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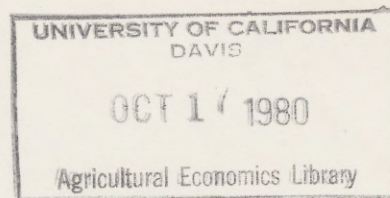
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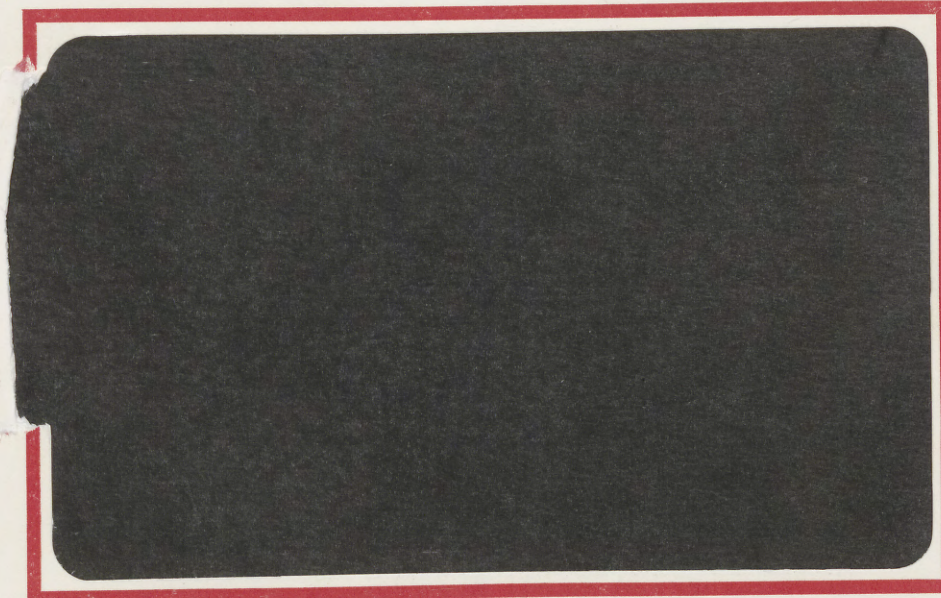
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Department of Rural Sociology
Cornell University Agricultural Experiment Station
New York State College of Agriculture and Life Sciences
A Statutory College of the State University
Cornell University, Ithaca, New York 14853

SOCIOLOGICAL ASPECTS OF FARM SIZE:
IDEOLOGICAL AND SOCIAL CONSEQUENCES
OF SCALE IN AGRICULTURE

by

William L. Flinn and Frederick H. Buttel

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SOCIOLOGICAL ASPECTS OF FARM SIZE:
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INTRODUCTION

The issues of farm size and the wide range of institutional arrangements relating to the scale of agricultural production are among the most interesting areas of interchange between agricultural economists and their social science colleagues in rural sociology and sociology, political science, and related disciplines. The renewal of debate over the structure of agriculture during the past decade raises such broad questions about alternative futures for agricultural organization in this society that representatives from no single discipline--agricultural economics, rural sociology, whatever--can provide all the necessary guidance.

This paper will provide some sociological observations on the question of farm size. For those familiar with the recent literature in rural sociology, it will be obvious why this paper represents "sociological observations" rather than an exposition of the sociological perspective on farm size. Rural sociology cannot offer a perspective on these issues because it is currently

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**The authors are, respectively, Professor of Sociology and Rural Sociology, Ohio State University, and Assistant Professor of Rural Sociology, Cornell University.

in the midst of a protracted "paradigmatic crisis," to borrow Kuhn's (1970) notion. Nevertheless, although we speak from paradigmatic understandings that not all rural sociologists would accept, we wish to approach the farm size question from a relatively broad perspective that may help agricultural economists to understand how some rural sociologists conceptualize various issues attendant to the scale of agricultural production.

The first portion of the paper discusses a number of ideological and value aspects of farm size. It is followed by a closely related section devoted to farm size and political behavior. The third section consists of an abbreviated summary of research on the social consequences of farm size and mechanization for farm families, non-farm people, and rural communities. Finally, a number of observations are made concerning political-economic aspects of farm size and their implications for the debate over agricultural structure. By casting this broad net, we wish to step beyond the stereotype that rural sociologists favor small or "family" farms for "social" reasons; our purpose will be a larger one of setting forth some of the parameters within which research and policy relating to farm size and structure can be conducted.

VALUE AND IDEOLOGICAL ASPECTS OF FARM SIZE

Public Attitudes Toward Farm Size

One need not be a social scientist to realize the pervasive influence of Jeffersonianism and its ideological descendant which we term agrarianism (Raup, 1972; Brewster, 1961; Rohrer and Douglas, 1969). Although the notion that the U.S. was at some earlier point characterized by an equality among independent family farmers operating on a modest scale is clearly an

overgeneralization (Perelman, 1977; LaVeen, 1978), public support for the "family farm" has remained remarkably persistent.

Our previous research (Buttel and Flinn, 1975), using a 1971 statewide sample of Wisconsin residents, has indicated clear majority support for attitudinal statements relating to agrarianism and the family farm. For example, over 80 percent of this random sample agreed that the "family farm is very important to democracy," as indicated in Table 1. On closer inspection, however, we see some reasons why various groups in the general public have not frequently mobilized around the issue of farm size and the family farm; these generally favorable attitudes toward the family farm are not strongly held, as evidenced by the fact that majorities or nearly majorities of the responses tend to fall in the "agree" (rather than the "strongly agree") category. These favorable attitudes toward agrarianism and the family farm were greatest among persons with low education, from farm origins, from rural places of residence, and the elderly.

It is not surprising that farm operators are even more likely than the general public to express values favorable toward the family farm (Flinn and Johnson, 1974). Older, less well educated, and smaller-scale farmers (with scale measured in terms of number of acres and gross farm income) are most likely to agree with statements supporting agrarianism and the family farm (see also Carlson and McLeod, 1978). More recent data from New York State also indicate that small farmers are more likely than larger farmers to disapprove of corporate agriculture and to favor prospective government commodity programs that would disproportionately benefit small producers (Buttel, 1979; see also Buttel et al., 1979).

Thus, there is an overarching class contour to the ideological issues pertaining to farm size and the family farm. Small farmers and low income persons in the general public are more sympathetic with the goals of preserving the family farm and blocking corporate penetration of agriculture than are relatively privileged farmers and non-farmers. In addition, there is evidence that the expression of positive values toward the family farm and small-scale agriculture is related with a general critique of the social order as articulated in terms of alienation, powerlessness, and political cynicism (Buttel and Flinn, 1976).

These considerations raise some further issues as to why agricultural politics has only partially reflected favorable public sentiments toward the small-scale or family farm. First, it should be recognized that persons of privilege and power, both within and outside of agriculture, are not so thoroughly enamored by the family farm, and may even view it as an anachronism. Second, we think it is significant that political dialogue concerning agriculture has historically been posed in terms of rather amorphous categories--the "family farm" and "corporate farming"--instead of categories that more accurately depict the hierarchical bases of competition and struggle in agriculture. This amorphousness is, of course, an inherent aspect of the Jeffersonian legacy. Instead of framing agricultural conflict in terms of struggles between peasants versus absentee landlords or land barons, the lack of a feudal heritage in the U.S. has been accompanied by a lack of consciousness about why the interests of a poor sharecropper and the proprietor of a large, family-owned sugar cane plantation--both family farmers according to popular, and often scholarly, interpretations--may diverge substantially. In sum, there has heretofore been little ideological

basis for common action among small family farmers, and between small farmers and the urban working class.

Farm Size, Values and Political Ideology

After a nearly 10-year period of dormancy, rural sociologists have begun to resume their work on the attitudinal and ideological correlates of farm size and structure. For example, Coughenour and Christenson (1980) have empirically examined a variant of the "small is beautiful" thesis by relating farm size to attitudes toward personal well-being, community well-being, and perceived adequacy of services. They find virtually no evidence that small farmers are more satisfied than large farmers with their personal lives, with the social aspects of community life, or with the social services available to them. In fact, and quite understandably, the small differences that do emerge in the Coughenour and Christenson data suggest that large farmers (those with gross farm sales of \$40,000 or more) express higher levels of perceived well-being than persons who live on farms that fall in smaller size classes. This should not, however, obscure the fact that small operators typically have a high level of attachment to or hold a relatively "noneconomic" orientation toward agriculture (van Es and McGinty, 1974). Their sources of dissatisfaction as revealed in the Coughenour and Christenson study do not, of course, derive from their negative attitudes toward operating a small farm per se, but rather from their inability to adequately support their families from these modest-scale farms.

Three of the most important social and policy issues that have emerged during the past decade are the effects of large agribusiness (both input-providing and output-processing) firms on farmers, the desirability of

federal commodity programs, and the effects of modern agriculture on the natural environment. On each of these three issues we can see substantial cleavages among farmers from different size classes.

Data from a random sample of farm operators in Michigan (Buttel, et al., 1979) have demonstrated that the level of gross farm income is inversely correlated with both cynicism toward agribusiness and favorability toward price supports. In general, small farmers are more politically liberal and more cynical toward a variety of aspects of agricultural organization than are large farmers. Large farmers, on the other hand, are much less favorable toward government "interference" in the economy--be it in terms of regulating agribusiness firms; providing social welfare benefits, such as public jobs or national health care programs; or undertaking commodity stabilization/price support programs. The latter phenomenon--the tendency for small farmers to be most favorable toward federal commodity programs--represents something of an irony. Insofar as price supports and related programs tend to differentially benefit large operators (Schultze, 1971; Raup, 1978), small farmers, because of their relatively liberal political commitments (by comparison with large farmers), may be collectively unable to develop social policies that would be in their interest.

Available data tend to support the notion articulated by many critics of U.S. agriculture (see, for example, Perelman, 1977) that small farmers are more likely to be concerned with problems of the agricultural and non-agricultural environment than are large farmers (Buttel et al., 1980). Farm size is inversely correlated with general environmental concern as well as with concern about agricultural pollution from chemicals and soil erosion. However, even though there is some evidence that scale in agriculture is

positively related to energy intensity of production (Buttel and Larson, 1979), data from both Michigan and New York State suggest that small farmers are no more likely than large farmers to invoke conservation and environmental practices (Buttel et al., 1980). The only study demonstrating such a relationship, a statewide random sample of Illinois farmers (Pampel and van Es, 1977), reported relatively small coefficients.

We would thus argue that the available data on farm size and social values cannot offer substantial evidence to support a contention that specific social policies which would favor small farms over larger units should be invoked. Instead, we are left with a number of paradoxes. Small farmers are cynical toward agribusiness and the political process in general, yet tend to cast their lot with government programs that will not serve them well (Raup, 1978).^{1/} Small farmers are predisposed toward preservation of the agricultural environment, yet lack the financial resources to invest in conservation practices or to forego short-term return for the long-term viability of agroecosystems. Small farmers without off-farm income are too poor to derive personal satisfaction from a way of life--operating a small, independent farm--that they tenaciously cling to.

AGRARIAN POLITICAL BEHAVIOR

Farmers in the U.S. have left an elusive political legacy. On one hand, farmers have historically been the bulwark of support for socialist- or left-leaning movements such as Populism (Pollack, 1966; Goodwyn, 1978) and the Southern Farmers' Alliance (Schwartz, 1976). However, farmers periodically have been members and supporters of rightist movements such as McCarthyism and the more recent political campaigns of George Wallace

(Grasmick, 1977). Thus, farmers have often seemed to be, and have been seen as, the center of gravity of traditional rural conservatism. Finally, observers such as Campbell et al. (1960:Chapter 13) have painted a picture of farmer politics as being alternatively apathetic and volatile. The highly influential Campbell et al. account of agrarian politics has depicted farmer political behavior as "short-term, transient, and prone to evaporation upon solution of immediate grievances" (Knoke and Henry, 1977:52; see also Knoke and Long's, 1975, empirical refutation). There has been, in short, little consensus among social scientists as to the predominant character of farmer political behavior.

There are a number of factors that account for this ambiguous political legacy of farmers. First, farmers tend to occupy a contradictory social class location in which the majority of farmers are property owners--providing a natural anchor to conservative politics--while they are at the same time claimants on a disproportionately small share of the social product--a status leading them to see the overall economic and political system as undesirable, and at times even radical, terms. These "cross-pressures" on farmers have historically been the undoing of farmer movements such as Populism and its descendants. When reaching out for support or non-interference from labor or left-leaning societal groups, populist farmer movements typically retreated when their security as private property owners was threatened (Rogin, 1966) or when the agricultural economy improved.

Second, the spatial dispersion of farmers and of competing commodity interests have generally prevented all but the most affluent of farmers from establishing viable national organizations. It is significant that recent episodes of farmer unrest have been undertaken by organizations such

as the National Farmers Organization and American Agriculture Movement that represent relatively large operators (Morrison and Steeves, 1967; Kohl and Flinn, 1979). It is also significant that these politically active farm organizations--perhaps because they are composed primarily by larger operators at the same time that they are attempting to speak in the name of the small "family farmer"-- have no clear connections to partisan politics. Because they cannot easily cast their lot with one of the major political parties, and also because neither party would feel comfortable with an enthusiastic endorsement by an organization such as the American Agriculture Movement, militant farmers have found it difficult to penetrate the U.S. political system on a long-term basis.

In sum, the contradictory interests and commitments of small farmers make it most unlikely that they will be able to form a coherent organization to formulate and represent their interests. In this vacuum, the American Farm Bureau Federation, the largest general farm organization, will continue to be the main political voice of farmers and will do so according to the interests of its membership of generally large farmers. To the extent that the concerns of "small" or "family" farms become articulated in the political process, this will be done primarily by non-farm groups--academics, members of public interest groups, and political activists--as is largely the case at present.

SOCIAL CONSEQUENCES OF SCALE IN AGRICULTURE

Newby (1980) points out that the early cadre of rural sociologists, probably more so than members of any other agricultural science discipline, strongly internalized the virtues of the ostensibly bucolic life to be

found on the small family farm. Hence, much of the work of the pioneering rural sociologists (for example, Kolb and de Brunner, 1952) came to be devoted to determining how the forces centering around relentless increases in the scale of production agriculture had affected rural people and rural communities. While they did not return a unanimous verdict, the early rural sociological literature was substantially colored by concern that the major forces affecting agriculture did not confer benefits and costs on rural and agricultural people in a socially or economically even fashion.

Most of this incipient questioning of structural change in agriculture abated during the late 1950s and 1960s,^{2/} only to be awakened with considerable vigor in the past decade. The changing political-economic complexion of agriculture and the larger society--degradation of agroecosystems, agricultural productivity stagnation, struggles between growers and agricultural laborers, late-1960s anti-war ferment, etc.--contributed to this substantial rekindling of interest in the social consequences of scale in agriculture. This phase largely began with the dusting-off of the now classic work of Walter Goldschmidt (1978) on the effects of large-scale agriculture on rural communities in the Central Valley of California during the 1940s. Despite the very crucial theoretical and methodological shortcomings of Goldschmidt's work (Goss, 1979; Sonka, 1979), it has nevertheless remained a fertile source of hypotheses.

In practice, most research on the effects of farm size on rural people or rural communities is closely bound up with or subsumed under the rubric of mechanization or technological change (see Rodefeld, 1980). This procedure is defensible in many aspects; historic labor shortages and high wages (relative to the other advanced societies) that accompanied the principal

surge of agriculture development in the U.S. (primarily from 1935-1970) meant that the increased scale of agricultural operations was usually accompanied by the deployment of labor-saving technology rather than through the consolidation of large farms using hired labor. In other words, the mechanization process led to increased farm size. Farmers typically endeavored to spread fixed--especially machinery--costs of their operations over larger acreages in order to capture temporary windfalls (or avoid being forced out of agriculture because of the temporary windfalls enjoyed by early adopters of labor-saving technologies), rather than expand extensively by using hired farm laborers. However, it should be recognized that in several areas of the U.S. (particularly California), mechanization followed, rather than led to, large scale agriculture. Already existing large farms in California, many dating back to the Spanish land grants, employed considerable numbers of hired laborers who only later were progressively displaced by labor-saving machinery (LeVeen, 1978).^{3/}

The issue of the social consequences of increased scale and mechanization in production agriculture is, of course, exceedingly complex. First, these processes quite obviously involve both costs and benefits that are differentially captured or borne by societal groups. With our existing disciplinary division of labor, it has generally been agricultural economists who have focused on detailing the benefits of farm size increases and mechanization while rural sociologists more often than not have been concerned with the socioeconomic costs or dislocations engendered by these forces. Because a simultaneous consideration of both costs and benefits (including the distributions of these costs and benefits across societal groups) has really never been accomplished within the context of a single research

design, it is hazardous to make ironclad generalizations. Moreover, the consequences of scale and mechanization vary decidedly according to the contexts--the nature of agriculture, the regional or local economic base, and the class relations among agriculturalists--within which these changes occur (see, for example, Raup, 1978). Finally, farm size and mechanization are intimately related to a whole host of changes in the structure of agriculture, and those other changes have independent but concurrent social consequences. For example, if increased farm size is associated with the emergence of generally large-scale industrial or capitalist farms relying primarily on seasonal labor, the consequences will be quite different than if increased scale and mechanization are primarily accompanied by the emergence of large-scale family or tenant farms (Rodefeld, 1979, 1980).

With these caveats in mind, we may note that most rural sociological research on the consequences of farm size has been devoted to identifying two types of consequences: (1) changes in the socioeconomic characteristics of farm personnel, and (2) changes in the characteristics, especially population size and employment levels, of rural communities. While the consequences of increases in scale of agriculture production for the "urban sector" or for the society as a whole are critically important, they have been attacked only in a superficial way by rural social scientists. For example, it has been recognized that insofar as increased scale allows farmers to achieve scale economies, the "urban sector" or the "consumer" benefits through lower food prices because of the inability of producers in a competitive sector such as production agriculture to capture the majority of economic surplus from increased productivity (Sonka, 1979; Barkley, 1978). However, this formulation begs the question of the distribution of these benefits

within the "urban sector." We suggest that low food costs have primarily been a subsidy to metropolitan corporations (enabling them to pay lower wages than otherwise), rather than an unambiguous benefit to the low or middle income "consumer." At the same time, the costs of this subsidy have been primarily borne by small- and medium-scale agricultural producers and rural people generally. In other words, the lowered reproduction costs of the urban working class have probably not been proportionately captured by this class. There remain a whole host of important empirical problems about the broader consequences of change in the structure of agriculture for the larger process of economic development and change that have not been adequately explored by representatives of any rural social science discipline in the U.S.

At some risk of overgeneralization, available research indicates a cluster of consequences of increased farm size and mechanization for the characteristics of farm personnel. The most striking and important is, of course, the effect on the numbers of these personnel. Scale and mechanization generally bring substantial declines in the number of farm personnel (including farm owner-managers, family laborers, and hired agricultural workers). Second, the decline in numbers of farm personnel is generally accompanied by shifts in the types of these personnel; the proportion of family laborers (owning-managers or unpaid family labor) tends to decrease, the proportion of hired labor tends to increase, particularly in those areas where the transition to large-scale industrial farming is well underway. Primarily because of the increased proportion of hired laborers, the overall characteristics of the farm population tend to shift toward concentration or inequality of land ownership, lower educational backgrounds, lower job

and residential stability, lower levels of per capita income, and lower levels of participation in community institutions such as voluntary organizations, churches, and the political system (Rodefeld, 1974; Heffernan, 1972; Heffernan and Lasley, 1978).^{4/} Except for the clear economic gains captured by a shrinking group of larger farmers--whether they be owners or managers of large-scale industrial farms, or owner-managers of large-scale family or tenant farms--the overall thrust of these research results is a basically hesitant or critical posture toward increases in farm size and mechanization.

A more potent critique of increasing scale in agriculture concerns its impacts on rural communities, especially small rural communities, communities located in the relatively unurbanized "agricultural interior," and communities where inequality in the distribution of community resources such as education has left dislocated farm personnel poorly prepared to enter the urban labor force (Raup, 1978). It is repeatedly observed that declines in the size of the on-farm workforce lead to declines in the population of rural communities and trade centers greater than the initial loss of farm workforce members (Goss and Rodefeld, 1977). This is because increased farm size and mechanization tend to undermine the sales and eventually the survival of retail merchants and service-providing enterprises (Sonka and Heady, 1974). Historically, this trend has been aggravated further by the constantly increasing level of sales necessary to support small business operations in rural communities (Ellenbogen, 1974). The overall consequence is the setting in motion of a downward multiplier or spiral of decline that has to date only been partially offset by the recent emergence of net metropolitan-to-nonmetropolitan migration.

Several related impacts on rural community viability have been noted, including declining tax bases, corollary fiscal and cost-efficiency problems for rural governments, and a general deterioration of community life because of lower levels of social participation and satisfaction with community. The declining viability of small business is typically accompanied by an erosion of community tax bases, reduced efficiency of community service delivery, and reduced levels of services for rural residents (Sonka, 1979; Barkley, 1978; Small Farm Viability Project; Fujimoto, 1977). In addition, there is substantial cross-sectional evidence, although virtually no longitudinal analysis, for the hypothesis that large-scale agriculture tends to be associated with generally adverse effects on community social participation and on the viability of noneconomic institutions in the rural community (Martinson et al., 1976; Heffernan, 1972; Heffernan and Lasley, 1978; Rodefeld, 1974).

In the case of community consequences of scale and mechanization in agriculture, rural sociologists have tended to paint a discouraging or unglamorous picture of the past and likely future course of structural change in U.S. agriculture. Yet it must be noted that these observations have not necessarily led rural sociologists to decry ongoing changes in the agricultural and rural sectors. In fact, the center of gravity of the discipline until quite recently was one of passive acceptance of these phenomena. Most assumed that these consequences were inevitable and that members of the discipline should pursue research on compensatory mechanisms--community development, off-farm employment, rural industrialization, more efficient service delivery, etc.--to help rural residents cope with the adverse effects of a changing agriculture.

However, acceptance of structural change in agriculture has more recently yielded to a search for alternatives to the present organization of agriculture, partly because most compensatory mechanisms, with the partial exception of off-farm employment of farm family members, have proven to be ineffectual in improving the quality of rural life (see, for example, Summers et al., 1976). One, in fact, must wonder what the condition of rural America in the 1980s would have been if it had not been for the substantial counterbalancing force of metro-nonmetro migration which has undoubtedly stemmed the socioeconomic decline of many rural places and reduced apparent trends toward greater regional inequality. Many rural sociologists and members of public interest groups have become increasingly insistent that the marginalization and dislocation of rural people are not the inevitable prices to be paid for increased agricultural efficiency. There also is a growing critique of conventional formulations of the notion of economic efficiency, particularly how apparent economic efficiencies may hide inefficiencies or externalities such as high energy intensity or unacceptable levels of environmental degradation, or may lead to inequitable distribution of the fruits of this increased efficiency.

BROADER POLITICAL-ECONOMIC IMPLICATIONS OF SCALE IN AGRICULTURE

A number of incongruous pieces of observation and evidence demand that rural social scientists adopt an essentially political-economic perspective to deal with historic and ongoing changes in the structure of agriculture and the food and fiber system. First, the majority of the U.S. population, especially farmers, sees the family farm in its commonly understood meaning-- a moderate-scale operation that is sufficient to provide an adequate income

for the family without extensive debt, use of hired labor, or reliance on off-farm income--is under stress and declining as a percentage of units and sales in agriculture (see Rodefeld, 1979; Emerson, 1978). As a result, there have been a number of adverse consequences of these changes for rural people and rural communities. Why, then, have these changes occurred in the face of contrary social values and the readily observable socioeconomic dislocations attendant to structural change in agriculture?

One possible answer is that large farm units are necessary to allow efficient production of agricultural commodities, which in turn fosters backward and forward linkages with industry and commerce and allows for the development of a mature industrial society. This answer must, however, be clearly regarded as a half-truth in light of comparative evidence from other advanced societies. A number of advanced industrial countries (e.g., Canada, the United Kingdom and Belgium) have followed roughly the same path of agricultural development (i.e., toward high degrees of mechanization and large average farm sizes) as the U.S. At the same time, several countries--notably Denmark, Italy, France and Japan--have emerged to full industrialized status through routes that have not included nearly as much scale, mechanization, and dislocation from agriculture (Singelmann, 1978; Newby, 1978).

A more recent perspective, albeit with many variants, suggests that relentless increases in scale and mechanization in U.S. agriculture have been due to either public policy "mistakes," i.e., in which agricultural policy administrators sincerely attempted to sustain the family farm but were unable to do so, or to deliberate attempts by policymakers to annihilate the family farm. While both major variants of this argument contain a small kernel of truth, each has major shortcomings that limit its applicability for

understanding structural change in agriculture and for developing strategies to improve the condition of agricultural and rural people. Agricultural policy has clearly had a major role in shaping structural change in agriculture (Raup, 1978; Mann and Dickinson, 1980), but the differential complexities of the agricultural systems of the U.S. and Denmark are not likely due primarily to variations in the historic agricultural policies of these nations. Had the U.S. government taken a position more favorable or less favorable toward small-scale producers, one might argue that these policies perhaps might have modified the transformations of agriculture but would not have qualitatively redirected them (Gardner, 1978).

Conceptual Imprecision

Before detailing what we think are more meaningful political-economic categories for understanding increasing scale in U.S. agriculture, we want to comment briefly on some of the limitations of two major prevailing "theoretical" categories--scale and the family farm--and, by implication, a third--the corporate farm--that have generally been employed in the farm structure debate. As we implicitly noted earlier at several junctures, the notion of scale in agriculture has a variety of distinct components that are often obscured when encompassed under a unilinear rubric. Most important, the notion of scale essentially ignores the very important question of social relationships of production. A state farm in Hungary may be of the same physical size and produce roughly the same crops as a vertically-integrated corporate farm in California, but the social relations are so different that their underlying dynamics may have little in common. The same could be said for a peasant farmer in Southern Italy and a sharecropper in Louisiana.

More to the point, we must be much more specific about the social context of scale in agriculture--its property relations, social relations, labor relations, and technical relations--in order to understand historical and contemporary transformations in agricultural structure.

Many of the same criticisms can be made of the notion of the "family farm." This category is basically meaningless unless it is defined in historical or normative terms. If collectors of agricultural statistics can confidently tell us that the relative prominence of "family farms" has never fallen below 95 percent, we cannot say much about change in agriculture other than the fact that these family farms have become larger and fewer in number. If we continue to use the notion of the family farm in such an amorphous manner, our policy debates will continue to be amorphous as well. With such an indeterminate definition of the family farm, the notion of the "corporate farm" becomes the only alternative reference point. Because we have defined the family farm so imprecisely, there is often undue emphasis placed on the prevalence and economic power of corporations in agriculture. This is not to deny that corporate agriculture is extremely important in several areas of the U.S., especially California, the Southwest, and Florida; moreover, where corporate farming emerges, the social consequences quite frequently have been catastrophic for rural people (Goldschmidt, 1978; Friedland et al., 1978). Nevertheless, the misplaced emphasis on corporate farming often leads to an erroneous assumption that if corporations were banned from agriculture, the problems of the family farm would cease to exist. We would argue that the barring on non-family corporations from agriculture would have only partial, albeit significant, effects on many of the consequences of increasing scale in agriculture, as Raup (1978), no friend of corporate agriculture, as warned.

Family Farming as Independent Commodity Production

We suggest that the notion of "independent commodity production" must serve as a conceptual benchmark for reaching an historical understanding of the political economy of agriculture. Independent commodity production can be defined as an agricultural production enterprise (or a system, where such production dominates) in which: (1) there is family ownership of land and other capital items and entrepreneurial control of the allocation of this capital, (2) the majority of labor is provided by family members, (3) the farmer is largely or fully commercial and interacts in competitive factor and product markets, and (4) the farm family subsists primarily on farm income and home-produced commodities. These characteristics of independent commodity production (which we hereafter refer to as the family farm) are important in two senses. First, they are the bedrock of what we understand to be the idealized features of farm life by historical and contemporary "agrarians" (including much of the general public). Second, they provide important reference points for gauging transformation of the U.S. agricultural system.

There are several important concepts that parallel the notion of independent commodity production. The first concept is differentiation, the tendency in a market economy for some family farmers to be differentially efficient and productive, to have unequal access to inherited wealth, and to be unequally able of accumulating profits. Differentiation primarily implies that disparities in the extent of property ownership will tend to increase. Many mechanisms can accelerate differentiation, including the "treadmill of technology" (Cochrane, 1958; LeVeen, 1978) and state policies biased in favor of more privileged farmers (Mann and Dickinson, 1980).

The second concept is reproduction, the degree to which household production units have the means to reproduce the key relationships of independent commodity production. Reproduction is a logical extension of differentiation, since reproduction will be most problematic for those who are least able to accumulate profits. Thus, if farmers cannot earn sufficient incomes from the farm alone, and farm families must then rely primarily on off-farm earnings, the family farm is only partially able to reproduce itself. Reproduction of the family farm has quantitative and qualitative aspects. The inability of a handful of family farmers to reproduce themselves is of only modest quantitative significance. But when, as noted in a recent Wisconsin study (Mooney, 1979), only about 15 percent of farmers in that state owned all the land they operated, earned most or all income from farm sources, had no substantial debt, and did not market under a contract with a corporate intermediary, one may say that family farmers have been unable to reproduce the relations of independent commodity production. In other words, these changes have qualitative significance.

Differentiation and reproduction together imply a third concept, that of transformation: qualitative changes in the nature of family farming such that substantial numbers of farmers no longer approximate the characteristics of independent commodity production. There are two polar extremes of transformation. The first is the failure of the farm family to reproduce itself; the family is forced to leave the farm because of very low returns or foreclosure. At the other extreme emerge the types of relations earlier (and loosely) called corporate or large-scale industrial farming; in other words, sufficient capital is accumulated so that the farmer must hire labor to perform the majority of farm tasks on his large-scale farm. There are

also a number of more intermediate aspects of transformation of the family farm, as we discussed earlier with reference to the research of Mooney. The farm thus begins to depart substantially from all or most of the characteristics of independent commodity production. While continuing to be "owner-operated"--the current definition of so-called family farming--the farm may nonetheless undergo significant changes that involve substantially different social relations of production and exchange. For example, the logical extension of production contracts, with many entrepreneurial and management functions surrendered to the contractor firm, may be the reduction of the family farmer to a role little different from that of an industrial "piece worker" (Davis, 1980). The same insecurities or loss of entrepreneurial functions can accompany high levels of debt or lack of ownership of farmland. In each case, the family farm becomes progressively transformed into an enterprise characterized by new types of social relationships; that such enterprise is the contemporary family farm, an enterprise that often bears little relation to the family farm defined as our benchmark.

As members of the agricultural economics profession have increasingly recognized, one of the major forces leading to the transformation of independent commodity production cum the family farm is the dualism between farmer and landowner--even when both roles are largely fused within the same farmer or family--in a system of private property in agriculture. The most dramatic recent manifestation of the farmer-landowner distinction is the rapid inflation of farmland prices during the 1970s. Historically, the benefits from technological change and commodity programs have become capitalized in the price of land, leading to increased land prices. While directly benefiting absentee owners of farmland in obvious ways, farm

owner-managers have largely been adversely affected through increased taxes, rents, and interest payments. Even though building up equity as a result of land inflation, commercial farmers typically must intensify their farming operations, attempt to reduce risk (e.g., through contractual integration), and undertake higher debt loads in order to adapt to land inflation in agriculture. Thus, the only way a family farmer can benefit from land inflation is, ironically, by ceasing to become a farmer, i.e., by selling out and realizing capital gains through inflated land prices. This is the final and most compelling instance of the heretofore concealed antagonism between the farmer and landowner.

However, the significance of the farmer-landowner dualism in a system of private agricultural property goes farther than the issue of land inflation. While we often tend to think of tenancy as a problem alleviated many decades ago, the differential ability of landowners over family farmers to capture agricultural surplus has led to an increasing percentage of U.S. farmland that is rented, rather than owned, by the farm proprietor. This rented portion of farmland is now approaching 50 percent (Rodefeld, 1979). The farmer-landowner dualism has thus been a powerful force for the transformation of the structure of the family farm, which is now increasingly culminating in the concrete separation of landowning and managing functions in agriculture. Nevertheless, many of the farms that ostensibly remain under "family ownership"--that is, those that fall under the owner-operated definition employed in official statistics--are slowly undergoing irreversible transformation as they increase their scale, their proportion of rented land, their debt, and their proportion of hired labor as they seek to adapt to the forces for change in agriculture.

The Dialectic of the Family Farm

Even though their farm size structures vary so greatly and their agricultural histories encompass a wide range of farm enterprise types (including subsistence peasants and "Junker" farms, in addition to independent commodity producers), the social relationships of industry have failed to become fully manifest in agriculture in all the advanced industrial societies. Unlike the automobile industries of the advanced industrial societies, their agricultural production sectors contain hundreds of thousands or millions of producers, which, in terms of percentages of all units, employ modest amounts of agricultural labor (Newby, 1978).. This observation, commonplace to all of us, is somewhat surprising when we think that the question most asked about agricultural structure in the U.S. is why the family farm has undergone such a rapid demise. In view of the fact that agriculture is one of the last refuges where a substantial amount of production is organized under relationships akin to the competitive family farm, a more intriguing question is why this should be the case. Instead, then, of asking why so many have left the farm, we should be asking why so many have stayed!

There are a number of answers to this latter question, many of them provided by agricultural economists in an explicit or implicit fashion. The first owes to the character of agriculture itself. Because of the tie of agriculture in temperate climates to the seasons, there is an inherent excess of production time (the time in which capital is tied up in fixed investments) over labor time (the time in which labor can be deployed to produce food). Under these circumstances, production agriculture largely remains unattractive to large-scale capital, except in cases, such as

irrigated areas of California, where technological advances can enable virtually year-round production (Mann and Dickinson, 1978).

Food raising has thus been primarily left to family farmers, and the inherent characteristics of farm families as independent commodity producers, once in place on the land, insure a high level of persistence and tenacity. First, farm families can essentially be viewed as labor management systems in which those persons exercising power in the family (typically the husband in a patriarchal society such as the U.S.) allocate the labor of family members among farm and non-farm tasks to maximize the economic welfare of the family as a whole. The availability of family labor, generally on an unpaid basis, enables the family farmer to absorb market downturns that might lead corporate-operated farms to liquidate their agricultural assets and seek other investment outlets. Second, the nature of the family farm involves immobility of fixed capital. Partly this is because of the high degree of attachment to the land and to farming as a way of life. Another related reason is that the capital of farmers is partly consumption capital and partly productive capital. The house, the pick-up, and the home garden are obvious examples of consumption property. However, even farmland and other ostensibly productive capital items have utility as consumption objects because of the fact that farming is at once a business and a way of life. Thus, family farmers are very reluctant to sell their property in direct response to market fluctuations; they tend to sell only when there are sufficient "bad years" so that they no longer have the choice of whether to continue in agriculture.

These considerations bring us back to the question of farm size or scale that was the focus of the first portion of this paper. The ability of

farm families to absorb the technical and social changes that lead to scale in agriculture is widely recognized (Nikolitch, 1972). This ability is not, however, due solely to the organizational superiority of the family farm in a narrow sense, but rather is at least partly due to the capacity for "self-exploitation" and exploitation of unpaid family labor, as Lianos and Paris (1971) have put the matter. Farmers have often undertaken investments in labor-saving technology and farm land in order to remain in agriculture, typically at the expense of current family income (Raup, 1978). At the same time, there are limits to the levels of technological development that can be absorbed by family-owned businesses. Stanton (1978), for example, discusses how the 300-cow herd represents a ceiling level of scale for family-operated dairy farms in New York State. Put in somewhat different terms, increased scale of farm operations (including the deployment of labor-saving technology, expansion of farm acreage, and/or intensification of production) have been major strategies by which family farms have attempted to reproduce the social relations of independent commodity production. However, family farmers historically have been only partially successful at reproducing these relations. Increased scale implies debt, contractual integration, renting of property, and, at time, off-farm income by family members to help pay for these new investments. Ultimately, and apparently in an increasingly rapid fashion, some of these large family farms pass into non-farm corporate hands and become operated as industrial-type farms.^{4/}

One of the interesting questions about the motivations of family farmers to expand concerns whether they resist doing so in order to maintain a more "simple" lifestyle, or whether they are inherently inclined to do so because of the impulse to accumulate property and capital. These motivations

obviously vary, and there is a general understanding in the agricultural economics and rural sociology literatures that small farmers are more risk adverse than larger family farmers (although many industrial-scale farmers may be risk adverse as well; Raup, 1978). Nevertheless, Danbom (1979) provides an interesting historical answer to this question in his study of the expansion of agricultural technology through agricultural research and extension programs. As the title of his book, The Resisted Revolution, suggests, farmers were generally hesitant to jump on the "treadmill of technology," to use Cochrane's (1958) term, at the onset of the technological revolution in agriculture. Danbom basically paints a picture in which farmers did not seek out modern technologies in order to expand their operations and increase their wealth; in fact, most clearly resisted these changes until early adopters of modern technologies acquired temporary windfalls such that it became incumbent upon all to jump on the treadmill.

At the macro level, there are two interrelated processes that augment the tendencies for family farmers to tenaciously cling to the land. The first, as alluded to earlier in a microeconomic sense, is that some sectoral activities of an advanced industrial economy (including but not limited to production agriculture) are unattractive for large-scale capital investment, but which must be undertaken in order to complete the circuit of economic exchange. Small businesses undertake the risks and accept the low returns for performing these tasks. Thus, the state may understandably be prompted to maintain small business viability so that these firms can be able to play such roles in the economy. Many aspects of agricultural policy, e.g., commodity and credit programs, can be interpreted in this light. But small business not only plays an important economic role; it has an important

ideological role as well. Since the characteristics of the "free enterprise system" that people tend to value are actually the attributes (e.g., independence) of small business, rather than the attributes of corporate capitalism, state action to enhance some minimum level of viability of small business takes on considerable ideological importance (Young and Newton, 1980). The ideological centrality of small business in general and family farms in particular is an important reference point for understanding the political significance of various eras of "agricultural adjustment" in the U.S. (de Janvry, 1980).^{5/}

A variety of phenomena thus combine to comprise what we might call the dialectic of the family farm. On one hand, there are constant tendencies toward differentiation, concentration, and transformation of independent commodity production which are accelerated by economies of scale, government policies which reduce risk or perhaps disproportionately benefit large producers, and mainstream agricultural research. On the other hand, there are several factors inherent in the structure of agriculture and farm families (e.g., risk, the nonidentity between production and labor time, internal diseconomies of scale, immobility of fixed capital, and certain aspects of government agricultural policy) that combine to mitigate against the wholesale transformation of the family farm (Stanton, 1978; Mann and Dickinson, 1978). Returning to our original question of farm size, we can see that scale in agriculture is an intervening variable in this dialectic of the family farm. Scale is at once a mechanism for the reproduction of the family farm as well as a mechanism for its differentiation and transformation. The social consequences of increased scale, primarily the adverse ones discussed earlier, have been the historic mechanisms through which the

costs to society of the transformation of the family farm have been externalized. The most recent wild card in this dialectic is the unprecedented mobilization of public sentiment--especially by non-farm public interest groups--against these external costs or diseconomies.

The course that the dialectic takes is indeterminate, although its approximate end-point is relatively predictable. For example, it is relatively clear that the predominant change in U.S. agriculture in the 20th century has been the demise of the small, marginal farm and its consolidation within increasingly larger family farms--what Cochrane (1979) calls "cannibalism." The 1980s may be dominated by two different, but unrelated, processes. First, there is evidence that the most economically vulnerable size classes of farms are no longer smaller, marginal operations, but instead are the overcapitalized, large "family" farms in which the family is primarily dependent on farm income. In turn, the major form of farm consolidation could prove to be large family farms being converted into or absorbed by large-scale industrial farms (Breimyer, 1977). (Deconsolidation into small family farms is quite unlikely.) Nevertheless, despite the precise nature of the evolving mechanisms, we feel that conceiving of change in agriculture as a dialectical process can serve as a useful fleshing out of Barkley's (1976) preliminary formulation of a political economy of the family farm and can make dialogue on agricultural policy issues more meaningful.

W(H)ITHER THE FAMILY FARM?

Increased scale does not imply the disappearance of the family farm, but the increasing scale of contemporary family farms by no means guarantees

that the family farm will continue to exist in its classical form. Indeed, the transformation of the family farm from independent commodity production to a status that combines elements of the role of capitalist (i.e., as an employer of labor) and worker (i.e., forfeiting of entrepreneurial functions, off-farm employment, etc.) lies at the heart of some of the adverse consequences experienced by rural people and communities.

These considerations hopefully depict the imprecision involved in the following questions: Should we "help" small farmers? Should we preserve the "family farm?" Should we ban "corporate farming?" Or should we encourage reduced scale in agriculture? Each of these questions is intimately involved in the dialectic of the family farm we spoke of earlier, yet each tends to ignore important aspects of the dialectic.

Attention has recently shifted to the question of "structure issues" and "structure policy" for agriculture (ESCS, 1979), much of this attention having been prompted by non-farm public interest groups. This is certainly a useful point of departure. These groups have presented a compelling case that there would be substantial potential benefits that would accrue to returning to a smaller scale of agricultural production, without adversely affecting levels of productivity and economic efficiency. These benefits would include the obverse of the manifold costs discussed previously with regard to the transition from small-scale agriculture to large-scale agriculture, and from independent commodity production to contemporary versions of the (larger-than) family farm, large-scale tenant farms, and industrial-type farms.

The effects that these non-farm public interest groups will have are difficult to anticipate. On one hand, their activities have fostered a

long-overdue reassessment of the social costs of American agricultural development and have led to some discernible changes in agricultural policy. On the other hand, one senses that these groups' overarching image of desirable social change is a return to some imagined utopia of independent commodity production (de Janvry, 1980). In a very practical sense, however, we will not have the option of "going back." The whole economy and society have developed to such a point that it is inconceivable that government policy could have sufficient leverage to overcome the major forces that are leading to the differentiation and transformation of the U.S. agricultural structure (Walker, 1980).

While we cannot go back, this does not entirely foreclose possible future options. Nevertheless, this search for options must take account of the realities of the structure of agriculture in an advanced industrial society. The dominant issues are no longer ones of efficiency and resource allocation; most agricultural production comes from farms that are larger than necessary to capture most economies of scale, and it is quite possible to achieve efficiency in an agricultural system primarily consisting of modest-scale farms (Hall and LeVeen, 1978). Rather, the major issues, as the North Central Extension Committee has effectively argued, revolve around control. But unlike the past assumptions of the general farm organizations, the central lever of control is not one of government commodity price policy. The farmer-landowner dualism makes price policy a dead end. Instead, farmers and their spokespersons in public interest organizations must begin to grapple with the dominant forces of the dialectic of the family farm. For example, they must recognize that government assistance to the small farm will not likely be sufficient to substantially alter ongoing trends because of the farmer-landowner dualism.

We suggest that one of the most potentially useful areas of activity could be to deal with the role of private property in land in accelerating the transformation of the family farm. Institutional modifications such as land banking and land trusts can potentially enable farmers and their communities to partially insulate themselves from many of the relentless forces for differentiation and concentration that operate through the market in private property in land. There may also be increased potentials for production cooperatives or group farming in agriculture, perhaps centering around machinery sharing or cooperative operation of on-farm fuel production facilities. Another potentially exciting strategy is the development of local markets for agricultural produce, which could have a useful rural development role as well. However, the question must remain whether farmers will be ideologically predisposed to embrace these unconventional alternatives, as we alluded to at the outset of this paper. In sum, scale and organization of agriculture are political-economic questions that require political-economic strategies that are cognizant of the major social forces affecting agriculture.

FOOTNOTES

1. We acknowledge that considerable debate remains as to the extent to which federal commodity programs have inequalitarian distributional impacts (see Gardner, 1978; Gardner and Pope, 1978). Nevertheless, we would argue that Schultze (1971) has made a strong case for the generally regressive impacts of price support and related commodity programs.
2. Much of the attention of rural sociologists during this period was, in fact, devoted to helping to accelerate the treadmill of technology. This research tradition has usually been referred to as the adoption and diffusion of innovations, and the general goal of most of this research was to hasten technology transfer.
3. Another significant aspect of scale not directly considered here is the intensification of agricultural production, primarily through the use of purchased off-farm inputs such as fertilizers and pesticides. While there has, of course, been a great deal of concern about the consequences of increased scale via intensification of production (see, for example, Perelman, 1977), the social consequences of mechanization are more direct and immediate for rural people than those of intensification.
4. For example, Breimyer (1977) argues that one of the emerging weaknesses of the family farm will be the difficulty of intergenerational transfer of large (or larger-than) family farms. Many of these farms, in Breimyer's opinion, will come under absentee ownership (see also Raup, 1978).
5. Just as in the case of researching change in the family farm, we may have been asking the wrong questions in agricultural policy research. Instead of asking why state agricultural policy has so strongly favored larger

farmers, perhaps the opposite question--that is, why the government has not more strongly favored larger capitalist farmers--would be a more useful framework for research.

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Table 1

Responses of Wisconsin Residents to Agrarianism Items, 1971

Items	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	No Response
	----- Percent -----					
The family farm is the best possible way to make sure that all Americans will have plenty to eat at reasonable prices.	5.6	51.6	9.9	27.0	3.1	2.7
The family farm is very important to democracy.	6.4	73.7	9.2	6.8	1.0	2.9
Agricultural life is the natural life for man.	3.4	45.4	19.3	27.3	1.4	3.2
The farm is the ideal place to raise a family.	9.7	52.2	17.6	18.2	0.5	1.8
The movement of the population back to rural areas would go far to cure the problems of this nation.	2.9	38.8	17.0	34.3	2.5	4.5

