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THE POLITICAL ECONOMY OF CLASS STRUCTURE IN U.S. AGRICULTURE: A Theoretical Outline

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Introduction

Social class and social stratification are two frequently used concepts in rural sociology, yet there has been a surprisingly small amount of attention paid to the class structure of agriculture as a phenomenon in its own right. Put another way, although American rural sociologists can hardly avoid social class as an idea, direct confrontation with the reality of agricultural class relations has been rare. Thus, a most well known and extensively cited paper in this area, Arthur Stinchcombe's (1961) "Agricultural Enterprise and Rural Class Relations," was not written by a rural sociologist.

Stinchcombe credits Marx with a "fundamental innovation in stratification theory" by basing "a theory of formation of classes and political development of a theory of bourgeois enterprise." His stated objective was to extend Marx's mode of analysis to agricultural enterprises. However, the result was a basically static, descriptive treatment of rural strata in several enterprise types. Stinchcombe asserts that property rights are more important than occupational position in determining rural stratification. From the various systems of property relations and the political-economic context in which they occur, he was able to differentiate between the "upper and lower classes," along dimensions of legal privileges, style of life, technical expertise, and political participation. Specific levels and combinations of these "characteristics of class structure" were found associated with five types of agricultural enterprise: manorial, family-size tenancy, family small holding, plantation, and ranch. However,

Stinchcombe leaves unexamined the possible explanations of how each type of agricultural enterprise emerges and, most importantly, the "laws of motion" that underlie their change, development, and transformation.

Although Stinchcombe purports to extend Marx's theories to the study of agricultural systems, the results are decidedly at odds with key Marxian methodological principles. Firstly, as noted, Stinchcombe's theory pertains to a description of classes within agricultural enterprises, not within the social formation. Secondly, the presence of the classes is not based on any particular defining properties of any mode of production; the implication is that some or all of the enterprise types could exist in a variety of economic systems (or modes of production).[1] It seems that the quest for a universal stratification scheme for agricultural enterprises on the part of Stinchcombe and others (for example, Smith, 1969, 1973) has resulted in categorizations that are static, historical, and merely descriptive. What is needed is a dynamic, historical analysis which can provide a theoretical grasp of changes in the structure of United States agriculture. This is essentially the difference between stratification analysis and Marxist class analysis.

Class analysts and stratification analysts, in general, confront the same question of social inequality: the distribution (or maldistribution) of limited social rewards among societal members. Stratification analysis typically describes the distribution of those things valued in society and differential access to them whereas class analysis attempts to explain

such distributions and differential access by analyzing the social change processes that account for inequality in the first place (Stolzman and Gamberg, 1973/74). Class analysis, in a strictly Marxian sense, is not concerned with the individual aspects of inequalities. It is rather "an analytical tool for the explanation of structural change in societies characterized by a capitalist mode of production" (Stolzman and Gamberg, 1973/74, p. 106).

Marx's concept of class is intertwined with his theory of historical change. The function of class analysis is not a more accurate description of the distribution of social rewards (although accuracy is still important), but rather an explanation of the process of macroscopic social change. For Marx, social inequalities are rooted in the logic of the capitalist mode of production and are exemplified by a dichotomous classification of individuals in contrasting relations to the productive process itself. Capitalists, who control the means of production, maintain an exploitative relationship with wage-labor. Subsequent polarization of class interests would lead to revolutionary conflict and emancipation of the proletariat from the dominant bourgeoisie. Marxist class analysis does not deny the existence of strata within the classes, but maintains that the relationship between the two main classes is the proper focus for understanding the dynamics of capitalist society.

The aim of this essay is to show that application of Marxist class analysis can provide fresh insights for analyzing the changing social and economic structure of U.S. agriculture. This is done by bringing

together (1) the Marxist model of capitalist development with particular reference to agriculture, and (2) our own conception of the development of U.S. commercial agriculture.

Marxist Theory of Capitalist Development

It is necessary to return to "first principles"--Marx's theory of historical change. This entails a review of his general model of capitalist development which applies to all social formations and economic sectors in the capitalist mode of production. When it comes to reviewing the Marxist contributions to capitalist development in agriculture the situation becomes more complex. Marx illustrated his method of analysis with observations from Britain up to the nineteenth century. Agriculture was based on a capitalist tenant paying ground-rent to a landowning class. Land monopoly was an important feature of the British "path" to capitalist development. In the North American "path," however, land was generally readily available, absolute ground-rent was virtually non existent, and the petty bourgeois "family farmer" predominated rather than the landowner-capitalist tenant system. Marx's dated analysis of the British path and contemporary analyses of the North American path are reviewed.

The General Model of Karl Marx[2]

Marx's theory of historical change recognizes certain epochs in history--ancient, feudal, capitalist, socialist and communist. "The history of all hitherto existing society is the history of class struggles"

(Marx and Engles, 1888, p. 9) and the outcome of such conflict is the transcendence of one epoch by the next. The concern here is with the disintegration of feudalism and the rise of capitalism, and later, the emergence of contradictions within capitalism. It is the manifestation of these contradictions that shapes subsequent social change. What is distinctive about capitalism as an economic system is that labor-power itself becomes a commodity, to be bought and sold on the market. For Marx this is central to the unique structure of social relationships in capitalist society.

How does Marx arrive at these assertions and what are their implications? His theory starts with the nature of labor itself. Labor is the foundation of all human societies, and creative labor distinguishes humanity from other animals. The relationship between the individual producer and the material environment acted upon to produce such goods is mediated by the characteristics of society. The specific technical form of the production process is the means of production.

Marx views changes in the means of production--for example, new technology or specialization of tasks--as a response to the forces of production (which in turn are shaped by existing production relations). The specific aids used by producers are the instruments of production. Each productive system involves a set of social relations which support and coordinate individuals in that system. Human beings do not produce in a social vacuum, but rather as members of a definite form of society, with its relations of production. Classes emerge where the relations of production involve a division of labor that allows for accumulation of surplus production by a minority grouping, in an exploitative relationship

to the mass of producers. The mode of production comprises the means and relations of production along with the resultant class structure, and hence embodies the overall organization of technical, economic and social relationships in the production system.

For Marx each epoch in civilization has been structured on a dichotomous division with respect to property relations, and consequently there are two antagonistic classes, one dominant over the other. In the capitalist mode of production the axis that divides classes is owership/nonownership of private property in the means of production. The capitalist class or bourgeoisie owns the means of production, and monopolize accumulation of capital by extracting surplus value from wage-labor. Members of the proletariat control only their own labor-power, which in capitalism is a commodity like any other factor of production. They sell their labor-power to capitalists in return for wages. The capitalist class is dominant, the working class is subordinate, and the relationship between the two is one of dependency and conflict.

Marx's fundamental concepts for class structure and class conflict are surplus value and capital accumulation. In capitalism, the derivation or surplus value does not come from forced or customary expropriation of produce from wage-labor, but from a concealed distinction between labor-power and creative labor. All commodities (including labor-power) have a use-value and an exchange-value. A commodities use-value is realized only in its consumption by others. Its' exchange-value is reflected by the proportional quantities in which it exchanges on a market with other commodities. The exchange of one commodity for others is not regulated by the natural qualities of that commodity, but rather by its social function.

Each commodity has a certain amount of social labor bestowed upon it. For Marx, the "relative (exchange) values of commodities are determined by the respective quantities or amounts of labor worked up, realized, fixed in them (1901, p. 81)." Labor-power is a comodity like any other, and its exchange-value is determined by the quantity of labor necessary to produce it; that is, the mass of necessaries to feed, clothe and shelter the supplier of labor-power and the family which perpetuates the supply of labor, and to acquire necessary skills, etc. Labor-power is temporarily disposed of to the capitalist at its exchange-value, in return for wages. However, the conditions of modern industrial production allow the worker to produce more than is necessary to cover the cost of necessaries. The exchange-value of labor-power is determined by necessary-labor to reproduce it, but the use-value of labor to the capitalist is in excess of this. This surplus labor creates surplus produce which is realized by the owner of the means of production as surplus value, at no extra cost. Surplus value is the source of profit, interest and rent.

It is the Marxian abstraction that, for the capitalist mode of production, there are the two classes constituted by their respective relations to ownership of private property in the means of production, and extraction of surplus value. The bourgeoisie and proletariat are inherently in conflict, and within this conflict is the genesis for further social change. However, while this dichotomy is the main axis for social

structure and the main source for social change, a more complicated system of relations is likely to exist at any given point in the history of bourgeois society.

These transitional groupings often represent a set of relations of production which are either being superseded (i.e., tied to a past mode of production) or are ascendent (which become the basis for transition to another production mode). For example, landholders and peasantry are transitional classes lingering from the feudal mode of production. There are also groupings that falsely identify with the "wrong" class or who are on the margins of their own class. Petty commodity production warrants particular mention. Although commodities are produced for exchange and there is private ownership of the means of production, the petty bourgeois family provides most of the labor-power. Without the hiring of wage-labor there cannot be extraction of surplus value, and hence class formation. It is the presence of wage-labor that distinguishes full-scale capitalist production from petty commodity production, and hence completes the separation of labor and capital (Mann and Dickinson, 1978). The petty bourgeoisie is transitional because as the "normal" development of capitalism proceeds toward polarization into two classes, these small scale capital owners will have either expanded their scale of property ownership (i.e., become bourgeoisie) or relinquished ownership to larger capitalists (i.e., are proletarianized). Thus, a description of social structure at any one point in time will reveal a complexity of classes, transitional classes, subclasses, and marginal classes, but this does not deter from the underlying dynamic of social change.

According to Marxian theory, the State is not neutral with respect to the exploitative relationship between bourgeoisie and proletariat; the State in fact serves a protective function for the propertied class. Class relationships largely determine political power, because political agencies are closely tied to the means of production. Firstly, the State must preserve the integrity of the market, because commodity exchange, including labor-power, is a necessary condition for capitalism. Secondly, the State must protect the integrity of modern private property because it is the very basis of the national economy. The modern legal system gives ideological support to the bourgeois State and legitimizes bourgeois domination of the proletariat.

With mature capitalism contradictions arise that threaten to bring about transcendence of the capitalist mode of production. In the abstract, there is a general tendency for the rate of profit to decline. For Marx, the rate of profit is in inverse relationship to the ratio of constant to variable capital. Variable capital is wages. Driven by the competitive search for profit, mechanization and other technological improvements are adopted that increase this organic composition of capital, and hence lower the average rate of profit. At the same time, there is no agency to regulate the market and match production with consumption. Given dominance of the profit motive and incentives for expansion, over-production is endemic. Crises of over-production serve to force the smaller, less efficient enterprises out of

production and create a "reserve army" of underemployed and unemployed that buffer the fluctuations in production, investment and employement. This contributes to a trend of concentration and centralization of capital, and increased exploitation of the proletariat. Larger and larger productive units are facilitated by formation of joint-stock companies and by centralization of money-capital in the credit system. Monopoly control of sectors of industry is now possible, and new exploitive relationships arise. This growing disparity in wealth between a minority of capitalists and the mass of wage-labor contributes to disappearance of transitional classes and increasing polarization to the two class system. Mature capitalism generates contradictions that Marx predicted will bring about its transcendence.

The concentration and centralization of capital (in other words, the tendency toward increasing firm size) can be seen as one of the major "laws" of capitalist development along with uneven development. Uneven development refers to the inherent tendency of capitalism to produce abundance as well as scarcity, development as well as underdevelopment, wealth as well as poverty, and growth as well as stagnation. Uneven development is expressed spatially (e.g., in disparities between suburb, central city, and depressed rural regions) and industrially (e.g., contrasts between technologically-sophisticated, rapid-growth, high-profit industries and technologically-stagnant, low-growth, low-profit firms). Such patterns of development derive from the tendencies for capital to seek out the most profitable outlets for investment. Regions and industrial sectors unattractive for investment are prone to stagnation.

Also, to the extent that investment in a given region or social sector is made by capitalists in another sector (e.g. multinational oil firms investing in Appalachian coal mining), profits (surplus value) will be extraced from the region, further contributing to uneven development.

This general model of capitalist development provides the dynamic for social change that is important to the explanatory and predictive power of class analysis. However, as recognized by Marx, agriculture exhibits some unique characteristics that tend to modify--but not transcend--these general laws of capitalist development.

Agriculture, Land Monopoly and Ground-Rent[3]

Agriculture occupies a rather peculiar position with respect to Marx's theory of capitalist development. Agriculture was at the origin of the capitalist mode of production, yet remained largely outside it (Wallerstein, 1974). Feudal agriculture in fifteenth century Britain consisted of a relatively small landed aristocracy class and a relatively large peasant class. The power of the land was dependent on the number of peasants on the estate. These agriculturalists produced largely for their consumption and were free to dipose of their produce as they wished. Land and labor were not commodities (Eaton, 1966, pp. 125-126; Mandel, 1968, pp. 217-272; Dowd, 1974, pp. 38-39).

The rise of the capitalist mode of production entailed the expropriation of the peasantry from the land, the emergence of land as private property, and the development of the labor market in the towns. Peasants became a propertyless working class by virtue of selling their labor-power and bestowing surplus value on products for capital accumulation by owners of means of production. The breakup of feudal estates and the

usurpation of common lands (i.e., the enclosure movement) was the revolution that marked the end of feudalism and the beginning of capitalism. This change not only paved the way for the capitalist mode of production in manufacture and industry, but also conditions for a capitalist agriculture. The new urban-based economic order could only continue to the extent that agriculture produced a surplus in food and labor, to be exchanged like other commodities. Agriculture had to change from its largely subsistence nature to a more commercial form. Rationalization of agriculture was now possible. Capitalist farmers on amalgamated holdings could pursue privately-appropriated profits through technological improvments, i.e., pursue capital accumulation through extraction of surplus value from farm labor (Eaton, 1966, pp. 138-140; Mandel, 1968, pp. 273-275; Marx, 1972, pp. 794-813, 823-825; Dowd, 1974, pp. 39-40).

However, land was unique among commodities in Marx's British "path" to capitalist development in agriculture. It was a source of ground-rent. In general, ground-rent is surplus-product from agricultural production acquired by the property-holding or land-owning classes. Consider late feudal agriculture where the landlord's estate was contracted out to a large number of free peasants. Each peasant had at least a customary right to a plot of land and thus individual control over means of production. However, in return, the peasant contributed some labor (labor rent), produce (natural rent), or income (money rent) to the lord. This surplus product is ground-rent. The division of the peasants' product into necessary and surplus product is a fixed ratio, and remains outside the market. In the epoch of pre-capitalist rent, the land was not a commodity (Eaton, 1966, pp. 127-128; Mandel, 1968, pp. 272-273; L. Afanasyev et al,

1974, pp. 119-120).

The special circumstances of land and ground-rent necessitated that Marx deal with a specific model of class structure and development:

> The prerequisites for the capitalist mode of production (in agriculture) therefore are the following: The actual tillers of the soil are wage-laborers employed by a capitalist, the capitalist farmer who is engaged in agriculture merely as a particular field of exploitation for capital, as investment for his capital in a particular sphere of production. The capitalist farmers pays the landowner, the owner of the land exploited by him, a sum of money at definite periods fixed by contract...for the rights to invest his capital in this specific sphere of production. This sum of money is called ground-rent... It is paid for the entire time for which the landowner has contracted to rent his land to the capitalist farmer. Ground-rent, therefore, is here that form in which property in land is realized economically, that is, produces value. Here, then, we have all three classes--wage-laborers, industrial capitalists, and landowners, constituting together, and in their mutual opposition, the framework of modern society (Marx, 1967, p. 618).

A third class, owners of modern landed property, now has to be considered. The distinction between capitalist tenants and landowners is important, because it is based on a conflict relationship (Schwartz, 1976), and one which stems from extraction of surplus value. All capitalist ground-rent is surplus value, arising from the general conditions for existence of surplus value. However, surplus value does not specifically explain ground-rent; this notion needs further exploration (Eaton, 1966, pp. 129-130; Marx, 1967, pp. 633 - 639).

For Marx, capitalist ground-rent has two components: differential ground-rent and absolute ground-rent. For the sake of distinguishing between the two, an assumption is necessary: that agricultural productivity lags behind population increase so that all produce is absorbed by the market. All land and labor is socially necessary. Thus, the selling price

is not determined by average conditions but by the production conditions of the least profitable farm. The more productive farms will have a lower cost of production, and hence realize super-profit. Differential ground-rent arises from the difference between the average selling price and the cost of production for the individual farm. It can arise in two ways: (1) differences between farms in natural fertility or geographic location; and (2) differences from investment of differential amount of capital. The second type of rent depends on the degree of intensification of agriculture (Eaton, 1966, pp. 136-137; Marx, 1967, pp. 640-648; Mandel, 1968, pp. 276-278; Afanasyev et al, 1974, pp. 120-125).

In the analysis thus far it has been implicit that the least profitable farm sells produce at a price that only recovers cost of production and average profit; that is, payment of rent can only be taken from this profit. However, because of the landed monopoly, agricultural produce does not share in the social equalization of rate of profit. Products do not sell at their social price of production, but at their value, which is higher. Thus, the limiting farm also produces a surplus from which to pay rent. This incremental rent is derived from all farms regardless of fertility and location and is absolute ground-rent (Eaton, 1966, pp. 132-134, 136-137; Marx, 1967, pp. 748-772; Mandel, 1968, pp. 278-280; Afansyev et al, 1974, pp. 125-128).

In the capitalist mode of production, agricultural land is a commodity, but from Marx's analysis it has no value because no labor was spent in its production. However, private ownership has transformed land into property monopoly which gives land a price. This price is ground-rent

capitalized at the average rate of interest. With the development of capitalism Marx predicts the rate of profit, and hence the rate of interest, to fall. At constant ground-rent this would cause an increase in land price. However, ground-rent grows as long as all agricultural produce is consumed, and thus further increases the price of land. Should overproduction occur and prices fall to a point where profit over and above ground-rent is eliminated, then capitalist tenants cease to cultivate the least profitable farms. This has rarely occurred because of the relative stability of demand for farm produce, and so the prior assumption generally holds (Eaton, 1966, pp. 137-138; Marx, 1967; pp. 622-624; Mandel, 1968, pp. 282-284; Afanasyev et al, 1974, pp. 130-132).

Agriculture and Petty Commodity Production[4]

Marx explained that capitalist development in agriculture lagged behind industry because of the special importance of land ownership and its share of surplus value. Surplus value extracted from productive labor is the source of profit, ground-rent and interest. Firstly, ground-rent represents a loss to capital accumulation in agriculture. Ground-rent removes from surplus value a portion that cannot be immediately reinvested, maintaining a lower organic composition of capital. A large portion of that rent can be withdrawn from the agricultural sector entirely by absentee landowners. Secondly, interest accrues to the capitalist in return for improvements in the land. However, the more permanent fixed investment made by the capitalist tenant revert to the landowner when the lease expires. Such improvements become an inseparable feature of land, and the interest is expropriated as increased differential ground-rent. Thus, the price of the land increases and so does the leasehold charge.

This becomes a disincentive for investment in agriculture by tenants. It also creates antagonism and conflict between capitalists and landowners. Thus, land monopoly and the capitalist tenant system were a hindrance to capital penetration in British agriculture (Eaton, 1966, pp. 131-132; Marx, 1976, pp. 618-622; Mandel, 1968, pp. 280-282, 286; Afansyev et al, 1974, pp. 133-134).

The situation was quite different in "free bourgeois colonies" such as the United States, Canada and Australia. In general, the British tripartite system of class structure has not been present (Newby, 1978, pp. 8-9; de Janvry, 1978, pers. comm.). One reason was that land was in plentiful supply, and was obtained by subsistence and petty commodity producers at little or no cost from the State (Bernier, 1976, pp. 423-424; Newby, 1978, pp. 11-12). Second, there was not a previously entrenched feudal agrarian society (Moore, 1966, p. 111). Consequently, the essential condition for absolute ground-rent, land monopolization, was lacking.[5] While capital penetration and accumulation in the agriculture of these former colonies has lagged behind industry, the constraint has not been persistence of ground-rent but, rather, the persistence of "non-capitalist" units (family farms) due to special qualities of agricultural production (Mann and Dickinson, 1978).

The transformation of petty commodity production to full-scale capitalist production requires the transformation of social relations; specifically, the separation of labor and capital. However, Mann and Dickinson (1978) argue that the nature of agriculture presents obstacles to capital penetration, and an explanation can be found in Marxian theory. For much of agricultural

production the socially necessary labor time is only a small proportion of the total production time, because of the dependence on seasonal and natural processes. Yet it is only living labor that creates surplus value. Hence, capital tends to enter agriculture only where production time more closely coincides with labor time, and petty commodity production remains where production time greatly exceeds the creative labor input (e.g. annual crop and livestock production) (Mann and Dickinson, 1978, pp. 471-473).

Moreover, this excess of production time over labor time causes a relatively long capital turnover (through reinvestment) time. The longer the turnover time the smaller is surplus value as a proportion of total capital value, and hence the lower is the average rate of profit. All this is consistent with Marx's theoretical formulation and explains why capital penetration of agriculture lags behind industry. It also explains why capital and the State have a vested interest in development of agricultural technology which increases productivity (and surplus value) of agricultural labor and reduces production time (Mann and Dickinson, 1978, pp. 472-476).

It is an important theoretical and methodological principle that the nature of agriculture presents the obstacles to capitalist development, and not petty commodity production per se. The persistence of petty bourgeois producers is a manifestation of the initial land settlement by small free-holders and the lag in capital penetration of agriculture. Consequently, we can hypothesize that Marx's theory of capitalist development does apply to agricultural change in free bourgeois colonies such as the United States. Given the power of class analysis and a comprehensive knowledge of this theory, fresh insight may now be gained from analyzing

historical change in the social and economic structure of U.S. agriculture.

Economic and Social Structure of U.S. Capitalist Agriculture

The Marxian approach to class analysis and treatment of agriculture suggest what changes to look for in the capitalist development of U.S. agriculture. Firstly, we should start with a historical account of the rise of the capitalist mode of production, and in the case of agriculture, constraints on that development. Secondly, we should attempt to measure the rate of capital penetration and accumulation in agriculture. Thirdly, we should observe the changing pattern of ownership of the means of agricultural production. Fourthly, we should observe the changing wage-labor situation. Fifthly, we should merge the ownership and labor observations into a class analysis of agriculture; in this paper we only go so far as to propose a farm typology based on the dynamics of occupational differentiation. Finally, we should consider the role of the state in the development of capitalist agriculture. These are our tasks for the remainder of the paper, starting with some brief observations on the rise of the capitalist mode of production.

Historical Account

The period up to the Civil War saw formation of the necessary institutional structure for a capitalist agriculture. Two essential requisites--private ownership of land, and commercial production--were

diffused from seventeenth and eighteenth century Europe (Moore, 1966, p. 111; Padfield, 1971, pp. 40-41). It is true that the earliest farms in the Northeast and West were mainly self-sufficient and non commercial, By the early 1800's, however, land speculation and the rise of a domestic food market (particularly in the South) turned farms toward commercial production (Moore, 1966, p. 127; Padfield, 1971, p. 41; Dowd, 1974, pp. 152-154; Frundt, 1975, pp. 15-20). Meanwhile, commercial agriculture was in place from the outset in the South, although the nature of the plantation system (slave labor) was pre-capitalist rather than early capitalist (Genovese, 1965, pp. 13-36; Dowd, 1974, pp. 152-154). Despite these rudiments of a capitalist agriculture it took the Civil War to set into place all the requisites of a capitalist mode of production.

Moore (1966, Ch. 3) argues that the Civil War was a bourgeois revolution that brought together three regional economies--plantation South, yoeman farmer West and industrial Northeast--into full blown capitalist development. It reinforced the notion of private ownership of land and capital. It cemented the growing interdependence between Western commercial farms producing a food surplus and the Northeastern urban, industrial market. It brought the neo-feudal Southern social system based on slave labor to a close, and hence established wage-labor as the dominant form of nonfamily labor.[6]

Over the 120 years since the Civil War, there has been emergence of an essentially capitalist agriculture. There have been periods of surplus

production and declining profit, technological changes and the substitution of capital for labor, and the consolidation of capital into larger enterprises. It has been marked by the rise of nonfarm agricultural capital in the form of large farm supply corporations, food processing and marketing corporations, and financial institutions. Also the state has interceded to play a role in fiscal policy, oversea markets, production controls, price supports, and technological research.[7]

However, it is convenient to distinguish between two periods in this development process---1860 to 1940 and 1940 to 1980. In the earlier period capital growth in agriculture was significant, but lagged behind the rapid industrialization of that time. Petty commodity production in agriculture continued to expand, although there was a rise in tenancy. The numbers of farms and farm people grew, then stabilized. Wage-labor was a relatively small proportion of total labor. Since 1940, by contrast, there have been large decreases in the numbers of farms and farm people and a rise in importance of wage-labor. Technological advances have displaced labor at an unprecedented rate. Concentration of capital within farming has increased. Equally important have been the changing relations with the nonfarm agricultural sector. There has been a shift in entrepreneurial control and economic power away from the farm. An organizational complex of farming operations and corporations has arisen which supplies inputs and markets products which are no longer mediated by a competitive degree of this development varies by type of production. Nevertheless, agriculture since 1940 has developed rapidly toward a full blow capitalist mode of production.

The remainder of this paper will focus on the 1940 to 1978 period, and in doing so, must again confront the notion of the "family farm."

The Family Farm and Capitalism

The persistence of petty commodity production in agriculture, and the unity of labor and capital under capitalism has led to theories that the family farm is anti-capitalist and to static conceptions of this farm type. These argue that the predominance of small-scale farms--owned, managed and worked by a family--was a result of their ability to curtail consumption and remain more competitive than large-scale farms, in the face of declining real prices (see Lenin, 1964, p. 18; Mann and Dickinson, 1978, pp. 469-470; Barkley, 1976). Nonmarxist theories also attribute the persistence of petty bourgeois farms to mechanization and other labor saving technology, which allow family labor to account for most production tasks (see Mann and Dickinson, 1978, p. 470; Nikolitch, 1972a, 1972b). The implication is that U.S. agriculture will remain a freeholder, small-scale agriculture and that it will be "immune" or "insulated" from the social forces that seem to be fostering corporate monopolies. This may not be the case. Firstly, economic and political power in agriculture, as early as 1900, was no longer in the hands of farmers. Rather it was moving toward the railroads, machinery manufactures, bankers, and food processors. Put otherwise, farmers have hardly been insulated from the forces which generate large-scale agriculture. Moreover, the position confuses land tenure arrangements with the mode of production. Capitalist agriculture is compatible with a wide variety of land tenure arrangements--the family farm, tenancy, plantation agriculture, and (nonfarm) corporate agricultural production--each with its own constellation of sub-classes and class antagonisms. But, regardless of prevailing

land tenure arrangements, the forces affecting agriculture appear quite similar.[8]

The status of the "family farm" has been a major U.S. policy issue since 1968 with claims that nonfarm corporations were entering agriculture at an alarming rate (Ray, 1968). The U.S. Department of Agriculture has maintained the position that the family farm is competitive with the corporation farm (U.S. House of Representatives, 1972, pp. 17-53), despite mounting evidence for the increased presence of corporation farms (Rodefeld, 1973; Raup, 1973). The "family/corporate" farm debate, despite its apparent centrality to the theory of capitalist development, deflects attention away from the fundamental dynamics of class structure in agriculture (Rodefeld, 1974; Goss and Rodefeld, 1978b). The corporate (or large-scale industrial) farm, to be sure, represents two key trends anticipated by Marxist theory--concentration and centralization of capital, and proletarianization of farm personnel. Nevertheless, proponents of family farm perpetuation typically assume that the social forces of capitalist production can be reversed or thwarted if nonfarm corporations can be eliminated from agriculture.

Such a view assumes that the major axis of exploitation within the agricultural sector is direct production by corporations which raises production costs (especially land) and lowers family farm profits. The reality of the matter requires a different focus, however. The primary focus of exploitation may lie elsewhere. Food raising is only one aspect of agriculture. The presence of nonfarm corporations in food raising is overshadowed at the present time by the monopoly of agribusiness firms over inputs,

processing and marketing--monopolies that will remain even if corporations are in some way forced to divest their landed property and discontinue direct production. Put another way, the family/corporation farm debate has frequently served to confuse the content and form of capitalist production relations. Many ostensible family farms exhibit characteristics--employment of hired management and labor, large-scale production, contractual integration with input providers and output processors--typically attributed to corporation farms.

These "eternal categories" of family and corporation farm are not directly rooted in the historical development of the capitalist mode of production. The fact is that U.S. farms and the historically dominant family farm, however defined, have experienced numerous structural changes which are not necessarily reflected in the changing numbers of family and corporate farms (Rodefeld, 1978a). The remainder of this paper will examine these changes--increased farm size (land and nonland resources), increased off-farm ownership of land and other resources, loss of entrepreneurial control, and increased nonfamily labor--and interpret their significance for a class analysis of U.S. agriculture.

Agriculture and Farming

Agriculture as production of food and fiber in a capitalist society, can be conceptualized as having three basic stages: provision of farm inputs, food and fiber raising (farming), and farm product processing and marketing (Donald and Powell, 1974, pp. 1-3; Frundt, 1975, p. 4). The involvement of the nonfarm sector in processing and marketing (food processors, transporters, wholesalers, retailers) is of long standing (Dorner, 1977) and has increased to the present. Beginning largely in the 1940's, there has been a substantial expansion in the

provision of inputs by nonfarmers--fertilizer, agro-chemicals, machinery and equipment, petroleum and finance (Donald and Powell, 1975; Frundt, 1975, Ch. 3). These changes reflect the tendency for the progressive extension of capitalist relations from production to consumption activities. The input and product market stages have bid traditional activities away from the farm enterprise as technologies became available to facilitate and attract investment in these stages. The growing involvement of the nonfarm sector in agriculture breaks down the barriers to capital accumulation (since capital accumulation is no longer limited by landed monopoly). By 1973 the net dollar contributions of the input and product market stages were ten times that of farming (see Table 1). The increasing specialization of farmers in food and fiber raising (and the corresponding monopoly capitalist penetration of inputs and product marketing) also creates conditions under which the farmer becomes subject to exploitation and monopoly control by nonfarm segments of agriculture. As Frundt (1975, p. 6) argues:

> The cost of agricultural inputs, the financing available for land rental or purchase, and the value of commodity sales through contracting and market controls are not determined by farmers. Through these means corporations can extract surplus value from the commodities which farmers produce. They do this through the manipulation of markets and exchange value rather than through control over the land itself.

Thus the dominant forces of production in agriculture are not restricted to the farm--or food and fiber raising--sector. Increasingly they have been located outside this sector.[9]

The Growth of Capital in Farming

Since 1935 there have been dramatic changes in agricultural and farm characteristics. The number of farms has declined by two thirds, with a

Table 1. Net Dollar Contributions of Input, Farm and Product Market Stages to Agricultural Production, United States, 1973 Estimate.

	Net Cash Income and Flow ($ billion)	
Input stage		
Farm origin	22.9	
Nonfarm origin	43.0	
Input-farm flow		65.9
Farm stage	22.7	
Farm-product market flow		88.6
Product market stage	155.0	
Total flow		
Domestic consumers		225.6
Foreign markets		18.0
TOTAL [a]	243.6	

Source: Donald and Powell (1975, fig. 1, p. 2).

[a] In 1967, employment in farming was 3.3 million persons (4 percent of the total work force), whereas employment in the remainder of the food and fiber production system was 14.8 million (19 percent of the total work force). (Donald and Powell, 1975, table 1, p. 1).

corresponding increase in acreage per farm because total farmland acreage remained roughly constant (Flora and Rodefeld, 1978, p. 43). Farms have exhibited general increases in their scale of operations and have become more specialized in the commodities they produce (Ball and Heady, 1972; White and Irwin, 1972; Perelman, 1973). There has been an increase in the value of products sold and fixed capital per farm and their concentration (Ball and Heady, 1972; Brake, 1972). Increased farm size, whether measured by acreage, value of products sold or fixed capital, is a core change process in U.S. farming (see Table 2).

Table 2. Change in Acreage, Value of Products Sold and Value of Land and Buildings per Farm, United States, 1910-1974.

Date[a]	Land Area Per Farm (Acres)	Market Value of Products Sold Per Farm (current $)	Value of Land and Buildings Per Farm (current $)
1910	139	--	5,480
1935	155	1,442	4,823
1945	195	2,770	7,918
1954	242	5,156	20,405
1964	352	11,176	50,646
1969	390	16,869	75,725
1974	440	35,234	147,838
Percent change, 1935-1974	+184	+2,343	+2,965

Sources: U.S. Bureau of the Census, Historical Statistics of the United States (1975, pp. 457, 464) and 1974 Census of Agriculture (1977, table 1, p.1). See also Flora and Rodefeld (1978, p. 43).

[a]The figures are not exactly comparable through time due to change in definition of "farm" (particularly 1959 and 1974) and inclusion of Hawaii and Alaska (1964).

Capital needs have exceeded the means of many individual farmers from their traditional sources of personal savings and farm equity. There is some evidence that increasing proportions of farm capital are coming from off-farm sources (Brake, 1972; Rodefeld, 1978a, 1979).

Along with the expansion of the nonfarm stages of agricultural production there has been a transfer of ownership, labor and managerial functions from farm to off-farm entities. Transfer mechanisms include provision of credit, off-farm ownership of land and nonland resources and leasing by farm operators, custom (work, feeding, growing) operations, vertical integration, off-farm ownership of farm businesses (proprietorships, partnerships, corporations), cooperatives, and government involvement through regulation and prices supports (Harris, 1974; Rodefeld, 1978a). These changes have the common effect of eroding the traditionally dispersed and undifferentiated organizational structure of farm production, and tend towards a concentrated and differentiated system. "A concentrated organizational system would typically include both farming operations and firms that formerly supplied inputs or marketed products in a single management complex" (Breimyer and Barr, 1972, p. 16).

Concentration of farm and off-farm capital may occur through either a vertical or horizontal structure. A vertical structure would likely consist of agribusiness firms, who through production contracts or ownership have integrated production of specific commodities across input, raising and marketing stages. A horizontal structure would consist of large farms producing one or several commodities, with a separation of owernship, management and wage-labor functions--typically an industrial-type corporation. In sum, we have seen a concentration of capital in the food and fiber raising sector, not only from accumulation within, but also from various mechanisms linking it to off-farm agricultural capital.

Why has there been this recent rapid rate of capitalist development in agriculture? We may pose the further question of why capital growth in farming has proceeded further in the U.S. than in other developed capitalist economies with similar levels of gross national production per capita (Buttel, 1977).

Overproduction, the Cost Price Squeeze and Technological Change

The historic seeds of change in the structure of agriculture may be traced to one of the key consequences of capitalist production arrangements--the tendency toward overproduction. Exascerbated by the physical abundance of U.S. landed resources, overproduction has been a constant companion of American agricultural development, even during the latter half of the nineteenth century (Dowd, 1974, pp. 156-158). For the individual farm operator, overproduction has meant depressed prices for products and has dictated certain strategies to cope with this circumstance. Many farmers saw expansion, primarily through increased cultivation and the adoption of mechanical labor-saving technology, as the best way to increase farm income (Rodefeld, 1974; Goss, 1976, pp. 81-88). Nonfarm corporations emerged to supply the needed inputs, provide credit, install transportation facilities, and process and market production. Increases in total farm production further compounded overproduction problems and heightened the economic crisis for all farmers. As nonfarm agricultural firms increasingly assumed a monopoly character (through concentration and superior bargaining power with individual farmers), control over the forces of production shifted to the agribusiness sector (Frundt, 1975, Ch. 2).

These pressures were intensified by the Depression. Between 1930 and 1940 more than 25 percent of all farms mortgages were foreclosed (Frundt, 1975, p. 49). Bold new policies were adopted in an attempt to restore farm

viability. There was development of both mechanical technology (which permited increased farm size and production from the same or less labor input) and biological technology (which allowed increased yields and total production from the same land area). With the subsequent boom price conditions of World War II and a shortage of labor, technological changes pushed farming to new heights of production and income. After World War II and the Korean War, overproduction once again became a problem, this necessitated production controls and expansion of export markets (Rodefeld, 1974; Flora and Rodefeld, 1978). This was a stimulus for the further growth of agricultural input and product marketing industries and also resulted in a rapid rise of capital invested in farming (Dowd, 1974, pp. 161-166; Frundt, 1975, Ch. 3).

It was thus the tendency toward overproduction, fostered by changes in the instruments of production (new technology), that made possible accelerated capital accumulation in agriculture and farming, and the altered social relations of agricultural production. Other factors, although of less overall importance, may be seen as contributing to this transformation in farming (Rodefeld, 1978a). Farm subsidy programs have generally favored large operations and also have reduced fluctuations in prices. In addition, production risks have been reduced through agricultural research. The result has been increasingly favorable circumstances for entry of nonfarm capital into farming. An equally important reason for capital penetration has been the liberal tax concessions in farming. There are a number of tax benefits to be gained from ownership of farm land and nonland resources for those with large nonfarm incomes (Carlin and Woods, 1974). Farming has thus become a tax shelter for nonfarm corporations and wealthy individuals (Raup, 1973). Lastly, many agribusiness firms have found it

advantageous to vertically integrate into food raising to further increase their control over production and supply (Kyle, et al, 1972).

The Ownership of Farmland and Other Capital

Historically, large proportions of farms, farmland and other farm capital have been owned by the individuals or families residing on farms and managing them on a day to day basis (Rodefeld, 1978a 1979). As long as U.S. agriculture remains dominated by these petty bourgeois farmers, we can expect its capitalist development to be constrained. Conversely, a trend away from on-farm, family ownership would indicate a lessening of these constraints. This could occur as a result of increased retention by retired farmers and nonfarm heirs and/or increased purchase by nonfarmers (individuals, partnerships, corporations, governmental units). Resources owned by nonfarmers could either be rented to farmers or nonfarmers could engage in production by hiring necessary managers and laborers.

The issue of farmland ownership is addressed here by examining changes in aggregate levels of ownership by farmers and nonfarmers. Changes in the numbers and percentages of total acres in farm classified by the tenure status of their operator are also reviewed. The four major types are full owner operated (all land is owned by the operator), part owner (some land is owned, some is rented), tenant (all land is rented on a cash, crop-share and/or livestock-share basis) and hired manager (no land owned, salaried). Three rather distinct periods of change can be identified in aggregate levels of land ownership. From 1880 to 1935, ownership by farmers (operators) declined substantially. This trend was reversed from 1935 to 1955 and then, appears to have declined consistently from 1955 to present (Rodefeld, 1978a; Table 3).

Table 3. Number of Farms and Land Owned or Rented on These Farms by Tenure of Farm Operator, United States, 1910 to 1974.

Date	Tenure of Farm Operator											
	Full Owner		Part Owner				Hired Manager		Tenant		Total Farms	
	No. (mill.)	Acres (mill.)	No. (mill.)	Acres Owned (mill.)	Acres Not Owned (mill.)	Total Acres (mill.)	No. (mill.)	Acres (mill.)	No. (mill.)	Acres (mill.)	No. (mill.)	Acres (mill.)
1910	3.4	465	.59	-	-	134	.058	54	2.4	227	6.4	879
1935	3.2	391	.69	132	134	266	.048	61	2.9	337	6.8	1,054
1950	3.1	419	.83	250	173	423	.024	107	1.4	212	5.4	1,161
1959	2.1	349	.83	279	219	498	.021	110	.74	167	3.7	1,123
1964	1.8	319	.79	284	249	533	.018	113	.54	145	3.2	1,110
1969[a]	1.7	375	.67	291	259	550	-	-	.35	138	2.7	1,063
1974	1.4	359	.63	-	-	535	-	-	.26	122	2.3	1,017
Percent of Total												
1910	52.7	52.9	9.3	-	-	15.2	.9	6.1	37.5	25.8		
1935	47.1	37.1	10.1	12.5	12.7	25.2	.7	5.9	42.6	31.8		
1950	57.4	36.2	15.3	21.6	14.9	36.5	.4	9.2	25.9	18.2		
1959	57.1	30.9	22.5	25.4	19.5	44.9	.6	9.8	20.0	14.3		
1964	57.6	28.7	24.8	25.6	22.4	48.0	.6	10.2	16.9	13.1		
1969[a]	62.4	35.3	24.5			51.8	-	-	12.9	12.9		
1974	61.6	35.3	27.2			52.6	-	-	11.3	12.0		

Sources: U.S. Bureau of the Census, 1964 Census of Agriculture (1968, volume 2, ch. 8, tables 5, 6), 1969 Census of Agriculture (1973, volume 2, ch. 3, table 4) and 1974 Census of Agriculture (1977, table 3, p. 2). See also Moyer et al, (1969, tables A5, A6), Johnson (1974) and Rodefeld (1978a, table 2, p. 166).

[a]The definition of "farm operator" was changed for 1969, eliminating the hired manager category and changing the composition of the remaining categories (see Rodefeld, 1976). Data for 1969, 1974 are not comparable to pre-1969 figures. The definition of "farm" was changed in 1959 and 1974.

The earliest decline consisted largely of reduced acreage in full owner farms and increased numbers and acreage in those tenant operated (Faulkner, 1951, pp. 355-358). By the end of the Depression, 43 percent of all farms containing 32 percent of all farm land were tenant operated. An additional 19 percent of the land was either rented by part owners (13 percent) or was in hired manager farms (6 percent). Thus, 51 percent of all farm land was not owned by farm operators in 1935. While information is limited, it appears increased retention by retired farmers and/or their heirs and the rental of this land to farmers were the most immediate and major causes of decreased ownership by farmers in this period. Increased ownership by nonfarm investors was also a factor. Foreclosures during the Depression, for instance, increased ownership by financial institutions and other financiers.

Rising tenancy, particularly in the South where crop-share arrangements were most common, and associated social and economic problems, was a great concern of politicians and social scientists at the time. Legislation was enacted and federal agencies created to address these problems (Maris, 1940). Increased tenancy, part ownership and hired management increased the separation between the occupants of landowner positions and those occupying manager (operational) and laborer positions. This created potential class divisions and conflict between landowners and the resident, on-farm workforce. However, petty commodity production still prevailed and wage-labor remained relatively underdeveloped.

From 1935 to 1955, land ownership by farmers rose from 523 million acres (49 percent) to 675 million acres (58 percent). This was the result of modest increases in acres owned by full owners and more substantial increases in acres owned by part owners. Acres owned by

nonfarmers declined by approximately 46 million acres. The decline in tenant farm acreage (154 million acres), particularly in crop-share farms, was much greater than this net change since acres rented by part owners and operated by hired managers increased in this period by approximately 108 million acres (Rodefeld, 1978a, 1979). It appears the prosperity of the World War II and Korean War eras provided the financial means for many farmers to purchase land that was previously rented. At the same time, outmigration of farmers and workers, labor shortages, labor displacing and/or replacing mechanical technology and farm consolidation (i.e., expansion) appear to be the major forces which reduced numbers of full owner and tenant operated units. The latter consisted primarily of crop-share units in the South (Rodefeld, 1974; 1978a). It is not clear which types of nonfarmers experienced either reduced or increased ownership in this period.

In the more recent period, acres owned by farmers declined from 675 million acres in 1954 (58 percent) to 603 million acres in 1964 (54 percent). This occurred solely as a result of reduced numbers of and acreage in full owner farms. Acres owned by part owners increased slightly. While the numbers of and acreage in tenant farms (particularly crop- and livestock-share) continued to decline--total acreage owned by nonfarmers (and small numbers of farmers renting out some of their land) increased. This was the result of even greater increases in nonfarmer owned acreage which was rented by part owners and tenants on a cash basis or was operated by hired managers (Table 3; Rodefeld, 1978a). While comparable figures are not available since 1964, other less direct evidence suggests a continuation of the earlier trend.

As shown in Table 3, land ownership by farm business entities (sole proprietorships, partnerships, corporations, other: owned by either farmers or nonfarmers) declined from 1969 to 1974.[10] The difficulty here is that no determination is possible of which of these businesses are owned by the individuals and families managing farms on a daily basis. Regarding land purchases, nonfarmers accounted for 33 percent of all farm acquisitions from 1959 to 1967. This increased to 38 percent from 1968 to 1970, and 37 to 40 percent from 1970 to 1977. While tenants accounted for 24 percent of the acquisitions in 1955, they accounted for only 11 percent in 1977. Rental payments to nonfarm landlords and mortgaged indebtedness have increased substantially in recent years (Rodefeld, 1979). Farm sizes have also continued to increase. This may indicate reduced ownership by farmers since size is strongly correlated with the likelihood of rental and the percentage of land which is rented (Moyer et al, 1969, pp. 14-17; Johnson, 1974, pp. 3-9, 17-25; Rodefeld, 1978a, p. 167). Less definitive, but consistent with the preceding, are the numerous press reports of large-scale land purchases by wealthy individuals, large nonfarm corporations and non U.S. citizens (Rodefeld, 1978a, pp. 161-165).

Even though nonfarmers appear to have increased their land ownership consistently since 1954, little is known of their characteristics or motives. Conversely, little is known about the characteristics of farmers experiencing reduced ownership and the reasons for this decline. We do know that about 20 percent of all rented land is owned by other

active farmers (Johnson, 1974, pp. 1-4). Little is known of the nonfarmers owning the remaining 80 percent or those employing hired managers. It is likely high percentages are still retired farmers or their heirs. Ownership by a variety of nonfarm investors appears to be increasing, however.

Changes have also occurred in the importance of farms with high, intermediate and low levels of land ownership by their operators. The numbers of and acreage in full owner and some types of tenant operated farms (i.e. crop, livestock, and cash-share farms, particularly those in the South) have declined substantially. Although full owner farms accounted for about 57 percent of all farms from 1950 to 1964, their relative share of farmland dropped (36 to 29 percent) and they were disproportionately found among the smaller and noncommercial farm categories. Their operators relied more heavily on off-farm jobs and income (Table 3; Moyer, et al, 1969, pp. 13-15, 25-26; Johnson, 1974, pp. 4-9, 25-28).

At the same time, numbers and/or acreages of farms with intermediate levels of operator ownership (i.e. part owners) and some types with the lowest level (i.e. none owned: cash renters and hired managers) increased dramatically, particularly part owner farms. Part owners range from those renting a "few acres" and owning the rest, to those who rent nearly all the land and own only a few acres. Part owners have expanded their acreage in recent years largely through cash rental (as opposed to purchase). They are a good deal larger than full owner and tenant farms in terms of average acreage, value of sales and fixed capital assets. In 1964, part owner farms accounted for 25 percent of all farms and 48 percent of all land in farms (Table 3; Rodefeld, 1978a).

Explanations for recent changes in land ownership appear to consist of two major parts. Ownership by farmers, particularly small farmers and/or those just beginning and intergenerational transfer have become more difficult as farm sizes, land values and capital requirements have increased. At the same time, numerous incentives have existed for the retention of farmland by former farmers and their heirs and its purchase by a variety of nonfarmers (Rodefeld, 1978a). While the causal forces and mechanisms are not entirely clear, rather major changes have occurred in farmland ownership and the statuses of farms with high, intermediate and low levels of ownership by their operators. An important fact is that ownership is gradually changing form as capitalist social relations penetrate petty commodity production.

Turning to the ownership of farm nonland capital, it appears similar changes have occurred. The empirical evidence is sketchy, however. While data have existed to determine aggregate levels and trends in land ownership by farm operators this has not been true for the ownership of nonland capital. We know, however, that reduced capital ownership by farm operators can occur through a variety of mechanisms. These include: purchase and ownership by nonfarm business owners employing hired managers, ownership by landlords (particularly those in share-arrangements), renting and leasing from off-farm sources, crop growing and livestock feeding on a custom basis, hiring of machines on a custom or contract basis and ownership by integrators (i.e. birds, feed and equipment in broiler operations). High levels of ownership by farmers historically, can be

inferred since the percentages of farms reporting such expenditures and/or arrangements have never been high. One exception is share arrangements. These have declined dramatically over the last four decades.

More recent data indicate that while on-farm, family ownership of nonland capital is still high, it is in relative decline (Rodefeld, 1978a, pp. 168-169; 1978b, pp. 20-21; 1979). Vertical coordination contracts (some of which involve integrator ownership), custom farming and the rental of equipment, machines and buildings are among those tenure forms experiencing rapid growth (Moyer, et al, 1969). Expenditures by operators for machine rental and leasing, custom and contract work have tripled since 1949. While the percentage of total farms reporting these expenditures has declined in recent years, the number and percentage of total farms reporting large expenditures has increased substantially. Custom feeding of beef was found to be high and increasing in the late 1960's and early 1970's. As pointed out in Table 3, acreage in farms employing hired managers increased from 1954 to 1964. Some evidence exists that this trend has continued (Rodefeld, 1978a, pp. 173-174).

The preceding suggests reduced levels of nonland capital ownership by the operators of farms containing these resources and increased ownership by nonfarmers and/or off-farm sources. Our knowledge is far from complete, however. Little is known about the characteristics of the farms or operators using capital which is not owned or of those who own this capital. Variability is likely in the importance of the various mechanisms for different types of nonland capital and/or

different types of production and regions. Little is known on these subjects.

Why has there been this reduction in land and capital ownership by farm operators, which apparently undermines petty commodity production? While the reasons are numerous, the following appear central. Growth in capital requirements for farming have made sole ownership of land, technological requisites, livestock, etc. increasingly difficult for farm operators. There have been incentives for ownership by nonfarm interests (Rodefeld, 1978b, pp. 13-27). As the value of land has risen, it has become attractive to nonfarm investors for capital appreciation and a hedge against inflation. Special tax provisions for farm enterprises permit income tax savings for high income nonfarm investors. Also, farming is becoming a consumption item for nonfarm people seeking farm related hobbies or a rural lifestyle. Finally, risks in farming have been reduced over the years due to government price support programs and improved cultural practices. Although, farming in general gives a low return on invested capital, adequate profits can be returned from larger farms producing particular commodities. The profit motive and the opportunity to control food production from inputs to marketing are some of the reasons why nonfarm corporations enter farming.

It seems fairly certain that there is a trend away from on-farm operator ownership of land and other capital resources. It also appears that ownership of farm businesses (sole proprietorships, partnerships, corporations) by farm operators has declined, while ownership by nonfarmers has increased (Rodefeld, 1978a, pp. 173-174; 1979). These represent one "break" within the traditional farm structure; that between ownership

and daily operation of the farm. In the next section we will suggest another "break;' that between wage-labor and daily operation of the farm. When these two changes in social relations occur together, there is separation of capital, operational management, and labor and the transformation of petty commodity production into capitalist production.

Wage-Labor and Exploitation

It was stated earlier that "what is distinctive about capitalism as an economic system is that labor power itself becomes a commodity, to be bought and sold on the market." What sets capitalist production apart from earlier forms, including petty commodity production, is the presence of wage-labor (Mann and Dickinson, 1978). It is no wonder that analysts of the farmland tenure system in America have often assumed that a Marxian analysis of agriculture is inappropriate because the farmer/operator typically hires no labor; thus it is suggested that exploitation is impossible because there is no wage labor. We propose that Marxian theory is still appropriate. In this regard, Lianos and Paris (1972) in their study of agriculture have suggested that a "labor exploitation" analysis of the family farm with no hired labor is plausible. They noted that farm labor has been increasingly exploited during the last 30 years, despite increases in absolute earnings and in earnings relative to urban wages. Lianos and Paris computed Marxian estimates of the relative share of the value accruing to capitalists, the relative share to labor, and the rate of exploitation (capitalist share/labor share) for 1949-1968 and reported a tenfold increase in

exploitation, both of hired labor and family labor.[11] They point out that much of this exploitation has been "concealed" within the farm family, since three-quarters of the total farm work force consisted of farm operators and unpaid family workers. For Lianos and Paris (1972, p. 575), these considerations:

> ...introduce the question of whether farmers in a capitalistic system can meaningfully exploit their own labor and that of their families. In the Marxist economic analysis the phenomenon of self-exploitation is explained in terms of the small farmer's desire to maintain his position as a capitalist. Basic to this goal is the necessity of capital accumulation in an environment of fierce competition and technical progress. The ever-increasing land values are an indication of this process of accumulation, and the concommitant increase in ground-rent forces the farmers toward more intensive use of the land and additional nonland investment. As indicated by the rapidly decreasing number of small farmers the attempt to accumulate is not always successful, thus leading toward the farmer's indebtedness and the necessity of accepting a remuneration for his labor which may be inferior to that of an agricultural worker. Often he requires the same sacrifice from family labor whether or not the family shares his goals.

Thus, for Lianos and Paris, the twin processes of expansion of the forces of production and proletarianization in agriculture are closely linked to the exploitation of family farm labor in a milieu of competition for survival.

While the absolute size of the farm workforce has declined substantially in the last three to four decades, it has been widely assumed there was little or no change in its composition or in the relative importance of its constituent groups. This has been based on observations that farm operators, family and hired workers have declined numerically at similar rates and that hired labor accounted for approximately 25 percent of total farm employment in both the 1930's and the late 1960's

(Nikolitch, 1972b, pp. 256-257). It has also been assumed that no change has occurred in the relative importance of farms employing small and large amounts of hired labor. This was based on the observation that farms employing more than 1.5 worker years of hired labor accounted for 5 percent of all farms and 37-38 percent of all farm sales in both 1949 and 1969 (Nikolitch, 1972a, p. 4). Recent reviews of the evidence, however, suggest these assumptions are incorrect (Rodefeld, 1978a, 1979).

While hired farm workers accounted for 27 percent of the workforce in 1929, they declined to 25 percent in the 1930's and 20 to 22 percent in the mid-1940's. Since reaching this low point, their percentage of the workforce has slowly turned upward from 23 percent (1948-1952), to 24-27 percent (1953-1973) to 30-31 percent from 1974-1977. While the numbers of all groups in the workforce declined from the 1940's (Rowe and Smith, 1976, p. 9) to 1970, this has not been true since 1970. Farm operators, family workers and hired workers of short duration (fewer than 75 days worked) have continued to decline. At the same time, the number of total hired workers and those employed for longer durations (75 days or more) have increased (Table 4). Comparable changes have been observed in other data sets and for all major geographical and/or type of production regions except the South (Rodefeld, 1979). As a result of these recent full-time (150 days or more) hired workers increased their percentages of hired workforce numbers from 20 percent (1968-1970) to 23 percent (1974-1976). They increased their percentage of total wage work from 66 percent (1968-1970) to 68 percent (1975). (Rodefeld, 1979, p. 42). Numerous reasons

Table 4. Frequency and Change in the Incidence of Persons (in Thousands) Who Did Any Farm Wagework During the Year, by Duration of Farm Wagework (in Days), United States, 1968-1976.

Time Period	Total Workers	Duration of Farm Wagework in Year (in Days)			
		Less than 75	75-149	150-249	250 or more
1968-1970	2,659	1,857 (69%)	286 (11%)	206 (8%)	310 (12%)
1971-1973	2,677	1,761 (66%)	308 (12%)	249 (9%)	358 (13%)
1974-1976	2,713	1,774 (65%)	325 (12%)	264 (10%)	352 (13%)
Percent change	2	-4.5	13.6	28.2	13.5

exist to predict the preceding trends will continue in the future (Rodefeld, 1978a, 1979).

It also appears that employment of hired workers has become more concentrated on U.S. farms. Even while total and full-time workers numbers have increased over the last decade, the numbers and percentages of farms employing hired workers declined from 1964 to 1974. This was true for both total and commercial (sales of $2,500 or more) farms and for the employment of short and long duration workers. The percentage of commercial farms reporting any ($1.00 or more) hired labor expenditures declined from 66 percent in 1964 to 41 percent in 1974. This was the outcome of a substantial decline in the number of farms with small ($1.00 to $5,000) labor expenditures (1.1 million to 545,252) and a large increase in the numbers reporting no expenditures (612,000 to 994,000). Commercial farms reporting larger hired labor expenditures ($5,000 or more), however, increased their numbers from 99,157 in 1964 (5.4 percent of total) to 155,689 in 1974 (9.1 percent). Increases also occurred in the average numbers of short (5.3 to 7.6) and longer (2.6 to 3.2) duration workers on farms reporting such employment. Similar patterns of change and concentration have been observed for contract labor and machine hire and custom work (Rodefeld, 1979).

The increasing number and percentage of farms with high hired labor expenditures and the growing concentration of labor on these farms suggest they are accounting for growing percentages of U.S. farm production and sales. This has been the case. Farms employing more than 1.5 worker year equivalents of hired labor accounted for 4.5 percent of total farm

numbers and 30 percent of all sales in 1959. They were estimated to account for 5.6 percent of the farms and 38 percent of the sales in 1969 (Nikolitch, 1969a, p. 4). From 1959 to 1964, these farms increased their portion of total sales in all geographic regions. Regional variability in importance was considerable. They accounted for 13 percent of all sales in the Corn Belt and 70 percent in the Pacific Region in 1964.

Large scale farms (1,000 or more acres or sales of $100,000 or more) have increased in both absolute and relative terms in recent decades, in all regions. Farms with sales of $100,000 or more increased their numbers from 31,401 in 1964 (1.0 percent of total) to 152,599 in 1974 (6.6 percent of total). They increased their percentage of total sales from 24 to 54 percent in this period. In 1974, 77 percent of these farms reported hired labor expenditures and they accounted for 72 percent of all hired labor expenditures by commercial farms. While inflation undoubtedly explains some of the increased numbers in this category, inflation free measures yield similar results. The 50,000 largest farms in the U.S. accounted for 23 percent of total sales in 1960 and 36 percent in 1977. In 1974, farms with sales of $200,000 or more numbered 51,400. Approximately 90 percent reported hired labor expenditures and 80 percent employed full-time workers (Rodefeld, 1979).

Major conclusions here are: 1) since the 1940's family labor has consistently declined relative to hired labor, 2) since 1970 seasonal or short-term workers have declined relative to full-time hired workers, 3) the number of farms employing large number of hired workers and the concentration of workers on these farms has increased since 1964, and

4) the concentration and centralization of both capital (resources and output) and labor on large scale farms has increased. The specific conditions and forces which have resulted in these changes are numerous and varied. They have been reviewed elsewhere and will not be repeated here (Rodefeld, 1974; 1978a; 1979).

The Marxian theory of historical change postulates that proletarianization--the separation of persons from their means of production and subsistence--occurs in the wake of capitalist development. In the past, most persons separated from the means of agricultural production left the farming sector to seek employment in the city. However, the evidence presented here indicates that hired, contract and custom workers are providing an increasing proportion of total farm labor. It is this trend, combined with the decline of on-farm, family ownership of the means of production, and increased concentration on large-scale farms, that leads us to conclude that while petty commodity production has been dominant historically, it is undergoing a transition to full-scale capitalist agriculture. Consistent with the observation has been an increase in the proletarianization of farm people.

Proletarianization of Small and Part-time Farmers

The forces that have fostered increased size of farm operations, concentration, decreased on-farm ownership, increased wage-labor (that is, separation of capital and labor)--overproduction, low commodity prices, low returns, and others--have also proletarianized a substantial portion of farm personnel on small and part-time farms. It is apparent that small

farms are becoming a relatively stable form of U.S. agriculture. One common definition of the small farm is any operation with less than $20,000 per year gross farm sales. Such farms were 80 percent of all farms in 1969, and 65 percent of all farms in 1974 (Chapman and Goss, 1978, pp. 373-377). Many farm operators, unable to accumulate sufficient capital and faced with the prospect of leaving farming, have utilized nonfarm employment to supplement low farm earnings (Cavazzani, 1977). Since 1934, the percentage of farm operators working off the farm 100 days or more has probably quadrupled (Table 5). There is a high degree of overlap of small farms and part-time farms.

Table 5. Percentages of U.S. Farm Operators Working Any Days Off the Farm, and 100 Days or More Off the Farm, United States, 1934-1974.

Year[a]	Operators Working Any Days Off the Farm (percent)	Operators Working 100 or More Days Off the Farm (percent)
1934	30.5	11.2
1949	38.9	23.3
1959	44.9	29.9
1964	46.3	32.1
1969	54.2	39.9
1974	54.9	44.2

Source: Cavazzani (1977, table 1, p. 7); U.S. Bureau of the Census, 1974 Census of Agriculture (1977, table 3, p. 2).

[a]The definition of "farm" was changed in 1959 and 1974. Data for 1969 and 1974 are not fully comparable with pre-1969 figures because the definition of "farm operator" was changed in 1969. The 1974 figures are corrected for farms "not reporting."

Part-time farming would appear to have several major implications of concern to class analysis and political economy. The first is that part-time farming, while "functional" for the farmer in terms of offering adaptability to fluctuations in farm commodity prices (Barkely, 1976),[12] may increase the level of labor exploitation in agriculture. Low levels of return to family labor resulting from periods of low commodity prices may result in increased exploitation of labor (since nonfarm income partially insulates the farm operators from low commodity prices). Secondly, the part-time farming trend may portend a possible diminution of the historic antimony between workers and farmers (Wiley, 1970; Steeves 1972), since the part-time farmer tends to be a member of both groupings. The part-time farmer and the full-time hired agricultural wage worker might well become a significant social force since both are removed from the vested interest in maintaining private property in agriculture that has characterized otherwise radical agriculturalists in the past. The result may be a tendency toward narrowing the political differences between farmer and worker and generate a qualitatively different agricultural politics in the years to come.

The separation of farm capital from farm labor and the proletarianization of farm personnel, both in the context of a food and fiber production system increasingly dominated by monopoly capital, constitute the dynamics of capitalist development in agriculture and the basis for class analysis of agriculture.

A Class-Based Farm Typology

At the outset of this paper we asserted that Stinchcombe's analysis of rural class relations resulted in a typology that is static, ahistorical and descritpive. Having reviewed Marxian theory and applied it to the

changing economic and social structure of U.S. agriculture, we are now in the position to propose a more dynamic, class analytic, typology of farms.

The farm can be conceptualized as a production system with four basic factors of production: land, capital, management and labor. Five basic status-roles are directly associated with these factors of production--land ownership, capital ownership, organizational management, operational management, and labor. The degree to which these status-roles are differentiated between nonrelated indivdiuals (that is, not in the same family) on any particular farm determines its structural type.[13] Assuming for the time being there is no differentiation between land ownership, capital ownership and organizational management (i.e., they are provided entirely or mostly by the same individual or family) and that the most important divisions in status-roles have occurred between ownership and operational management, and between operational management and labor, four mutually exclusive farm types can be identified (Figure 1).[14]

Figure 1. Farm Types Based on Classification by Their Amount of Land and Capital Ownership and Amount of Labor Performed by the Farm Operational Manager and Family (i.e. Operator).

Amount of Land and Capital Ownership by Operator	Amount of Labor Provided by Operator: Most or All	Amount of Labor Provided by Operator: Least or None
Most or All	Family-type	Larger than family-type
Least or None	Tenant-type	Industrial-type

Source: Rodefeld, 1974; 1978a, figure 1, p. 159.

> Historically, U.S. farm numbers have been dominated by relatively small farms with low levels of differentiation between (land and capital) ownership, management and labor. Such farms were managed on a daily basis by an individual or family (farm operator) who simultaneously: owned all or most of the acres providing the land base of the farm; owned all or most of the capital (nonland resources...) used in the production of agricultural goods; and provided for all or most of the physical labor expanded in the production process (Rodefeld, 1975, p.2).

This farm type identifies what is often called the "family farm," and here is referred to as the "family-type" farm.

The larger than family-type farm, historically found in the South and West, is mainly or wholly owned by the individual or family who manages it on a daily basis. The majority of the work is done by hired labor, however. The tenant-type farm, that was prevalent in the 1930's, is mainly or wholly owned (particularly the land) by people other than the individual or family who manage it on a daily basis and who contribute most or all of the labor. The industrial-type farm, which is typical of many farms in the recent "corporate invasion," has a resident hired or renting manager, is entirely or mainly owned by other people and entirely or mainly worked by hired labor, each of whom have limited involvement in daily management decisions.

While this four-category farm typology is basic it is also somewhat simplistic. For instance, differentiation between land ownership and capital (nonland resources) ownership was temporarily bypassed. A good deal of variability is possible on this dimension, however. For example, the typical tenant farm will have a nonfarm landowner but the tenant farmer will likely own all or most of the nonland capital. The major exception here

is when the tenant farmer is hired. Other mechanisms were identified earlier, which could result in the separation of capital ownership from either land ownership, operational management or both. With appropriate data, however, the typology can be expanded to a total of 15 unique farm types along a gradient of structural differentiation between land ownership, capital ownership, operational management and labor.[15] Even in its most basic simple form, however, the typology is useful.

Rodefeld (1978a, pp. 159-160, 174-175) measured changes across farm types by adaptation of Census of Agriculture data (Table 6). Family-type farms have traditionally accounted for more than three-quarters of farm numbers and one-half of farm sales. For the period 1959 to 1964, there was a slight increase in their percentage of farm numbers and a slight decrease in their percentage of farm sales. Tenant-type farms experienced the greatest decline in both percentages of farm numbers and sales. These percentages increased slightly for larger than family-type farms and substantially for industrial-type farms. Despite the many limitations to the data in Table 6 (see Rodefeld, 1978a, p. 175), they still indicate a tendency away from the family-type farm and toward the larger than family and industrial.

This farm typology is dynamic and is class-based. The distinction between family and larger than family-type farms and the tenant and industrial-types, (and the transition from the two former types to the latter types) is based on reduced ownership of the means of production by the farm operational manager and the reduced importance of such farms. The distinction between family and tenant-type farms and

Table 6. Change in Farm Numbers and Gross Sales by Farm Type, United States, 1959-1964.

Farm Type[a]	Number of Farms 1959 (thous)	1964	Change (%)	Gross Sales 1959 ($ mill.)	1964	Change (%)
Family	2,808	2,475	-11.9	15,224	17,276	+11.9
Tenant	721	521	-27.7	5,912	5,372	-9.1
Larger than family	139	122	-12.2	7,202	8,915	+23.8
Industrial	26	32	+23.1	2,024	3,512	+73.5
TOTAL	3,695	3,150	-14.7	30,362	35,075	+15.5
	(% farms)			(% sales)		
Family	76.0	78.6		50.1	49.3	
Tenant	19.5	16.5		19.5	15.3	
Larger than family	3.8	3.9		23.7	25.4	
Industrial	.7	1.0		6.7	10.0	
TOTAL	100.0	100.0		100.0	100.0	

Source: Rodefeld, (1978a, table 8, p. 174).

[a]These figures are based on Census of Agriculture data which are not directly suited to Rodefeld's farm typology. The procedures for computation of figures were such that relative importance of family-type and larger than family-type farms, both in number and sales, have been overestimated. For further details on computation procedures see Rodefeld (1973, 1974; or 1975, table 9, footnotes).

the larger than family and industrial-types, (and the transition from the two former types to the latter types) is based on the increased use of wage-labor and the importance of farms employing this labor. The separation of land ownership from the joint provision of other capital ownership and operational management results in a land owner capitalist-tenant like relationship. The transition from petty commodity production to capitalist production in farming should be reflected in a transition from the family-type farm to the industrial-type farm either directly or more likely via either or both intermediate types--the tenant and larger than family-type farms (Rodefeld, 1974, 1978a, 1979). However, this is a farm typology not an agricultural typology. That is, many of the causal forces and manifestations of capitalist agriculture occur off the farm and increasingly so. Nevertheless, the greatest limitation to this class-based typology is paucity of suitable data.

Role of the State

The State has assumed an active role in producing the class structure of agriculture. The circumstances noted above concerning the evolution of agribusiness and the farming sector may serve to clarify the state's role in agricultural transformation. Remembering that food raising is only one of three components in the agricultural system, it is apparent that the agricultural inputs, and product marketing components have experienced capitalist penetration--on a much larger scale than in the

food and fiber raising sector--and have been centralized within the "monopoly sector" (i.e. the large-scale corporate sector; see O'Connor, 1973) of the economy. This transformation has a number of important consequences. Firstly, it coincides with and contributes to the diminution of the role of land monopoly in retarding capital accumulation in agriculture. The extraction of surplus value from agriculture presently is more rooted in profits of agribusiness firms than in rent, interest, and profit accruing to capitalist landowners and tenants. Secondly, the interests of these nonfarm agribusiness firms come to be more consonant with those of other multinational, monopoly sector enterprises (especially in foreign expansion and foreign trade). Insofar as the role of the state tends to be that of advancing the interests of the dominant class as a whole--not any one particular segment such as that of capitalist farmers--state policy toward agriculture has primarily revolved around ensuring the profitability of its inputs, and product marketing components (Frundt, 1975).[16]

Many analysts of state policy toward agriculture have rightly noted that most U.S. Department of Agriculture programs (particularly commodity programs) have benefitted large farmers at the expense of smaller ones (Bonnen, 1968; Schultze, 1971; Ford, 1973; Marshall and Thompson, 1976, Chp. 3). One reason is that the former are more politically influential. However, such a view should not obscure other facets. Agriculture involves many functions other than food and fiber raising and agricultural politics

is not confined to the U.S. Department of Agriculture or the Congress. Rather it involves many other sectors of the state apparatus, for example, other Executive Branch agencies that deal with large corporations, such as the Departments of State and Commerce. Again, one should not ignore the role of agribusiness firms in supporting policies that tend to favor large farmers over small farmers. Large farmers are the best market for agricultural inputs, and they are more conducive to involvement in marketing agreements (Raup, 1969; Krause and Kyle, 1970, 1970; Marshall and Thompson, 1976, Ch. 3). They are most ideologically supportive of agribusiness activities, while small farmers who bear the brunt of exploitation in the agricultural system are most likely to be critical of these institutions (Schwartz, 1976). Thus large farmers are benefitted not so much because of their autonomous political power (which is often quite circumscribed), but rather because of their coincidence of interest with nonfarm elements in the agricultural system.

It should be noted, however, that large farmers are still subject to the same manipulation of the forces and relations of production that small farmers are. They are merely able to gain greater returns than small farmers (Hottel and Reinsel, 1976) under the same market price conditions through external economics of size--purchase discounts, credit availability, and marketing advantages (Raup, 1969; Krause and Kyle, 1970; Rodefeld, 1974; Marshall and Thompson, 1976, Ch. 3). <u>All</u> farmers, even large operators, suffer from the understandable inclination of commodity purchasers to pursue state policies that depress farm prices (e.g. the U.S. Department of Agriculture giving grain traders priviledged access to information),

although the large operator maintains a relatively privileged position in this milieu.

The State and Agrarian Protest

The state has not been neutral with respect to agrarian protest. Quite understandably, the course of agricultural transformation in the U.S. has not always been a consensual process. Periodically, groups of exploited rural strata have formed political movements to alter the distribution of the social product in agriculture. These movements have generally been constituted by the less privileged strata within farming--especially smaller family farmers, tenants, and agricultural laborers.[17] Notable episodes of agrarian unrest have been the Populist movement of the turn of the century and the recent United Farm Workers movement of migrant Mexican-American laborers.

Considering the tendency for the state to assume a protective position vis-a-vis the dominant property class, the state's role has largely been one of maintaining existing production relations in agriculture. O'Connor (1973) has noted that the state in capitalist society must assume two generally contradictory roles: accumulation (making possible the conditions for profitable capital accumulation) and legitimization (maintenance of social harmony). These roles are presumed to be contradictory because "a capitalist state that openly uses its coercive forces to help one class accumulate capital at the expense of other classes loses its legitimacy and hence undermines the basis of loyalty and support" (O'Connor, 1973, p. 6). The discussion thus far has emphasized the state's accumulation functions in the agricultural sphere, but the

legitimization role, of course, assumes particular primacy during periods of unrest on the part of subordinate rural strata.

O'Connor (1973) has also noted that a given state policy or expenditure may jointly serve both--the accumulation and legitimization--functions. This has particularly been the case in the realm of agriculture. Many observers of agricultural policy have viewed two major thrusts of agricultural policy in this century--encouragement of "economic efficiency" on the part of farmers through agricultural research and extension, and commodity price supports--as the outcomes of class privilege and power on the part of large farmers. Historically, however, agricultural research and price supports were the strategies taken by the state in the midst of various episodes of agrarian unrest (i.e. these policies also pertain to the legitimization function of the state in agriculture). Farmers were encouraged to solve their problems individually through increased production and efficiency (rather than by class action). Further, price supports were introduced to head off agrarian discontent by placing a "floor" under commodity prices. It is ironic that farmers' protests were often subdued by agricultural policies that had the effect of further reducing the competitive position of small farmers and agricultural laborers (see McConnell, 1953).

Observers of agrarian radicalism have often been concerned with the reasons for its apparent failures. Even when farmers constituted a numerical majority of the U.S. population, farmers were never able to articulate a coherent, unified set of demands (Hadwiger, 1976). Most analyses have emphasized socioeconomic differences among farmers--race and ethnicity

religion, income, region, and commodity interests--as contributing to the failure of farmers to sustain a unified political movement (Wiley, 1970). Although we do not wish to deny the importance of these potential cleavages in fostering disunity among farmers, we feel that the matter is better understood via the class structure in agriculture.

As noted above, the U.S. food and fiber raising sector has historically been one where the family freeholder form of land tenure has predominated. On one hand, farmers have either been property owners or anticipated becoming property owners at a later point. Farmers, on the other hand, have tended to be excluded from the fruits of capitalist development. For example, farm operators and agricultural laborers continue to be the two aggregate occupational groups in U.S. society with the highest incidences of poverty (Bryant, 1969). As a result, agrarian radicals, while often critical of certain aspects of capitalism (e.g. manipulation by bankers and the railroads), have generally continued to accept the legitimacy of private property (i.e. capitalism) in agriculture. The policies they sought (such as regulation of the railroads, expanded food exports, and price supports) have likewise tended to assume a corresponding contradictory character. Agrarian radicals pursued policies that they felt would reverse the emergence of contradictions in capitalist agriculture, but within a framework of production relations that ensured the appearance of further social dislocations in agriculture.

Thus the inability of farmer movements to secure major social change in their benefit may be attributed at least as much to their contradictory class positions--both property owners and subjects of exploitation--as their internal socio-political differences. In part, this may explain why farmers have so readily accepted state policies that would further exascerbate rural poverty and underdevelopment. More substantively, we feel that the contradictory class character of farmers has circumscribed the content of agrarian protest and helped to mold policies that continue to result in social dislocation in agriculture. This contradictory character of farmers' class positions may help to explain why commodity interests, region, and other factors served to undermine the solidarity of farmers from within. Since farmers came to view their interests in terms of protection from an unstable market (rather than, for example, elimination of private property in agriculture), agricultural politics became "distributive" rather than "redistributive" (see Lowi, 1964).[18] Since favored status for one particular commodity would tend to come at the expense of another commodity, farmer struggles often became intra-group conflicts. Thus, the class character of farmers under the past system of land tenure has functioned to block collective strategies for change and reduce discontent to fractionalized contests for advantages in the political and market arenas.

Discussion

As noted at the outset, U.S. rural sociologists have been hesitant to develop a political-economic or class analysis of agriculture. In part,

we feel this lack of attention to class structure in agriculture is due to the presumption that the so-called family farm has not declined in status relative to more differentiated farm types and that, anyhow, it does not "fit" into a Marxian scheme of classes. The latter notion, however, confused land tenure forms with social classes, and as we attempted to demonstrate, one can formulate a meaningful political economy of the family farm, as well as agriculture as a whole. We also sense that previous attempts to analyze social class in agriculture have been limited by focusing only on stratification within the food and fiber raising sector. It is important to recognize, however, that the agricultural system has other components--inputs, and product marketing, in addition to farming. Viewing the food and fiber raising sector apart from the dynamics of the other aspects of agriculture has probably served as a barrier to a more sophisticated political economy of agriculture.

The class structure of agriculture is a highly complex, ever-changing phenomenon. On one hand, farmers tend to represent a transitional social class (petty commodity producers) whose activities are circumscribed by the unique characteristics of agriculture. However, the dominant class in agriculture has emerged in the form of agribusiness corporations that provide inputs, and process and market agricultural outputs. This class comes to gain control of the forces of production in order that surplus value can be appropriated from farm commodities. Agribusiness thus comes to have a manipulative and exploitive relationship to farmers (even though both groups nominally are property owners). Augmented by the protective role of the state, the class structure in agriculture tends to become

polarized into a small group of wealthy agribusiness elites and a growing stratum of agricultural laborers, part-time farmers, and self-exploiting family farmers. Rhetorically limited by their tie to private property, while at the same time "squeezed" by the ongoing social forces in agriculture, farmer protest has thus far been disunified and, in some respects, complementary to the interests of the dominant agribusiness segment.

It is appropriate to conclude a political-economic analysis of agriculture by noting certain other emerging contradictions. The most general anomoly is the existence, on one hand, of rapidly developing forces of production, and on the other, the persistent poverty and underdevelopment in rural areas. This theme has been implicit throughout our discussion and reflects the uneven course of development characteristic of agriculture, as well as other social-industrial sectors of society. The historic displacement of farmers from the land and their replacement by machines and inanimate energy resources also raises two separate, but related, ecological questions. "Modern" agriculture is a creature of fossil fuel subsidies but supplies of these fuels are limited. Secondly, agriculture based on artificial fertilizers and pesticides is eroding the natural regenerative properties of agro-ecosystems (Perelman, 1977; Stockdale, 1977). It thus seems that the present trajectory of the forces of agricultural production may reach certain physical and social limits--foreshadowing perhaps the emergence at some point of new relationships of humans to the land.

It is hoped that these preliminary notes towards a political economic theory of agriculture in the advanced societies will become the starting point for further critical analyses. Rural sociologists need to reconsider their historic neglect of class analysis of agriculture--a perspective we feel can provide rich insight into the social and material forces shaping agriculture in western nations.

Footnotes

1. These criticisms will become more explicit in the following discussion of Marxian theory of capitalist development. It may be significant that Stinchcombe's only reference to Marx's own writings is pp. 488-495 of Talcott Parson's, The Structure of Social Action, 1968.
2. This section is a synthesis of the writings of Marx in his Economic and Philosophical Manuscripts (1963, pp. 68-95), Capital, Volume I (1972, pp. 3-18, 169-207), and Value, Price and Profit (1901). We also draw on interpretations by Giddens (1971, 1973).
3. Sources are given at the end of paragraphs, except for quotations.
4. We are indebted to Alain de Janvry, Peter Sinclair, Howard Newby and Susan Mann for helping us recognize that the various "paths" of capitalist development in agriculture--British, Russian and former European colonies--are not inconsistent with Marx's theoretical formulations. The Marxist textbooks tend to emphasize the British path (Eaton, 1966; Mandel, 1968; Afansyev, et al, 1974). Newby (1978) illustrates agricultural social change in Western Europe, the Americas, and Australia while Bernier (1976) specifically analyzes Quebec.
5. De Janvry (1978, pers. comm.) cites Karl Marx, Capital, Volume I (Moscow, 1971), pp. 722-723 on this point.

6. For similar interpretations of the role of the Civil War, see Genovese (1965, pp. 13-39; Hacket, 1970, Ch. 8-9).

7. The observations in this and the following paragraph have been greatly abbreviated. More details will be provided for the post-1940 period later in this paper. Meanwhile, references for this historical account include Edwards (1940), Shannon (1945), Faulkner (1951, Ch. 13-14), Soule (1947, Ch. 11), Mitchell (1947, Ch. 6), Hacker (1970, pp. 225-234), Padfield (1971), Dowd (1974, pp. 150-156) and Frundt (1975, Ch. 1). References specifically for the 1940 to 1978 period include Kyle et al (1972). Breimyer and Barr (1972), Ford (1973), Raup (1973), Frundt (1975, Ch. 2-3), Rodefeld (1974 and 1978), and Goss and Rodefeld, (1978a).

8. A precursor to the current line of research was Lenin's reanalysis of the 1900 and 1910 U.S. Census of Agriculture which showed a growing concentration in farm acreage and sales, and an increase in the prevalence of hired labor. However, he recognized that the food raising sector had clearly lagged behind industry in capital accumullation and attributed this to: (1) a large number of small-scale operations to start with (i.e. a general agricultural labor surplus that provided a disincentive for technological innovation and expansion of the farm enterprise); (2) a residue of a natural economy producing for home consumption; and (3) the "monopoly" of land ownership.

9. See Frundt (1975, p. 46 ff.) for a discussion of how trends in the evolution of the multinational agribusiness enterprise have paralleled those in other monopoly industries such as petroleum, automobiles, and steel.

10. It is important to note definitional changes in 1969 mean that there is no necessary comparability with pre-1969 figures. The term "farm operator" used in the following discussion means the "person or family managing farm operations on a daily basis," which is consistent with the pre-1969 Census of Agriculture definition. For further implications of this definitional change see Rodefeld (1976).

11. The capitalist share was [(surplus value) ÷ (variable capital + surplus value)] and the labor share was [(variable capital) ÷ (surplus value + variable capital)].

12. Barkley's class analysis of family farming is constrained, we feel, by reliance on Ricardian political economy. More specifically, Barkley is unconcerned with the emergence and change in class formations in agriculture per se. He sees that "exploitation" of the family farmer is rampant, but suggests that the farmer is exploited by society (i.e. in terms of the farmer's "resilience" in the face of unstable prices and low returns), not only by a dominant agricultural class. Barkley also neglects to identify the "laws of motion" of modern agriculture; as a result, his analysis remains largely static and ahistorical.

13. This typology was formulated by Richard Rodefeld in 1970 and is explained most fully in his Ph.D. dissertation (1974, Ch. 3).

14. This conception requires a distinction between high and low levels of differentiation. The focus here is on the operational manager (i.e. the individual or family making all or most of the farms day to day (operational) decisions. A low level of differentiation between this status and any other, requires that the operational manager occupy the other status(es) and provide all or a majority (51 to 100 percent) of its' (their) content. A high level of differentiation requires that the operational manager either not occupy the other status(es), (i.e. provides zero percent of the content) or occupy it (them) but provide a minority (one to 50 percent) of its' (their) content.

    Thus a managing owner/ nonmanaging owner=greater than/less than 50 percent of the land and capital are owned by the resident farm manager and family. A managing laborer/nonmanaging laborer=greater than/less than 50 percent of total labor is performed by the resident farm manager and family.

    A fifth, though highly atypical type is also identified. This type has no or little separation between ownership and labor but a different individual or family manages the farm on a daily basis.

15. For an indication of the multitude of status-roles and structural types available, see Rodefeld (1974, charts 1-3, pp. 60-61, 87, 90-92).

16. Frundt (1975) presents the most detailed, historically-informed analysis of state policies toward agriculture that we know of. Frundt's analysis is especially strong in the area of foreign agricultural policy.

17. However, as Hadwiger (1976) points out, relatively privileged farmers have also periodically taken part in agrarian protest because, as we argue below, the same forces of competition and exploitation pertain to the large as well as the small farmer. Of course, the larger farmer is typically better able to adjust to these forces than is the small farmer (owner-operator or tenant), so relatively privileged farmers' expressions of discontent and radicalism have tended to be short-lived.

18. According to Lowi, "distributive" politics occurs in a context in which individuals or corporations seek advantage in the political arena on an individual basis. The political participant typically does not enter into overt conflict with others. Instead the predominant relations among political participants tend to be "log-rolling" and mutual noninterference (i.e. "you help me achieve my goal, and I will help you reach yours"). The loci of distributive politics normally are the Congressional committee or the government agency. Redistributive politics, on the other hand, entails active political conflict between "peak associations" contending for very opposite goals. This type of politics is exemplified by class conflict. There is essentially no room for bargaining because any particular decision will tend to benefit one group at the expense of the other. A given decision, in other words, will redistribute scarce social resources from one group to the other (see Lowi, 1964).

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