dimensions. The emphasis in this study is on the behavior of individuals and small groups, rather than the overall net movement of farmers out of agriculture. Of course, the implications derived from this approach may be applicable to the broader aggregate shifts

taking place in the occupational mix. Closely associated with this is the time dimension or the various stages in the life cycle during which people leave agricultural activities in favor of other work. In a long-run context the major impact on the size of the agricultural population is the out-migration of young adults, most of whom have not become committed to farming as an occupation.[3] While this group is of some interest in this study, the major emphasis relates to those who have been committed to farming as a means of earning a livelihood and have subsequently changed their major occupation.

Changing occupations is a pervasive event, penetrating the theoretical constructs of both the economics and sociology disciplines. The balance of this chapter is devoted to discussion of some of the basic concepts, assumptions, and theories of particular relevance to the investigation of occupational mobility as a behaviorial phenomenon. Some of the theory associated with occupational mobility approaches the axiomatic. I will not dwell on these in this chapter, but I will present the supporting evidence in subsequent chapters to illustrate the consistency of the primary data gathered for this study.

Economic Theory and Occupational Mobility

Whether we are considering one individual shifting jobs or the overall changing occupational mix of the economy,

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[3] Farm Population Estimates for 1910-62, Economic Research Service, United States Department of Agriculture, ERS-130 (October, 1963), p. 8.

the principle of factor resource allocation encompasses the most relevant body of economic theory for describing this behavioral pattern. In over-simplified terms, labor-saving technological innovations in agriculture are "pushing" labor off the farm. Simultaneously, expansion of the industrial and service sectors of the economy are "pulling" people off the farm. The price system is the mechanism through which the signals are transmitted for allocating productive resources, in this case, primarily the labor resource. If the system were frictionless and there were no transfer costs in shifting resource use, maximum efficiency in resource use and maximum net national product would be attained, with returns to labor in all uses being equal at their value of marginal product. Of course, there are many reasons for the absence of this frictionless, perfect mobility relationship. Certain of these reasons and how to combat them, both in the interest of efficiency and distributive justice, is the raison de etre for this study.

Our heritage of traditional equilibrium analysis stipulates that disturbances away from an equilibrium position provoke countervailing reaction which tends to restore the system in the direction of equilibrium. For example, if for some reason the returns to labor, assuming for the moment that labor is homogeneous, in industry were increased over returns to labor in agriculture, we would expect labor to shift from the lower to the higher remunerative activity. The reduced supply of agricultural labor would tend to result in increased

returns until a new equilibrium was reached between the two sectors. In fact, there is ample evidence of a persistent disequilibrium in labor returns between these two sectors. Hathaway explains this continuous disequilibrium in terms of the combined elements of: (1) a highly inelastic demand for products, (2) a low-income elasticity for products, (3) rapid rates of technological change which increase the physical productivity of certain inputs, (4) a competitive structure (in agriculture), and (5) a high degree of asset fixity which reduces resource mobility from the (agricultural) industry.[4] Myrdal has developed an hypothesis of social change which explains persistent disequilibrium among sectors of an economy, and areas of the world, which he calls "circular cumulative causation."[5] In essence he challenges the natural tendency for the economic system to move toward equilibrium, ". . . a social change does not call forth countervailing changes, but, instead, supporting changes, moving the system in the same direction as the primary change but much further. A social process thus tends to become cumulative and often moving with accelerating speed."[6] He goes on to point out that localities, regions, or sectors of expanding economic activity

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[4]Dale E. Hathaway, Government and Agriculture, Public Policy in a Democratic Society (The MacMillan Co., 1963), p. 126.

[5]Gunnar Myrdal, Development and Underdevelopment--A Note on the Mechanism of National and International Economic Inequality, Fiftieth Anniversary Commemorative Lectures, National Bank of Egypt, Cairo, 1956, p. 23.

[6]Ibid., p. 18.

are favored by the unfettered market system, favored by selective migration, capital migration and trade. Simultaneously, the unfavored localities are experiencing a series of interconnected, circular and cumulative forces resulting in yet greater relative poverty. Myrdal refers to these effects as "backsetting effects" of economic expansion in other regions.[7] Against these there are also "spreading effects" of expansionary momentum from the centers of economic expansion to other regions. In a rapidly growing economy, large regions will lag behind, stagnating or even retrogress depending on the balance between the backsetting and spreading effects.

The concept of a factor market is implicit in an analysis of factor mobility. A simple definition of a factor market is the area within which the resource is free to move among alternative employments.[8] But such a definition is of limited usefulness in discussing a labor market. In an historical and aggregative framework labor has always been "free" to move within the United States. More pertinent to defining a labor market, particularly in the context of employment mobility of farmers, is the establishment of geographic boundaries in terms of time, space, and types of alternative employment for which farmers are qualified.

Of greater concern than the definition of a labor market is the extent to which the market departs from the

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[7] Ibid., p. 31.

[8] Richard H. Leftwich, The Price System and Resource Allocation (Holt, Rinehart and Winston, 1961), p. 279.

concept of a perfect labor market. The usual criteria of a perfect market include: (1) homogeneity of factor (product), (2) perfect mobility of factor (product), (3) large number of buyers and sellers and (4) full knowledge of market conditions on the part of participants. Each of these criteria will be discussed in varying degrees in subsequent chapters in conjunction with analyses of the primary data used in this investigation.

Yet another body of economic theory particularly germane to the topic at hand is wage theory. The relevance of wage theory is suggested by the fact that money income is one of the major variables considered in making a decision about changing employment. Likewise, income differentials are the primary mechanism for signaling changing demand and subsequent allocation of labor among sectors, regions, firms, etc.

Wage theory has a long history of evolvement. The "just price" of medieval times was really a wage concept, namely, the price for one's wares should be sufficient to enable maintenance of one's customary position in the community. Adam Smith's labor theory of value equated the exchangeable value of commodities with the amount of labor the good could command or purchase.[9] He explained wage differentials in terms of five circumstances: agreeableness of employment, cost of learning the work, constancy of employment, trust to be

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[9]Adam Smith, The Wealth of Nations (Random House, Inc., The Modern Library, 1937), p. 30.

reposed, and probability of success.[10] Wage differentials in the short run were his concern. Ricardo's "iron law of wages," a restatement of Malthus in wage terms, held that wages above subsistence would be canceled by population increase. His was a long-run concept of wages. The exploitation theory of wages held by Karl Marx was a literal interpretation of Smith's thesis, contending that any part of the returns withheld from labor was an exploitation of labor by capitalists.

The marginal productivity theory is the "orthodox" theory of wages. It relates wages to worker productivity as measured by market demand. Men are allegedly paid their "worth," rather than according to their social position (just price), job characteristics (Smith), subsistence requirements (Richardo), available working capital (wages fund), what was left over (residual claimant), need (Marxian socialism), or bargaining power.[11] Of course, the marginal productivity theory of wages stands or falls on the degree of competition existent in the labor market. In the long run, the theory holds that the general level of wages is determined by the capital-labor ratio, the higher the ratio, the higher the wage level. But this is in turn subject to an equilibrating process. In trying to equalize the rate of marginal substitution, if wages are high, there is pressure to substitute labor-saving technology. In an economy with a high capital-labor ratio

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[10] Ibid., pp. 100-109.

[11] Orme W. Phelps, Introduction to Labor Economics (McGraw-Hill, 1955), p. 424.

and a high wage, there can be no turning back from increasing industrialization except at the cost of lowered wages and earnings and a drop in the level of living.[12]

The bargaining theory of wages holds that wages, hours and working conditions are largely a matter of the relative bargaining strength of the two sides, laborer and employer. Doubt is cast on the conventional positively inclined labor-supply function yielding the possibility of an undetermined wage via other than bargaining power. Employers attack the notion of a negatively sloping supply curve, pointing out that they raise wages to attract more applicants. This position is countered by the "fallacy of composition" argument, i.e., that the general labor market may respond quite differently to a change in wages than the market for a single employer.

The inflexibility of wages and the rate of national income and expenditure levels elaborated by Keynes is the most recent contribution to wage theory.[13] The theory as developed by Keynes, and since elaborated by numerous economists, leaves some room for collective bargaining and competitive individual wage adjustments, though the emphasis is on national policy and programs to influence national income and employment.

It is evident that there is no consensus on the theories relating to wages. It may well be that in an economy

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[12] Ibid., p. 433.

[13] John M. Keynes, The General Theory of Employment, Interest and Money (MacMillan and Company, 1936).

typified by a mixture of organizational structures, ranging from near perfect competition to monopoly and monopsony, plus varying degrees of public intervention, that a general theory of wages has no meaning.

Another way of viewing the determinants of wages, or relative wages, is to consider the reasons for differences in wage structure among types of work. Friedman lists three kinds of forces or phenomena which tend to result in income differentials among occupations: (1) equalizing differences, i.e., differences due to relative attractiveness of the work, (2) non-competing groups, i.e., barriers which prohibit free choice to some groups, and (3) transitional differences, i.e., incomplete adjustment to changes in demand and supply.[14] The alleged amenities or psychic income associated with rural life and farming would, to some, be an equalizing difference between lower money income in agriculture versus nonagricultural pursuits. This will be discussed in greater detail subsequently. Of course, it is likely that transitional differences are always present in a dynamic economy.

Sociological Concepts and Occupational Mobility

We noted in the introduction to this chapter that social, as well as economic, phenomena were pertinent to occupational mobility. In the collection of the primary data for this investigation an effort was made to gather information which would provide insights into some of the noneconomic

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[14] M. Friedman, Price Theory, A Provisional Text (Aldine Publishing Company, 1962), pp. 211-213.

implications of the occupational mobility process. This included demographic data, such as age, education, family size, migration patterns, etc. Likewise, respondents were asked about several areas of value, e.g. their preferences with regard to occupation, rural versus urban living, kinship ties and the like.

As well as the individually oriented observations, data was sought with respect to group and community elements of the two communities studied. The types of community organizations and some of their objectives were noted. Attitudes of community leaders were sought concerning issues pertinent to the overall social and economic change in the communities. With these supplementary sociological data it is hoped that a more complete and composite understanding of the occupational mobility process will be possible.

As with the relevant economic theories, the major sociological theories pertinent to occupational mobility revolve around the concept and dynamics of social change. Change results, after all, from inventions, both physical and managerial, with a continuing interaction among the dimensions and elements of social structure.[15]

In the interest of perspective and because of the

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[15] Elements are the relationships among institutions, groups, formal organizations, or other component units within the society. Dimensions are the variable influences of these elements extending through the breadth and depth of a society. Elements and dimensions make up the societal structure. See Lowry Nelson, C. E. Ramsey and C. Verner, Community Structure and Change (The MacMillan Co., 1960), p. 21.

importance of having a sociological and cultural anthropological frame of reference for the subsequent analyses, a brief resume follows of some basic concepts about the nature of social systems.[16] Only those concepts of particular relevance to this investigation will be mentioned, with no attempt to set out a complete and integrated framework of social systems.

Social systems consist of social interaction and cultural factors which structure or give a sense of uniformity to these interactions. Elements are simply the constituent parts of a larger whole and they serve as units of analysis. It is certain of these elements of social systems which are of particular interest to this investigation of occupational mobility.

Belief or knowledge is one such element, with a belief being any proposition about the universe that is accepted as true. The significance of beliefs is not necessarily determined by the objective truth or falsity of the beliefs. As an illustration of the importance of this element, belief, to this investigation, a perponderance of the respondents stated a preference for rural living. Among other reasons for this preference was the belief that it was a superior setting for rearing children, in preference to an urban setting. In a more general sense, there is still an absence of consensus

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[16]For references on these concepts, see Charles P. Loomis and J. Allan Beegle, Rural Social Systems (Prentice-Hall, Inc., 1950), pp. 3-9 and 780-788; Nelson, et. al., op. cit., pp. 12-19; and Charles P. Loomis, Social Systems (D. Van Nostrand Co. Inc., Princeton, 1960).

on the possible impact of beliefs in agrarianism or rural fundamentalism as they may influence the choice of a place to live and subsequently influence occupational mobility.[17] Regardless of the position one takes or the relevancy of fundamentalistic beliefs to labor mobility, evidence of these beliefs can be found among farmers, urban dwellers, politicians and professionals alike. For example, Baker has recently said:

> Rural rennaissance is surging ahead . . . rural areas are now called upon to provide vital new contributions to national security and welfare, such as: (1) A revitalization of the abiding values of Western civilization that are grounded in rural life; (2) A satisfying place, where growing numbers of people can recreate mind and spirit; (3) Essential open spaces that must be preserved within growing metropolitan areas; and (4) A rewarding rural environment where a greater number of people can live and work.[18]

Roles, or that which is expected of individuals in given situations, is another element of social systems. The assumptions underlying expected behavior are: (1) human relations are predictable, (2) one form of predictable behavior is the emergence of informal, implicitly understood patterns, which are called group relations, and (3) the predictability of these relations depends upon the fact that individuals

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[17]For a particularly rich source on agrarianism, rural fundamentalism and related values, see Paul H. Johnstone, "Old Ideals Versus New Ideas in Farm Life," United States Department of Agriculture Yearbook (1940), pp. 111-170.

[18]John A. Baker, Assistant Secretary, Rural Development and Conservation, United States Department of Agriculture, from an article in the United States Department of Agriculture, Employee News Bulletin, (January, 1964).

usually select their roles from a narrow range of expected behavior patterns. A large number of people working at a given division of labor is identified as an occupation. Certain specified patterns of behavior and performance are associated with this occupation, taking on the attributes of roles. Until recent years, the occupation of farming as a role did not include multi-job holding. However, it seems to me that a new role has evolved and become accepted by society for part-time farming. A different pattern of behavior is expected from this occupational group than from the purely farm or nonfarm occupational groups.

Closely associated with role is the element of status, or the ranking of individuals, based upon the consensus of members as to what traits and qualities are to be rated high and low. Again in the context of this study, the element of status is a very important concept associated with occupation. On the basis of well defined criteria of performance, individuals are ranked with occupational groups. Likewise, different occupational groups are ranked, or assigned a given relative status. In our culture money income is an important variable in the ranking function. Various questions were asked of part-time farmers, employers, and others in the communities studied in an effort to determine the impact of changing jobs on status. The results will be discussed in a subsequent chapter.

In an economy experiencing a rapid change in the occupational mix of the labor force, an understanding of the element of power should help in efforts to comprehend employment mobility. Power has two dimensions: (1) rights, or the immunity

from authority and duties, and (2) authority, or the right and power of individuals to influence others. Riesman's, "The Lonely Crowd," Whyte's "The Organization Man," and Wright's "The New Men of Power," are examples portraying shifts and concentrations of power as our society becomes increasingly transformed from a rural to an industrial, urbanized complex. Unquestionably, the immunity from authority changes as a farmer shifts to industrial employment. This is not to say there may not be equal or greater offsetting benefits, as there evidently are or the shift would probably not occur.

Several of these social system elements can be noted in action by observing the impact of technology on work patterns. Technology, along with other forces, has resulted in greater diversification of occupations and has necessitated new physical routines in both old and new occupations. Versatility within an occupation was necessary and rewarding in times past; today specialization is essential for obtaining distinctive rewards. While technology requires numerous high skills, in the main, only semi-skilled (operative) talents are required for the operation of mechanized industry. Advancement depends less on the skill required in job performance than it does on training in specialized scientific subject matter.[19] Changes in social patterns go hand in hand with these changing work patterns. Specialization of economic

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[19]Ralph Turner, "The Cultural Setting of American Agricultural Problems," United States Department of Agriculture Yearbook (1940), p. 1015.

endeavors has led to structuring a hierarchical organization of employment. Instead of moving from status of employee to small independent operator, the pattern is now one of moving from grade to grade as an employee. Loyalty becomes a key quality, replacing individual initiative, and conformity pays dividends over individualism. The employee, consumer and owner are interlocked in a highly interdependent organizational structure. For the traditional self-sufficiency and self-decision has been substituted a system of selling labor for a price. Economic need is likely to compel individuals to take the job offered in the labor market and to remain unemployed if no jobs are available. Thus, need rather than rationally determined interests guides behavior of an increasing number of people. This economic interdependence is associated with a social interdependence. The needy become identified as a special group(s), barred from the mainstream because of race, disability, or technical unemployment. Within the previously mentioned Myrdal model, the backsetting effects of circular and cumulative causation tend to push the underprivileged even further down on the relative socio-economic scale.

In this chapter some of the major socio-economic theories and concepts have been discussed as they relate to our problem of understanding the presence or absence of occupational mobility among farmers, keeping in mind that an industrial-exchange economy is premised on the free mobility of labor. The complexity and dynamics of change restricts us to working with partial theories of human behavior and of drawing

limited and at times conflicting inferences. For example, we hear responsible scientists and politicians question the wisdom of continuing to purposively stimulate the creation of technological know-how at a seemingly increasing rate. They attribute many of the socio-economic ills of our society to different rates of change and innovation among various compartments of society. Individuals and many institutions are alleged to lag the physical science rate of change such as to cause unacceptable social costs. Yet in historical perspective we point to the phenomenal versatility and adaptability of the major components of our society to the ever changing technological mix. We look with pride at our level of living, mass educational attainment, and scientific prowess. But we simultaneously lament persistent high unemployment rates, relatively slow economic growth rates, and continuing problems of inequity and disequilibrium among groups and areas within the economy.

It is within this setting of accomplishments, failures, and conflicting goals that we will examine more closely the matter of occupational mobility. Labor is the one unique productive factor in the sense that it is common to all productive efforts. The adaptation of labor to the changing occupational mix and the technological production processes is a key variable in explaining rates of change in numerous economic and social phenomena.

CHAPTER III

AN IMAGE OF TWO AREAS

The two areas selected for this investigation were Kalamazoo and Muskegon Counties, Michigan. They were selected because they possess a number of contrasting variables which, on an a priori basis, were judged to have an influence on the process of farm-nonfarm labor transfer. In this chapter we will discuss the contrasting variables in question and relate them to their apparent affect, if any, on the transfer of labor from agriculture to industry. While the variables are interrelated, they will be discussed by groups to facilitate clarity in presentation.

Agriculture

The two counties studied are essentially equal in land area, approximately 500 square miles each, Table 1. However, Kalamazoo County has over 60 percent of the land area in farms as compared with only 30 percent in Muskegon County. Furthermore, the average value of land and buildings per farm in Kalamazoo County is nearly double that in Muskegon. The per acre value of Kalamazoo farm land in 1959 averaged $70 greater than in Muskegon County. Fifty-six percent of the farms in

TABLE 1.--Selected Characteristics of Kalamazoo and Muskegon Counties, Michigan[a]

Item	Units	Kalamazoo County	Muskegon County
Agriculture: (1959)			
Land Area	Sq. Miles	567	504
Land Area in Farms	Percent	61.5	30.2
Value Land and Bldgs., per farm	Dollars	34,920	19,034
Land Value, per acre	Dollars	256	185
Commercial Farms (Class I-VI)	Percent	56.5	44.9
Part-time (Class VII)	Percent	34.8	43.4
Part-time Retirement and Abnormal (Classes VIII-IX)	Percent	8.7	11.7
Value of products sold, per farm	Dollars	6,799	5,392
Farm Operator Level-of-living Index[b]	Index	125	111
Population: (1960)			
Population	Number	169,712	149,943
Change (1950-60)	Percent	33.9	23.4
Change (1940-50)	Percent	26.6	28.6
Migration:			
Migrants from Different Counties	Percent	18.5	9.5
Net Change Via Migration (1950-60)	Number	17,982	940
Residence:			
Urban	Percent	70.2	67.0
Rural Farm	Percent	4.1	2.3
Rural Nonfarm	Percent	25.7	30.7
Race:			
White	Percent	95.1	87.7
Nonwhite	Percent	4.9	12.3
Education: (25 years & older)			
Median school completed:			
County	Years	11.7	10.4
Rural	Years	11.7	10.2
Rural-Farm	Years	11.0	8.9
Kalamazoo (urban area)	Years	11.7	---
Muskegon (urban area)	Years	---	10.4
Completed less than 5 years	Percent	3.3	4.4
Completed high school or more	Percent	47.8	36.3

TABLE 1--Continued

Item	Units	Kalamazoo County	Muskegon County
Employment: (1960)			
Labor Force	Number	65,393	55,077
Unemployed (1960)	Percent	4.1	6.1
Unemployed (Aug. 1954-62)	Percent	3.9	8.0
Employed persons:			
Agriculture	Percent	2.8	1.6
Construction	Percent	5.4	3.5
Manufacturing:			
Durable Goods	Percent	13.7	42.3
Nondurable Goods	Percent	24.7	6.4
Total Mfg.	Percent	38.4	48.7
White Collar Occupations[c]	Percent	42.7	36.1

[a]Data obtained from Agricultural Census, Population Census and Census of Manufacturing.

[b]Farm-operator level-of-living indexes, with 1959=100 for the average county in the nation. The index is based on five items, as follows:

(1) average value of land and buildings per farm,
(2) average value of sales per farm,
(3) percent of farms with automobiles,
(4) percent of farms with home freezers, and
(5) percent of farms with telephones.

[c]Professional, managerial (except farm), clerical and sales.

Kalamazoo County were classified as commercial farms in the 1959 Agricultural Census, compared with 45 percent in Muskegon. The average value of products sold per farm in 1959 was $6,800 for Kalamazoo, and $5,400 in Muskegon. The farm-operator level of living index in 1959 was 125 and 111 for Kalamazoo and Muskegon respectively.

The fact that these data are in terms of averages tends to obscure much of the detail. Nevertheless, they are adequate to illustrate that the two counties are distinct in their relative agricultural resource wealth. A much larger proportion of the land base in Kalamazoo County is suitable for farm use. Furthermore, the farms in Kalamazoo County are larger, have a greater volume of sales per farm and on the average yield a higher level of living for the farm families. Ceteris paribus, then, we would expect greater off-farm employment migration to occur from Muskegon County than from Kalamazoo County. However, as the analysis develops we will see that other things are not equal, which may tend to modify our expectations based on only the agricultural variable.

Demography

The total population of the two areas in question differs very little, with approximately 170,000 and 150,000 residents in 1960 for Kalamazoo and Muskegon Counties, respectively, Table 1. However, the change in total population during the past two decades reveals a more rapid growth taking place in Kalamazoo County. For the period 1940-50, the population increase was relatively greater in Muskegon County, 28.6

percent as compared with 26.6 percent in Kalamazoo County. But during the more recent decade, 1950-60, the percent change in total population was 33.9 in Kalamazoo County and 23.4 in Muskegon County. These data will take on added significance as we discuss the comparative industrial bases of these two areas and the attendant impact of World War II on migration to Muskegon during the 1940-50 decade.

Commensurate with the more rapidly increasing population of Kalamazoo County, the net increase in population due to migration during the period 1950-60 was a substantial 17,982, or 10 percent of the total population. The comparable figure for Muskegon County was 940 net migrants, or less than 1 percent total population.

The differences between the counties studied are slight with respect to classification of residence among urban, farm and rural nonfarm. For each county the split between urban and rural inhabitants is near 7 to 3 respectively. The overwhelming proportion of rural residents are rural nonfarm, Table 1. These data, combined with the employment classification which follows, are adequate to categorize these counties as primarily urban-industrial in structure.

The two remaining demographic characteristics which reflect sufficiently contrasting magnitudes between the counties in question as to warrant noting are education and race composition. With regard to the median years of schooling completed, for those 25 years or older, of particular interest is the difference between the rural-farm segment of the population

in the two counties. In Kalamazoo County the median years of schooling was 11.0 in 1960, but only 8.9 in Muskegon County, Table 1. This difference in educational attainment is in spite of a greater median age for the rural-farm population in Kalamazoo than in Muskegon County, 34 and 28 years respectively. Also, within Muskegon County the rural-farm group was substantially lower than the overall county median, 10.4 years.

While the median years of schooling provides a general picture for relating educational attainment and occupational mobility income improvement possibilities, more rigorous indicators are: (a) the proportion of adults who have completed five or fewer years of schooling, and (b) the proportion who completed high school or more.[1] In Kalamazoo County, 3.3 percent of the adults had completed 0 to 5 years of schooling, compared with 4.4 percent in Muskegon County.[2] Consistent with this relationship, Kalamazoo County reflects a generally higher educational level when viewed on the basis of the proportion of adults having a high school or more education, 47.8

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[1]For a discussion of the association between years of schooling and income differentials, see Keith Bryant, An Analysis of Intercommunity Income Differentials in Agriculture in the United States. Unpublished Ph.D. dissertation, Michigan State University, 1963. The essence of Bryant's findings on this matter is that number of years of schooling is significantly correlated with income differentials in a discrete, not continuous manner. Having from 0-6 years of schooling is associated with relatively low incomes, 12 or more years with relatively high incomes, with the discrete steps of the intermediate years (7 to 11) failing to explain income differentials within this group.

[2]Both counties compare favorably with the United States and Michigan on this measure, being 8.4 and 5.8 percent respectively.

and 36.3 percent for Kalamazoo and Muskegon Counties respectively.[3]

Just a single observation on racial composition--in 1960 the population of Kalamazoo County included 4.9 percent nonwhite and in Muskegon 12.3 percent nonwhite.

There is overwhelming evidence from many sources that level of education is one of the most important variables, if not the most important, positively associated with opportunities to enter the nonfarm labor market. However, interpretation of the above data on education as it related to farm-nonfarm labor transfer in the areas studied is far from straight forward. In the first place, available data does not permit a thorough urban-rural farm comparison. Secondly, it is extremely difficult to evaluate the relative importance to mobility of the within county differences versus the differences between counties. If we assume that discrimination due to education is practiced at comparable educational attainment levels for both counties, the rural-farm folk in Muskegon County would find it more difficult to transfer to nonfarm jobs. There is reason to question the validity of this assumption, however, as we shall see in the subsequent comparison of the industrial composition.

Employment

The employment pattern of the two areas under study was compared from the viewpoints of: (a) the level of

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[3]Comparable figures for the United States and Michigan are 41.1 and 40.9 percent respectively.

unemployment, (b) the stability of employment, and (c) the composition of employment structure. For the period 1954-62 the average level of unemployment was 3.9 percent of the labor force in Kalamazoo County and significantly higher in Muskegon County (8.0 percent, Table 1.)[4]

Both of the areas in question were characterized by an unstable employment pattern during the 1954-62 period, ranging from 2.1 to 5.9 percent unemployment in Kalamazoo County and 4.6 to 13.7 percent in Muskegon County. While the mean level of unemployment differed significantly, the variation around the mean was the same in each county.[5] The implication of these two characteristics, i.e., different in level but alike in relative stability of unemployment, suggests that while it may be more difficult for farmers to initially enter the nonfarm labor market in the county with a higher rate of unemployment, the probability of becoming unemployed is essentially the same in either county.

The employment structure between the areas studied reflects the difference in the types of industries in the communities. In 1960 over 42 percent of the labor force in Muskegon County was employed in durable goods manufacturing industries, compared with about 14 percent so classified in Kalamazoo County, Table 1. On the other hand, in Kalamazoo

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[4]The difference between these two means is significantly different from zero at the 1 percent level of t.

[5]The coefficients of variation were .33 and .34 for Kalamazoo and Muskegon Counties respectively.

County 25 percent of the labor force worked in nondurable goods industries while only 6 percent were in nondurables in Muskegon County. Kalamazoo County had more employees in white-collar occupations than in manufacturing, 43 and 38 percent respectively. The relationship was reversed for Muskegon County with 36 percent on white-collar jobs and 49 percent in manufacturing.

In view of the contrasting pattern of level of unemployment, and the interrelated employment structure, between these two counties it would seem reasonable to expect that farm-nonfarm labor transfer would be restricted to a greater extent in Muskegon than in Kalamazoo. As in the case of the variables being considered in this chapter, the validity of this expectation, when co-mingled with other variables, will be re-examined subsequently.

Income and Welfare Indicators

In addition to the brief comparisons of the agricultural, demographic, and employment patterns in the preceding paragraphs, further insights relating to the farm-nonfarm labor markets can be obtained from selected income and general welfare indicators for the two areas under study. We are limited, however, by the availability of comparable time series data for relevant income groups, i.e., rural-farm (potential labor migrants) versus nonfarm employees. Comparative historical income data for rural-farm and nonfarm employee income groups are needed to make a definitive analysis of income differentials as they relate to farm-nonfarm labor

transfer. Nevertheless, with the data that are available we can discern some tentative inferences.

Several income measures indicate that families in Kalamazoo County have greater incomes than families in Muskegon County. In 1960 the median income of all families in Kalamazoo County was $6,526, compared with $6,048 in Muskegon County, Table 2. Accordingly the families in the respective Standard Metropolitan Statistical Areas (SMSA's) and the rural families of these counties had a similar income differential. Also the income differential for wage earners in manufacturing favored Kalamazoo County. However, the median income of rural-farm families was the same in 1960 for the two counties, namely, $5,300, Table 2. In fact, the median earnings of farmers and farm managers in Muskegon County exceeded the earnings of their counterparts in Kalamazoo County in 1959, $2,953 and $2,683 respectively. Likewise the average hourly wage of production workers in manufacturing was slightly greater in Muskegon County. This higher wage rate of employed workers for the area with the significantly greater level of unemployment suggests the presence of rigidities in the labor market.

In Kalamazoo County there was a difference of 11.8 percent between the 1960 median income of families residing in the SMSA's and rural-farm families. The difference in income between comparable groups in Muskegon County was 3.7 percent. Ceteris paribus this suggests slightly more incentive for labor transfer from farm to nonfarm employment in Kalamazoo than Muskegon. On the other hand, the differential income

TABLE 2.--Selected incomes and welfare characteristics of Kalamazoo and Muskegon Counties, Michigan[a]

Item	Units	Kalamazoo County	Muskegon County
Median Income of All Families:			
1950	Dollars	3,605	3,185
1960	Dollars	6,526	6,048
Median Income of Families in SMSA's:			
Kalamazoo, 1960	Dollars	6,526	
Muskegon-Muskegon Heights, 1960	Dollars		6,048
Median Income of:			
Rural Families, 1960	Dollars	6,459	5,978
Rural-Farm Families, 1960	Dollars	5,837	5,833
Median Earnings of Farmers and Farm Managers, 1959	Dollars	2,683	2,953
Family Income:			
Under $3,000	Percent	12.3	13.4
$3,000 to $9,999	Percent	70.2	73.8
$10,000 and over	Percent	17.5	12.8
Manufacturers, 1958:			
Avg. Wages, all employees	Dollars	5,428	5,285
Avg. Wages, production workers	Dollars	4,843	4,929
Avg. Hourly Wage, Production workers	Dollars/hr	2.35	2.58
Retail Sales, per person, 1959-60 fiscal year	Dollars	1,514	1,323
Hospital Beds, per 1000 population, 1960	Number	3.4	2.2
Medical Doctors, per 1000 population, 1960	Number	1.2	0.8
Dentists, per 1000 population, 1960	Number	0.5	0.4
Housing Units with sound plumbing facilities	Percent	85.5	76.5

TABLE 2--Continued

Item	Units	Kalamazoo County	Muskegon County
New Capital Expenditures by Mfg:			
Change, 1954-58	Percent	+2.6	-54.9
Retail Trade, Change in Total Sales, 1954-1958	Percent	+25.0	+10.8
Wholesale Trade, Change in Total Sales, 1954-1958	Percent	+31.6	+37.6

[a]Data obtained from Agricultural Census, Population Census, Manufacturing Census, and Annual Reports of Michigan Banking Department and Department of Revenue.

between rural-farm families and the average wage of production workers would seem to favor labor transfer in Muskegon County over Kalamazoo County. Of course, all the above comparisons refer to a point in time, i.e., 1960, and therefore have limited usefulness in explaining past patterns of labor movement. The only comparison we can make over time is the median income of all families. In 1950 the median income of families in Kalamazoo County was 13 percent greater than in Muskegon County. By 1960 this gap had closed slightly, to a difference of 8 percent. This indicates that some adjustment has taken place between the two areas in question.

Based on the fragmentary relative income data for the two counties, there is no clear-cut evidence that the nonfarm labor market has not been functioning equally well in both counties. In subsequent paragraphs we will examine the patterns of adjustment that have occurred.

In Table 2, other general indicators of comparative community well-being are itemized. Kalamazoo County has more medical doctors, hospital beds and dentists per 1000 population than does Muskegon County. Retail sales per person are greater in Kalamazoo. Sound plumbing facilities are found in a larger proportion of family homes. Expenditures for new capital investment increased 2.6 percent between 1954 and 1958 in Kalamazoo, while they declined 54.9 percent in Muskegon.

Other Observations

The preceding paragraphs have utilized statistical data as a means of comparing the two counties being studied. This is, of course, a conventional manner for comparing characteristics of areas. In addition to these secondary data sources I interviewed a number of community leaders in an attempt to gain some knowledge about nonquantifiable characteristics of these communities which may have a bearing on their respective socio-economic development history, and accordingly on off-farm employment opportunities for farm operators.

As alluded earlier, probably the most basic difference between these two communities is the contrast in composition of industry. Kalamazoo harbors a diverse industrial pattern, with emphasis on manufacturing nondurable goods. Together the diversity and composition of industry have contributed to economic stability and growth of the area. By and large the types of industry in the Kalamazoo area are less subject to

the impact of overall economic fluctuations than is the case in Muskegon. Two types of industry, namely, paper and pharmaceuticals, form the backbone of the Kalamazoo industrial base. These two, coupled with sports equipment manufacturing, high-precision machine manufacture, and the presence of two universities are conducive to a healthy economic climate. On the other hand, the Muskegon industrial complex is dominated by durable goods types of manufacturing. In turn, the major firms are heavily dependent upon the transportation industry. In the minds of those interviewed there was little doubt of the fact that the Muskegon transportation industry manufacturers were among the first to reflect the impact of any fluctuations in the overall activity of the auto and truck manufacturing industry. They are not only the first reflectors of changes in activity, but also suffer the greatest magnitude of changes. This obviously creates a highly fluctuating employment situation.

In addition to the instability noted in the Muskegon industrial complex, they experienced a much greater influx of workers during World War II and the Korean conflict than was true for Kalamazoo. This was the result of having types of industry readily convertible to producing the heavy armor demanded for war.

Following a series of interviews with civic leaders, industrialists, and labor union officials it soon became evident that the two areas were distinctly different with respect to the history of relationships between organized labor and industry management. While I was unable to obtain statistics

on the relative proportions of the labor force which was organized in each community, there is little doubt that the proportion is higher in Muskegon. For example, among the firms with 500 or more employees (each area has the same number of such firms), 3 out of 10 firms in Kalamazoo were not represented by labor unions, while only 1 out of 10 was unorganized in Muskegon.

If data were available, say on the man days of work lost due to labor-management relations, (and I was unable to discover such data) there seems to be little doubt that historically the Muskegon area has suffered relatively more than the Kalamazoo area from the economic impact of such work loss. A number of the respondents indicated that over time they felt this difference in labor-management relations had worked to the detriment of the overall economic expansion of the Muskegon area relative to the Kalamazoo area. This is, of course, a tentative hypothesis, validation of which would require more extensive and intensive inquiry than was possible for this study.

Closely associated with the topic of labor-management relations is the degree or sense of community responsibility exercised by various groups within the community. In Kalamazoo there is unmistakable evidence of a sense of community leadership and pride. Numerous organizations and individuals are engaged in community improvement projects. Cooperation among group organizations is the usual pattern for this community. At least the history of the Muskegon area differs considerably

in these respects. However, there is evidence that the community is beginning to coordinate their efforts. New groups are being formed for the specific purposes of improving the community, including creation of a more viable and stable economy for Muskegon.

While I fully realize that a rigorous socio-anthropological study of these communities would be required to test my tentative findings, they are strengthened to some extent by the mere fact that such patterns became evident without the benefit of a highly formalized inquiry. In an attempt to probe more thoroughly into reasons for these differences in community responsibility, I combined the community leader interviews with study of historical material about the development of these areas. At least one tentative hypothesis which may help to explain the differences in development is the fact that Muskegon was originally a lumber mill and lumber shipping site. With the demise of the lumber industry it was necessary for the community to make a complete transition to other types of economic activity. The wealth of the community was concentrated in the hands of relatively few lumber baron families. Independence and a history of extreme social status differences did not readily bend to community integration. It is only in recent years, one or two generations removed from the original wealth pockets, that community leadership has passed on to a younger generation which is more aware of the need for coordination and cooperation among groups in order to stimulate the economy of the area.

An entirely different historical pattern typifies the early history of Kalamazoo. While paper processing formed the early core of the economy, diversification of industry also started early. Furthermore, Kalamazoo had the immeasurable benefit of one unusually progressive and community oriented business man, whose personal business success was shared with the community in innumerable ways. It is undoubtedly tenuous to attribute too much of the development pattern of a community to the impact of one man, however, it would be equally tenuous to ignore this impact.

Farm-Nonfarm Labor Transfer

A summary of the material presented in this chapter up to this point reveals that, based on the relative agricultural economies of the two counties, there is more incentive for off-farm employment migration in Muskegon than in Kalamazoo County. However, comparisons of growth indicators, data on education, unemployment patterns, community solidarity, relative labor union strength, and the like, all point to expectations that the farm-nonfarm labor transfer market would be functioning more effectively in Kalamazoo County.

Definitive tests of this hypothesis are lacking in available secondary data. Nevertheless, available data on the historical pattern of change in total number of farms (or farmers) and on the off-farm work patterns of farmers provides at least a tentative evaluation.

During the span of years, 1939 to 1959, the decrease

in number of farm operators (or farms) in the two counties was nearly equal, namely, 1301 in Kalamazoo and 1276 in Muskegon, Table 3. As a percent of total farm operators in 1939, however, the decrease in number of operators was greater in Muskegon County, 56 percent versus 45 percent in Kalamazoo County. With respect to decreases in number of farm operators within the 1939-59 span of time, we note in Table 3 that the major difference between the two counties occurred in the 1939-44 period. During this period, the number of farm operators decreased only 7 percent in Kalamazoo County, but by 4 times this proportion, 28 percent, in Muskegon County. A reasonable explanation for this difference lies in the differing types of industry and the advent of World War II. The demand for military hard goods resulted in a particularly strong, derived manpower demand in Muskegon, with its durable goods industry being easily converted to production of military hardware. During the other periods shown in Table 3, the disappearance of farm operators was of similar relative magnitude for the two counties.

The second set of available empirical data pertinent for drawing inferences about the relative functioning of the nonfarm labor market is the change in patterns of off-farm work, Table 4. It is first relevant to note that for each census year since 1939 a larger proportion of the farmers in Muskegon County have combined farm and off-farm work. Furthermore, a larger proportion have worked 100 or more days per year off the farm.

TABLE 3.--Disappearance of farm operators (farms) from Kalamazoo and Muskegon Counties, Michigan, 1939 to 1959[a]

Periods	Decrease in Number of Farm Operators			
	Kalamazoo County		Muskegon County	
	Number[b]	Percent Change	Number[b]	Percent Change
Accumulative Decrease:				
1939 to 1959	1,301	45	1,276	56
1944 to 1959	1,095	41	641	39
1949 to 1959	910	36	476	32
1954 to 1959	657	29	341	25
Period Decreases:				
1939 to 1944	206	7	635	28
1944 to 1949	185	7	165	10
1949 to 1954	253	10	135	9
1954 to 1959	657	29	341	25

[a]Based on Agricultural Census data. In the census, number of farms and farm operators are synonymous.

[b]Adjusted for the change in definition of a farm in the 1959 Agricultural Census, i.e., decreases of 42 and 67 farms for Kalamazoo and Muskegon Counties, respectively. The adjusted number of farms in 1959 was 1,608 in Kalamazoo County and 1,001 in Muskegon County.

TABLE 4.--Change in off-farm work patterns of farm operators, Kalamazoo and Muskegon Counties, Michigan, 1939 to 1959[a]

Item	Kalamazoo County	Muskegon County
	Percent[b]	
Farm Operators Working Off the Farm, Total:		
1939	39	49
1944	37	50
1949	55	57
1954	60	65
1959	58	63
Farm Operators Working Off the Farm 100 Days or More:		
1939	26	39
1944	33	42
1949	43	43
1954	48	55
1959	48	56
Other Income of Family Exceeding Value of Farm Products Sold:		
1949	44	45
1954	41	43
1959	50	59

[a]Based on Agricultural Census data.

[b]Percent of total farms.

Change in proportion of farm families whose other than farm income exceeds their farm income, is shown in Table 4. Data for this variable are available for only the last three agricultural census years. In 1949 about the same proportion of farm families in each county received income from nonfarm sources in excess of farm sources. However, by 1959 the proportion of farm families in Muskegon County so classified exceeded those in Kalamazoo County, 59 and 50 percent respectively. At least some of this change in relationship may be attributed to additional nonfarm income due to members of the family working off the farm. To this extent, the nonfarm labor market would appear to be functioning at least as effectively for non-operator farm family members in Muskegon as in Kalamazoo.

An analysis of average annual rates of change of the movement of farmers, either out of farming completely or into multi-jobholding situations, reveals substantial overall variation, as well as variation between Kalamazoo and Muskegon Counties, for the period 1939-59. During the early years of World War II, 1939-44, the number of farms in Muskegon County decreased by an average annual rate of 5.58 percent, Table 5. Furthermore, there was an approximately equal rate in the number of farmers working off the farm, and little or no change in the proportion of total farmers who were multi-jobholders. Therefore, during this period the labor adjustment between the agricultural and nonagricultural sectors of Muskegon County was one of farmers shifting out of agriculture

TABLE 5.--Average annual rates of change in number of farm operators and farm operators working off the farm, Kalamazoo and Muskegon Counties, Michigan, 1939-1959

Period and County	Rates of change in Absolute Numbers: [a]		Rates of Change in proportion of total: [b]	
	Farm Operators	Farm operators working off the farm	Farm Operators working off the farm 100 days or more	Farm operators working off the farm	Farm Operators working off the farm 100 days or more
	Percent				
1939-44:					
Kal. Co.	-1.42	-2.10	+3.07	-.40	+1.40
Musk. Co.	-5.58	-5.18	-4.28	-.20	+ .60
1944-49:					
Kal. Co.	-1.37	+7.58	+4.58	+3.60	+2.00
Musk. Co.	-2.01	+ .41	-1.95	+1.40	+ .20
1949-54:					
Kal. Co.	-2.01	- .02	0	+1.00	+1.00
Musk. Co.	-1.83	+ .59	+3.56	+1.60	+2.40
1954-59:[c]					
Kal. Co.	-5.80	-6.63	-3.14	- .40	0
Musk. Co.	-5.08	-6.49	-5.94	- .40	+ .20
1939-59:[c]					
Kal. Co.	-2.42	- .92	- .12	+ .95	+1.10
Musk. Co.	-2.80	-2.37	-2.06	+ .70	+ .85

[a]A negative sign (-) signifies a decrease in the absolute number of farmers between the polar years and a positive sign (+) signifies an increase in the absolute number of farmers.

[b]A negative sign (-) signifies a decrease in the relative number of farmers between the polar years and a positive sign (+) signifies an increase in the relative number of farmers.

[c]Adjusted for the change in definition of a farm in the 1959 Agricultural Census, see Table 3 footnote.

completely. However, in Kalamazoo County the adjustment was typified by a relatively low annual rate of farm disappearance (1.42 percent) but a substantial increase in the number and proportion of farmers working off the farm 100 or more days per year. Essentially the same adjustment pattern continued in Kalamazoo County in the 1944-49 period. In Muskegon County we note a reduced annual rate of farm disappearance during 1944-49 and an absolute and relative increase in the number of multi-jobholders.

During the 1949-54 period the Muskegon County adjustment pattern was one of a relatively low rate of farm disappearance, but a substantial increase in the number of farmers working 100 or more days off the farm, Table 5. Kalamazoo County displayed a relatively stable farm-nonfarm labor adjustment pattern during these years. However, again in the 1954-59 period the rate of annual reduction in number of total farms in both counties reached the World War II rate of over 5 percent per year. Also, as in Muskegon County during the early 1940's, both counties experienced a rapid shift of farmers out of farming completely, with little or no change in the proportion of farmers working off the farm. One of the variables which undoubtedly contributed to this adjustment pattern of the 1954-59 period was the advent of the Social Security retirement plan being extended to farmers.

Now, what inferences can be drawn from the data we have reviewed? Based on consideration of individual types of variables, such as education, unemployment patterns, etc., it seemed that the farm-nonfarm labor transfer mechanism "should"

be functioning more effectively in Kalamazoo County. Yet when we analyze the patterns of farm operator disappearance and extent of involvement in nonfarm work in these two counties, there is no evidence to suggest that the expected market restrictions are indeed any more restrictive in one county than the other. This is not to suggest that we find perfect labor mobility, by any means, or that the demand-supply relationship for labor is at equilibrium as between the farm-nonfarm sectors. Rather, we are suggesting that on the basis of our analysis the hypothesized expectations must be rejected. The farm-nonfarm labor transfer market seems to be functioning equally well in each county in spite of some substantial differences in level of unemployment, rural farm-urban educational levels, labor union activity, etc.

A possible explanation of this phenomenon is that in Muskegon County, the apparent disfavored county with respect to occupational mobility opportunities for farmers, the farmers and the hard core of unemployed are non-competing groups. From my conversations with community leaders it became evident that in their opinion much of the influx of labor during World War II was labor of an inferior quality in terms of education, skill, aptitude, and attitude. Also, the larger proportion of nonwhites in Muskegon than Kalamazoo suggests that to the extent that discrimination exists on this basis it would mean farmers and nonwhites were non-competing groups in the labor market.[6]

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[6]I do not mean to suggest that discrimination exists in this labor market on the basis of color alone, for if it does I failed to discern it. However, to the extent that nonwhite is associated with educational attainment, for example, then discrimination on the basis of education has a greater impact on the nonwhite groups.

CHAPTER IV

HOW MANAGEMENT VIEWS FARMER EMPLOYEES

Introduction

Most of the literature on the movement of labor from farm to nonfarm employment approaches the phenomenon from one of two viewpoints: (a) The agricultural implications, or (b) the aggregate nonfarm labor market implications. As briefly mentioned in the introductory chapter of this report, an integral part of this study was to determine the attitudes, policies, and experiences of employers relative to the employment of farmers. This part of the inquiry is not designed to be in any sense a comprehensive analysis of the demand for farm labor in the nonfarm labor market. Rather, it is an analysis of various factors which may have an impact on the competitive position of farmers in the nonfarm labor market. It is felt that previous work in this field differs with respect to the method of obtaining and analyses of the variables studied. It has the advantage of taking the inquiry directly to a group, i.e., industrial managers, who exercise substantial influence on the standards for competition among potential employees.

Interviews were conducted with the management of all the business firms in Kalamazoo and Muskegon Counties with a production worker payroll of 500 or more. In addition, the management of several firms outside the primary urban centers was interviewed. These firms had fewer than 500 employees, but were included in the survey because it was assumed, a priori, that they would have a higher proportion of multi-job holders on their payroll. Furthermore, I wanted to determine whether there were any discernible differences between the policies of the urban versus the rural employers with respect to hiring farmers.

The firms studied ranged in size from nearly 5000 to under 200 employees, with a median of over 1000 employees per firm, Table 6. One out of five production workers in these firms were women. Of course, this proportion of females is smaller than that for the total labor force of these counties, with over one-third being women. This difference results from the fact that the studied firms are all industrial and only production workers are included in the employee count.

The larger firms were selected for study because: (a) this enabled coverage of a maximum proposition of the nonfarm labor market at minimum cost, (b) by covering a major proportion of the nonfarm labor market and by concentrating on industrial firms it increased the probability of including a large proportion of the nonfarm work opportunities for farmers, and (c) it was assumed that the major firms in the communities studied would be leaders in setting policies and practices as they may influence the farm-nonfarm labor transfer opportunities. The

TABLE 6.--Frequency distribution of number of employees, by sex, for a sample of industrial firms, Muskegon and Kalamazoo Counties, Michigan, 1961

Firm Code[a]	Number of employees[b]		
	Male	Female	Total
A	4150	600	4750
B	2250	1150	3400
C	2350	650	3000
D	2300	300	2600
E	2025	175	2200
F	1739	318	2057
G	1300	200	1500
H	1070	230	1300
O	700	400	1100
P	969	125	1094
Q	1016	64	1080
R	774	162	936
S	765	104	869
T	265	515	780
U	500	70	570
V	275	275	550
W	340	179	519
X	367	33	400
Y	200	0	200
Z	155	12	167
Total	23,510	5,562	29,072
Percent	81	19	100

[a]The firms will be identified by a code throughout the report to avoid revealing information given in confidence.

[b]Excludes staff personnel (management and office).

employees of the firms surveyed comprise 22 percent of the total labor force in the two counties, Table 7. More importantly, the survey encompassed 58 percent of the employed manufacturing labor force.

In the following paragraphs we will discuss the policies, practices and experiences of nonfarm employers as they relate to the employment of farm people.

TABLE 7.--The labor force represented in the industry survey, compared with the county aggregates, Muskegon and Kalamazoo Counties, Michigan, June, 1961

Item	Number of Employees		Proportion the Industry Survey Is of Totals for the Counties
	Muskegon and Kalamazoo Counties[a]	Industry Survey[b]	
	Number		Percent
Industry Survey[b]	---	29,072	--
Total labor force	129,400	---	22
Total nonfarm labor force	125,700	---	23
Nonfarm labor force, employed	116,700	---	25
Manufacturing labor force, employed	50,200	---	58

[a]Source: Michigan Labor Market, M.E.S.C., July, 1961, p. 5.

[b]Data from 20 industrial firms surveyed in Muskegon in Kalamazoo Counties.

Policies

All the firms reported having some employees with farm backgrounds. However, at the time of the survey only six percent of the employees were combining off-farm work and farming simultaneously. In individual firms the proportion of employees who were part-time farmers ranged from 1 to 20 percent. As expected, a larger proportion of the work force of firms in smaller urban towns was comprised of farmers than was the case in the larger urban centers. The management in all the firms was aware of having employees who were concurrently farming, though several of them were unable to estimate the number of such employees.

None of the employers tended to think about farmers as being a distinct labor force, neither as a source of new labor nor as employees within their existing labor force. This may be explained on the basis that all the employers indicated they had not experienced a general labor supply shortage in the study areas since the termination of World War II. There are times when certain highly skilled workers are not in sufficient supply in the immediate area, forcing the firms to resort to recruiting from surrounding Michigan communities.

Recruiting for production workers is seldom necessary for the firms studied. Without exception, the firms reported nearly all, if not all, the people they hire for the first time are the result of unsolicited applicants coming to the plant in search of work, or the result of employees already on the job

passing the word to friends that the plant is or will be hiring new workers. One exception to this "recruiting" pattern is the utilization, by some firms, of the services provided by the Michigan Employment Security Commission (MESC). In a few instances the MESC administers basic tests and provides a general screening function for employers. Among industrial employers, the MESC is utilized substantially more in Muskegon than in Kalamazoo. A rational explanation for this difference is the fact of the relatively higher unemployment pattern in Muskegon. This means that many more people are looking for work, imposing a substantial screening burden on employers when they are hiring. In effect, the Muskegon employers have shifted some of this burden to the MESC, whereas in Kalamazoo, with its low unemployment history, there is less incentive to utilize the services of the MESC because the volume, and therefore the cost, of processing applicants is relatively low.

When asked whether an applicant who indicated he was a part-time farmer was treated any different than nonfarmer applicants, nearly half of the firms, 8 out of 20, said it made no difference, either positive or negative. However, 8 firms out of 20 pointed out that they remind part-time farmer applicants that the nonfarm job must have complete priority over their farm work. In no cases was it the stated policy of the firm to accommodate an employee's nonfarm work schedule to fit peak farm work periods. However, a few employers mentioned a willingness to grant annual vacations at periods requested by employees so long as it did not interfere with the

work schedule of the plant. One firm indicated they carefully check the work history of part-time farm applicants to avoid those who move seasonally from nonfarm to nonfarm job. They also pointed out that an applicant, be he farmer or not, with a sporatic work history would also be at a disadvantage.

Two firms indicated, ceteris paribus, they would hire the applicant with the shortest commuting distance because it facilitated communication in the event of re-scheduling work shifts. This policy was equally applicable to farmers and non-farmers. The employers indicated that this probably worked to the greater disadvantage of farmers, though it was not a purposive discriminatory policy.

All firms in which labor was organized into labor unions reported that the existence of the union had an indirect impact on their hiring policies when hiring new employees. With respect to rehiring, of course, the seniority of temporarily unemployed workers dictates the policy. The fact that employees are able to acquire certain rights stipulated by the union contract, for example, with respect to promotions and terminations, has caused employers to exercise greater selectivity among applicants. This selectivity takes on various forms, some favorable, others unfavorable, and some with neutral connotations for part-time farmers.

Probably the most important impact of labor unions on the selectivity process is the added emphasis put on evaluating the attitude and aptitude of applicants. In fact, two firms in which labor was not unionized indicated a reluctance to

employ applicants who had previously worked in plants with a history of labor-management discord, or if the applicant had a reputation in the community of being a "strong" labor union man. Most of the firms gave written tests and conducted personal interviews with applicants as a means of screening. They are primarily interested in employing people with the capacity to "grow" into increasingly responsible and demanding jobs because once the employee gains seniority both his promotion and termination procedure are influenced substantially by union membership. For production workers, as vacancies in the plant become available they are posted in the plant and the employer is obligated to show good cause why an employee already in the plant with the appropriate union seniority should not fill the vacancy if he applies. Therefore it behooves the employer when possible to select employees with both a positive attitude and aptitude in the interest of good worker relationships. Incidentally, this particular manifestation of selectivity probably favors part-time farmers, for several firms mentioned that farmer employees tend to be better workers and have a better attitude toward their job.

The selectivity impact of unions also contributes to the upgrading of educational requirements evident in the employment policies of nearly all the firms. This will be discussed in greater detail subsequently. Suffice to point out here that to the extent farm people receive less formal education than nonfarm, this educational upgrading inhibits farm-nonfarm labor transfer.

Employer Attitudes and Experiences with Farmer Employees

Part-time farmers and people with farm backgrounds are not associated with particular types of jobs in the industrial plants, according to 80 percent of the firms studied. On the other hand several firms indicated that employees who had been reared on a farm or were still farming part-time were inclined to be more mechanically oriented. One respondent pointed out that the association of farm experience and mechanical skill was true in the past but now the nonfarm youth is likely to have as much or more mechanical dexterity, acquired primarily from remodeling and maintaining automobiles, etc.

According to 85 percent of the firms in the industry sample there is no difference in overall on-the-job progress of nonfarmers versus farmers. The other 15 percent were confident that farm people tended to progress more rapidly in their nonfarm job. This was pointed out particularly with reference to farm versus nonfarm youth. The farm-reared youth were alleged to know how to work and to be more willing to work at the outset, while nonfarm youth seemed to take a few months to realize they had to work. Obviously, there are exceptions to these generalizations about either group.

The employers were asked to comment on their experiences with part-time farm employees, expressed in terms of advantages and/or disadvantages of employing these dual job holders. Five of the twenty respondents felt there were no particular advantages or disadvantages, i.e., they could not differentiate between the nonfarmer versus the farmer. One

respondent thought the advantages of hiring part-time farmers more than offset the disadvantages, while another respondent felt the reverse.

Some of the specific advantages and disadvantages, and the number of firms mentioning each, are listed below.

Advantages	Cited by
Better Workers	4 firms
Less voluntary absenteeism	2 firms
More permanent employees	2 firms
Better attitude	2 firms
Disadvantages	**Cited by**
More voluntary absenteeism (time off to do farm work)	6 firms
More involuntary absenteeism (from farm injuries, commuting, etc.)	3 firms
More difficult to schedule work shifts	2 firms
Claim farm-incurred injuries as plant injuries	2 firms
More willing to strike because of alternative farm income	1 firm

It is apparent that absenteeism of part-time farmers is one of the major concerns of employers, though conflicting experience was reported on this behaviorial pattern.

Weighing all the evidence relative to policies, attitudes, and experiences of industrial employers with respect to part-time farmers as employees, the only reasonable conclusion seems to be that farmers in the study area are in a neutral position in their competitiveness with nonfarmers for

industrial jobs. The disadvantages they face seem to be offset by advantages. Likewise, the absence of a consensus among employers on what they thought to be advantages and disadvantages means that the position of one firm tends to offset that of another.

First of all, then, we can say there is no evidence from this study that being a part-time farmer or a nonfarmer, ceteris paribus, makes any discernible difference in the selection of new employees. In other words, the selectivity is a function of other variables, not whether the applicant be a farmer or nonfarmer, i.e. farmers are not discriminated against in the nonfarm labor market just because they are farmers. If one chose to argue that they are disfavored because of the disadvantages of hiring farmers, as pointed out by some firms, it would be equally legitimate to argue that nonfarmers are disfavored because of the advantages of employing farmers, as pointed out by some firm managers.

These conclusions do not mean that many farm people are not filtered out in the selectivity process of the nonfarm labor market. Just as in the case of unemployed nonfarmers, they are screened out because of having little education, lack of acquired skills being demanded, age, physical disability and the like. To the extent that the farm population harbors a larger than proportionate share of people with these disqualifying characteristics, the farm sector would also harbor a disproportionate share of the unemployed (or underemployed) regardless of the aggregate level of unemployment in the

economy. As the standards of selectivity go up or down with varying levels of unemployment, if the bottom of the lake of unemployables is deeper for a given group than for another, it will still be deeper even though the surface level is lowered in each lake.

Education and Training

One of the paradoxes of our economic life is the co-existence of persistent unemployment in excess of the usual frictional kind and the presence of unfilled jobs. Our mechanism for matching workers with jobs warrants re-appraisal. Present national policy and programs for eliminating this gap are of two basic types: (a) to stimulate growth, thereby creating job opportunities, and (b) educational and training programs to better prepare workers to match opportunities.[1]

The orientation of this study concerning employment mobility of farmers cannot ignore the above paradox, nor can it resolve the inherent issues. However, effort was made to gather some information, both from farmers and employers, thought to be relevant to the imbalance of job requirements and labor resources.

The general subject of employee training was discussed at some length with each of the employers interviewed, from which several conclusions can be drawn. In interpreting these conclusions it is important to keep in mind that in the two areas studied the firms have had little difficulty since World

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[1]See Manpower Report of the President, op. cit., p. XVIII.

War II in employing all the production workers needed.

One of the training-oriented topics discussed had to do with who should bear the responsibility and cost associated with training workers. By and large, the employers felt the responsibility for basic education should be borne by the general public. Likewise, it was felt that the fundamentals needed in a particular vocation could be taught more efficiently through public and/or private vocational schools. When it came to training workers to perform the specific tasks within the employer's plant, e.g. operating a particular machine or setting up machines for various production jobs, etc., the employers have found that they must train their employees for these jobs regardless of former training. As pointed out previously, a major concern of employers is to hire workers with a positive attitude toward work and labor-management relationships. Past experience and the work history of an applicant is used more as a means of checking on aptitude and attitude than as a reflector of acquired skill.

This viewpoint on responsibility for training is manifest in the employment policies. For example, many of the firms start new employees out at the bottom of the ladder, at relatively menial tasks, regardless of their previous experience. (This is not the case for skilled tradesmen, but for the majority of the production workers--the operatives.) They advance, then, as they learn and as openings become available, on-the-job training is prevalent for production workers. This was without exception among the employers interviewed.

When it comes to training men in the highly skilled trades, a quite different attitude was expressed by employers. They are reluctant to establish apprenticeship programs, and do so only as a last resort. Only two firms had apprentice programs at the time of the interview.[2] The major drawbacks to such programs were expressed as cost and uncertainty of retaining the employee once he was a licensed tradesman. Also, from management's viewpoint, the problems of coordinating apprentice programs with the trade unions and other facilitating aids makes the programs less appealing.

Another manifestation of the employer's attitude toward training is the stipulation on formal education for new employees. More and more firms are establishing a high school diploma as a minimal requirement for employment, regardless of the type of work to be performed. Other firms are gradually raising the formal educational requirement, even though they may not have a rigid high school requirement. Several firms mentioned the problems associated with having employees of foreign extraction who had not learned to read English. As the production process, plant organization, union-management relations, etc. become more complex, the necessity of being able to read becomes more imperative.

The level of education was not considered in the promotional policies for operatives in most of the firms. Job performance and the labor union agreements were the primary

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[2]Several firms had supervisory and management training programs.

considerations for promotion. However, for advancing to supervisory positions the level of formal schooling becomes an important factor. A few firms were in the process, or had plans to initiate, a policy of considering formal education as one of the criteria in their promotional plan for all employees.

About half the employers interviewed indicated they actively supported community adult training programs. This "support" takes various forms. The most usual participation involved posting notices of training school opportunities in the community, e.g., classes being offered, schedules, etc. A few firms had the policy of paying half the tuition fee upon completion of a specific course by the employee.

In discussing adult training with various people associated with these efforts, an interesting phenomenon came to my attention. In the process of deciding which courses to offer in the community, employees were solicited by the school officials to indicate their interest in and intent to attend certain classes. The response to these surveys was usually enthusiastic, and intended attendance seemed to warrant establishment of the training in question. However, a very small proportion of the prospective students would actually follow through, even to the extent of registering once the courses and schedules were announced. While I was unable to further explore this observation, testing various hypotheses about this behavioral pattern may result in valuable insights about the overall employee training effort.

Closely associated with the above observation, the farmers in the sample were asked about their interest in receiving additional training which may improve their income earning possibilities. The question was structured, affording the opportunity to indicate their interest in the event they could continue their present employment and receive the training: (a) if they paid the cost, or (b) at no cost to them. The third alternative was: (c) to give up their present employment and receive a nominal income while in training. The frequency of interest in additional training under any of these postulated circumstances is an inverse function of age, Table 8. Moreover, for the group less than 30 years old, only half the farmers indicated interest in additional training under any of the circumstances outlined above. For the age group 30 through 49, a little over a third were interested in training. There is no significant difference between part-time and full-time farmers until we reach the age group of those over 49 years old, where from 10 to 20 percent of the part-time and essentially none of the full-time farmers expressed an interest in training.

Here again, more intensive research than was feasible for this study would be required to analyze the expressed reluctance to indulge in potential income increasing training. Based on cursory probing, I would suggest that one of the basic explanations is uncertainty--uncertainty with respect to being able to obtain a higher paying job upon completion of training; about the necessity of moving geographically, in order to take

TABLE 8.--Distribution, by age, of interest in obtaining additional training, for a sample of part-time and full-time Michigan farmers, 1961

Item	Proportion interested in more training		
	Part-Time Farmers	Full-Time Farmers	Total All Farmers
	----------Percent----------		
At a cost to recipient:			
Less than 30 years of age[a]	50	[d]	50
30 through 49 years of age[b]	41	38	40
More than 49 years of age[c]	21	2	11
At no cost to recipient:			
Less than 30 years of age	50	[d]	50
30 through 49 years of age	47	41	45
More than 49 years of age	21	5	12
If recipient was paid:			
Less than 30 years of age	50	[d]	50
30 through 49 years of age	39	21	36
More than 49 years of age	11	2	8
Total all farmers:			
Interest in at least one of the above "plans"	30	22	27

[a]Only 9 percent of the part-time and 1 percent of the full-time farmers in the sample were less than 30 years of age.

[b]54 percent of the part-time and 37 percent of the full-time farmers were from 30 to 49 years of age.

[c]37 percent of the part-time and 62 percent of the full-time farmers were more than 49 years of age.

[d]Too few farmers in this group to be meaningful when expressed as a percent.

advantage of the training; about whether they would like the new work as well as their present work; and the like.

What are some of the implications of these findings about education and training from the viewpoints of employers and employees? When employing operatives, employers are looking for people with aptitude and attitude for on-the-job training. A good general education is more to the point than vocational training. Day by day flexibility in being able to adapt to new jobs is becoming less important with the advent of labor union agreements. However, the flexibility over the period of one's work life is becoming increasingly important, as the rate of innovation continues to accelerate. Again, this longer range flexibility is facilitated through having a good basic education. To the extent that the level of rural education, either in quantity or quality, lags urban levels the movement of rural people into the nonfarm labor force will be dampened.

Only one out of four farmers interviewed expressed any interest in receiving additional training, Table 8. Age is the dominant reason given for lack of interest. The inference to be drawn from this is that retraining programs are not likely to have much impact on farmers. To the extent it does have an impact it will be on younger men, under 30 years of age. It is also interesting to note that essentially the same proportion of part-time and low-income full-time farmers indicated an interest in receiving some training. The two groups appear to be equally interested, or disinterested, in

improving their income earning possibilities through training.

By far the most relevant factor influencing the overall relationship between mobility and the education-training complex is the extent to which job opportunities are available in the nonfarm labor market. Without a sufficiently rapid growth rate of the economy to absorb the expanding labor force and to absorb the structurally unemployed, education and training efforts will be of little avail. It is also highly plausible that there is a lag in our thinking about the inevitable level of frictional unemployment as the rate of technological change increases in an already highly industrialized economy. We are accustomed to the definition of full employment as being a state in which everyone who wishes to work at going wage rates can work, leaving only frictional unemployment. Such a concept assumes that job requirements and labor qualifications are in balance for all who care to work. However, when we face a situation in which job requirements change at a faster rate than worker qualifications we encounter a long-range type of structural unemployment. Job vacancies exist and people are not working who would like to be working at present wage rates. Perhaps this is a restriction of sufficient persistence as to negate our conventional concept of what constitutes full employment in a highly technological economy.

To the extent that the technological or structurally unemployed are not subject to being retrained, an inference supported by the response of farmers in this study, our policies and programs directed toward the unemployment and underemployment

problem may justify re-appraisal. Even though we attained a reasonable growth rate, indeed to some extent because of the growth rate, we are likely to have technological and structural unemployed. The relevant questions seem to be: (1) how to minimize the personal and social cost of this group, and (2) what kind of an educational and training experience will minimize the possibility of the young from becoming part of this group?

Current retraining efforts are unlikely to reach a very substantial proportion of the unemployed who are over 40 years old. For the younger people it does reach, the specialized nature of the training is likely to be ephemeral in face of technological change. From a policy viewpoint there is also the danger, due to lag in our recognition of the cause for unemployment, of attempting to eliminate technological and structural unemployment by stimulating aggregate demand through increased government spending or reduction of personal income taxes. This would tend to widen the gap between the purchasing power of the employed versus the unemployed, assuming wages and prices to be flexible upward. Increased aggregate demand would have a greater relative positive impact on expanding industries than on declining industries. It would also tend to stimulate the adoption of yet more technology. Even if it were labor-using technology, the problem remains of matching job requirements with qualifications.

In the context of the study at hand these aggregative considerations serve to illustrate the importance of perspective

when analyzing and formulating remedial measures with respect to employment mobility of farmers. References are abundant on the absence among farmers of qualifications required in nonfarm jobs. The characteristics of the low-income farm sample in this study serves to illustrate the limitations of our current training programs to materially influence the well being of this group, though it should contribute to deflecting some young people from becoming low-income farmers and possibly from entering declining industries or types of nonfarm employment which are rapidly becoming obsolescent.

CHAPTER V

PART-TIME AND LOW-INCOME FULL-TIME FARMING

Introduction

In the preceding chapter we viewed the nonfarm labor market largely from the vantage point of the employer. In this chapter we concentrate our attention on the employee, both his farm and nonfarm activities. In addition, comparisons are made between a sample of full-time farmers with relatively low incomes and a sample of part-time farmers.[1] This comparison enables us to analyze the contrasting characteristics of a group of farmers who have demonstrated some degree of occupational mobility versus an apparently immobile group which would seem to have an economic incentive to change their income earning activity but have not done so. We will make comparisons between like groups of income earners located in different counties.

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[1]Low income was defined as less than $10,000 gross farm income. This corresponds with the economic classes IV, V, VI, and VIII of the 1959 Census of Agriculture. Economic class VII is part-time farmers.

Demographic Characteristics

Age

Age is one of the major factors associated with numerous socio-economic differences among groups of people. Therefore, prior to considering other personal and family attributes of the sample, a glance at age distribution will assist subsequent interpretations.

It is noted in Table 9 that low-income full-time farmers have a median age 10 years in excess of part-time farmers, 55 years and 45 years respectively. As we shall see subsequently, this age differential is of major importance in explaining other differences between these two groups of farmers. The age distribution of either the part-time or full-time group does not differ significantly between counties.

TABLE 9.--Age distribution of a sample of part-time and full-time Michigan farmers, 1961.

County	Unit	Part-time farmers[a]	Full-time farmers[a]
Muskegon			
Median age	Years	46.0	53.0
Average age	Years	46.9	51.8
Kalamazoo			
Median age	Years	44.0	58.0
Average age	Years	44.0	55.7
Total sample[b]			
Median age	Years	45.0	55.0
Average age	Years	45.6	53.8

[a]No significant difference at the 10 percent level of Chi Square between counties with respect to age of part-time or full-time farm operators.

[b]Significant difference at the 1 percent level of Chi Square between part-time and full-time farm operators with respect to age.

Education

It is interesting to note that while the median age differential between part-time and full-time farmers is statistically significant, the differential in median years of school completed by these same groups is not statistically significant, 10.8 years for full-time operators compared with 12.2 years for part-time operators, Table 10. The importance of this comparison takes on added meaning when we compare later in this chapter the relative incomes of these two groups, for it means we cannot attribute the income differential to difference in formal educational levels.

Both part-time and full-time farmers in Kalamazoo County had completed significantly more years of schooling than their counterparts in Muskegon County. The median years of school completed by part-time farmers was 12.5 in Kalamazoo County and 10.5 in Muskegon County. Respectively it was 12.8 years and 9.0 years for full-time farmers. But again the income differentials among these groups are not associated with median years of school completed, for there is no significant difference between the total net income of part-time or full-time farmers as between counties.

Health

Because of the undisputable relationship between one's health and income-earning capacity, each respondent was asked whether he, or others in the family, had an income restriction due to poor health or a physical handicap. For the sample as

TABLE 10.--Years of school completed by different family members for a sample of part-time and full-time Michigan farmers, 1961.

County	Part-time farmers[a]		Full-time farmers[b]	
	Median years	Average years	Median years	Average years
Muskegon				
Operators	10.5	10.1	9.0	9.2
Operators wives	12.8	11.1	12.5	11.3
Adult children	12.5	11.9	12.6	12.0
Kalamazoo				
Operators	12.5	12.3	12.8	10.8
Operators wives	12.4	12.5	12.5	11.9
Adult children	12.6	12.7	12.7	12.6
Total sample[c]				
Operators	12.2	11.1	10.8	10.0
Operators wives	12.6	11.8	12.5	11.6
Adult children	12.6	12.2	12.6	12.3

[a]Significant difference at the 1 percent level of Chi Square between counties with respect to years of school completed by part-time farm operators.

[b]Significant difference at the 5 percent level of Chi Square between counties with respect to years of school completed by full-time farm operators.

[c]No significant difference at the 10 percent level of Chi Square between part-time and full-time farm operators with respect to years of school completed.

a whole, one family out of six (17 percent) was earning less total family income than they would be in the absence of illness and handicap. Income earning health restrictions were more common among the low-income full-time farm families than among the part-time farmers. Twenty-five percent of the low-income full-time farm families had an income earning health restriction, compared with 11 percent for part-time farm families. To some extent this difference in health is associated with the age difference between these two groups. However, income comparisons between each of the groups, i.e. those with health restrictions versus those without, show no significant income difference within the part-time and full-time classification. It can be concluded, then, that physical limitations help to explain the low-income full-time farm family income position relative to the part-time farm family income level, but do not help to explain income differences within these groups.

An interesting aside derived from discussion with respondents about health and income earning restrictions was the frequent comment that the ill health of some family member other than the operator had the effect of restricting the operator's income earnings. The need to be near home all the time was frequently sighted in this regard. This observation adds a dimension not commonly recognized in evaluation of income earning impediments, i.e., that not only the health of the income earner but also the health of other members of the family unit should be considered.

Family Size

To a very considerable extent, events and conditions of the present are a function of events and conditions of the past. With this phenomenon in mind, substantial emphasis was given in this study to probing interviewees about their past residence history, work history, education and training experience, and the like. Also, questions were asked about the adult children of the interviewee family unit, with the idea in mind that an opportunity was afforded to easily obtain at least minimal data about another generation, thereby adding another time dimension to the study.

The part-time farm family in the sample averaged 1.3 more children per family than the low-income full-time farmers, Table 11. While this may appear to be unreasonable at first blush, such a differential in family size is consistent with the pattern for the nation as a whole when the age difference of the part-time and full-time groups are considered. The full-time farmers, with a median age of 55 years, were experiencing their family growth during the depression of the 1930's, a period of low birth rates for the nation as a whole. On the other hand, with a median age of 45 years, the part-time farm group have been contributing to the well established birth rate boom since World War II.

In spite of this difference in number of children, each group of sample farmers averaged nearly 1 adult child per family who was living away from home. However, the part-time farmer group had over twice as many children under 14

TABLE 11.--Family size and composition for a sample of part-time and full-time Michigan farmers, 1961

Item	Average per family	
	Part-time farmers	Full-time farmers
	No. per family	No. per family
Muskegon		
Children under 14 years of age	1.6	1.0
Children 14 years and older, living at home	1.0	0.5
Adult children living away from home	1.0	1.0
Average No. of children per family	3.6	2.5
Total persons living in household	4.6	3.5
Kalamazoo		
Children under 14 years of age	2.0	0.4
Children 14 years and older, living at home	0.6	0.4
Adult children living away from home	0.7	0.8
Average No. of children per family	3.3	1.4
Total persons living in household	4.6	2.9
Total all Farms		
Children under 14 years of age	1.8	0.7
Children 14 years and older, living at home	0.8	0.5
Adult children living away from home	0.8	0.9
Average No. of children per family	3.4	2.1
Total persons living in household	4.6	3.2

years of age as did their counterpart full-time farmers, 1.8 and 0.7 respectively, Table 11.

Adult Children

Consistent with the parental age difference, the median age of the adult children of full-time farmers exceeded that of part-time farmers by 10 years, 35 years compared with 25 years, Table 12. In spite of this age difference, the adult children of each group had the same number of years of formal education, a median of 12.6 years.

As noted in a preceding chapter, a large proportion of the overall decline in farming as an occupation stems from the exit of farm-reared children. Little is known, however, about the pattern of this exodus. For example, do the farm children leave home immediately after completion of their formal schooling, or do they work on the farm for a few years and then decide to try their hand away from home? For this sample of farmers, nearly half, 48 percent, of the adult children living away from home had left home immediately upon completing their formal schooling, Table 12. This same proportion was true for both the part-time and full-time sample. An additional one-third of the adult children had left home within 1 to 2 years of school completion. By and large, then, there is evidence that the offspring were positively oriented toward movement away from home by the time they had completed their formal education. Only 1 out of 5 spent 3 years or more at home after completing school.

TABLE 12.--Characteristics of adult children not living with parents, for a sample of part-time and full-time Michigan farmers, 1961

Item	Unit	Adult children of: Part-time farmers	Full-time farmers	Total sample
Median age	Years	25	35	29
Median years of school completed	Years	12.6	12.6	12.6
Upon completion of schooling, left home:				
Immediately	Percent	48	48	48
Within 1 to 2 years	Percent	34	29	32
After 3 years or more	Percent	18	23	20
Total	Percent	100	100	100
Place of Residence:				
Michigan	Percent	83	87	85
Other states and Military	Percent	17	13	15
Total	Percent	100	100	100
Occupation:[a]				
Unskilled	Percent	--	--	--
Semiskilled	Percent	38	29	34
Skilled	Percent	20	29	24
Managerial	Percent	2	6	4
Professional	Percent	11	12	11
Farmers	Percent	--	15	6
Other[b]	Percent	29	9	20
Total		100	100	100

[a]Excludes housewives, who comprised 44 percent of the adult children not living with parents.

[b]This group is comprised of adult children in military service, college students not living at home, and part-time farmers whose major occupation is unknown.

Where did these adult children move? Were they mobile geographically? Eighty-five percent of the adult children of the parents who were included in this sample of part-time and full-time farmers are living in the State of Michigan, Table 12. Even this large proportion is an understatement, for those living outside Michigan include the children who are in military service, and some of these will undoubtedly settle in Michigan upon completion of military duty. In classifying the occupations of these adult children, those who were housewives were excluded from the proportional calculations. One-third of those gainfully employed were working at semiskilled jobs, Table 12. Keeping in mind that the adult children of part-time farmers were 10 years younger than full-time farmers' children, and that each group had an equivalent median level of school, it is interesting to note that a higher proportion of part-time farmer adult children were working in semiskilled jobs, and fewer were in skilled jobs, than was the case for their older full-time farmer adult children counterparts. One possible interpretation of this difference is that the older group has had more time to advance along the "skill ladder."[2]

Of particular interest in the occupational classification of adult children is the fact that none of the children coming from part-time farm homes are now full-time farmers. On the other hand, 15 percent of those whose fathers are full-time farmers are also full-time farmers. A few of the sons of

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[2]J. N. Morgan, et. al., Income and Welfare in the United States, (McGraw-Hill Book Company), p. 349.

part-time farmers are also part-time farmers, but are included in the "other" classification in Table 12, provided their major occupation was unknown, or in their major occupational classification if known.

Personal History Patterns

Residence

Several measures were used to indicate the degree of geographic residence mobility of sampled farmers. As illustrated in Table 13, interstate mobility, distance from last residence, and accumulated geographic movement are tabulated. As in the case of their adult children, over 85 percent of the parents have always lived in Michigan. An insignificantly larger proportion of full-time farmers had lived in other states at some time during their adult life than was true for part-time farmers, 15 and 12 percent respectively.

Not only are the farmers in our sample essentially geographically immobile as across state boundaries, they are also essentially immobile within the State of Michigan. At the time of the survey, nearly 9 out of 10 live within 50 miles of their last residence, Table 13. In fact 37 percent of the full-time farmers and 21 percent of the part-time farmers lived within zero to less than one mile of their previous residence.

On the average, part-time farmers had moved more than two miles 2.4 times during their adult life. Correspondingly, full-time farmers had averaged moves of this magnitude 2.1 times.

TABLE 13.--Residence mobility of farm operators, for a sample of part-time and full-time Michigan farmers, 1961

Item	Units	Part-time farmers	Full-time farmers	Total All farmers
Interstate Mobility:				
Always lived in Michigan	Percent	88	85	86
Has lived in other states	Percent	12	15	14
Total		100	100	100
Miles from last residence:				
0 miles	Percent	21	37	28
1-10 miles	Percent	40	34	37
11-50 miles	Percent	29	16	23
More than 50 miles	Percent	10	13	12
Total		100	100	100
Moves of more than 2 miles (historically accumulated):				
Proportion of operators	Percent	64	57	61
Moves per operator	Number	2.4	2.1	2.2
Time in present location	Average years	14.9	21.4	17.8

Considering the median age difference of these two groups, the median age of part-time farmers being 10 years below that of full-time farmers, these data on geographic residence mobility indicate a slightly higher propensity for part-time farmers to change residence. However, the part-time farmer sample had lived in their present location for an average of 15 years, with a corresponding 21 years for full-time farmers. This means that by the time these heads of households were 30 to 35 years old they had "settled down" to a permanent residence. The conclusion from these data is overwhelming in support of the position that geographic residence immobility characterizes this sample of both part-time and full-time farmers.

Occupational

Past occupational mobility was analyzed for the sample of part-time farmers, Table 14, which also summarizes other characteristics of the present nonfarm jobs held by this group.

The part-time farmers in Muskegon County had been employed by their present employer for an average of 12.6 years, followed closely by 10.4 years in Kalamazoo County. Since entering the labor force they had changed employers on an average of only 2.4 times. This combined evidence supports the thesis that the first regular job held has a strong influence upon one's future occupation, and that occupational

TABLE 14.--Characteristics of nonfarm jobs held by a sample of Michigan part-time farmers, 1961

Item	Units	Muskegon County	Kalamazoo County	Totals
Time on present job	Years	12.6	10.4	11.6
Months worked per year:				
12 months	Percent	92	90	91
Less than 12 months	Percent	8	10	9
Total		100	100	100
Shifts worked:				
8:00 a.m. to 5:00 p.m.	Percent	62	75	68
4:00 p.m. to 12:00 p.m.	Percent	18	10	14
12:00 p.m. to 8:00 a.m.	Percent	6	5	6
Rotating	Percent	12	10	11
Other	Percent	2	--	1
Total		100	100	100
Annual Earnings from Nonfarm Job	Dollars	$5833	$5630	$5741
Average Number of Nonfarms jobs held per man (accumulative)	Number	2.3	2.5	2.4
Reasons for Changing Jobs:				
More income	Percent	43	39	41
Laid off	Percent	17	12	14
Company moved the plant	Percent	8	16	13
Better working conditions	Percent	17	16	16
Other	Percent	15	17	16
Totals		100	100	100

mobility is a phenomenon of the young worker.[3]

Almost without exception, the sample of part-time farmers in each of the areas studied held full-time nonfarm jobs the year around, Table 14. While 9 percent of the sample worked less than 12 months off the farm in 1961, this was due primarily to temporary lay-offs. The pattern for combining farm and nonfarm work in many areas of the United States is one of seasonal nonfarm employment. However, this is not the general pattern for lower Michigan, nor for the Lake States as a region. In this region the off-farm job is the major occupation the year around. Indeed, farming is frequently a hobby or a source of psychic income. This pattern of employment is consistent with the employment policies expressed by employers as related in Chapter IV.

Another conventional contention about part-time farmers is that they prefer, and attempt, to adjust their nonfarm work hours such as to leave a maximum number of daylight hours for farm work. As noted in Table 14, over two-thirds of the part-time farmers worked an 8 a.m. to 5 p.m. shift on their nonfarm job. Another 11 percent worked rotating shifts. With the further consideration that a large proportion of these workers are employed in industrial plants which operate more

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[3] Ibid., p. 349; Also see Special Labor Force Report No. 36, United States Department of Labor, Bureau of Labor Statistics, October, 1963, in which it is stated that, "As persons grow older, they are less likely to change jobs," and that " older workers (45-64 years old) are only half as likely to change jobs as persons in the central age groups (25-44 years)," p. 1145.

than one daily shift, the above mentioned conventional contention is subject to serious question.

Further evidence on the importance of work-shift preference is noted in Figure 2, where working hours were rated as one of the less important nonfarm job conditions. Also, when asked about willingness to work any shift, or even a rotating shift, over two-thirds of the respondents were unwilling to change to swing or graveyard hours unless a pay differential were associated with the change. This is evidence that the values of part-time farmers are very similar to those of urban and rural nonfarm workers with respect to hourly working patterns.

The Farm Business

Resources

On the average, the low income full-time farmers operated more land than did the part-time farmers, approximately 180 acres and 140 acres respectively, Table 15. However, the part-time farmers owned slightly more of the land they operated, 87 percent, compared with 77 percent for low-income full-time farmers. Land rental to others was not a common practice among this sample of farmers. None of the full-time farmers rented land out, and only 8 percent of the part-time farmers rented land to others.

It is sometimes alleged that part-time farmers get into farming through land inheritance. However, this study reveals that a higher proportion of full-time than part-time

TABLE 15.--Land tenure for a sample of part-time and full-time Michigan farmers, 1961

County	Average per farm	
	Part-time	Full-time
	----------acres----------	
Muskegon		
Owned land	116	126
Rented land		
From others	19	29
to others[a]	2	--
Total acres operated	133	155
Kalamazoo		
Owned land	112	150
Rented land		
From others	34	52
To others[a]	5	--
Total acres operated	141	202
Total All Farms		
Owned land	114	138
Rented land		
From others	26	41
To others[a]	4	--
Total acres operated	136	179

[a]Only seven farmers, all part-time farmers, rented land to others. For these seven farms, an average of 4.5 acres per farm were leased out.

farmers inherited land, 13 percent versus 7 percent. Purchasing was the most common means of acquiring land for each of these groups, but more common for part-time farmers.

Table 16 shows the overall capital structure of the sample farms. Of particular interest is the fact that part-time farmers in Kalamazoo County averaged a larger capital investment per farm than the low income full-time farmers in Muskegon County. This is due largely to the difference in the value of land and buildings. There were several instances in Kalamazoo County in which the value of land for part-time farms was substantially influenced by the impending possibility of subdivision for urban expansion. In fact, in such instances the explicit reason for holding on to the land was in anticipation of realizing capital gains from subdivision.

Value of livestock represented a higher proportion of total capital for the full-time operators than for part-time operators, 14 and 10 percent respectively. Also, as we shall subsequently note, quite different livestock enterprises were involved.

The average value of machinery per farm was essentially the same for the part-time and full-time farm groups, Table 16. The part-time farmer has, on the average, 68 cents invested in machinery for each dollar of gross farm income. The comparable relationship for the low income full-time farmer is only 36 cents per dollar of gross farm income. This tends to lend credence to the oft mentioned observation that part-time farmers tend to over-invest in machinery. In fact several

TABLE 16.--Farm capital structure for a sample of part-time and full-time Michigan farmers, 1961

Item[a]	Average per farm		Proportion of total capital	
	Part-time	Full-time	Part-time	Full-time
	------Dollars------		------Percent-------	
Muskegon County				
Value of land and buildings	19,608	25,355	76	76
Value of livestock	3,279	5,196	13	16
Value of machinery	2,933	2,609	11	8
Total	25,820	33,160	100	100
Kalamazoo County				
Value of land and buildings	32,019	33,191	86	81
Value of livestock	2,896	4,970	8	12
Value of machinery	2,336	3,043	6	7
Total	37,251	41,204	100	100
Total All Farms				
Value of land and buildings	25,108	29,454	81	79
Value of livestock	3,107	5,078	10	14
Value of machinery	2,665	2,835	9	7
Total	30,880	37,367	100	100

[a]The value of crop inventory was not deemed of sufficient importance for this study to warrant the cost of obtaining the estimates.

part-time farmers volunteered the information that their off-farm income enabled them to have more and better machinery than was feasible for them to own when they were farming full-time. It was also evident that they were receiving some psychic income from their machinery possessions, for machinery is frequently viewed as a prestige symbol among farm people.

Farm Labor

Attempts to attain labor input data by the interview technique leaves much to be desired. Nevertheless, an effort was made to obtain estimates of the time devoted to farm work by the various members of the families studied, Table 17. One of the difficulties in rationalizing these data is the estimates of total work effort of part-time farmers. They reportedly worked an average of 185 eight-hour days on the farm in 1961. This, plus an estimated 226 nonfarm work days, yields over 400 eight-hour days per year. This means, of course, that they worked more than an average of eight hours per day, which is very likely. Aside from the hourly data, the hypothesis is suggested by these interviews that part-time farmers as a group work more total hours per year than is the case for the low income full-time farmers. A definitive validation of this hypothesis would require further testing.

The wives of part-time farmers averaged slightly more days of farm work per year than did their counterparts on full-time farms, an estimated 24 and 17 days respectively. Other family members contributed about 36 work days per year on both the part-time and full-time farms, Table 17.

TABLE 17.--Total family labor input for a sample of part-time and full-time Michigan farmers, 1961

County	Average per farm[a]	
	Part-time	Full-time
	(days)	(days)
Muskegon		
Farm operator	125	284
Operator's wife	25	21
Other	39	40
Total	189	345
Kalamazoo		
Farm operator	122	274
Operator's wife	22	13
Other	35	30
Total	179	317
Total All Farms		
Farm operator	124	279
Operator's wife	24	17
Other	37	35
Total	185	331

[a]A day's labor is defined as 8 man-hours per day.

The total work days per farm, from all sources, on full-time farms was nearly double that on part-time farms, 331 days and 185 days respectively.

Adjustments

One of the questions most frequently asked about part-time farming concerns the associated impact, if any, on the use of non-labor farm resources. Only one-third of the part-time farmers studied reported changes in their farm operation

that were associated with working off the farm. The types of changes enumerated are summarized in Table 18.

Less intensive land use is commonly associated with the advent of off-farm work by the operator. This is further reflected in the frequent elimination of the dairy enterprise. For example, as noted in Table 19, a major dairy enterprise is much more prevalent among the full-time farmer sample, with the part-time farmer emphasizing general farming, specialized crops, or beef enterprises.

This tendency toward a more extensive pattern of farming by part-time farmers has the effect of retarding the commitment of inputs to agriculture--at least commitment of fewer resources than would be required to yield a level of farm income comparable to their combined income. These adjustments also have the effect of changing the composition of inputs. More custom work is hired, the family members contribute slightly more work, and mechanization is maintained at a level of intensity that is justifiable largely on a psychic income premise.

Plans for the Future

Part-time farming is typically portrayed as a stepping-stone on the way out of agriculture. In an aggregate sense there is little doubt that part-time farming has historically fulfilled an institutional role in the transitional process of industrialization. It has offered a more gradual means for some as they re-orient their major income-earning activities from farming to nonfarm employment.

TABLE 18.--Changes in farm operation associated with working off the farm for a sample of part-time Michigan farmers, 1961

Item	All part-time farmers	
	Proportion of all part-time farmers	Proportion of those making changes
	(percent)[a]	(percent)[a]
Proportion of part-time farmers making some changes	33	100
Land Use:		
Less intensive	16	47
Livestock Enterprise:		
Eliminated Livestock	12	37
Reduced number of livestock	6	17
Change from dairy to beef or sheep	6	17
Hired Custom Work and Labor:		
Hired more custom work	7	20
Hired more labor	8	23
Family does more farm work	3	10
Other Changes:		
Bought more machinery	7	20
Reduced farm work to necessities	9	27

[a]Does not add to 100 percent because the total number of changes made was not the relevant base.

TABLE 19.--Frequency distribution of major farm enterprises for a sample of part-time and full-time Michigan farmers, 1961

Type of Enterprise[a]	Part-time farmers		Full-time farmers	
	Muskegon County	Kalamazoo County	Muskegon County	Kalamazoo County
	(percent)	(percent)	(percent)	(percent)
Dairy	27	7	71	32
General	31	39	11	19
Grain	6	27	6	16
Beef	16	2	--	14
Hog	--	5	3	11
Other	20	20	9	8
Total	100	100	100	100

[a]Classified by enterprise, based on 50 percent or more of gross farm income.

While the above pattern can be historically verified over and over again, there is evidence that so-called part-time farming is becoming increasingly a more permanent institutional arrangement on the rural scene, particularly in areas of industrialization such as typifies southern Michigan.[4] This does not mean to imply the absence of mobility both in and out of this institutional pattern. Rather, it implies that combining full-time off-farm employment with some degree of farming

[4]There is increasing support for this position. See, e.g. Philip M. Raup, "Rural Resource Development in an Urban Society: Some Research Priorities," Journal of Farm Economics (December, 1963), p. 1044.

activity is becoming an increasingly feasible means of fulfilling a broader range of goals or desires than is possible by limiting oneself to one or the other activity.

The farmers studied were asked about the plans for the future with respect to income-earning activities. Recognizing the possibility of discrepancy between stated intentions and eventual reality, their responses reflect a system of values. Sixty-eight percent of the part-time farmers said they intend to continue farming and nonfarm work as a permanent way of making a living. Of the 20 percent who expressed the desire to eventually farm full-time several qualified their response to the effect that they were doubtful about even realizing this desire. About 10 percent of the part-time farmers indicated intentions to leave farming completely in favor of the single activity of nonfarm employment.

Nine out of ten low-income full-time farmers said they expected to continue full-time farming. The remaining 10 percent were equally divided between intentions to sell their farms and work at a nonfarm job, and to combine farming and nonfarm work.

The Nonfarm Job

As a suggested means of facilitating the movement of labor from the agricultural to nonagricultural sector, seldom do writers pass by the opportunity to mention the need, on the part of the farmer, for more and better information about existing job vacancies in the nonfarm labor market. Obviously some degree of awareness about alternative employment

opportunities is essential for the existence of any employment mobility. However, some of the information to be discussed in the following paragraphs casts doubt on the assertion that farmers are unaware of existing nonfarm job opportunities.

Getting a Nonfarm Job

One of the means of discerning the state of the farm operator's knowledge about the off-farm job market is to find out how the part-time farm operators obtained their present nonfarm job. First, it is important to realize that nearly all of the operators in the sample have lived in the same general locale most of their lives. They are thoroughly familiar with the various industrial plants, local government units, and the whole array of the nonfarm oriented melieu of their community. Under these circumstances, the most obvious means of seeking a job is to apply at the plant(s) in person. Thirty-eight percent of the part-time farmers obtained their current job in this way.

Another 23 percent found out about their present nonfarm job through friends or relatives. Nearly as many, 18 percent, reported they had their job offered to them by their employee. These are facets of the nonfarm job labor market in rural communities which seem to be largely unrecognized by students of rural labor mobility. The labor market is usually depicted in a much more formalized structural image as befits a large urban setting.

In addition to the above mentioned sources of nonfarm job information, a few individuals mentioned they had obtained

their job through newspaper advertisements, the Michigan Employment Security Commission, and other miscellaneous sources.

In spite of a history of relatively high unemployment rates in one of the labor market areas studied, only 3 percent of the part-time farmers indicated unsuccessful attempts to get nonfarm jobs during the 5-year period preceding the study. Also, during the same period half the part-time farmers received information concerning the availability of yet other nonfarm jobs. This information originated from personal contacts almost exclusively.

One out of four part-time farmers had been involuntarily out of work at some time during the preceding 5 years. Nearly all of these were for relatively short periods of a few weeks, due to seasonality or temporary labor force reductions by employers. Such a pattern differs little or none from the overall labor market pattern of the areas studied, indicating that part-time farmers are not in a distinguishably different labor group than nonfarmers.

There seems to be little question in the assertion that farmers are well informed about "relevant" nonfarm work opportunities within a "relevant" geographic range of their residence. By relevant nonfarm work opportunities I mean the types of work for which they are qualified without having additional education and/or specialized training. In view of their expressed lack of interest in additional training, discussed in the preceding chapter, it seems unlikely that added information about job opportunities for which they are not

qualified would have a significant impact on their occupational mobility.

Further insight was sought about this general question of the impact of the state of knowledge as it relates to occupational mobility by pursuing a series of value or preference oriented questions with the respondents. The premise here is that in spite of having knowledge about job opportunities, there may be over-riding considerations which seriously dampen the effectiveness of this awareness. Let's assume, for example, that they were aware of nonfarm work opportunities for which no additional training was required, but realization of the job would necessitate moving to a city with a population of 100,000 or more. When faced with this situation, nine out of ten said they wouldn't consider moving to the city under any conditions.[5] A few indicated they may be willing to move to a city, or at least a suburban setting, after their children were reared. In a few instances the husband and wife had not reached a consensus on their rural-urban preferences.

Pursuing this question of environmental preferences, interviewees were asked, "If you could live any place you wished, assuming equal income opportunity, where would it be?" Three-fourths of the part-time farmers indicated a preference to live in Michigan. A number of other states were mentioned

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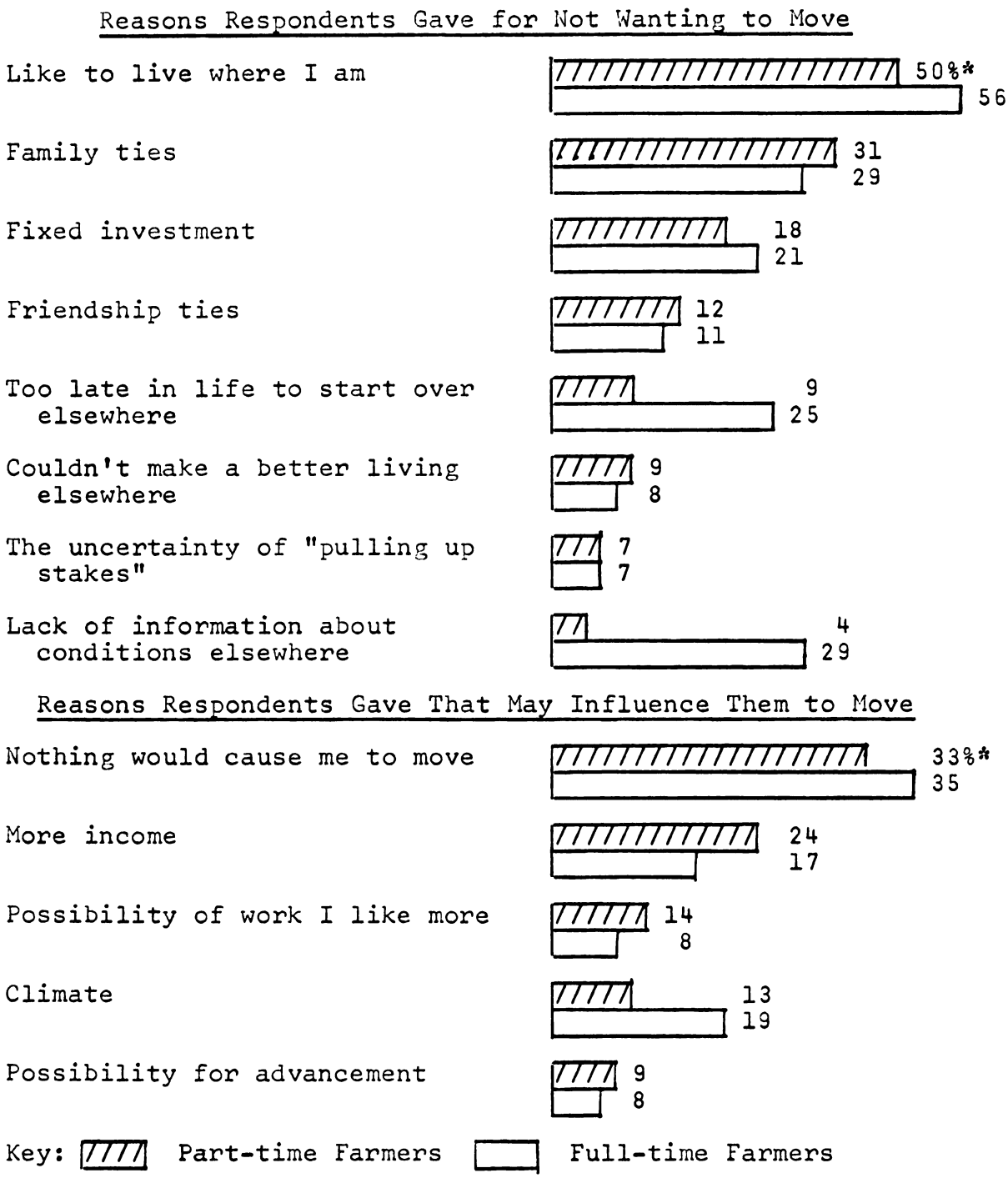
[5]No attempt was made to quantify the intensity of this determination. However, an attempt to quantify a similar preference will be discussed subsequently.

by the remaining respondents, with climate being a dominant consideration. About half of those expressing a latent desire to live in another area of the United States had been to the region of their choice, and half were basing their response on secondary sources of information.

Still another approach to this general mobility, or immobility phenomenon was to ask for reasons the respondents did not wish to move from their present community, and factors which may influence them to move. No extenuating circumstances were associated with these questions. The most frequent reason given for not wanting to move was the somewhat inarticulate "I like to live where I am" response, Figure 1. A third of the sampled farmers gave "family ties" on kinship oriented values as a response. These and other responses were given in nearly equal proportions by both part-time and full-time farmers, with the exceptions of "too late in life to start over elsewhere," and "lack of information about conditions elsewhere." Substantially more full-time farmers gave these responses than did part-time farmers. The first is commensurate with the age differential of the two groups, and the latter is commensurate with the felt need of familiarity with climate, type of farming, etc., in order to farm successfully.

When asked for factors which may influence them to move, a third of both part- and full-time farmers persisted that nothing would cause them to move. Some unstipulated increase in income would entice one out of four part-time



*Percent refers to the proportion of total respondents who listed the reason in question as being relevant. Does not add up to 100 because most respondents gave more than one reason.

Fig. 1.--Reasons given by respondents that tend to inhibit, or may encourage them, to move to another part of the United States, for a sample of part-time and full-time Michigan farmers, 1961.

farmers and one out of six full-time farmers to move. Similarly, the possibility of more agreeable work would be a stronger inducement for part-time farmers to move than for full-time farmers. The difference in relative importance of these two variables, increased income and more agreeable work, supports the expectation that the part-time farm group are potentially more geographically mobile than the full-time farm group.

Weighing all the above evidence, namely, that farmers "know" their labor market within commuting range, their reluctance to acquire additional training, their preference for rural living, their preference for living in Michigan, and a number of reasons for not wishing to move, it seems highly unlikely that increasing the availability of information about nonfarm employment opportunities would have an appreciable impact on the farm to nonfarm employment flow. A fortiori, information about job opportunities is of little avail under seemingly persistent conditions of high unemployment, such that the existing employment opportunities require qualifications beyond a reasonable attainment expectation of farmers.

Rather than more information about existing jobs per se, a more effective program would include efforts to reach more people with information about the changing trends in occupational mix; the importance of a basic education; geographic area information on chronic unemployment, industrial expansion and facilities for serving basic needs; and efforts to broaden people's horizons and mitigate uncertainties associated with confronting unknown situations. Even with such a program the

selectivity process currently operative would likely continue, primarily with respect to age and education, which means that farmers with the characteristics of the low-income group sampled in this study would probably not be induced to change even under expanded informational programs.

Nonfarm Job Classification

Eighty percent of the nonfarm jobs held by part-time farmers are classified as skilled or semiskilled, Table 20. Skilled job holders are most frequent among the 40- to 59-year age group. On the other hand, the age group comprised of those under 40 are most commonly in semiskilled jobs. Unskilled job holders among part-time farmers are associated with the older age group, with 22 percent of those over 59 years old working in unskilled jobs. However, also in this age group we find the highest proportion of managerial jobs, with 22 percent so classified.

The interpretation of these data on work classification points to another of the contrasts between part-time farming in Michigan versus part-time farming in some of the lesser industrially developed areas of the United States. The relatively high proportion of skilled and semiskilled jobs held by part-time farmers, coupled with previously mentioned finding on permanency of employment, are indications of essentially complete orientation into the nonfarm labor market, yet with retention of farming activities.

TABLE 20.--Classification of type of off-farm work, by age groups, for a sample of Michigan part-time farmers, 1961

Work Classification[a]	Age Groups: Less than 40 years of age	40 to 59 years of age	More than 59 years of age	Total Sample
	percent	percent	percent	percent
Unskilled	8	3	22	7
Semiskilled	48	36	34	39
Skilled	28	50	22	41
Managerial	8	7	22	9
Professional	8	4	--	4
Total	100	100	100	100

[a]Classification based on the "Dictionary of Occupational Titles."

Labor Unions

Labor unions are sometimes alleged to contribute to employment immobility. The rationale includes the creation of institutional rigidities, such as benefits associated with seniority, pension plans, unemployment compensation, etc.

Granting that a much more elaborate study of this point than was possible here would be needed to definitively test such an hypothesis, some insights stem from asking the part-time respondents about their labor union affiliations. Half of the part-time farmers were members of a labor union. Eighty-two percent of those who were so affiliated regarded seniority as a valuable possession to be guarded, Table 21.

TABLE 21.--Labor unions and nonfarm work: observations by a sample of part-time Michigan farmers, 1961

Item	Total all part-time farmers
	(percent)
Seniority is a valuable possession[a]	
No	18
Yes	82
Total	100
Have labor unions influenced you in (a) Obtaining a nonfarm job[b]	
No	91
Yes	9
Total	100
(b) Keeping your nonfarm job	
No	81
Yes	19
Total	100
(c) Changing jobs with present employer	
No	90
Yes	10
Total	100
(d) Changing employers	
No	94
Yes	6
Total	100

[a]Asked of only those part-time farmers who were labor union members.

[b]Response received from 96 percent of the sample part-time farmers.

They felt that acts which would jeopardize their seniority standing were to be avoided, even though it may interfere with their farm work.

While seniority, one of the alleged mobility impediments, is valued by the respondents, they did not think that labor union membership was a serious restraint on their employment mobility. This is reflected in Table 21, showing the proportion of No and Yes answers to a series of questions designed to evaluate the respondent's opinion to the overall question of labor union membership and employment mobility. As may be expected from answers involving the possibility of conflicting judgment, there is an apparent conflict between the respondent's answers to these questions. Resolution would require further inquiry. However, it is suggested here that part-time farmers, by and large, do not feel that labor union affiliation is an important restraint with respect to obtaining, maintaining, or changing jobs.

Off-Farm Work--Further Insights

A number of attitudinal questions were pursued with part-time farmers in an effort to better understand their rationale for combining two income-earning activities. For example, when asked why they didn't farm full-time nearly two-thirds responded that farming did not yield sufficient income. Associated with this were references to lack of capital and an attendant unwillingness, or inability, to go into debt to the extent required in order to make an adequate living from farming. Other reasons for not farming full-time included

such things as: too much work, too much government interference, lack of security, like their off-farm job, and can make more money by combining the two income sources.

Similarly, the part-time farmers were asked why they didn't work only off the farm. While psychic income will be discussed subsequently, suffice to note here that half the responses made reference to the fact that they liked to farm, as a hobby, if nothing else. Others indicated they must utilize the investment they had in the farm because of high loss expectancy if they were to liquidate their assets. A few indicated either the intention or desire to farm full time and were attempting to establish themselves in this direction. Others responded they were keeping their farm as a retirement plan.

Perhaps one of the more subtle possible "costs" associated with part-time farming is resentment on the part of farm neighbors or nonfarm workers that combining these two sources of income is somehow a bit unethical--that you are holding down two jobs while others are unemployed. It is likely that the presence of this phenomena varies considerably among communities and over time. Asking part-time farmers of their awareness of such resentment would undoubtedly yield an underestimation of its prevalence, and of course falls short of measuring the degree of resentment. Nevertheless, in the sample studied, one out of five part-time farmers noted an awareness of resentment either from full-time farm neighbors or fellow nonfarm workers, and this in communities where

part-time farming is very prevalent. In fact, some of the part-time farmers said they had at some time in the past held the same value. Resentment on the part of co-workers on the nonfarm jobs was more common than among full-time farm neighbors. The importance of this social pressure as a restraint on labor mobility is non-quantifiable, but there is little doubt of its presence. Evidence gathered from the interviewees suggests that the phenomena is becoming less prevalent in their communities with the passage of time, i.e., working off the farm and farming simultaneously is increasingly socially acceptable.

With reference to expectations concerning their nonfarm jobs, two-thirds of the part-time farmers said they did not think there were opportunities for promotion in their present job. On the other hand, half of them had received promotions from their present employer. Combined, these findings imply that a substantial number of this group had already reached the highest level of promotional expectations in the kind of work they were doing and did not expect to receive further promotions.

Associated with a preceding discussion concerning future work plans, the part-time farmers were asked what they would do if permanently laid off from their present job. Nearly two-thirds reported they would look for another nonfarm job while one out of four would rely on full-time farming for their living. These responses lend further support to thesis that combining sources of income is viewed by southern Michigan

part-time farmers as a relatively permanent arrangement.

One of the inescapable factors influencing employment mobility is the common-place necessity of commuting between one's residence and place of work. The time and distance traveled is a function of many variables, such as the transportation facilities, density of commuters per unit of time, the geographic pattern of industrial activity, etc. The two areas studied for this inquiry are relatively similar with respect to the commuting pattern. The average commuting distance is about 11 miles, or 20 minutes, for the part-time farmers studied. A few individuals drove 40 miles, one way, to work, and one drove 60 miles.

The necessity of commuting, commonly via the car-pool arrangement, was not viewed as a serious disutility by the respondents. In fact, they indicated a willingness, with no change in remuneration, to commute approximately double the distances and time currently traveled, viz., an average of 25 miles, or 40 minutes, per day one way.

In preceding paragraphs of this chapter we discussed the contribution of the farm operator's wife to farm work. It is also common throughout our socio-economic system, for wives to contribute to family income by working in offices, factories, etc. This pattern also prevails for the sample of farmers studied. Twenty-two percent of the wives of part-time farmers were working at nonfarm jobs. The comparable proportion for low-income full-time farmer wives was 12 percent. Thus, the findings for this sample are contrary to most

evidence, which show an inverse relationship between both family size and age of children and full-time employment of wives. With a median age of 41 years and 52 years respectively for the wives of the part-time and full-time farmer groups, it is possible that this contrary finding results from the relatively high absolute age of the full-time farmer wives.

CHAPTER VI

INCOME DIFFERENTIALS AND PREFERENCES

Introduction

In the preceding chapter we were concerned largely with describing and interpreting environmental and subjective facets of part-time and low-income full-time farm life. While these are important to the inquiry about the interaction between the agricultural and nonagricultural labor markets, they are to a considerable extent conditioning variables for the core of our concern, viz., the amount of income available to a family unit for living and re-investment. In this chapter we turn our attention to analyses of the comparative money income of part-time and low-income full-time families in our sample and analyses of specific variables hypothesized to be associated with employment mobility decisions.

Income Differentials

It is evident from the data presented in Table 22 that the total net income position of part-time farmers is substantially greater than that of low-income full-time

TABLE 22.--Farm and non-farm income for a sample of part-time and full-time Michigan farmers, 1961

County	Average per farm	
	Part-time	Full-time
	dollars	
Muskegon		
Gross farm income	3413	7308
Cash expenses	2255	4340
Net cash farm income	1158	2968
Nonfarm income	5721	542
Total net cash income	6879	3510
Value of perquisites	550	489
Less depreciation on machinery and buildings	490	465
Total net income	6939	3534
Kalamazoo		
Gross farm income	4677	8212
Cash expenses	3303	5266
Net cash farm income	1374	2946
Nonfarm income	5581	832
Total net cash income	6955	3778
Value of perquisites	601	594
Less depreciation on machinery and buildings	488	552
Total net income	7068	3820
Total All Farms		
Gross farm income	3980	7781
Cash expenses	2725	4824
Net cash farm income	1255	2957
Nonfarm income	5662	694
Total net cash income	6917	3651
Value of perquisites	572	542
Less depreciation on machinery and buildings	489	511
Total net income	7000	3682

farmers, $7000 and $3682 respectively. Likewise, there is no question that this differential is due to the nonfarm income of the part-time farmers, which averaged $5662 in 1961 as compared with $694 nonfarm income for full-time farmers. The gross farm income of full-time farmers was nearly double that of the part-time group, and their net cash farm income was more than double that of part-time farmers. This means, of course, that the full-time farmers were using their nonlabor farm resources more efficiently than were their counterparts, Table 23. The overall income summary, Table 22, reveals very little difference between the two counties studied.

Income from nonfarm sources is viewed in greater detail in Table 24. Of greatest interest here is the fact that for those families who do have nonfarm sources of income, be they from work or nonwork sources, the magnitude of the nonfarm income is of major importance to both the part-time and full-time farm families. For example, the full-time farm families who have nonfarm income sources averaged $2791 per year therefrom, and this involved 42 percent of the full-time farm families. Of course, the importance of nonfarm income to full-time farm families is greatly diminished when averaged for the entire sample, amounting to approximately $700 per year.

The relative well being, in an income sense, of part-time farmers versus low-income full-time farmers in the sample is forcefully illustrated by the income frequency distribution shown in Table 25. Cash income for family living and

TABLE 23.--Gross farm income per $100 expense and depreciation for a sample of part-time and full-time Michigan farmers, 1961

County	Average per farm	
	Part-time	Full-time
	dollars	
Muskegon	124	152
Kalamazoo	123	141
Total All Farms	124	146

TABLE 24.--Family income from all nonfarm sources for a sample of part-time and full-time Michigan farmers, 1961

Co.	Average per farm family who received nonfarm income[a]		Average per farm family for all sample farms	
	Part-time	Full-time	Part-time	Full-time
	dollars			
Muskegon				
Work	5493	997	5493	96
Other	745	1538	228	446
Total	6238	2535	5721	542
Kamalazoo				
Work	5199	1948	5199	286
Other	1175	1031	382	546
Total	6374	2979	5581	832
Total All Farms				
Work	5365	1591	5365	196
Other	945	1200	297	498
Total	6310	2791	5662	694

[a]31 percent of the part-time farm families received nonfarm income from other than work sources. 42 percent of the full-time farm families received nonfarm income from other than work sources. 12 percent of the full-time farm families received nonfarm income from off-farm work (wives working off the farm).

TABLE 25.--Frequency distribution of cash income for family living and re-investment[a] for a sample of part-time and full-time Michigan farmers, 1961

County	Part-time farmers	Full-time farmers
	----------Percent----------	
Muskegon		
Less than $5,000	8	77
$5,000 to $9,999	73	23
$10,000 and more	19	--
Total	100	100
Kalamazoo		
Less than $5,000	15	82
$5,000 to $9,999	59	18
$10,000 and more	26	--
Total	100	100
Total All Farms		
Less than $5,000	11	80
$5,000 to $9,999	67	20
$10,000 and more	22	--
Total	100	100

[a]Gross farm income, plus nonfarm income, minus cash farm expenses.

re-investment[1] of less than $5,000 was experienced by only 11 percent of the part-time farm families, while 80 percent of the low-income full-time farm families were in this income group. Likewise, 22 percent of the part-time farm families had over $10,000 cash income for family living and re-investment,

[1]See Table 25 footnote for the definition of this income measure.

while none of the low-income full-time farm families reached this level of income.

Different rates of return to like resources utilized in differing productive processes is conventionally referred to as a state of disequilibrium.[2] This study is not designed to illustrate the presence or absence of disequilibrium as such. Nevertheless, comparisons of rates of return to capital and labor can be calculated for the two groups of sampled farms, i.e., part-time and full-time farm operations. With due recognition of the difficulties associated with the allocation of residual returns to capital, labor, and management, Table 26 summarizes the residual rates of return to these factors based on stated assumptions with respect to computed rates to the associated factor.[3]

The residual return to farm capital and management is negative for both the part-time and full-time operations, after deducting a return to labor at the rate of $250 per

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[2]See Hathaway, op. cit., p. 100.

[3]The estimates in Table 26 are average productivities, in aggregate, for all inputs as a group, i.e. all capital inputs and management as one group and operator's labor and management as another group. Estimates of productivity at the margin and with respect to individual inputs would be questionable from data available in this study. Multiple enterprise farms typify the sample, particularly the part-time farm operations. For difficulties involved in estimating production functions on multiple enterprise farms, see Beringer, Christoph, "Estimating Enterprise Production Functions from Input-Output Data on Multiple Enterprise Farms," Journal of Farm Economics, November 1956, pp. 923-930.

TABLE 26.--Residual net returns to farm capital and farm operator's labor and management for a sample of part-time and full-time Michigan farmers, 1961

County	Unit	Average per farm	
		Part-time	Full-time
Muskegon			
Net return to farm capital and management[a]	Percent	- 2.7	- 1.5
Net return to farm operator's labor and management[b]	$/month	-115.	70.
Kalamazoo			
Net return to farm capital and management[a]	Percent	- 1.2	- 1.5
Net return to farm operator's labor and management[b]	$/month	-184.	28.
Total All Farms			
Net return to farm capital and management[a]	Percent	- 1.9	- 1.5
Net return to farm operator's labor and management[b]	$/month	-144.	48.

[a]In computing the residual net income to farm assets and management, a charge for farm operators' labor was deducted from net farm income at the rate of $250 per month. Wage rate source was Michigan Farm Accounting project, Department of Agricultural Economics, Michigan State University. Net farm income is gross farm income less cash farm expenses and depreciation on machinery and buildings.

[b]In computing the residual net income to farm operators' labor and management, a charge for farm assets was deducted from net farm income at the rate of 5 percent.

month. For the part-time farm operators the return to their farm labor and management is also negative, approximately -$150 per month of labor. On the other hand, the labor and management return to the low-income full-time farmers is at least positive, though ludicrously low at approximately $50 per month.

Slightly different assumptions were used, to calculate hourly farm earnings as shown in Table 27. Here a 4 percent return on capital was assumed in one instance, and no return to capital in the other, to calculate an hourly farm earnings rate for part-time and full-time farm operators. In turn these are compared with the hourly nonfarm earnings rate based on data obtained from the part-time farmers in the study.

The residual hourly labor returns, assuming a 4 percent return to capital, are positive for both groups, with full-time farmers return for farm labor being about 4 times that of part-time farmers. Assuming no return to capital, each group showed hourly farm labor earnings of slightly over $1. The differential between the part-time and full-time groups is less under the assumption of no return to capital than when a return is computed to capital, because of the difference in the capital-labor ratio, see Tables 16 and 17. Part-time farmers averaged $167 of capital investment per hour of farm labor, while $113 is the comparable investment for the full-time group. Thus, with no charge for capital, the residual to labor is proportionately greater for the part-time group, making their hourly earnings appear more commensurate

TABLE 27.--Comparison of hourly farm and nonfarm earning rates for a sample of part-time and full-time Michigan farmers, 1961

County	Hourly Farm Earnings[a]		Hourly nonfarm earnings[b]
	If 4% return on capital is deducted from farm earnings	If no return on capital is deducted from farm earnings	
	(dollars)	(dollars)	(dollars)
Muskegon			
Part-time farmers	0.12	0.80	2.80
Full-time farmers	0.65	1.27	--
Kalamazoo			
Part-time farmers	0.19	1.27	2.71
Full-time farmers	0.61	1.28	--
Total All Farms			
Part-time farmers	0.16	1.02	2.76
Full-time farmers	0.63	1.28	--

[a]Farm wage rates were computed by dividing farm earnings (net cash farm income plus perquisites, minus depreciation) by total labor used (operator, operator's wife, and other).

[b]Nonfarm wage rates were based on 226 eight hour working days per year.

to those of the full-time operators.

In any event, whether the residual return is allocated between capital and labor or solely to labor, the hourly return to labor utilized in agriculture is substantially below the hourly nonfarm work return of $2.76 per hour.

The implications of these factor rates of return suggests at first blush that their alternative earnings in other uses must surely exceed their returns in agricultural use. However, this assumes they are compared with like factors in other uses. It also assumes the existence of a realistic and attainable alternative use. Furthermore, it may well be that farmers are a "specific factor," i.e., they supply their productive services more efficiently in an agricultural use than would be true in a nonfarm use.[4] A farmer's income comprises the earnings from capital, management, his own labor and frequently the labor of his family. Even if the return to each of these factors separately is lower than in other occupations, farmers may nonetheless prefer to remain in agriculture because they cannot transfer their labor experience, capital, management and the labor of the family jointly into industrial and commercial enterprises. While the operator may earn more for his labor, it may be necessary to sacrifice the returns on the other factors which may not be transferable. Within this context may rest one of the primary attractions for part-time farming.

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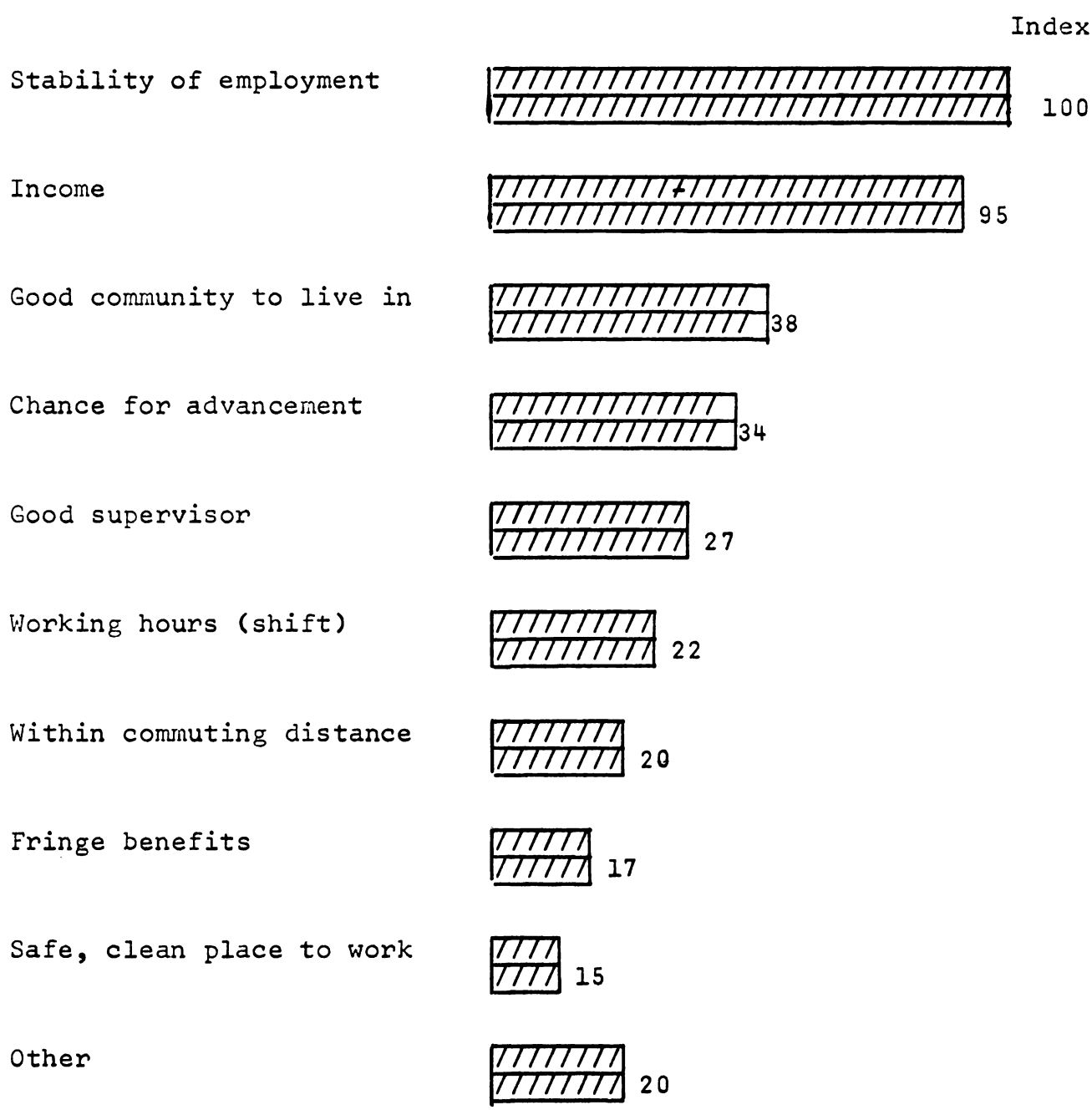
[4]See, Why Labor Leaves the Land, International Labor Office, Geneva, 1960, p. 15.

There remains one facet of the money income analysis to be discussed, namely, attempts to quantify the importance of money income as compared with stated preferences for farming and nonfarm work conditions. The part-time farmers were asked to rank the nonfarm job conditions in order of importance to them. First priority was given to stability of employment, Figure 2. This is further indication that these people are fully committed to their nonfarm job as a major occupation, with their farm activity taking on other values in addition to providing supplemental income. Next in importance, and very closely associated with employment stability, was money income. From these two income oriented responses we drop considerably in relative importance to several groups of factors, some economically oriented, others not. A good community in which to live, usually defined to coincide with their present community, was considered to be an important nonfarm job condition. Variables like chance for advancement, good supervisor, safe and clean place to work, etc., all figured importantly in describing the desired conditions for nonfarm jobs.

The responses to these questions about preferences indicate clearly that money income is uppermost in importance. By assigning a value of 100 to the condition ranked first by the most respondents, namely, employment stability, an index of relative importance was constructed for the other variables, Figure 2. Using this scale we can say that the "intensity" of importance of the remaining variables is indicated by the index



*Respondents preferences of 1st, 2nd, and 3rd order importance among nonfarm job conditions were ordinarily weighted 3, 2, and 1, respectively in constructing the index.

Fig. 2.--Ranking of the importance of nonfarm job conditions by a sample of part-time Michigan farmers, 1961.

number calculated for each variable. A good community and chances for advancement are slightly over one-third as important as employment stability. Fringe benefits and a safe, clean place to work rank less than one-fifth the intensity of stability.

I interpret the significance of this analysis with respect to employment mobility to be that it reveals, and ranks, the elements of a value structure. Therefore, we can say that while money income is the primary motivation in a working situation, we can also expect that efforts to improve community life, advancement opportunities, quality of personal relationships between supervisors and production workers, fringe benefits, safe and pleasant surroundings in place of work, etc., will all contribute to the employment mobility of labor. These variables are subject to manipulation and as such can be used to guide mobility in directions beneficial to both the individual and society.

Money Income Versus Work Preferences

The above analysis permitted an ordinal ranking of certain preferences relative to nonfarm job conditions. The following analysis permits a cardinal measurement of the "money income preference for farming," versus working off the farm. The technique used has the weakness inherent in any analysis based on responses to hypothetical situations. Nevertheless, maximum care was taken in the interviews to assure as much uniformity as possible in communication.

The part-time farmers were asked: (1) how much annual

income would you have to have from nonfarm work before you would quit farming, and (2) how much annual income would you have to have from the farm before you would quit working off the farm? Preferential answers to questions of this nature encompass a broad range of values, such as, psychic income variables associated with rural living, preferred patterns of using one's spare time, and uncertainties associated with modifying or changing one's income-earning activities. However, the premise underlying questions of this type is that any income spread between the alternative means of earning a livelihood reflects the relative preference after considering all the relevant values.

Probably the most significant results from this line of inquiry was that nearly two-thirds of the respondents said they would not quit farming regardless of their nonfarm income. This lends support to other evidence in the study indicating that the farm is frequently regarded as a hobby, a place to live, to rear a family, etc. There were a few who held a strong preference for their nonfarm work, which they wouldn't relinquish at any reasonable level of farm income.

The money income levels required to induce change to a single income earning activity are shown in Figure 3. On the average it would take approximately $1200 per year more to induce them to quit farming than to induce them to

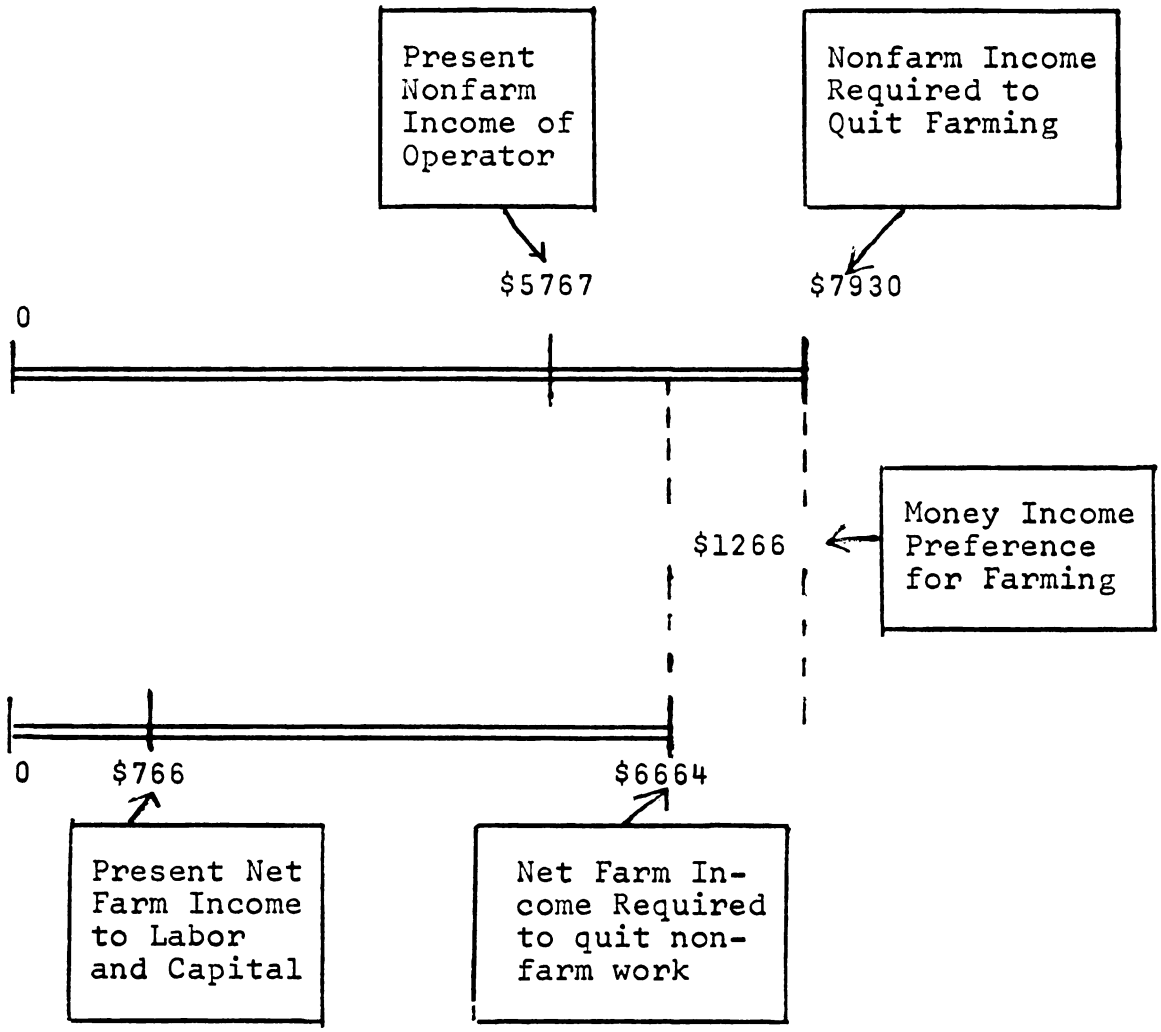


Fig. 3.--A comparison of money income levels required before quitting nonfarm or farm work, for a sample of Michigan part-time farmers, 1961.

quit their nonfarm job.[5] This difference I have called the "Money income preference for farming," for it is the amount of income they would be willing to give up for the "privilege" of farming only in lieu of working at a nonfarm job only.

Also shown in Figure 3 are the present nonfarm income of the operator and the present net farm income to labor and capital, $5767 and $766 respectively.[6] By comparing the difference between the nonfarm income required to quit farming and present nonfarm income ($7930-5767 = $2163) we obtain, in a sense, the marginal income to induce a particular change in occupational activity, i.e., from part-time farming to full-time farming. Starting from the present relative income positions it would require nearly 3 times the increase in farm income as in nonfarm income, $5898 versus $2163 to induce a change in occupational activity. However, it is unlikely that opportunities exist to increase either farm or nonfarm

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[5]The magnitude of this differential is close to that obtained in an Iowa study of a similar nature, although the Iowa study involved occupational choice preferences of senior high school farm boys. Boys who preferred nonfarm work indicated a willingness to forego about $1750 annually before they would shift to a farming preference. They expected to earn at least $1280 more in nonfarm employment. See D. R. Kaldor, et. al., Occupational Plans of Iowa Farm Boys, Agr. and Home Econ. Expt. Sta., Iowa State University, Research Bulletin 508, September 1962, p. 626.

[6]The present nonfarm income of the operator used in this calculation does not include income from nonwork sources nor from off-farm work by other members of the family. It is assumed these income sources would continue regardless of the operator's occupational choice.

income in these magnitudes. Therefore, we can expect this dual job-holding to persist, in the absence of exogenous variables not considered by neither the respondents nor the analyst.

So far we have established, then, that money income is of major importance in a decision concerning changes in one's primary income earning activity. However, we have also established that other factors play an important role in this decision making process. We have, in fact, been able to place an approximate dollar value on a bundle of preferences associated with farming, vis-a-vis working only off the farm. This alone is challenging evidence that solely money income differentials do not provide an adequate explanation of employment mobility, or immobility.

What, then, are some of the major variables, in addition to money income, which help explain occupational mobility behavior? Statistical models were used to test the relationships between the income levels required before quitting farm or nonfarm work and several variables thought to affect part-time farmers' occupational preference. Details of the statistical models are shown in Appendix A.

It was hypothesized that money income would be less important in inducing part-time farmers to quit farming as the following conditions prevailed: (a) the older the operator, (b) the lower the level of education, (c) the lower the level of skill requirement on the nonfarm job, (d) the fewer the years worked on the present nonfarm job, (e) the shorter the

distance commuted to the nonfarm job, (f) the fewer the days worked on the farm, (g) the less special training he had received, (h) the less interest expressed in additional training, (i) the lower the ranking of income as an important nonfarm job condition, (j) the lower the present nonfarm job income, and (k) the lower the net farm income to family labor and capital.

In the first model used to test these hypotheses, viz., a linear regression analysis, we consider the relationship between the dependent variable (Y_1 = nonfarm income to quit farming) and several independent variables. The results indicate that 78 percent (R^2 = .78) of the variation in the dependent variable is associated with variation in the independent variables.

Interpreting the regression in greater detail we find, as was hypothesized, that the higher the present nonfarm job income of the operator the higher nonfarm income required to induce the part-time farmer to quit farming in favor of a single income source. Likewise, the higher his present net farm income to family labor and capital the higher desired nonfarm income to quit farming. Other variables which bear a positive relationship with nonfarm income necessary to induce giving up the part-time farm operation include: level of education, number of years worked on present nonfarm job, miles commuted to the nonfarm job, and number of days the operator worked on the farm.[7]

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[7]The association between days worked on the farm and net farm income, while positive, is not strong, as revealed by a correlation coefficient of only .26.

The part-time farmers who expressed an interest in receiving additional training to improve their income-earning possibilities wanted a higher nonfarm income to quit farming than was the case for those not interested in additional training. This is consistent with the hypothesized relationship. However, contrary to the hypothesis, the part-time farmers who have skilled, professional and managerial type nonfarm jobs indicated a lower nonfarm income requirement for abandoning their farming than is the case for those with unskilled and semiskilled nonfarm jobs. Perhaps a plausible rationale for this relationship is that the less-skilled types of jobs are relatively more distasteful, thus demand for greater income before giving up farming. Or perhaps the fact that skilled, professional, etc. workers normally enjoy higher incomes than the unskilled, they (the skilled) place less emphasis on money income as one of the factors necessary for them to give up farming. There are other possible rationales for this relationship, even though the statistical evidence is contrary to a priori anticipation.

The second linear regression model considers the relationship between the dependent variable (Y_2 = net farm income to quit nonfarm job) and the same independent variables and hypotheses used in the regression discussed above. The results indicate that only 24 percent (R^2 = .24) of the variation in the dependent variable is associated with variation in the independent variables.

Only two of the independent variables are statistically

significant in this regression. The more formal education, the higher the net farm income essential before giving up the nonfarm job. This reflects better alternative opportunities in off-farm work for those with more formal education, as we would expect. Likewise, for those who have received some special training, a higher net farm income would be required before they would quit their nonfarm job.

What are some of the broader implications of these analyses concerning the money income preference for farming? In the first instance there is little question, based on this and other analyses in this study, of the importance of money income as the dominate motivating factor in stimulating farmers to enter the nonfarm labor market. We also have other evidence that one of the factors explaining the retention of part-time farming activities in conjunction with nonfarm employment is the uncertainty of the nonfarm job earnings, i.e., expectations are not always realized.[8] Furthermore, the evidence illustrated in Figure 3 leads to the conclusion that there exists a money income preference for farming, versus nonfarm work, in the approximate magnitude of $1200 per year. This is further supported by the many references made by respondents in this study to their strong preference to live in a rural setting and to continue their part-time farming activities for reasons other than money income. While psychic

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[8]Brian Perkins, Labor Mobility Between the Farm and the Nonfarm Sector (unpublished Ph.D. thesis, Michigan State University, 1964).

income may not be a sufficient motivation to "stay on the farm" below some minimal income level, once the family income reaches some level above this minimum, psychic income appears to play a significant role in sustaining a part-time farm operation.

With part-time farming as a point of departure and money income as the dominant employment mobility stimulant, what can we say about the likelihood of part-time farmers giving up their farm. We can predict that it will take a greater increase in nonfarm income, ceteris paribus, to cause complete cessation of farming by those who have more formal education, those who are working in less-skilled nonfarm jobs, have been on their present nonfarm job the most time, commute the farthest, work the greatest number of days on the farm, are interested in training, currently have the higher nonfarm income, and currently have the higher net farm income.

These are variables which help to explain the employment mobility of farmers, keeping in mind that we are discussing farmers who have already made the major move of shifting to the nonfarm labor market but continue to keep one foot in farming. The same independent variables were considered in the two statistical models, yet an R^2 of .78 was obtained in the analysis of nonfarm income to quit farming, and only an R^2 of .24 in the analysis of farm income to quit the nonfarm job. This irreversibility indicates that variables which we have not identified, i.e., a specification problem, are needed

to explain the degrees of willingness to give up nonfarm work.

When interpreting these money income preference data it should be kept in mind that the data are based on questions of the nature "if...then." Furthermore, the respondents were not specifically faced with the stipulation of whether they would have to move geographically if they were to quit farming or quit their nonfarm job. These restrictions, plus emphasis on economic variables, at the expense of likely relevant socio-psychological variables, necessitate something short of definitiveness in the conclusions. Nevertheless, this analysis provides strong evidence that the money income preference for farming is substantial.

CHAPTER VII

CONCLUSIONS AND POLICY IMPLICATIONS

In Chapter I of this report several hypotheses were submitted for testing in subsequent chapters. The analyses pertaining to each hypothesis and indication of the acceptance or rejection of each has been noted. However, in the interest of convenience a brief summary statement about each hypothesis follows.

Hypothesis #1: Industrial employers do not discriminate against farmers, vis-a-vis nonfarmers, when hiring new employees.

This hypothesis is accepted. Selectivity from among potential new employees is made on the basis of variables equally applicable to both farmers and nonfarmers. On balance, the selectivity variables tend to favor and disfavor farmers in about the same degree in the overall industrial nonfarm labor markets of Kalamazoo and Muskegon Counties.

Hypothesis #2: Examination of wage-rate differentials, or relative earnings, will not provide an adequate explanation of employment mobility, or immobility patterns.

The findings of this study do not contradict the theory that money income differentials stimulate employment mobility, but they substantially qualify it. Foremost is the qualification that there must be opportunities for employment at the higher wage rate. Secondly, the potential employee must have the qualifications for the better paying job. Apart from these near obvious qualifications we have noted a host of socio-psychological variables, or nonincome variables, which play an important role in occupational mobility decisions. For example, the part-time farmers indicate a non-income preference for farming of about $1200 annually.

Hypothesis #3: For those combining farm and nonfarm income-earning activities, the farm income is viewed as supplementary to the off-farm income.

This hypothesis is accepted. Over 90 percent of the part-time farmers in the sample worked 12 months per year at their off-farm job. Furthermore, on the average they had followed this pattern for the past 12 years or more. In 1961 nearly 80 percent of the total net income of part-time farmers originated from their nonfarm job.

Hypothesis #4: Increasing the availability of information about nonfarm employment opportunities would have little impact on the farm to nonfarm employment flow.

This hypothesis is accepted. Information about existing job opportunities is of little avail if one is not qualified for the job. Most job vacancies today required a level of training and education beyond the expectations of attainability for most farmers. There are relatively high unemployment

rates among those with whom farmers must compete. Farmers are well informed on the labor market within their commuting range. Also, their expressed reluctance to acquire additional training would dampen the usefulness of added labor market information.

Hypothesis #5: Increased nonfarm job training facilities would have little impact on the movement of farmers out of farming.

This hypothesis is accepted. The lack of interest in additional training on the part of the farmers studied was the major factor in verifying this hypothesis. To a large extent this lack of interest is a function of the age of the farm population. In the sample studied, 40 percent of those who expressed lack of interest in training said it was because they felt they were too old. Uncertainty, expressed in various forms, is also important in explaining lack of interest in training opportunities.

As is relevant to some of the other hypotheses, additional training facilities can have little impact on occupational mobility in the face of high general unemployment. The impact that training will have will be concentrated in the younger age groups--and younger age groups of employable age do not typify the farm population if we exclude those not yet committed to farming. An effective training program will help to mitigate the magnitude of the low-income farming problem in the future, but will do little for the major proportion of those already committed to low-income farming.

Hypothesis #6: An off-farm labor market characterized by a relatively stable and low unemployment pattern will facilitate the adjustment problems of the surrounding agricultural sector to a greater degree than will a labor market characterized by an unstable and high unemployment pattern.

This hypothesis is rejected, but with qualifications. The two counties studied have only one of the contrasting characteristics portrayed in the hypothesis, namely, significantly different levels of unemployment. The relative stability of unemployment was the same in both counties.

The nonfarm labor market seems to be functioning equally well for the farm sector in each county, in spite of the differential in levels of unemployment. The median income of rural farm families was the same in 1960 for both counties, and the median earnings of farmers and farm managers was greater in Muskegon County than in Kalamazoo County.[1] Furthermore, the rate of disappearance of farms during the 1939-59 period was slightly greater in Muskegon County, and the rate of increase in the proportion of farmers working off the farm was only slightly greater in Kalamazoo County.[2]

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[1] W. K. Bryant, op. cit., has found that unemployment rates at the county level were not negatively associated with the income of rural farm families, p. 159.

[2] For discussion of the relationship of employment rates and out-movement from agriculture see Larry Sjaastad, "Occupational Structure and Migration Patterns," in Labor Mobility and Population in Agriculture, Iowa State University Press, 1961, pp. 8-35. He concludes, "Unemployment in the total labor force is the key variable explaining fluctuations in the rate of out-movement from agriculture, this being true regionally as well as nationally." p. 27. Also see Vernon W. Ruttan, "The Human

As well as the formalized hypotheses to be tested, in the introductory chapter a general question was presented which warrants brief comment here. The general question was, "Why don't more farmers leave farming--why do they accept such substandard remuneration for their labor and capital?"

There is, of course, no unique answer to this question, such that an attempt at brevity is in danger of being misleading. While the question has been answered in the analytical process of preceding pages, it was done without the benefit of direct confrontation. This question has particular reference to the sample of low-income full-time farmers, for presumably the part-time farmers have faced the question and arrived at an answer to shift to nonfarm work as their major income source.

In the first place, only about 2 out of 5 low-income full-time farmers felt they could increase their total net income by combining farm and nonfarm work. A slightly higher proportion, about half, thought they could improve on their income position by working only at a nonfarm job. About a third of them said they had considered these alternatives at

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Resource Problem in American Agriculture," Farming, Farmers and Markets for Farm Goods, C.E.D., Supplementary Paper No. 15, Nov. 1962, p. 101. "During each recession during the last decade the migration (from agriculture) has fallen to below 3 percent of total farm population. During periods of peak economic activity migration has been above 5 percent of farm population."

timesduring the preceding 5 years. However, 9 out of 10 indicated plans to continue farming as a way of earning a livelihood. When we combine these responses with the fact that the median age of this group was 55 years we have gone a substantial distance toward explaining why they do not leave farming at this point in time. Based on their age alone, those who felt they couldn't improve their lot by changing occupation are undoubtedly correct. Many of these farmers were well aware of having been "passed up" by changes around them but felt there was little or nothing they could do about it.

Physical handicap figures importantly in the inability of the low-income full-time farm group to shift occupations. One out of four families were earning less total family income than they would be in the absence of illness or disability. To some extent this restriction on occupational mobility is also associated with age.

There were a few instances where anticipation of deferred income because of pending subdivision for urban use figured importantly in the decision to stay on the farm. Likewise, a few were remaining in anticipation of eventually handing the farm over to a son. Some of this group were apprehensive about the reality of this plan, but continued to be hopeful. Among each of these groups, i.e. anticipated subdivision and transfer to a son, was a strong feeling of necessity to maintain the farm by actively farming it, which, of course, restricted their mobility.

Based on this sample of low-income full-time farmers, then, the answer to the question of why more of them don't leave farming is a combination of factors, such as, age, health, family ties, anticipated gain from property subdivision, a strong preference for farming, a realization that they couldn't improve their income elsewhere, the uncertainty of change, inability or refusal to visualize their role as anything other than a farm operator, etc.

It is very likely that by far the majority of these people are maximizing their money income and their satisfaction by continuing to operate their farm. Some of these folks had been dual job holders in the past and had relinquished their nonfarm job willingly in favor of farming, with the full knowledge that their money income would undoubtedly be lower.[3] One of the questions raised but unanswered by this investigation is the relative merit to the individual and society of a purposive program for use of some agricultural resources for rural retirement. Part-time retirement farms, for those so desiring, may warrant a higher degree of acceptance than resource efficiency oriented professionals have recognized to date.

In reviewing literature on industrial labor market research, Fuller pointed out three main conclusions which are

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[3]For additional insights on out-movement from farming in reverse, see Milton H. Steinmueller, An Exploration in the Use of the Retardation Hypothesis as an Explanation of a Low-Income Area in Northern Michigan (unpublished Ph.D. thesis, Michigan State University, 1958).

corroborated by this investigation:[4]

> A) The maximization goal of workers is a considerably more complex bundle than is assumed in the classical equilibrium theory.
> B) Voluntary decisions of workers to change their employment are restrained and conditioned by a generally prevailing anxiety about change, which is to say that certainty in the immediate present has more value than most model builders are inclined to give it.
> C) Private and personal information, although it may be subjective and not reliable, plays a greater role than does public and official information in the job decisions of industrial workers.

One of the implications of this reasoning is that high-level employment is a necessary, but not in itself sufficient, condition to induce voluntary occupational mobility. Even those who have the qualifications, or potential qualifications, for movement into different occupations, or even to different employers without changing occupations, may not elect to change because of uncertainty, kinship ties, personal working relationships, occupational preference, and the like. But more importantly, there are many farmers who are not subject to occupational change even under high-level employment for reasons of age, physical disability, lack of interest in acquiring new skills, inadequate formal education, etc. Occupational mobility is a phenomenon of the young. The largest proportion of the farmers studied in this investigation, be they part-time or full-time farmers, were settled geographically and occupationally by the time they had reached 30 to 35 years of age.

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[4]Varden Fuller, "Factors Influencing Farm Labor Mobility," in Labor Mobility and Population in Agriculture, op. cit., p. 30.

There is little question about the high occupational mobility of farm workers in an historical context. Partially because of this past record there is a reluctance to attribute lack of mobility to any indigenous characteristics of farmers as a class.[5] However, as the selectivity process functions over time and as the qualifications for movement into the non-farm labor market require ever-increasing higher levels of education and training it seems highly plausible that a reservoir of unemployables is building up in agriculture. With a rapidly changing occupational mix, obsolescence of the human factor is every bit as real as obsolescence of certain physical factors of production. In other sectors of the economy many of these displaced workers either find lower paying jobs (disguised unemployment or underemployed) or remain unemployed for long periods. In agriculture they become part of the low-income full-time farm group. Many of these people may be willing to work at going wage rates off the farm, though we have seen in this study that many are unwilling to change, so it is said the supply of labor exceeds the demand. While this is true in one sense it is not as meaningful when we consider the requirements--qualifications hiatus. Rather than refer to this situation as a labor market imperfection, I prefer to think of

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[5]For an example of this position see William E. Hendrix, "Income Improvement Prospects in Low-Income Areas," Journal of Farm Economics, December 1959, p. 1066. In essence the reasoning here is that if both employers and employees had perfect knowledge the labor market would function perfectly, in the sense of equating MVP's to all factors in all uses. Thus, failure to realize this state of equilibrium rests with non-farm labor market imperfections, not with impediments indigenous to farm people.

it as a failure on the part of society and individuals to produce the appropriate marketable product, in this case human skills. While it may be assumed that this surplus of unmarketable labor would not exist at some lower wage rate, this would involve the substitution of an inferior productive agent for the more efficient technological means of production. In our society this would be considered regression. At any rate, wage rates are not likely to decline relative to other factors, in fact the contrary, so the substitution of capital for labor will likely continue. When the employers interviewed for this study were asked whether they substituted labor-saving technology whenever feasible the reply was affirmative, without exception. Employers pointed out that whereas labor was once considered to be entirely a variable cost, and thus had none of the disadvantages of fixed costs in the ups and downs of business, it is becoming more of a fixed cost due to the fringe benefits, labor union hiring and firing influence, etc. It is highly probable, then, that the stock of unemployables will continue to expand, at least in absolute numbers, until a purposive and adequate counter attack is launched.

This leads to the very basic question, one which is unanswered in this study, about the type of educational pattern needed in order to minimize labor obsolescence in a rapidly changing technological complex. What are the ingredients of a highly flexible labor force? What are the individual and social costs and benefits of attaining this flexibility? As

labor becomes more dear, from society's viewpoint, we can ill afford not to improve its ability to perform. Apparently Sweden has taken the viewpoint that job retraining costs less than idleness. They have launched a vast retraining and relocation program for technologically displaced persons. Over 30,000 people were retrained during 1962, half of whom were over 45 years of age.[6] Nearly 50 percent of the farmers interviewed in this study were over 49 years old, with 62 percent of the low-income full-time farmers in this age group. I am not suggesting we pattern our remedial measures after Sweden, however, I am suggesting that to date we as a society have not placed this problem of labor obsolescence on a sufficiently high priority list to enable realization of an effective solution. "For affluent societies, the problem focus shifts from physical determinants of location of production to economic and cultural determinants, in terms of the costs of uprooting people, destroying communities, and misusing our resources of space."[7]

I have been emphasizing the importance of education and training as one means of mitigating technological and/or structural unemployment. This has particular relevance to our occupational mobility investigation because the groups being studied have become technologically unemployed in agriculture, while the low-income full-time farmer has simultaneously

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[6]F. H. Treesh, "Sweden's Unemployment Remedy," The State Journal Newspaper (Lansing, Michigan) June 30, 1963.

[7]Raup, op. cit., p. 1041.

been passed up in terms of age and the advancing technology in both agriculture and industry. Nevertheless, this emphasis on improving the human agent should not detract from the sine qua non of occupational and employment mobility in a dynamic economy, namely, a high level of aggregate employment. This encompasses, of course, the necessity of a growth rate sufficient to absorb new entrants into the labor market, many of whom continue to originate from farm families. "In any country, developed or undeveloped, education can become socially malignant if its people do not have a chance and incentives to use it."[8]

As an aid to policy and program formulation a more detailed perspective is needed than has been discussed so far in this report. We have been discussing occupational mobility of multi-jobholders and low-income full-time farmers, because they are the major focus of this study, as though they were the whole, and not a part, of the human resource problems of agriculture. However, either broad national policies or policies and programs designed for more specific regional or types of problems requires an awareness of other dimensions of the human resources in agriculture.

Ruttan has pointed out that the low-income problem in agriculture is concentrated in three segments of the farm population: (a) farm operator families in the generalized low-income areas, (b) hired farm workers and their families,

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[8]Frederick Harbison, "Education for Development," Scientific American, September, 1963, p. 140.

and (c) older farm operator families on smaller farms in the commercial farming areas.[9] There is a consensus among agricultural economists that most of the agricultural programs to date have their greatest impact on the high production commercial farms, with little or no positive impact on low-income farms. Furthermore, the emphasis of agricultural programs have reflected the major concern to be efficient resource use in a national output sense. While some would say the difference is subtle and that the outcome is the same, there is an alternative emphasis which may be used to guide policy, namely, the economic and social costs of poverty to both society and individuals. Inefficient resource use and low family income tend to be associated. It seems to me that a policy guided by the principle of creating equal and unrestrained opportunity for the individual to be productive would enable us to reach families which are now outside our policies aimed at high production commercial farms.

We have the nuclei of programs directed toward improving the opportunities of individuals to become more productive and to otherwise assist unemployables, but the scale of these programs is lacking. Educational and training programs can increase the occupational mobility of many families in generalized low-income areas and of hired farm workers and their families. While this is a long-range program, it has the advantage of being guided by the best estimates possible of future occupational requirements, thus minimizing the

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[9]Ruttan, op. cit., p. 115.

inflexibility handicap. It also has the advantage of putting the emphasis on the resource upon which the efficient use of all other resources depends, viz., the human resource. Furthermore, education has the possibility of enabling people to make more objective occupational choices and to more effectively adapt their value structure to the evolving urban-industrial complex.

For those who have become technologically displaced and are therefore earning less than socially defined adequate incomes, and who are not subject to occupational reorientation, programs of income transfer are essential. Substantial liberalization of income transfer programs would be required, and this can come to pass only when society has accepted a greater sense of responsibility toward those who are in the low-income groups through no fault of their own.

Again, I must emphasize that educational and training efforts for facilitating occupational mobility would be aimless unless opportunities for employment exist. The indicated lack of interest in training programs noted earlier in this report stems primarily from age and uncertainty. High level employment would remove some of the uncertainty and would tend to lessen the age restriction on occupational mobility.

Increased occupational mobility may frequently necessitate geographic mobility as well. This suggests a dimension of occupational mobility which we have not discussed, and which I shall only mention briefly in this report. It is the

dimension of restrictions to mobility emanating from vested political and business interests and from rural fundamentalism on the part of some leaders. There is still a strong attitude toward the idea that it is somehow possible and better to move jobs to people rather than suggest it may be necessary in many instances to have the people move to the jobs.[10] The control of selectivity has contributed to the phenomenon of greater mobility among the young. Control of selectivity with respect to education does not demonstrate a consistent pattern, varying as economic opportunities in the nonfarm sector change.[11] This suggests that occupational mobility is to a considerable extent a function of the selectivity process. In this investigation we have considered some of the variables associated with the selectivity process as it pertains to the farm sector, but much remains to be done at a more general level of understanding this phenomenon of selectivity.

In the process of conducting this investigation on occupational mobility an awareness has evolved of what I think to be some limitations in our efforts to understand and manipulate behavioral patterns of mobility. There is need

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[10]For a provocative paper on this and similar policy issues, see John Blackmore, Rural Development, Some Lessons from the Past, delivered at the meeting of Northeastern Rural Sociology Committee, Barbizon Plaza, New York, May 16, 1963.

[11]Dale E. Hathaway, "Migration from Agriculture: The Historical Record and Its Meaning," The American Economic Review, May, 1960, p. 383.

for greater integration of the concepts used in economics, sociology, anthropology and psychology in any effort to investigate the occupational mobility process. At least in practice it seems to me there is an all too prevalent attitude among practitioners that each of these sub-social sciences is sufficient unto itself. Whereas specialization permits penetration otherwise unattainable, investigation which is problem-solving oriented can benefit from integration of relevant concepts from numerous fields of specialization.

There is need for greater precision in definition and measurement of the phenomena pertinent to occupational mobility. For example, the pioneering work of Johnson, and further extended by Hathaway, on the problem of measuring the comparability of labor is an area in need of yet more attention.[12] The work of Puterbaugh on the measurement of purchasing power needs to be extended.[13] We could benefit immeasurably from improvements in the techniques of identifying and measuring the importance of achievement motivation, status, role, etc. to the decision-making process as it relates to

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[12]D. Gale Johnson, "Labor Mobility and Agricultural Adjustment," eds., E. O. Heady, et. al., Agricultural Adjustment Problems in a Growing Economy (Iowa State College Press, 1958), pp. 163-72, and Dale E. Hathaway, Government and Agriculture, op. cit., pp. 34-38.

[13]Horace L. Puterbaugh, "Purchasing Power of Urban, Rural Non-farm and Rural Farm Income, 1955," Agricultural Economics Research, July 1961, pp. 89-95.

occupational mobility.

There is need for greater disaggregation of programs designed to increase and create greater flexibility in occupational mobility. The diversity in mobility restrictions has been illustrated by our preceding analyses, and this involved only two counties in one state. Perhaps an expansion of some of the existing national policies relevant to low family incomes would suffice, provided greater flexibility was introduced at the local area levels to permit tailoring of programs to fit the particular needs of the area(s) in question.

The final observation with respect to limitations or restrictions on our efforts to comprehend and influence occupational mobility is a more subtle point having to do with the process of change and an attitude toward change. Attitude toward change is probably equally, or more important than change itself. I don't mean to condone change for the sake of change, but given some consensus and direction with respect to values, objectives or goals, an effort is required on the part of all concerned to overcome inertia, an attachment to the familiar and a fear of the unknown. It seems to me that one of the reasons for resisting changes rests in our tendency to erroneously view the nature of change as a discret or discontinuous phenomenon rather than a continuous phenomenon. If we define change as an "irreversible or nonrepetitive alteration of an existing pattern of relationships,"[14] then all

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[14]See A. H. Hawely, op. cit., p. 319.

socio-economic change is continuous--an uninterrupted process. Yet in much of our thinking about economic phenomena we build models premised on discontinuous change, i.e. models in which change is regarded as a cyclical process with variation alternating with stability. A more fruitful approach would be to think of change in terms of the pattern it displays. Change implies a contraction of the old, a conversion to the new, accompanied by a developmental or cumulative character. It is this process of cumulative change which deserves more of our attention. Such an attitude toward the phenomena we observe would result in a greater alertness to not only the immediate problems but to the ensuing problems. It would enable us to be more farsighted in molding and mapping the terrain ahead of us. Such an attitude would also facilitate the realization that problems of low income, occupational mobility, resource efficiency, etc., are continuous, for they are all relative to continuously changing standards, and thus not subject to final resolution as implied by a discontinuous concept of change.

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APPENDICES

Appendix A. Statistical procedure used in estimating money income preference for farm and nonfarm occupations

Linear regression analyses were used to inspect the relationships between income measures and other variables thought to affect part-time farmer occupational preference. The models fitted to the data are of the general form:

$$Y = a + b_1 X_1 \ldots b_n X_n$$

where Y is the dependent variable, a is a constant, $X_1 \ldots X_n$ are independent variables, and $b_1 \ldots b_n$ are constants estimating the partial derivatives of Y with respect to the corresponding X_i.

The variables which were included are:

Y_1 = Nonfarm income to quit farming

Y_2 = Net farm income to quit nonfarm job

X_1 = Age of operator

X_2 = Education of operator

X_3 = Job classification

X_4 = Number of years on present nonfarm job

X_5 = Miles commuted to nonfarm job

X_6 = Number of days operator worked on the farm

X_7 = Received special training

X_8 = Interest in additional training

X_9 = Income as most important nonfarm job condition

X_{12} = Nonfarm job income of operator

X_{13} = Net farm income to family labor and capital

For the variables enumerated above, the estimated statistical relationships are given by the following equations:[1]

$$Y_1 = 7593.26 - 30.54X_1 + 288.76X_2 - 1751.40X_3 + 179.02X_4 + 128.47X_5$$
$$(64.08) \quad (221.71)^{*} \quad (919.01)^{**} \quad (83.27)^{***} \quad (81.95)^{*}$$

$$R_2 = .78$$

$$+17.59X_6 + 1388.18X_7 - 2305.44X_8 + 33.59X_9 + 1.55X_{12} + 2.33X_{13}$$
$$(11.84)^{*} \quad (1435.88) \quad (1147.52)^{**} \quad (1012.31) \quad (.53)^{***} \quad (.60)^{**}$$

$$Y_2 = +1251.08 + 37.73X_1 + 309.31X_2 + 413.02X_3 - 29.36X_4 - 17.08X_5$$
$$(48.88) \quad (195.10)^{*} \quad (857.35) \quad (64.63) \quad (57.76)$$

$$R^2 = .24$$

$$-5.58X_6 - 1343.34X_7 + 155.85X_8 - 74.36X_9 + .29X_{12} + .44X_{13}$$
$$(8.77) \quad (966.35)^{*} \quad (920.61) \quad (939.40) \quad (.30) \quad (.50)$$

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[1]The standard errors of the regression coefficients are the numbers in parenthesis directly below each coefficient. Coefficients of determination are indicated by R^2. Levels of statistical significance (significantly different from zero) for regression coefficients are indicated by * (10 percent), ** (5 percent), *** (2.5 percent), and ** (1 percent) levels of t.

Appendix B. Questionnaire used in the survey of farmers

NONFARM EMPLOYMENT AND PART-TIME FARMING--
RURAL MICHIGAN FAMILIES

County_____ Budget Bureau No. 40-6280

Township_____ Approval Expires 12-31-62

Date_____ Schedule No._____

Enumerator_____

Department of Agricultural Economics
Michigan Agricultural Experiment Station
in cooperation with
Farm Economics Division
Economic Research Service
U. S. Department of Agriculture

Part I. To be Asked of All Respondents

A) Identification and Family Information

1. Name of operator_____

2. Mailing address_____

3. How many persons, including yourself, were in your family and living in your home during most of 1961?_____

4. How many of these persons were 14 years of age or older?_____

5. Now I have a few questions about those 14 years old and older:

Relationship to Operator	Operator					
Sex						
Age						
Highest grade of school completed						
What did (he) (she) do most of the time in 1961?	XXX					
No. of days worked on the farm in 1961, as: Unpaid worker on farm						
Paid worker on farm	XXX					
Amount paid during 1961 for farm work	XXX					
Wages and salaries from nonfarm sources	XXX					
Number of days worked off the farm in 1961						

6. Does any member of the household have a physical limitation that restricts their income earning capacity, either on or off the farm? ____No ____Yes

If yes, briefly explain_____

_____

7. Do you have any other sons or daughters not living at this place? ____No ____Yes If yes, complete the following:

Sex	Age	Years of School Completed	Did the children leave home as soon as their schooling was completed? (If no, explain below)*	Post Office Address	Present Kind of Work
Notes*					

8. Residence history of operator since 1945 or age 18.

Period		Post Office Address	Check if farm work	Miles from previous location	Reasons for moving
From	To				
	Present	Mich.			

9. List principal job in order held by you since the end of World War II, beginning with the present:

Period		Kind of work (include farming) (Describe nonfarm work)	Nonfarm work		Most recent annual earnings from nonfarm work	Reason(s) for change from previous work
From	To		Which mos. of the yr.	Shifts Worked		
	Present					

10. Have you (the operator) ever received any special training?

Flash Card I _____No _____Yes

If yes, when and describe_____

_____

11. Would you be interested in obtaining additional training that may give you an opportunity to get a substantially higher paying job?:

(a) If you could keep your present employment and:

(1) If you had to pay up to $500 of the cost of the training? ____No ____Yes ____OK

(2) If the training cost you nothing?

_____No _____Yes _____OK

(b) If you quit your present job and were paid a small income while training? ____No ____Yes ____OK

12. (If respondent is interested in training)

What kinds of additional training would you like to get?

_____

_____

B) The Farm Operation

1. Present land tenure:

Total acres owned_____ Value (land and buildings) $_____

Total acres rented from others._____

Total acres rented to others_____

Total acres operated_____

2. History of land acquisition and disposition (if applicable):

Year	Acres	Transaction (inherited, sold, purchased)

3. Average annual operator's share of gross farm income for different enterprises (average for last 5 years, 1957-61)

Enterprise	Gross Cash Sales (Operator's Share)	Proportion of total (for office use)
a)	$	
b)		
c)		
d)		
e) Other farm income		
Total gross income	$	100%
f) Average annual cash expenses for farm production: Flash Card II	$	XXX
g) Net cash income to operator:	$	XXX

4. Livestock and machinery inventory (present):

Livestock: No.	Kind	Value (Office Use)	Machinery Item and Description	No. of Years Old	Value (Office) Use)
a)			a)		
b)			b)		
c)			c)		
d)			d)		
e)			e)		

5. If land is rented from others: (see question #1 of farm operation section)

a) Why do you rent land to farm?_____

_____

b) Location of land relative to home farm_____

_____

c) What is the major kind of work of land owner you rent from?_____

d) Have you thought about buying this land? ____No ____Yes

If yes, under what conditions would you be willing to buy it?

_____

6. If land is rented to others: (see question #1 of farm operation section)

a) Why do you rent land to others, rather than sell it?

_____

b) Location of land relative to lessee's home farm?_____

_____

c) Is the lessee a full-time farmer? ____No ____Yes

If no, explain_____

d) Have you thought about selling this land? ____No ____Yes

If yes, under what conditions would you be willing to sell it?_____

_____

7. If land is owned:

a) Have you had any offers to rent or sell your entire farm?

Rent: _____No _____Yes

Sell: _____No _____Yes

b) If yes to either of these:

Why didn't you rent (sell)?_____

_____

c) If no to either of these:

Do you think there are opportunities to rent or sell at acceptable prices if you chose to do so? _____No _____Yes

8. What plans do you have for disposition of your farm, either before or after retirement?_____

9. Do you usually hire any farm work done (custom work or day labor) _____NO _____Yes If Yes, describe_____

_____

10. How much annual income in 1961 do you and members of your family living at home receive from other sources such as:

Source	Amount
Real Estate Rental	$_____
Land Contracts	_____
Corporate Stocks	_____
Bonds	_____
Royalties	_____
Social Security	_____
Interest	_____
Pensions	_____
Other_____	_____
Total	$_____

11. Which of the following best describes your present situation?

Flash Card III

☐ Full-time farmer	☐ Rural resident, working off the farm
☐ Part-time farmer	☐ Rural resident, retired
☐ Part-time farmer, retired	☐ Other (specify)_____

Part II. To be Asked Only of Part-time Farmers who Live on a farm and have been a full-time farmer since 1945 (operators who worked 100 days or more off the farm in 1961.)

1. How far do you commute, one way, to your present nonfarm job? _____ miles _____ hours and minutes

2. How did you find out, and go about getting your present nonfarm job? _____

3. In the last 5 years, have you been unsuccessful in attempts to get nonfarm jobs? ____ No ____ Yes. If yes, explain:

_____

4. In the past 5 years, has the availability of other nonfarm jobs come to your attention? ____ No ____ Yes. If yes, from what sources? _____

5. In the past 5 years have you been involuntarily out of nonfarm work? ____ No ____ Yes

If yes, for how long and why _____

6. Which of the following nonfarm job conditions do you consider to be most important? (rank them) Flash Card IV

_____ pay	_____ On-the-job fringe benefits
_____ working hours (shift)	_____ good community to live in
_____ good supervisor	_____ within commuting distance of your present residence
_____ safe and clean place to work	_____ stability of employment
_____ chance for advancement	_____ other (specify)

7. a) Do you think there are opportunities for promotion in your present job? _____ No _____ Yes

b) Have you received any promotions from your present employer? _____ No _____ Yes

8. Are you willing to work any shift, or a rotating shift, on your present nonfarm job without a pay differential?

_____No _____Yes

9. Are you a member of a labor union? _____No _____Yes

a) If yes, do you regard your seniority as a valuable possession to be guarded? _____No _____Yes

10. Have labor unions in any way influenced you in:

a) Obtaining a nonfarm job? _____No _____Yes

b) Keeping the nonfarm job you have? _____No _____Yes

c) Changing jobs with your present employer? ___No ___Yes

d) Changing employers? _____No _____Yes

e) Discussion_____

_____

11. Does your present employer offer any training facilities to aid in improving your employment position? ____No ____Yes

a) If yes, elaborate_____

b) If yes, have you used the facilities? ____No ____Yes

c) If (b) is no, why haven't you?_____

12. How much annual income would you have to have?:

a) From nonfarm work before you would quit farming? $_____

b) From the farm before you would quit working off the farm? $_____

13. If you were permanently laid off from your present nonfarm job?

a) What would you do (be specific)_____

_____

b) How much reduction in income below that you now earn would you be willing to take to keep from moving? $_____

14. Have you given any thought to the idea of moving to a city the size of Kalamazoo, Muskegon, or larger, to work and live? _____No _____Yes. If yes, what do you think about it?

_____

_____

_____

15. If you could live any place you wished, assuming equal income opportunity, where would it be, and why?_____

_____

a) Have you ever been there? _____No _____Yes

16. Why don't you farm full-time?_____

_____

17. Why don't you work only off the farm?_____

_____

18. Are you aware of any resentment from your farm neighbors or fellow nonfarm workers to the fact that you combine these two jobs? ____No _____Yes

19. As things look now, do you intend to continue both farming and nonfarm work? _____No _____Yes

a) If no, explain_____

_____

20. Have you made any changes in your farm operation because of working off the farm? _____No _____Yes

a) If yes, what are they (explain)?

Land use_____

Livestock enterprise_____

Custom work hired_____

Labor hired_____

Other_____

Part III. To be Asked of Full-time Farmers Only

1. Do you think you could increase your total net income by:

   a) Combining farming and nonfarm work? _____No _____Yes

   b) Working only at a nonfarm job? _____No _____Yes

2. In the last 5 years, have you considered:

   a) Combining farming and nonfarm work? _____No _____Yes

   Explain why_____

   b) Quitting farming altogether? _____No _____Yes

   Explain why_____

3. How have you, or would you, go about getting a nonfarm job?

   _____

4. If you quit farming, to take a nonfarm job, what would you do with the farm business?_____

5. Are there ways you could change your farm operation to increase your income? _____No _____Yes

   If yes,

   a) What are they?_____

   _____

   b) What are the major obstacles that prevent you from making these changes?_____

   _____

6. As things look now, do you plan to continue full-time farming?

   _____No _____Yes. If no, explain_____

   _____

7. If you could live any place you wished, assuming equal income opportunity, where would it be, and why?_____

   _____

   a) Have you ever been there? _____No _____Yes

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