



Reorganizing U.S. Agriculture

The Rise of Industrial Agriculture and Direct Marketing

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"The frontiers that challenge us now are of the mind and spirit. We must blaze new trails in scientific accomplishment, in the peaceful arts and industries. Above all, we must blaze new trails in the direction of a controlled economy, common sense, and social decency."

- Henry A. Wallace, from a *Declaration of Interdependence*, delivered May 13, 1933

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Preface

Among alternative agriculture's basic tenets is the notion that the long-term health of our food and fiber system depends upon maintaining sufficient diversity in production, processing, and marketing. Such diversity ensures open access, competition, and innovation. The rationale is similar to that for maintaining adequate diversity in natural biological communities—reductions in species diversity (and competition) hamper our ability to adapt to social, physical, and biological shocks through time.

This report examines the implications of two emerging and quite different food streams in U.S. agriculture: industrial and direct marketing. Clearly, the future trajectory of these two food streams will have enormously important implications for agricultural diversity in all of its forms and manifestations.

This report represents the second installment in our ongoing investigation of structural change in U.S. agriculture. The first report in this series, *The Industrial Reorganization of Agriculture* (April, 1996), provided a general overview of the basic structural changes accompanying the industrialization process. Both reports detail ongoing changes in agriculture and provide information and insight about what these changes may mean for agricultural sustainability.

The industrialized food stream is characterized by highly concentrated production and processing sectors and coordination between stages of production via vertical coordination or contractual arrangements. One consequence of the vertical coordination and contracting is that the control over production operations by farmers and ranchers is being reduced. Operators who sign contracts that ensure access to large industrialized markets are usually given less latitude in selecting inputs and production practices. During the last decade, the Wallace Institute has received numerous inquiries about the effects of a more industrialized agriculture on farmers and ranchers, consumers, environmental resources and the welfare of rural communities.

Direct marketing of agricultural products is simultaneously rising at exponential rates around the country. For example, farmers markets have increased from less than 100 in 1960 to over 2400 in 1996, and by almost 40 percent from 1994 to 1996. Although these direct markets deliver a small proportion of total food supplies, they represent an emergent trend with important implications for maintaining a diverse set of farms, ranches and processing operations. The direct marketing stream is characterized by direct contact between producer and consumer, smaller-scale production operations, and a highly decentralized structure—opposite traits to the industrialized process. Direct marketing is based on the concept that farmers and ranchers control the products of their operations from cultivation and weaning to final sale.

The vitality and growth of the industrial and direct marketing food streams suggest that both will be with us for some time. Therefore it is important to understand how these food streams are constructed, and how they are perceived by producers, consumers and public policy makers. Also, it is critical to conduct research to inform public policy needed to foster development paths that incorporate all social benefits and costs. These and other important issues and questions are addressed in this report.

Executive Summary

This report, *Reorganizing U.S. Agriculture*, is one in a series on structural change in U.S. agriculture, conceived and directed by the Henry A. Wallace Institute for Alternative Agriculture. The series is designed to help explain the types of changes currently occurring in U.S. agriculture, why they are occurring and what they may mean for agricultural sustainability. This particular report, intended as a follow-up to an earlier study entitled *The Industrial Reorganization of U.S. Agriculture*, focuses on two very different developments in U.S. agriculture: the rise of "industrialized" agriculture and the increasing popularity of direct marketing of agricultural products.



Many production contracts specify that producers must pay for construction of buildings which house animals.

Photo courtesy of the Agricultural Research Service.

For the purposes of this report, "industrialized" agriculture refers to the sector of U.S. agriculture that is characterized by increasingly concentrated processing and production operations—a sector that fewer, and larger, businesses control. In industrialized agriculture, these businesses (often large corporations) either purchase farms to produce the products they need (a process called vertical integration) or make contracts with farmers to produce these products. Direct marketing, in contrast, involves face-to-face contact between consumers and farmers, who generally operate small-scale businesses and are highly decentralized. The most striking difference between the two developments is in who has control over key agricultural production decisions. In industrialized agriculture, farm-level control over agricultural production operations is being replaced by corporate control, which relegates farm-level workers to the role of hired labor. In direct marketing, farmers exercise substantial control over their products, from cultivation or weaning to final sale.

This report looks at the legal environment in which industrialized agriculture and direct marketing have evolved; how they have affected the distribution of control within agriculture; and what measures have been taken to alter that distribution of control. With regard to the legal environment, corporate involvement in agriculture has historically been severely scrutinized, regulated and even banned in a number of major agricultural states. Anti-corporate farming laws were originally put into place to prevent corporate domination of agriculture and to preserve non-corporate, family-based ownership arrangements. However, as vertical integration and contract production have become more common in agriculture, some corporate farming laws have been altered and relaxed.

These developments have had significant impacts. Increases in vertical integration and contract production have meant that significantly less control over production is granted to the farmer, and considerably more control over production is exercised by processors or intermediary firms who in turn sell to processors. Farmers have reacted by organizing themselves into bargaining units and production and marketing networks, as well as by investing cooperatively in processing facilities. In addition, state governments have begun to regulate production contracts to protect farmers from exploitation. State intervention and farmers' organizing efforts are attempts to substitute some form of cooperative farmer control, or state refereed control, for contractor control.

In contrast to industrialized agriculture, direct marketing has resulted in the cementing of farm-level control over the agricultural production process. Farmers involved in direct marketing, whether it is through farmers' markets or community-supported agriculture, exercise considerable control over the production and marketing of their products. As a group, they establish and abide by rules, laws and conventions that usually require them to have grown at least some of the products they sell in direct marketing outlets. The rapid increase in direct marketing, and the financial viability of farms involved in it, demonstrate that farmers have practical and profitable alternatives to industrialized production. As agricultural production and processing become more concentrated, the viability of non-corporate production operations will depend on the success of farmers' organizing efforts, citizens' groups' efforts to petition the state to intervene on behalf of farmers, and the ability of the direct marketing sector to grow substantially without losing the characteristics that make it attractive to farmers and their customers.

As U.S. agriculture reorganizes along industrial and direct marketing lines, research is needed to assess the impact of this reorganization in a number of areas. For instance, what are the environmental impacts of vertically coordinated and direct marketing agriculture? Also, how do both types of agriculture impact rural communities? And, how do labor relations, working conditions and pay levels differ between the two types of agriculture. To help answer these and other relevant questions, the Census of Agriculture should collect production data on marketing and production contracts by commodity at the county level. The amounts and types of commodities sold through direct marketing outlets, especially farmers' markets, should be documented as well. These kinds of data would enhance the ability of policy makers, citizens, farmers, activists, businesspeople, and other interested parties to make sound decisions about the food system on which we all depend.

1) Introduction

Over the past couple decades, U.S. agriculture has undergone profound structural changes. None, perhaps, is more striking than the rise of two divergent developments: industrialized agriculture and direct marketing. Each has had widely different ramifications for farmers' styles of doing business, and for their control over what and how they produce.

Industrialized agriculture is the outcome of an increasing concentration of U.S. agricultural production and processing within fewer and larger operations. As this trend has intensified in recent years, buyers of farm products (processors or intermediary firms) have acquired more control over production decisions through either direct ownership of farms (vertical integration) or through contract relations between themselves and farm households. In response to these changes, and the loss of control that they represent, some farmers have begun organizing themselves into bargaining units (Hamilton, 1995a), as well as creating production and marketing networks (Koehler, et al., 1996; Miller, 1996) and cooperative processing operations where they contract with themselves (Martinez and Reed, 1996; Miller, 1996).

As industrialized agriculture has gained ground, so has another phenomenon: direct marketing. Many farmers, community leaders, consumers and a number of activist groups have helped to build this alternative food production system, in which farmers sell their products directly to consumers. This direct marketing takes a number of forms, including farmers' markets, pick-your-own operations, community-supported agriculture (CSA) and roadside stands. Burns and Johnson (1996) report that there are at least 2,410 farmers' markets in the United States,¹ up from less than 100 twenty years ago, and an increase of 37% since 1994 (U.S. Department of Agriculture, 1996). Other characteristics often associated with direct marketing are organic production, small-scale production units, an emphasis on selling only what one produces, the importance of where a product is produced, and personal relations between farmers and their customers. The growing relevance of this "new" agriculture (see Lyson and Green, 1995; and Hamilton, 1996) is demonstrated by the inclusion of direct sales, for the first time, in the 1992 Census of Agriculture, and by the growing recognition that farmers' markets provide an affordable source of fresh, high-quality food for low-income urban consumers, especially minorities, who otherwise would be likely to pay significantly higher prices for lower quality food than suburban residents (Burns and Johnson, 1996).

Part of the discourse surrounding these two major changes in the structure of U.S. agriculture centers on the importance of maintaining or prohibiting particular ownership arrangements. For example, nine states have laws that restrict, to various degrees and in a number of ways, the involvement of publicly traded corporations in farming. Supporters of restricting and regulating corporate farming see corporations as potentially detrimental to the interests of non-corporate farms (Haroldson, 1992; Royer and Frederick, 1994; Hamilton, 1995a). Opponents of such restrictions view them as unnecessary and/or unwise since they could limit or even drive away crucial private investment in agriculture (Powers, 1993). Some state legislatures have agreed with the opponents of anti-corporate farming laws, and relaxed the laws in important ways; although the changes have not gone uncontested (Hamilton, 1995a).

Regarding the new agriculture, concern over how production is organized is apparent from the rhetorical justification for constructing an alternative system: to reestablish, or ensure the survival of, the traditional family farm (Hamilton, 1996; Gregson and Gregson, 1995). Direct marketing is put forth as a viable means to increase the number of small, family-owned and -operated farms that remain independent from large-scale corporate interests (Lyson et al., 1995). The powerful rhetorical theme of the family farm is employed to garner support from consumers, legislators, farmers, private charitable foundations, and public agricultural research institutions in order to increase the size and scope of this new sector.

The rise of industrialized agriculture and direct marketing highlight the changing relationship between (1) knowledge of, and involvement in, an agricultural production operation and (2) control of the operation. As agriculture industrializes, and barriers such as anti-corporate farming laws are removed, many farm-level production decisions are made by individuals not directly involved in or knowledgeable about the production process. Contractors, for instance, may provide supervisory and technical direction or even decide the product to be raised, although they are not the ones who know how to raise it; the shareholders and directors of a corporation may hold control over an operation and its final product, even though their farm-level employees have the direct production knowledge. In marked contrast, direct marketing cements the link between knowledge of the farm operation and control of the products of that operation. Rules and established conventions underlying the establishment and operation of farmers' markets and CSAs often require the farmer to control his or her farm product from planting or weaning to final sale.



Under poultry production contracts, the birds are supplied and owned by the integrator.

Photo courtesy of the Agricultural Research Service.

This report focuses on the vital issue of control in the industrialized agriculture and direct marketing areas. It begins with a look at the legal mechanisms that have influenced or determined the types of ownership arrangements, and their viability, in agricultural production. The report then goes on to examine in detail the evolution, realities, and ramifications of the rise of industrialized agriculture and direct marketing—particularly as they affect farmers' abilities to control production decisions. A special box on ownership provides an evaluation of the economic effects of certain types of ownership. The report concludes with a consideration of the future effects of industrialized agriculture and direct marketing, and of future research needs.

2) Anti-Corporatism in U.S. Agriculture

The public attitudes toward corporate involvement in agriculture are unique. There are no state laws banning corporate ownership of shoe production, automobile production or other commodities. Yet as early as the 1930s, Minnesota enacted a statute prohibiting any corporation from owning more than 5,000 acres of farmland (Dahl, 1991). And from the 1970s until the late 1980s, a number of Midwestern states put anti-corporate farming laws into place. The laws generally targeted certain types of corporations, pension or investment funds, limited partnerships, and alien person or non-American businesses (Dahl, 1991). Currently, nine states—Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, Oklahoma, South Dakota and Wisconsin—have laws that prohibit or limit large, publicly traded corporate involvement in agriculture (Hamilton, 1995a; Powers, 1993).

Why have these laws become so widespread? First and foremost, they are often justified as a means to protect the "family farm" from large corporations (Royer and Frederick, 1994).² Minnesota's current statute, as an example, explicitly states that its purpose is to protect the family farm:

. . .it is in the interests of the state [of Minnesota] to encourage and protect the family farm as a basic economic unit, to insure it as the most socially desirable mode of agricultural production, and to enhance and promote the stability and well-being of rural society in Minnesota and the nuclear family.

A second justification for the limits on corporate involvement in agriculture is corporations' potential impact on prices and hence on consumers. The laws of the 1970s and 1980s, for instance, were largely enacted in response to fears that agribusiness conglomerates might gain control of production and marketing of a substantial portion of the food supply, and so be able to control prices and boost profits (Kyle et al., 1972). In its current ban on packer feeding of livestock (beef or swine), the state of Iowa asserted that such a ban was necessary in order:

. . .to preserve free and private enterprise, prevent monopoly, and protect consumers.

The state maintained that by prohibiting firms that processed beef and pork (packers) from directly feeding beef cows and swine it was protecting the public interest, and in particular that of consumers.

A third, and more intangible, impetus for the anti-corporate sentiment revealed in the laws lies in agriculture's traditional role as something more than a purely economic enterprise. Buttel and Flinn (1975) argue that agriculture has never been viewed as a purely economic activity. Rather, agriculture has provided a number of non-economic virtues that are valuable to society, such as broadly distributed land holdings and autonomy that promotes an engaged and empowered citizenry. As Schafer argued in 1936:

Agriculture [is] one of the main supports of American democracy because it is an occupation embracing millions of freemen [sic] who own property and cultivate land on a somewhat equal basis (Krimsky and Wrubel, 1996).

By extension, corporate involvement in agriculture, especially non-family corporate ownership of agricultural land, would threaten this system of "freemen"—and hence the democratic institutions of the United States.

A final and related reason for the prevalence of anti-corporate laws can be found in traditional U.S. agricultural ideology. Mooney and Hunt (1996) argue that three ideological approaches to U.S. agriculture have been historically dominant: agrarian fundamentalism, competitive capitalism and producer-centrism. Agrarian fundamentalism is the belief that agriculture is the primary economic sector and that all other economic activity depends on agriculture. The competitive capitalism approach centers around the need for the state to intervene to break up monopolies and trusts, and keep markets competitive. The producer-centric approach contends that direct producers (farmers themselves) are entitled to the largest proportion of the value of production. All three of these approaches engender scrutiny of corporate involvement in agriculture.

Some Corporations Are Allowed

Even given strong public sentiment against corporate involvement in agriculture, anti-corporate farming laws do not restrict incorporation of all types or for all reasons. Authorized corporations are often family-owned corporations. However, the mere fact that a corporation is family owned is usually not sufficient to exempt it from the law. For instance, the Nebraska statute (Table 1) stipulates that for family corporations to engage in farming, a family member must reside on the farm or be actively engaged in the day-to-day labor and management of the farm. In exempting family-farm corporations from its prohibitions on corporate ownership of agricultural land, Minnesota defined a family-farm corporation as:

. . . a corporation founded for the purpose of farming and the ownership of agricultural land in which the majority of the voting stock is held by and the majority of the stockholders are persons or the spouses of persons related to each other within the third degree of kindred according to the rules of the civil law, and at least one said related persons is residing on or actively operating the farm, and one of whose stockholders are corporations.

Table 1: Summary of Nebraska's initiative 300 (I-300)

Source: Center for Rural Affairs, Walthill, NE

Activity	INDIVIDUALS		General partnership	LIMITED PARTNERSHIPS		CORPORATIONS	
	Farmer	Non-farmer		Family farm ¹	Non-family farm	Family farm ²	Non-family farm
Own farmland ³	Y	Y	Y	Y	N	Y	N
Rent farmland	Y	Y	Y	Y	N	Y	N
Operate farmland	Y	Y	Y	Y	N	Y	N
Own, keep, feed animals	Y	Y	Y	Y	N	Y	N
Own/raise poultry	Y	Y	Y	Y	Y	Y	Y
Own/operate, seed, nursery plant or sod farms	Y	Y	Y	Y	Y	Y	Y
Provide custom spraying, fertilizing, harvesting	Y	Y	Y	Y	Y	Y	Y
Purchase livestock, futures contracts, livestock for slaughter or livestock resold within 2 weeks	Y	Y	Y	Y	Y	Y	Y

1. All partners must be members of a family (or a trust created for the benefit of a member of that family), one of whom lives on the farm or provides day to day labor and management, and none are non-resident aliens.

2. A majority of the stock is held by members of a family (or a trust created for the benefit of a member of that family) one of whom lives on the farm or provides day to day labor and management on the farm. None of the stock can be owned by another corporation or partnership unless those entities are owned by members of the same family.

3. Farmland owned prior to adoption of I-300 in 1982 is exempt under grandfather clause.

In addition to qualifications based on kinship, sometimes states limit the number of shareholders allowed. North Dakota's law allows family corporations if the corporations have no more than fifteen shareholders. North Dakota also requires that at least 65% of the gross income of the corporation over the previous five years must have been derived from farming. Oklahoma has a similar restriction but places its limits at ten shareholders and no less than 79% of the gross receipts from a non-farm or ranch source. Other states have similar types of restrictions.

States also qualify corporate involvement in agriculture by limiting the amount of land to be acquired. For example, Iowa amended its law in 1988 to prohibit corporations from acquiring more than 1,500 acres of farmland. Minnesota currently has the same cap on land ownership.

Partnerships and limited partnerships are often required to meet certain requirements similar to those imposed on family and authorized corporations. Bureaucratic ownership arrangements more complex than unincorporated family ownership tend to have more restrictions placed on them. These restrictions enable family-owned and -operated farms to incorporate in order to take advantage of lower tax rates, if applicable, or for other reasons, but still try to maintain a link between the ownership of an operation and knowledge of its day-to-day activities (Dahl, 1991). Several states have found that there is a public interest in requiring at least some degree of direct involvement in agricultural production by those who own the operation.

Removing and Relaxing Anti-Corporate Farming Laws

In recent years, a number of industry leaders in states with anti-corporate farming laws have petitioned state legislatures to relax the laws (Powers, 1993). The ability of corporations to attract capital and concentrate investment and jobs in a community leads many people to view them as sources of economic prosperity. Many members of state governments as well as agribusiness and rural community residents view corporate investment and involvement in the livestock industry, for instance, as a way to enable the industry to grow and create opportunities (Powers, 1993; Patrico, 1996).

Consequently, a number of state governments have amended and/or relaxed their anti-corporate farming laws. For example, Oklahoma changed its corporate farming law in 1991 to allow corporations to raise poultry and swine. In 1993, Missouri exempted three counties from its corporate farming law to allow corporate swine production. Kansas changed its prohibitions on meat processors and corporations from engaging in swine production to allow county governments or the county electorate to decide such issues.³

Structural pressures have had some impact on anti-corporate farming laws. Laws have been changed to allow greater flexibility on the part of non-family corporations to feed livestock and poultry. This has enabled vertical integration of production and processing of livestock and poultry. Vertical integration often benefits corporations seeking more profitable means of operating. Besides integration, there are other reasons for wanting to incorporate without facing myriad restrictions. For instance, corporations often find it easier than other types of businesses to raise large amounts of capital (Rhodes, 1995 and Patrico, 1996) and have the advantage of limited liability (Haroldson, 1992).

3) Industrial Agriculture: Shifting Decision Making Upstream

The relaxing of anti-corporate laws has made it easier for vertical integration and contracting to flourish. Yet as they have flourished (in general even before the laws were relaxed), concern has mounted over what the ramifications might be in terms of cash return distribution (Box 1). Also of concern is a concomitant shift of control over decision making (Royer and Frederick, 1994).

Box 1: Ownership arrangements: who gains, who loses

Over the years, corporate ownership of agricultural production operations has been severely scrutinized and in many instances criticized. Proponents of direct marketing are among those who see their mission as helping to maintain a place for the family farm in the face of increasing corporate ownership of agricultural production operations. But why has so much importance been placed on the ownership arrangements of these operations? Is it simply an issue of whether corporations or farmers exercise the most control over production? Or are certain types of economic losses and gains associated with certain kinds of ownership arrangements?

Data from the Census of Agriculture for 1987 and 1992 can help to shed some light on these questions. This analysis uses data for counties with at least 1,000 acres of farmland in the contiguous forty-eight states to look at how the most common types of agricultural production enterprises—sole proprietorships, partnerships, family corporations and non-family corporations—fared with regard to (1) average cash gain per farm realizing cash gains in a county, (2) average loss per farm seeing losses, and (3) percentage of farms in a county that realized cash gains. Data on cash returns are available from the Census of Agriculture for 1987 and 1992.^{1, 2}

These three financial performance variables were chosen because most parties would probably agree that it would be more desirable to have higher cash gains per farm, lower average losses per farm, and have more, even all, farms in a county realize cash gains. Therefore, if counties with higher percentages of a particular type of ownership arrangement tend to have higher average cash gains, higher percentages of farms with cash gains, and lower average cash losses per farm, it might help explain why ownership arrangements are so passionately debated, and sometimes championed, in arguments over the changing structure of U.S. agriculture.

In order to account for possible confounding influences, variables were constructed to control on the factors of production (land, labor and capital) other than social organization, average farm size (sales), and social and physical environmental factors (number of farms in a county and region—see [Figure 1](#)). Regional variation is an important aspect of agricultural production (Ilbery, 1985). Climatic and agronomic characteristics, farm income (Salassi and Gattton, 1985), commodity type and how commodity systems are organized (Ilbery, 1985) can all vary by production region. For example, contract hog production has a more dominant position in the South Atlantic States than elsewhere (Miller, 1992). In fact, most contract production in the U.S. takes place in the Southern Region, especially in the South Atlantic States (Census of Agriculture, 1987³; see also, Kliebenstein and Lawrence, 1995). Also, Thomas et al. (1996) found that corporate-owned agriculture tended to be located in parts of California, Florida, Washington and Idaho. Non-corporate but large-scale, equipment and machinery intensive agriculture is concentrated in the upper Midwest; and small-farm agriculture is more highly concentrated in the Northeast, North Central, Middle and South Atlantic and South Central.⁴

The purpose of these controls is to discern if ownership arrangements have discernable associations with the financial performance variables; or whether other variables "wash-out" any connection between percentages of various forms of ownership and the financial performance variables.

Statistical (multiple regression) analysis was performed in two steps. 1987 and 1992 structural variables were used to predict 1987 and 1992 financial variables respectively. Overall, the results, presented in [Table A](#), indicate that counties with higher percentages of partnerships, family-held corporations, and non-family held corporations tend to be associated with high average cash gains per farm; but, also with higher average losses. Counties with higher percentages of individual and family proprietorships tend to have lower average losses per farm. Also, counties with higher percentages of partnerships are more likely to have higher percentages of farms earning cash gains. Higher percentages of non-family corporations are associated with lower percentages of farms with cash gains.

There is some evidence that non-family corporations have a tendency to concentrate cash gains in a county. That is, counties with higher percentages of non-family corporations are associated with higher cash gains but lower percentages of farms realizing cash gains. This result is not due to lower farm numbers in those counties with higher percentages of non-family corporations since number of farms in the county was included as a control. This impact of non-family corporations is even more interesting given the very low numbers of non-family corporate farms (see [Table B](#)).

Part of the reason that individuals and groups are working so hard to influence the social organization of production could originate in a kind of populist economic perspective. That is, attempts to proscribe non-family corporate ownership of farming operations could be efforts to spread out the economic returns from agriculture, as well as stabilize the farm economy at the county level through minimizing losses.

As the number of publicly traded corporate agricultural operations increase relative to other types of ownership arrangements, these results could become more pronounced and we should see greater concentration of cash returns

from farming in some areas of the country.

I consider the analysis and results not to be an end in themselves or a definitive statement, but rather a heuristic device. That is, the analysis serves to indicate or point out issues which hopefully will stimulate further investigation.

1. Net cash returns are not farm income. Rather, the Census of Agriculture defines net cash returns as being derived by subtracting total operating expenditures from the gross market value of agricultural products sold. The cash return is that of the farm unit rather than the net farm income of the operators. In addition, operating expenses do not include depreciation or changes in inventory values. Expenses may have been understated on farms renting land from others because taxes paid by landlords are excluded, and insurance and other landlord expenses not readily known to renters may have been omitted or underestimated.
2. To approximate normal distributions, these variables were transformed by calculating their natural logarithms.
3. These data are from Table 20 of *Agricultural Economics and Land Ownership Survey, Vol. 3 Related surveys, Part 2*.
4. To compare the arrangements of interest, only sole proprietorships, partnerships, family-held corporations and non-family held corporations are included relative to one another. These four types of organizations accounted for an average of 99% of the farms in the counties in the data set. In the analysis, the percentage of sole proprietorships is left out in order to measure the other organizational types relative to sole proprietorships. Sole proprietorships were chosen as the basis of comparison because they are by far the most numerous of the organizational types.

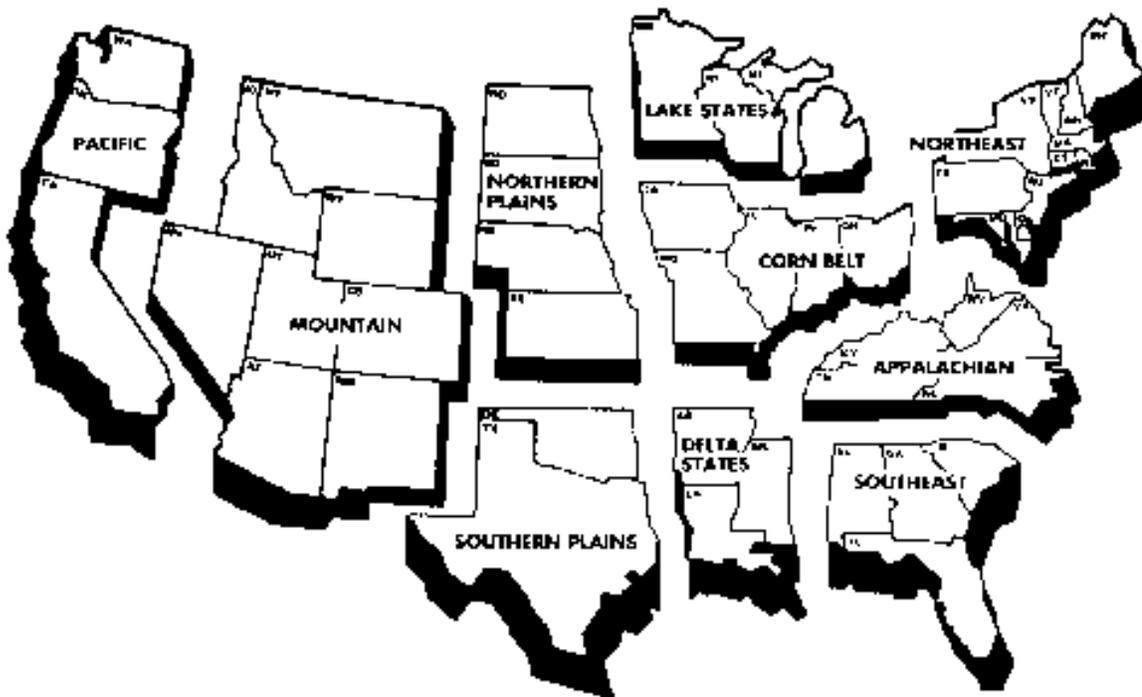


FIGURE 1
Farm production
regions

Source:
Adapted from
Salassi and Gattori,
1985

Table A: Effects of farm ownership arrangements on farm cash returns at the county level

	Pct. of cash gainers in the country	Avg. cash gain per farm	Avg. cash loss per farm
1987^a percentage of			
Partnerships	.167 ²	.118 ²	.118 ²
Family corporations	.015	.137 ²	.170 ²
Non-family corporations	-.018	.038 ¹	.023
N=3012	F=111 Adj R2=.38	F=375 Adj R2=.68	F=281 Adj R2=.61
1992^a percentage of			
Partnerships	.170 ²	.071 ²	.110 ²
Family corporations	.009	.121 ²	.200 ²
Non-family corporations	-.053 ²	.016	.059
N=3012	F=169 Adj R2=.49	F=384 Adj R2=.68	F=268 Adj R2=.60

¹p is less than .05²p is less than .001^aControl variables for both years:

Average value per farm of:
 machinery and equipment
 hired labor expenditures
 land and buildings

Average value of sales per farm

Number of farms in the county

Production region

Table B: Farms by ownership arrangements, 1978-92

Source: Census of Agriculture

	1978	1982	1987	1992	% change (78 to 92)
Number of farms	2,257,775	2,240,976	2,087,759	1,925,300	-15
Individual or family proprietors	1,965,860	1,945,639	1,809,324	1,653,491	-16
Partnerships	232,538	223,274	199,559	186,806	-20
Family corporations	44,413	52,652	60,771	64,528	45
Non-family corporations	5,818	7,140	6,198	8,039	38

The relative amount of control that farm household members have over their operations has been the subject of concern and debate for a long time. Federal program payments to farmers have often been contingent on specific conditions such as maintaining a base acreage in a program crop or preparing a soil conservation plan. However, with the passage of the last farm bill, this influence on farm-level decision making has become less important. There is also substantial literature that views continual technological development and promotion, as well as increased capitalization and debt, as means by which farm-level workers cede control to off-farm firms.⁴ Recent developments in the structure of U.S. agriculture, however, point to a need to consider that market structure, especially in the area of contract relations, deeply affects the ability of farm household members to make on-farm production decisions.

Contracts in U.S. Agriculture

U.S. agricultural contracts tend to be of two types: marketing and production. A marketing contract requires a farmer to sell his or her product to a particular processor or intermediary firm (contractor) but allows the farmer to make all managerial and production decisions. Most of the milk contracts in the United States, for example, as well as many grain contracts, are marketing contracts (Martin, 1993). Production contracts tend to go beyond marketing contracts by specifying that farmers adhere to certain production practices decided by the contractor (Martin, 1993; Martinez and Reed, 1996). If a production contract specifies that farmers adhere to certain production practices, but the contractor does not provide any tangible goods (inputs) to use in production, the contract is called a production management contract. If a contract requires the contractor to provide an input, it is called a resource-providing contract (Martinez and Reed, 1996; see Table 2).

Table 2: General contract specifications—finishing hogs

Source: Zering and Beals, 1990

ITEM	INTEGRATOR	PRODUCER
Land, access road, buildings, equipment and water		✓
Waste handling and disposal facilities		✓
Breeding stock (feeder pig contract)	✓	
Feeder pigs (finishing contract)	✓	
Feed ingredients, processing and delivery	✓	
Veterinary services and medication	✓	
Fuel, electricity and telephone		✓
Repairs and supplies		✓
Marketing and transportation of all swine	✓	
Labor: production and supplies		✓
Labor: supervisory and specialists	✓	

Marketing contracts transfer minimal control from the farmer to the contractor. Production management contracts, however, give contractors more control over the production process, and resource-providing contracts give contractors the most control over the production process that is possible without buying the production operation outright—vertically integrating.

Some farmers strongly oppose contract production, saying that it transfers too much control from the farmer to the contractor, and wish to place legal restrictions on it. Advocates of contract production argue that such restrictions would prevent some family farmers from establishing themselves in, for instance, hog production, because they would prohibit contract arrangements that could provide financial and technical support to farmers (Royer and Frederick, 1994).

Many contract swine production arrangements are such that, a contractor—whether it is a processor, feed supplier or the owner of a farrowing operation—typically owns the pigs and pays the farmer a flat fee, plus performance incentives, to feed them to slaughter weight according to the contractor's specifications. The farm owners and workers provide the facilities and labor, and the contractor provides the feed, veterinary supplies, management services and, in some cases, financing. However, it is important to note that by providing the farm with a number of resources, the contractor ensures that it maintains control over critical aspects of the production process. The fact that the contractor owns the swine provides the motivation and legitimization for this control (Martinez and Reed, 1996).

In addition to specific contract terms, a contractor's size can influence how much control is shifted from the farm level. Miller (1992) reports that the largest hog contractors often prefer farmers they contract with to have little or no experience with hogs. Rather, they want to train the farmers themselves. The smaller contractors tend to seek out more experienced growers (Miller, 1992). Conversely, the size of a farm and its ownership arrangements can influence decisions about contraction production. For example, Winson (1990) found that larger contractors prefer to purchase from larger farming operations, while smaller contractors prefer smaller operations or have no preference. Contracting itself is more common among larger farm operators (Bell, 1996). In North Carolina, where corporate agricultural production is not banned, Smithfield Foods (a processor) contracts with a small number of large-scale, corporate-owned farms, in some of which it owns an interest, to raise most of the hogs it slaughters (Center for Rural Affairs, 1995).

Although there are no systematic data available on contract production (Frank and Henderson, 1992), the 1987 Census of Agriculture included a survey of 33,703 farms producing under contract. Information from this survey (Table 3) shows that 18% of sales under production contracts came from non-family corporations, while data for all farms from the 1987 census show that only 6% of total sales came from non-family corporations. In fact, since 1960, contracts and vertically integrated operations have accounted for an ever-larger share of total U.S. agricultural production. Tables 4-6 show the estimated levels of a number of commodities produced either under contract or by vertically integrated firms over time. From these tables, one can conclude that part of agricultural structural change has been the shift of control over production decisions from farmers to processing firms.

Table 3: Percent of total sales in 1987 by farm type: All farms and farms with production contracts

Source: 1987 Census of Agriculture: Agricultural Economics and Land Ownership Survey

	All farms	Farms with production contracts (sample)
Non-family corporations	6	18
Family corporations	21	24
Partnerships	17	10
Sole proprietors	56	47

Table 4: Percent of total output under marketing contracts for selected commodities

Source: Adapted from Manchester, forthcoming

	1960	1980	1993/4
Feed Grains	0.0	6.0	12.0
Food Grains	0.0	7.0	8.0
Vegetables			
fresh market	0.0	0.0	0.0
for processing	0.0	0.0	0.0
Dry Beans and Peas	24.0	22.8	36.0
Potatoes	0.0	0.0	0.0
Citrus Fruits	78.6	84.1	87.8
Other Fruits/Nuts	20.0	35.0	35.0
Sugar Beets	0.0	0.0	0.0
Sugar Cane	0.0	0.0	0.0
Cotton	0.0	16.0	20.0
Soybeans	0.0	9.0	12.2
Fed Cattle	10.0	10.0	11.4
Hogs	0.0	2.0	2.0
Fluid Grade Milk	95.0	95.0	95.0
Market Eggs	13.5	5.0	2.0
Hatching Eggs	0.0	0.0	0.0
Broilers	1.0	0.1	0.0
Turkeys	16.0	10.0	5.0

Table 5: Percent of total output under production contracts for selected commodities

Source: Adapted from Manchester, forthcoming

	1960	1980	1993/4
Feed Grains	0.1	1.2	1.2
Food Grains	1.0	1.0	0.1
Vegetables			
fresh market	20.0	18.0	25.0
for processing	67.0	88.1	87.9
Dry Beans and Peas	1.5	2.0	2.0
Potatoes	40.0	60.0	55.0
Citrus Fruits	0.0	0.0	0.0
Other Fruits/Nuts	0.0	0.0	0.0
Sugar Beets	99.0	99.0	99.0
Sugar Cane	24.4	37.8	41.6
Cotton	5.0	1.0	0.1
Soybeans	1.0	1.0	0.0
Seed Crops	80.0	80.0	80.0
Hogs	0.7	1.5	10.4
Fluid Grade Milk	0.1	0.3	0.1
Market Eggs	7.0	45.0	35.0
Hatching Eggs	65.0	70.0	70.0
Broilers	90.0	87.0	85.0
Turkeys	30.0	52.0	56.0

Table 6: Percent of total output under integrated ownership for selected commodities

Source: Adapted from Manchester, forthcoming

	1960	1980	1993/4
Feed Grains	0.4	0.5	0.5
Food Grains	0.3	0.5	0.5
Vegetables			
fresh market	25.0	35.0	40.0
for processing	8.0	10.0	6.0
Dry Beans and Peas	1.0	1.0	1.0
Potatoes	30.0	35.0	40.0
Citrus Fruits	8.9	11.2	6.9
Other Fruits/Nuts	15.0	25.0	25.0
Sugar Beets	1.0	1.0	1.0
Sugar Cane	75.6	62.2	58.4
Cotton	3.0	1.0	1.0
Soybeans	0.4	0.5	0.4
Seed Crops	0.3	10.0	10.0
Fed Cattle	6.7	3.6	4.5
Hogs	0.7	1.5	11.4
Fluid Grade Milk	0.0	0.0	0.0
Market Eggs	5.5	43.0	60.0
Hatching Eggs	30.0	30.0	30.0
Broilers	5.4	12.0	14.0
Turkeys	4.0	28.0	32.0

Risks, Legal Conflicts, and New State Laws

Contract production and the shift of control over production from farmer to contractor is often viewed as a mutually beneficial arrangement: the contractor can be assured of a consistently high-quality product, and the farmer avoids some of the risk involved with production. Martin (1993) argues that:

... [first,] the grower's investment is limited to the house and any supporting facilities or equipment (e.g., lagoons, feed bins, etc.), thereby reducing the capital requirement. Second, contracts help

growers obtain financing because contract farming provides for a less variable return to the grower thereby making the loan less risky to the lender.

The integrator also assumes most of the input and output price risk otherwise borne by the farmer and jointly shares production risk.

Martinez and Reed (1996) point out that under production contracts, farms are compensated for relinquishing control through bonuses for quality and through reduced uncertainty. Knoeber and Thurman (1995) argue that since poultry farmers' payments depend upon what they produce and not on market prices, the farmers do not have to worry about market price fluctuations. In addition, since farmers are ranked on the basis of their performance relative to other farmers, each farmer is insulated from any production risk that influences all farmers with whom he or she is compared. Kliebenstein and Lawrence (1995) maintain that although returns to hog farmers can vary greatly from one contract to the next, in general contracts tend to reduce the level of risk for the farmer.

Although they can mitigate farmers' risks, production contracts can have other, less positive effects. Martinez and Reed (1996) assert that production contracts can restrict the entry of packers, and thereby restrict farmers' choices of outlets. Production contracts can be viewed as a way in which existing packers control supplies of farmers, depending on the amount of concentration in the processing end of a commodity system. Likewise, Knoeber (1983) and Martin (1993) see that exploitive opportunistic behavior on the part of any participant in a contractual relationship is a danger. Kliebenstein and Lawrence (1995) found that as the bargaining position of the pork packers improved, the attractiveness of contract terms for the growers declined.

In this vein, Hamilton (1995b) writes that highly concentrated processing industries often will shift the balance of power, writing contracts that favor themselves in a number of important production areas. For instance:

- Swine and poultry farmers who enter contracts often build a new facility to company specifications, usually borrowing a significant amount of money and placing a mortgage on the farmland. However, the term of the financing is often longer than the term of the contract.
- Some farmers have to buy specialized equipment based on the expectation they will be asked to supply crops long enough to pay for the machines—even though many production contracts are short term (one year).
- Production contracts often include extremely detailed terms concerning the quality of the crop or the methods used to produce it. Whether the crop meets these standards is often solely at the discretion of the [contractor].
- Although the farmer does not own the crop, most contracts provide that the risk of crop loss (from weather, disease, or other natural causes) rests with him or her.

One of the negative outcomes from the increase in contract production is the increase in the number of court cases filed over contract disputes, especially in poultry production (Hamilton, 1995a). The issues in these suits have included early contract termination (before farmers' investments in buildings were paid off); company requirements for additional improvements at a farmer's expense; manipulation of the quality, cost and amount of inputs such as birds and feed; unprofitable contracts (in this case, the claim was that the company knew the contract was unprofitable); underweighing of poultry and feed; failure to make payments; false rankings made under the system companies use to pay farmers and terminate contracts; retaliation against farmers for complaining and/or organizing, which sometimes involved terminating the contract; lack of local competition among processors (which meant that the farmer involved had no alternative contractors to sell to); and grading problems relating to payment factors. Juries and judges have not treated these claims as frivolous: growers have won a number of handsome rewards over legal disputes with contractors (Hamilton, 1995a; Roth, 1992b).

Because of the potential for conflict, several states have come to place legislative restrictions of various kinds on contract production. As previously mentioned, Iowa restricts packer feeding of livestock or contracting for pork (Hamilton, 1995a). Nebraska effectively prohibits contract livestock production (Royer and Frederick, 1994).

Minnesota's Producer Protection Act requires contractors who terminate or cancel a contract that requires farmers to make a capital investment of at least \$100,000 in buildings or equipment with a useful life of at least five years, to give 180 days' written notice and reimburse the farmer for damages. In addition, Minnesota's Wholesale Produce Dealer's Act requires contractors to have a license. They can lose their license for making false statements to induce someone to sign a contract; for using coercion, intimidation or the threat of retaliation; for violating the terms of a contract; or for failing to make payments (Center for Rural Affairs, 1994; Roth, 1992a). A number of other states have adopted or are considering such laws (Hamilton, 1995a; Prariefire, 1996; Marbery, 1997).

As a supplement to these legislative interventions, farmers have organized themselves in a number of ways. Farmers' bargaining units are beginning to appear in certain sectors, such as the poultry industry, that have not had them previously (Hamilton, 1995a). This phenomenon could be an encouraging sign for poultry growers since Knoeber (1983) notes that the use of agricultural bargaining cooperatives in the fruit and vegetable industries have a long history of acting as a valuable check on contractors' opportunistic behavior. Some hog growers have banded together to form cooperatively run networks, in which farmers share decision making (Koehler et al., 1996). In these networks, individual farm operations concentrate on a single aspect or stage of production in order to increase network efficiency. The networks also engage in collective marketing, pool money to buy inputs in larger quantities and construct production facilities (McClintic, 1995), share information and coordinate (formula) pricing between different hog production stages (Koehler et al., 1996). Some farmers have even moved beyond networking to form their own cooperative processing companies, which contract with their members (Miller, 1996).

Forming bargaining units, farmers' networks and cooperatively owned processing operations helps to shift control over the production process back from the contractor to the farmer in industrialized agriculture. Bargaining units enable farmers to collectively mediate the process by which control over the production process is transferred to the contractor and to make that transfer more lucrative, or fairer, for the farmer. Farmers' organizations also influence the context in which the transfer is made by petitioning the state to provide safeguards for individual farmers (Hamilton, 1995a). Farmers' networks and cooperative processing substitute collective control for individual control: the farmer has input into production decisions but ultimately follows prescriptions laid out by the network or cooperative (Miller, 1996).

The degree of farm-level input into and control over a cooperative or network is the key for these institutions to mediate the transfer of control over production decisions. If networks or cooperatives are dominated by outside investors with only nominal farm-level participation and control, then the network or cooperative will not effectively mediate the loss of control over production decisions, since institutional control is not linked with production knowledge (Seery, 1996). By thoughtfully and strategically constructing cooperative processing arrangements, bargaining units and farmers' networks that are democratically run by their members, farmers can help to alleviate or avoid some of the more pressing problems associated with today's highly concentrated and coordinated agricultural system. The objective is to prevent other agricultural industries from becoming like the poultry industry, which consists of a highly concentrated processing sector that largely sets the terms of contracts with its farmers.

Alternatively, farmers can look for opportunities outside industrialized agriculture, in the direct marketing area. Direct marketing also relies on institutions guided by rules to delineate or influence who can participate. Farmers agree to abide by these rules in order to preserve opportunities for small-scale, independently operated farms, and to cater to consumer demand (Hamilton, 1996).

4) Direct Marketing: Enhancing Farmer's Control

Farmers' markets, community supported agriculture, subscription farming and other forms of direct marketing have become remarkably popular in recent years (Burns and Johnson, 1996)—not only with consumers, but among many in the agricultural community. Farmers who participate in direct marketing see their work not only as a means of making a living, but also as part of a social and political project to foster a nationwide increase in small-scale farms.

In the words of Hamilton (1996), direct marketing and the farmers who engage in it "offer the nation a way to connect with the ideals of Jefferson's agrarian vision." The popular notion of this vision is a large number of small to medium-sized family-owned farms, collectively reflecting the bounty and independence inherent in a democratic society.

Farmers' markets give people with small farms an outlet for experimenting with a new operation or with new products (Gibson, 1996) and, most important, a chance to survive economically. As Lyson et al. (1995) put it:

... for the remaining family farmers with small operations, the growth of farmers' markets in the Northeast may represent an economic lifeline. Farmers' markets also offer promise for new entrants to farming who can market their product effectively.

Burns and Johnson (1996) of the U.S. Department of Agriculture's Agricultural Marketing Service add that:

Farmers' markets play a vital role in enabling small to medium-size growers to gain access to consumers. Without this access, the existence of many small-size growers would be threatened.

In a recent survey of farmers who sell at farmers' markets, Gibson (1996) found that the average size of their farms was forty acres. In a survey of farmers' markets in New York State, Lyson et al. (1995) determined that all of the farms involved were relatively small in scale and either individual or family (sole) proprietorships or partnerships (Table 7).

Table 7: Ownership arrangements of farmers' market vendors

Source: Adapted from Lyson et al., 1995 (survey of 9 markets in New York State)

	Individual or family (sole) proprietors	Partnerships
Full-time growers	65%	35%
Part-time growers	87%	13%

Whether they belong to farmers' markets or engage in some other type of direct marketing, the small-scale farmers of this sector enjoy an advantage not available to many farmers in industrialized agriculture: they retain both ownership and control of the production operation. In fact, the rules and conventions surrounding direct marketing make the connection between ownership and control explicit. The most common rule (Table 8) is that farmers must grow at least some of the products they sell—a rule that is a much stricter prohibition against breaking the link between knowledge and control than even the strictest anti-corporate farming laws.

How Rules and Regulations Help to Construct the New Agriculture

Farmers' Markets

The popular perception of farmers' markets is that they are free of bureaucratic influences and rigid rules. The reality is that they are governed by relatively strict rules. In fact, it is often the nature of the rules governing the operation of farmers' markets that makes them attractive to consumers (Burns and Johnson, 1996). Consider that the Federal Register (1995) defines a farmers' market as:

... an association of farmers who assemble for the purpose of selling their produce directly to consumers. A farmer cannot be an individual who exclusively sells produce grown by someone else.

Thus "farmers' market" is an official designation, meaning that an individual who actually grows the crop, sells the crop. According to the federal government, individuals who do not farm are explicitly not "farmers" and are excluded from farmers' markets as endorsed vendors. State statutes governing farmers' markets also officially designate farmers' markets as places where consumers can know who grew the product. For example, California's direct marketing statute holds that:

[e]xcept as provided . . . certified producers may sell or offer to sell only their own agricultural products to consumers at a certified farmers' market.

New York State defines farmers' markets as:

. . . any building, structure or place, the property of a municipal corporation or under lease to or in possession of a public or private agency, used or intended to be used by two or more producers for the direct sale of farm and food products from producers to consumers and food buyers.

Table 8: Regulations about origin of products*

Source: Adapted from Burns and Johnson, 1996

*Some respondents gave multiple answers depending on the season—more restrictions during season than off-season. These responses were recorded twice; therefore, totals do not compute.

Size of markets, by number of farmers	Responses		Responses about Nature of Restrictions					
	Restrictions		Only own crops		Other farmers' crops too		Other restrictions	
	Markets	Farmers served	Markets	Farmers served	Markets	Farmers served	Markets	Farmers served
Markets serving 1-9 farmers	130	737	89	522	101	552	56	329
Markets serving 10-19 farmers	168	2,221	117	1,565	95	1,249	75	1,003
Markets serving 20-49 farmers	201	5,786	133	3,925	125	3,605	97	2,856
Markets serving 50-99 farmers	59	3,753	37	2,411	37	2,337	37	2,435
Markets serving 100-500 farmers	31	4,507	24	3,366	20	2,690	16	2,124
Markets serving >500 farmers	1	800	1	800	1	800	1	0
Serving unknown no. of farmers	19	0	12	0	13	0	9	0
TOTAL	609	17,804	413	12,589	392	11,233	291	8,747

Local governments have also found it in their interest to officially connect knowledge of production and control through the use of ordinances regulating farmers' markets. Davis, California, has a municipal ordinance that defines an approved seller in the Davis Farmers' Market as a person selling or offering for sale at the market an item or commodity that he or she has (1) grown upon land that he or she controls, in the case of fruits, nuts, vegetables, other plant products or other processed agricultural products; or (2) bred, raised, cultivated or collected, in the case of animal, poultry, viticulture, vermiculture, aquaculture, eggs, honey and bee products.

Farmers' markets themselves maintain a comprehensive list of rules that govern the participants. A number of these rules are designed to ensure that whoever sells the agricultural product also produces the agricultural product. For example, in a case study of the Ithaca Farmers' Market in Ithaca, New York, Alexander (1996) found that in its by-laws, the market stipulates that members must grow, or make, their own products. Gibson (1996) found that a number of markets require that the farm owner be present at least once per week. The farmers' market in Davis, California, requires approved sellers to be persons who grow or raise the products they sell at the market. Greenmarket of New York City, which manages farmers' markets throughout the city, requires that "produce/products sold must be grown/produced by the principal farmer/producer." Further, Greenmarket has a set of conditions that must be met for every type of commodity that may be sold at the market. The following examples are paraphrased from Greenmarket's Regulations for 1996:

- For meat: All of it must come from animals raised from weaning by the farmer/vendor. The animals may be butchered and smoked off farm provided the meat is from the farmer's animals.
- For fish: The vendor must own and operate a commercial fishing boat from which he/she regularly fishes.
- For freshwater fish: The fish must be raised by the vendor. The maximum size of purchased fingerlings for trout is two inches.
- For milk/dairy: The milk must come from a herd managed and milked by the farmer. Cheese and other dairy products must be made by the farmer.



Farmers' market.

Photo courtesy of
Southern SARE.

This level of detail makes it harder for individuals to introduce and sell products they did not produce themselves. It also exemplifies the seriousness of the desire to ensure that consumers know how each product was produced, and that the person who is selling them the product had a substantial part in producing the product. Burns and Johnson (1996) report from a survey of 772 farmers' markets that 609 had restrictions on who could participate: 413 markets restricted farmers (for at least part of the year) to selling only the crops they grew, and 392 allowed farmers (at least part of the year) to sell only their own and other local farmers' products ([Table 8](#)).

These rules clearly connect the knowledge of production with control over production by ensuring that the farmer and marketer are the same person. In this manner, the farmers' markets have influenced the structure of agriculture by establishing markets where small-scale, non-corporate entities dominate. However, the presence of farmers at a farmers' market is more than a bureaucratic barrier to entry. It is also a way to attract customers. For many customers, meeting the farmer and developing a personal rapport with him or her is what keeps them coming back (Gibson, 1996).

All the examples of farmers' markets presented in this section are taken from New York State and California, which between them account for almost 20% of all farmers' markets in the United States. However, as [Table 9](#) illustrates, there are significant numbers of farmers' markets in other states such as Iowa, Massachusetts, Ohio, Pennsylvania, Wisconsin and Texas.

Table 9: Number of farmers' markets by production region and state

Source: U.S. Department of Agriculture/Agricultural Marketing Service

Area		Farmers' markets
Appalachia	Kentucky	59
	Tennessee	50
	Virginia	52
	West Virginia	19
Corn Belt	Illinois	58
	Indiana	23
	Iowa	115
	Ohio	99
Delta	Arkansas	21
	Louisiana	14
	Mississippi	26
Lake States	Michigan	74
	Minnesota	48
	Wisconsin	103
Mountain	Arizona	5
	Colorado	30
	Idaho	20
	Montana	7
	New Mexico	23
	Nevada	0
	Utah	3
	Wyoming	6
Northeast	Connecticut	48
	Delaware	1
	Maine	34
	Maryland	51
	Massachusetts	88
	New Hampshire	17
	New Jersey	25
	New York	204
	Pennsylvania	134
	Rhode Island	7
	Vermont	29
Northern Plains	Kansas	49
	Nebraska	38
	North Dakota	27
	South Dakota	8
Pacific	California	249
	Oregon	24
	Washington	55

Southeast	Alabama	9
	Georgia	9
	Florida	14
	South Carolina	10
Southern Plains	Oklahoma	49
	Texas	86

Community-Supported Agriculture (CSA)/Subscription Farming

In the past ten years, a novel production and distribution method called community-supported agriculture (CSA) has grown in size and recognition. Current estimates put the number of CSA operations in the United States at 523—an increase of 43% since 1993 (Bio-Dynamic Farming and Gardening Association, 1997). In a CSA operation, customers pay a farm, or a number of farms, in advance to provide produce and other products from their farms throughout the growing season (Gregson and Gregson, 1995; Rauber, 1995).⁵



CSA subscribers enjoy a farm tour.

Photo courtesy of
Southern SARE.

In many CSA arrangements, the customer will pay several hundred dollars to the farmers before the growing season begins and receive an unspecified type and amount of food in return. Consequently, the farmer has money before the growing season, when it is most needed, and the customer trusts the farm to provide a steady supply of food. Under a number of CSA conventions, if the farm has a bad or disastrous year, customers receive little or nothing for their money. Therefore, customers take on the risk of production (Fieldhouse, 1996). In practice, though, the degree of risk shifting varies: for instance, CSA farmers will often purchase commodities from other farms to provide for their customers and keep them interested in maintaining their memberships, thus informally sharing risk (Rauber, 1995). In some subscription operations, the customer does not pay if no food is forthcoming (Sinclair, 1992).

Distribution of the farm products also varies. Some farmers deliver their crops to a predetermined, centralized location, such as a parking lot (Rauber, 1995; Gogerty, 1995). Other farms have the consumer come out to the farm and even participate in production operations (Gogerty, 1995). In some operations, the farmer delivers the products to a customer's house or workplace (Sinclair, 1992). In many cases, the customer does not know what the box of food might contain, although it is obviously in the farmers' interests to find out what customers want in order to gain new ones and retain established ones (Sinclair, 1992). However, even taking account of customer desires, the CSA farmer has a tremendous amount of flexibility regarding production decisions. Gregson and Gregson explain that:

[a] prepaid predetermined general market is the main advantage to the farmer. The term general here delineates a real advantage, the farmer gets to choose what goes to the customers each week. This gives the farm operation huge flexibility, it encourages the farmer to try new varieties and new growing techniques without fear of catastrophic monocrop failure, since numerous crops and varieties keep the subscribers happy.

For many involved in CSAs, linking production knowledge and control is the key to ensuring the continuance and even growth (Gregson and Gregson, 1995) of small-scale, household-based production agriculture in this country. In

fact, many CSAs are remarkably small, no more than a few acres, but they are financially viable. Ward and Peterson (1994) report 1993 gross earnings of over \$100,000, with a net of around 25% to 30% before taxes from their ten-acre direct marketing operation (also, see Table 10). As Gregson and Gregson (1995) put it:

Many are amazed to discover that we two middle-aged novice farmers are making a decent living on less than two acres of land.

Table 10: Sample CSA income statement

Source: Adapted from Cicero, 1994

INCOME	60 full shares @ \$600	\$36,000
	100 half shares @ \$400	40,000
	Total income	\$76,000
EXPENSES	Garden Lease	
	Biodynamic Certification	\$1,100
	Other Administrative	500
	Seeds and Plants	2,500
	Compost, mulch, etc.	2,500
	Supplies	2,000
	Fuel	1,500
	Utilities	600
	Maintenance and Tools	4,500
	Truck Expenses	1,000
	Crops from Other Farms	3,200
	Salaries (2)	30,000
	FICA (1/2)	2,500
	Health Insurance	2,100
	Housing	3,000
	Volunteer Labor Costs	11,000
	Loan Payments	4,440
	Principal	560
	Interest	
		Total expenses

Some CSA arrangements involve larger farms that are moving from indirect to direct marketing and have only a percentage of their sales coming from the CSA portion of their farm (Bio-Dynamic Farming and Gardening Association, 1994). In other instances, larger farms coordinate with smaller farms to organize CSAs: the larger farms often provide staple commodities, such as potatoes and carrots, which require more mechanized operations, while the smaller farm produces more exotic produce such as salad greens, brassicas, tomatoes and other items that do not require substantial amounts of equipment (Growing for Market, 1995).

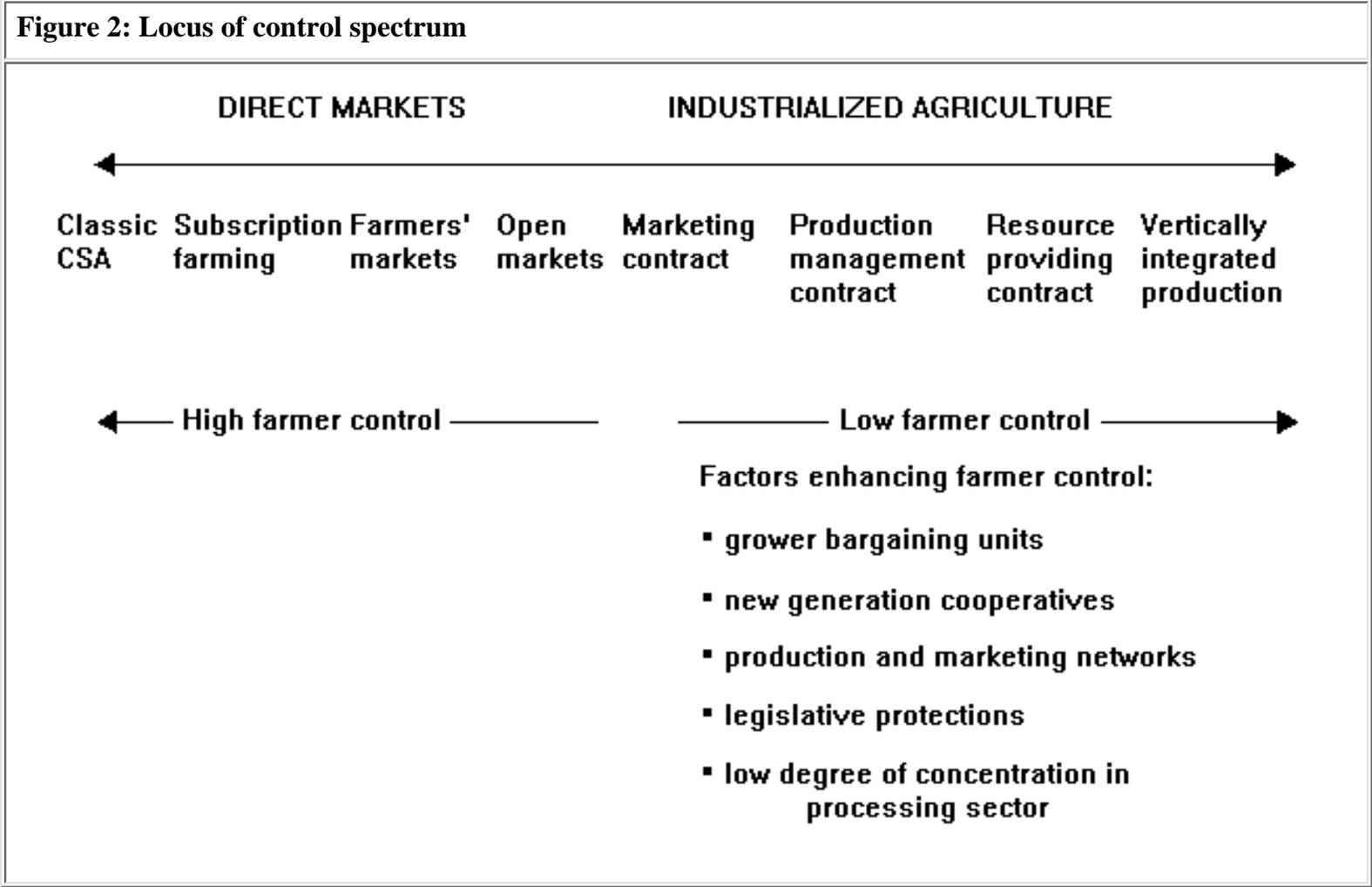
Direct Markets Are More Than Open Markets

Frank and Henderson (1992) argue that a continuum can be constructed from least control transferred from the production operation to the purchaser of the production to the greatest control transferred. The determining factor is the type of market structure for which an operation produces. A production operation that is owned by a processor

transfers the greatest control and production under resource-providing contracts transfers the next greatest amount of control, followed in descending order by production-management contracts, marketing contracts, and finally production for open markets.

But "open markets" is in itself too broad a category. Open markets come in a number of types, including farmers' markets and CSAs, with varying amounts of control and risk shifted from farmer to customer. Obviously, the aim of farmers' markets and CSAs is to cement farmer control over the operation: they are markets based on the concept that the farmer sells his or her products directly to the customer, with no other institution controlling the production process. In fact, in a classic CSA, the farmer has almost complete discretion over what he or she will produce for the customer—and in many cases the farmer may not have to produce anything if a catastrophe occurs. In this manner, the classic CSA gives complete control to the farmer and shifts all of the risk to the customer. As we have seen, other forms of CSAs shift less risk, as farmers must provide some products to customers to receive payments. Farmers' markets shift no risk to customers—the farmer must produce in order to be paid. That is why many direct marketers produce for subscription in addition to selling at farmers' markets (Sinclair, 1992).

Figure 2 shows the spectrum of market type and farmer control over the production process. On the extreme right is a vertically integrated production operation (in which the farmer is a hired manager with little or no control over production decisions). On the extreme left is a classic CSA (in which customers pay in advance for unspecified amounts and types of products, and theoretically bear all the production risk). The two extremes are ideal types and therefore serve primarily as bases for comparison. In practice, hired managers often have some degree of decision-making autonomy and, as discussed earlier, CSAs often provide at least some information on quantity and type of products they will produce, as well as share some risk with the customer.



5) *A View to the Future*

In their book *The Winner-Take-All Society*, Cornell University economists Frank and Cook (1995) describe a U.S. economy dominated by markets that are designed to provide a few winners with a disproportionate share of returns. The result is income inequality as well as an inefficient and even damaging allocation of resources. Despite dramatic and radical transformations in agricultural production the past fifty years, as well as a highly concentrated processing and distribution sector (Heffernan, 1994), agriculture is still the only U.S. economic sector with a substantial amount of household-based production. As we have seen, support for this arrangement has manifested itself in the wide range of attempts to protect family-owned production operations, which include anti-corporate farming laws, construction of direct marketing outlets, bargaining units, networking and cooperative processing. The social movements that pushed, and still push, an agenda to preserve non-corporate entities and family-farm viability anticipated Frank and Cook's analysis. They were, and are, attempting to prevent a winner-take-all outcome in U.S. agriculture.

In their 1972 examination of the benefits and costs of change in the structure of agriculture, Breimyer and Barr asserted that:

The policy question is not whether things will be kept just as they are; it is neither desirable nor possible to do so. Rather, the basic question is whether some version of a dispersed farm production and marketing organization is to prevail or whether the control of U.S. farm production and marketing will be concentrated in a relatively small number of large firms.

This question is even more pertinent today, and its answer will depend in part on how successfully farmers organize themselves to compete, bargain collectively or petition the state for protection from a concentrated processing sector. Another part of the answer will depend on whether citizens' groups can effectively mobilize to influence the alteration, relaxation or establishment of corporate farming laws or laws that regulate production and marketing arrangements and relations. Will the direct marketing sector account for a major portion of U.S. agriculture in the future? And if it does, can it retain the characteristics that make it popular with consumers and farmers?

Changes in control over production decisions pose a number of additional questions. For instance, will increases in production contracts endanger the natural environment or protect it? On one hand, contracts could be constructed which specify that contractees use environmentally friendly practices. On the other hand, many poultry growers argue that their weak bargaining position relative to processing firms results in contracts that assign complete responsibility for dead bird and litter disposal to the growers, who are less able to pay for it than are the processors (Welsh, 1996:32). Poor environmental performance at the farm level can be the result.

An expose by Hedges et al. (1996) of livestock processing operations, and previous work by Stull et al. (1995), raise the question of whether industrialized agriculture ultimately depends on a low-wage, highly exploitable and transient work force, and is, therefore, not a desirable way to organize food production and processing. Would alternative organizational arrangements provide benefits to hired agricultural workers? And, given any organizational form, what type of public policy would ensure that hired laborers also realize benefits from a highly productive agricultural sector to which they contribute?

Ultimately, policy makers, researchers and other interested parties must understand that the structure of agriculture can greatly influence the relative benefits that farm household members, hired laborers, the natural environment, rural communities and consumers of agricultural products receive. Further, they must understand that the structure of agriculture in this or any other country is not an evolutionary or inevitable process, but a socially constructed arrangement of institutions, rules and relationships. The organization of agriculture today has resulted solely from decisions made by people, and can be altered and reorganized if enough people wish to alter or reorganize it.



An important question facing U.S. agriculture is can production contracts be written to promote environmental protection?

Photo courtesy of the Agricultural Research Service.

To answer the many questions posed by the changing structure of U.S. agriculture, changes must be made in the data-collecting institutions on which researchers depend. For instance, the current Census of Agriculture does not provide the kind of data and information that enable researchers and other interested parties to keep track of and evaluate structural change. A major shortcoming is the lack of systematic, county-level data on contract production (Frank and Henderson, 1992). Researchers need information that breaks contract production into marketing and production contracts, and details the type and amount of commodities produced under each arrangement. And, as the direct marketing sector grows, data on the kinds and amounts of products sold through direct marketing outlets, especially farmers' markets, are crucial. These changes will enhance the ability of policy makers, citizens, farmers, activists, businesspeople, and other interested parties to make sound decisions about the food system on which we all depend.

6) Endnotes

1. Burns and Johnson state that these are only official markets registered with state governments. They estimate that there may be another 2,000 or so that are not registered.
2. "Family farm" is usually defined as an unincorporated farming unit owned by persons residing on the farm and actively engaged in farming.
3. However, if a county government does decide to exempt a corporation from the state law, the issue must be put to a vote of the county electorate if, within sixty days of the decision, five percent of the number of people who voted in the preceding election for secretary of state sign a petition asking for such a vote (Hamilton, 1995.)
4. This literature is vast. Some of the more helpful works include Barlett (1993), Cochrane (1993), Mooney (1988), Goodman et al. (1987) and Berry (1977).
5. Although its exact roots are unclear, the CSA concept is believed to have originated in Japan or Switzerland.

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