AGRICULTURE OF THE MIDDLE

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Synonyms

Mid-sized farms; disappearing middle; values-based food supply chains; emerging markets; collective marketing; farmers-of-the-middle.

Introduction

This entry focuses on ethical issues associated with the decline and potential renewal of mid-sized farms and ranches in the U. S. The "disappearing middle" was first identified in the 1980s. Contemporary attention to the dynamics of this declining farm sector is accompanied by strategies for renewing an "agriculture-of-the middle." A national

Agriculture of the Middle Initiative posits a three-fold approach to rebuilding the middle sector of the U.S. farm and ranch structure through: new business and marketing strategies, particularly those identified as “values-based” food supply chains; public policy changes; and research and education support.

Ethical considerations focus on five areas: 1) diversity, resilience, competition and opportunity in agriculture; 2) fairness and equity through the supply chain; 3) consumer choice and control; 4) environmental stewardship and ecological health; and 5) rural vitality.

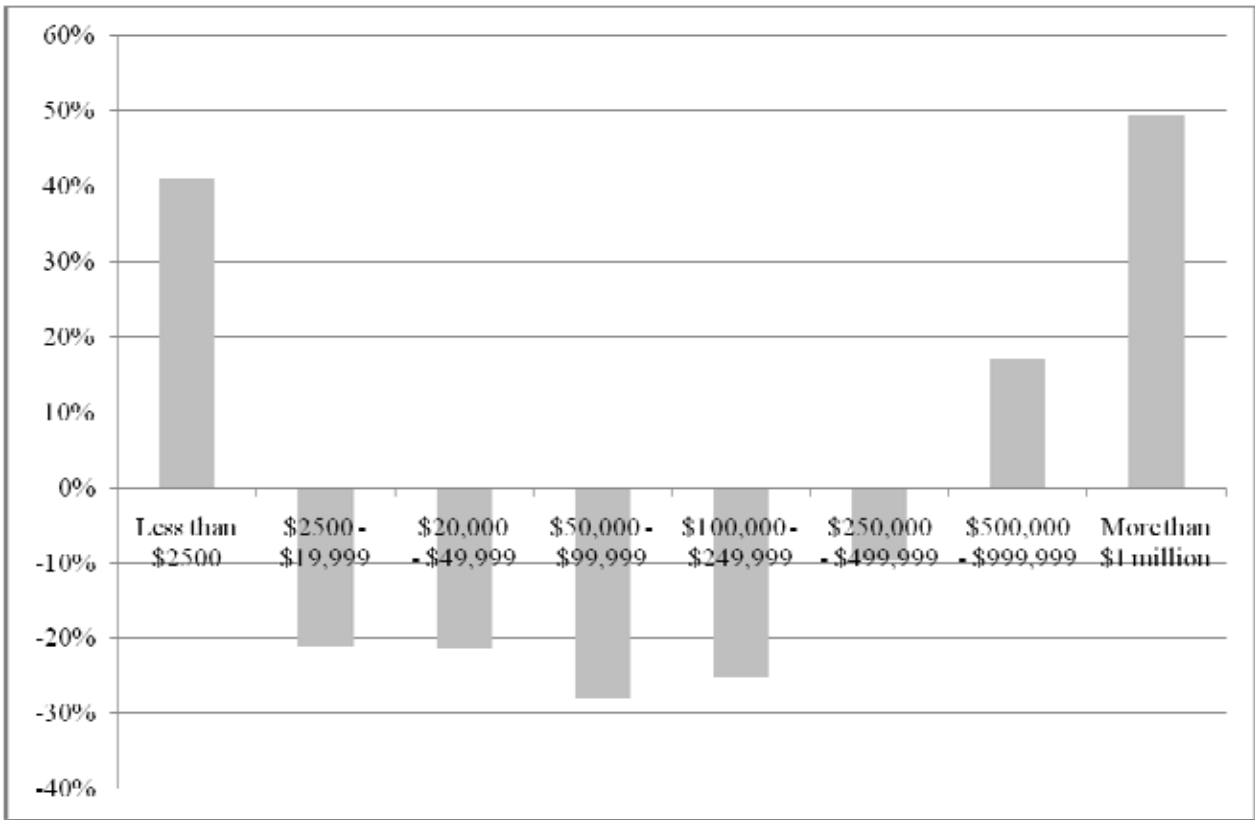
The Disappearing Middle of the U.S. Farm Structure

The origin of the concern about mid-sized farms is the "disappearing middle" hypothesis which arose in the early 1980s following the release of a U.S. Department of Agriculture (USDA) report. This report clearly delineated three categories of farms: small (gross annual sales between $5,000 and $40,000 in 1981); large (sales over $250,000); and medium-sized (sales between $40,000 and $250,000). The hypothesis stated that mid-sized, full-time family farms in the U.S. were declining in numbers and in the percentage of total number of farms. The decline in competitiveness of medium-sized farms had many causes such as government policy, changing patterns in agriculture—especially shifts to large-scale farming based on wage labor, and global economic changes. More specifically the structural change was attributed to off-farm work and part-time farming, a decline in the impetus to hold onto family farms, and an increase in the concentration and centralization of capital.

What experts found interesting at the time was the continuation of family farming despite all the elements working against it, and despite the fact that classic family-type farms typically were not in the position to enjoy either the advantages of bigness or of smallness (Buttel and La Ramee 1991). Since the analysis in the 1980s was that large farms produced most of the food and were more efficient, and that small farms did not need farm programs, the primary policy issue was how to help medium-sized farms. Those addressing this dilemma however, according to Strange, needed to recognize that size and scale are less

important than fair competition, economic opportunity, growth and expansion, and the exercise of economic power (Strange 1988).

Farms and ranches that have historically formed the backbone of U.S. agriculture continue to disappear. Categorized by sales (as in the 1980s), today's disappearing farms have gross annual sales between $2,500 and $500,000. This sector includes many "farming occupation" farms where the farm operator considers farming his or her primary occupation. In contrast, large family and non-family farms with annual sales above $500,000 and small part-time operations with annual sales below $2,500 have increased. Figure 1 shows the national profile of these disappearing farms between 1997 and 2007.



Change in Farm Numbers by Sales Category, 1997-2007*

**All farm sales categories adjusted for inflation using the Consumer Price Index*

Source: USDA 1997 and 2007 Census of Agriculture

Knowledgeable observers attribute many of the current difficulties these farms face to their increasing inability as individual enterprises to effectively compete in increasingly concentrated and globalized markets for generic agricultural commodities. For example, increased concentration in the food retail sector puts pressure on food processors to reduce their "transaction costs" by giving larger farmers market preference. It is cheaper for them to buy 10,000 hogs from one farmer than it is to buy 1,000 hogs from ten farmers.

At the same time, these farms often can't market directly to consumers because they are too large (volume of product), not suitably located geographically, or not producing products that can be direct-marketed (Kirschenmann, Stevenson, Buttel, Lyson, and Duffy 2008). Most of the farms and ranches that fall into this "market access gap" are in the $50,000 to $500,000 sales category. The term "farms-of-the-middle" will be used in this entry to describe this marketing middle. As mentioned above, historically farms-of-the-middle have been the mainstays of the agricultural sector in many areas of the country. These farms and ranches remain important for a number of reasons. As of 2007, farms with sales between $50,000 and $500,000 constituted nearly seventeen percent of all farms and generated twenty-two percent of total U.S. farm sales. Farms-of-the-middle are particularly important environmentally because they manage forty percent of all land in farms (USDA 2009). In addition these farms and related agri-businesses provide important economic contributions to many rural and peri-urban communities and represent a key component in maintaining a diverse, decentralized, and resilient structure of agriculture (Goldschmidt 1978; Strange 1988; Walker and Salt 2006).

Renewing an Agriculture-of-the-Middle

Recognizing the need to create strategies that support farms-of-the-middle, farmers, academics, businesspersons, leaders of nonprofit organizations, and USDA employees convened a 22-member task force in 2003. The task force formulated a threefold approach to rebuilding this middle sector: (1) new business and marketing strategies; (2) public policy changes; and (3) research and education support. The following year, the task force became the National Agriculture-of-the-Middle (AOTM) Initiative. (For a detailed discussion of the national task force's approach and the composition of the Initiative's

coordinating committee see the AOTM Initiative's website at http://www.agofthemiddle.org/.)

The founders of the AOTM Initiative believed that shifts occurring in the consumption sector of the food supply chain could provide significant marketing opportunities for renewing farms-of-the-middle. Initiative participants agreed that a broad approach and new business models were needed to revitalize this declining farm sector. It was decided to engage the farms-of-the-middle dilemma through a food supply chain framework. A *food supply chain* is a network of food-related business enterprises in which food products move from production through consumption, including pre-production and post-consumption activities. Typical links in a supply chain are: input suppliers → producers → processors →distributors → wholesalers→ retailers→ consumers → waste removal and recycling. A *values-based food supply chain model* was adopted in which farms-of-the middle and other agri-food enterprises in the supply chain develop strategic business alliances based on particular values. The developers of the model drew from the business literature of other sectors such as automobile and consumer electronics. In these sectors, values-based supply chains are defined as long-term networks of partnering business enterprises working together to maximize value for the partners and end customers of a particular product or service (Stevenson and Pirog 2008). In the business literature, these long-term inter-organizational relationships are also called "strategic alliances," "integrated value systems," and "value-added partnerships" (Handfield and Nichols 2002).

In the agri-food arena, these supply chains: (a) handle significant volumes of high-quality, differentiated food products; (b) treat farmers as strategic partners, not as interchangeable (and exploitable) input suppliers; (c) operate effectively at regional (multi-state) levels; and (d) distribute rewards equitably among the strategic partners. The model places emphasis on *both* the values associated with the food *and* on the values associated with the business relationships within the food supply chain. The chains rely on organizational structures that achieve the necessary volumes of high-quality, differentiated food by aggregating product from multiple farms or ranches, and may operate at a regional rather than local or national level. Scale is achieved through collective action rather than by

increasing the size of individual farms. Another important characteristic of values-based food supply chains is an emphasis on shared vision, shared information (transparency), and shared decision-making among the strategic partners. These represent commitments to the welfare of all partners in the supply chain, including fair profits, fair wages, and business agreements of appropriate extended duration. Also critical is the achievement of efficient supply chain management and logistics, including product marketing, aggregation, processing, distribution and accounting. A result is that farmers in these strategic business alliances regularly function as "price negotiators," as distinct from "price setters" in direct marketing, and "price takers" in commodity marketing systems.

Emerging Market Opportunities

From the 1970s consumers have expressed increased interest in purchasing food that is unique and differentiated from conventional products. Products may be differentiated by attributes such as organic, grass fed, or regionally sourced (Painter 2008) or, following Europe's lead in the concept of fair trade, by emphasizing social justice and environmental responsibility (Jaffee, Kloppenburg and Monroy 2004). Restaurants and cafeterias of public and private institutions such as health care facilities, schools, universities, and corporations are particularly receptive to these types of food products, as are regional supermarkets and some national retail chains.

AOTM proponents recognize that farms-of-the-middle have a potential comparative advantage in these emerging markets. Individual direct-marketing farms are not designed to produce the necessary volumes required for these new markets, and commodity farms are not designed to produce the necessary quality and differentiation. Farms-of-the middle, on the other hand, have both the capacity and flexibility to cooperate with each other and collaborate with other supply chain partners to respond to these expanding markets. In this context, the Agriculture-of-the-Middle strategy can best be understood as a "marketing middle" or as a third tier between direct and commodity marketing (Stevenson et al. 2011). It is important to point out that middle marketing strategies can productively involve farms and ranches that are both smaller and larger than the statistical sales range used above to

define “farms of the middle.” In other words, this “marketing middle” is scale-related but not scale-determined.

Research and Policy

It was understood that these emerging enterprises had to be supported by relevant research and changed policies. Researchers associated with the Initiative began in-depth case studies of several on-the-ground food supply chains that were testing new business and marketing models. (See the AOTM website for case studies of successful values-based food supply chains in the meat, dairy, grain, and vegetable sectors.) In summary, the research suggests (Stevenson et al. 2011) that successful values-based food supply chains are built on a foundation consisting of the three elements described earlier: (1) appropriate volumes of high-quality, differentiated products with engaging stories; (2) strategic business partnerships based on trusting, transparent relationships; and (3) effective supply chain management and logistics across the supply chain.

Researchers also discovered that to be successful values-based food supply chains must overcome some unique challenges such as finding appropriate value chain partners, developing mechanisms for supply chain decision-making, transparency and trust, and determining appropriate strategies for pricing products based on understanding the costs of production and other factors. They also must do what other businesses do in determining effective strategies for product differentiation, branding, and regional identity. They must: acquire adequate capitalization, competent management, and effective leadership succession strategies; develop, monitor, and document consistent environmental standards throughout the supply chain; and develop effective quality control and logistical systems.

For over 10 years the research component of the Initiative has been organized around a USDA-sponsored, multi-state project composed of approximately 20 researchers from land-grant universities, other institutions, and research organizations. A full description of the current multi-state project is available (USDA 2012), as is a high priority agriculture-of-

the-middle research agenda developed through interviews of 50 researchers around the country (see Clancy and Lehrer, 2010).

The need for policy change was also evident at the beginning of the Initiative. Working through the National Sustainable Agriculture Coalition, language bringing attention to mid-scale farms was inserted into several USDA research and grant programs, and there has been more attention to regional farms and food systems across the Department of Agriculture.

Ethical Considerations

Ethical issues were raised about the "disappearing middle" in 1987 in a collection of essays titled "Is there a moral obligation to save the family farm?" (Comstock 1987). The greatest concerns were the loss of a way of life and an important American tradition, and the fact that many economic sectors tied to family farms would also suffer. The AOTM Initiative was not begun out of ethical concerns, but rather out of market concerns. However, numerous ethical considerations have developed as the AOTM business models evolve. In addition, emerging AOTM marketing strategies manifest new paradigms that have ethical considerations.

Values-based supply chains veer from the trajectory of U.S. agriculture along practical as well as ethical dimensions. Much of the behavior in U.S. agriculture since its industrialization in the 20th century has been determined by an implicit goal—namely maximum, efficient production for short-term economic return. The achievement of that goal was largely accomplished by pursuing three strategies: specialization; management simplification; and economies of scale. Operating by this single mandate, business enterprises (including farming) were encouraged to "externalize" related negative consequences such as, in the case of farming, soil erosion, contaminated water, and loss of biodiversity. If some unintended negative consequence resulted from the commitment to this singular goal, it was simply set aside and ignored. Consequently the predominant ethic that emerged among farmers who were forced to operate by this singular mandate was a

utilitarian one—that is to "produce as much as possible, regardless of the cost" (Thompson 1995).

This approach has become increasingly dysfunctional in agriculture. Farms are biological organisms. Externalized costs ultimately can affect the biological functions of farms with negative economic results. For example, eroded soils ultimately require more fertilizer input to achieve maximum production, resulting in a negative effect on the economic performance of the farm as well as damage to the environment. Some leading economists and investment advisors have, in fact, begun to recognize the need to examine these unintended consequences. They suggest an alternative value set for the marketplace, not just in agriculture but in all aspects of the industrial economy. Porter and Kramer (2011), for example, have argued for a paradigm shift in the way business is conducted. They write that the U.S. has reached a point where social and environmental capitals have been degraded to an extent that they can no longer be externalized. Consequently a new kind of capitalism must now be considered, one that is based on what they call "shared value." The "new capitalism" incorporates societal and environmental needs (not just economic needs) into its business model, where environmental and social health is integral to economic health.

Such a shared value perspective, or ethic, especially relates to agriculture in that it emphasizes improved growing techniques and seeks to strengthen local and regional suppliers and other support institutions to increase farmers' efficiency, yields, product quality, and overall sustainability. This leads to more revenue and profits for both farmers and the companies that buy from them (Porter and Kramer 2011). In a similar vein, continuing to manage our agriculture and food system in ways that marginalize labor and raw materials in order to reap huge profits farther up the food chain is no longer sustainable (Grantham 2011). Given the depletion of essential natural resources (especially fertilizers and water), unstable climates, and the erosion of soil, it now will be essential to invest in farms, soil and other essential resources in order to achieve successful investment returns.

Five ethical considerations are embedded in the agriculture-of-the-middle ideal. The first two are elaborated in the above text and summarized here.

Fairness and equity throughout the supply chain

The fair treatment of supply chain partners is certainly a new ethical approach to business. Values-based supply chains place emphasis on such considerations as prices based on margins above farmers' production costs and longer-term and stable contracts with producers, as well as other fairness- and equity-based transactions. Examples of these arrangements include: Shepard's Grain; Country Natural Beef; and Red Tomato (see AOTM website, as noted above).

Consumer choice and control

In the AOTM model farmers and other supply chain partners are not the only beneficiaries. Preliminary research suggests that citizens can and do reap rewards from this new approach. AOTM provides food buyers—whether the end consumer or intermediary purchaser— with additional options to act on their values. As with other food product differentiation frameworks such as organic and "local", successful values-based supply chains provide customers and consumers with information regarding food qualities, farming practices and business values through in-store messaging, on-farm visits, and user-friendly websites.

Three additional ethical dimensions of the agriculture-of-the-middle ideal concern the vitality and resilience of farms, communities and the environment as elaborated here.

Diversity, resilience, competition and opportunity in agriculture

Marketing clusters of farmers linked together based on shared values foster conditions that promote new ethical goals. First, these new clusters create economies of scale that can lessen the economic advantages of large farms over mid-sized farms with regard to transaction costs such as for transportation, accounting, or advertising. At the same time such clusters retain the advantage of smaller farms that have greater flexibility to adapt to

changes, making them more resilient. For example, Country Natural Beef recently sought animal welfare certification because of increased consumer interest in certified meat.

As noted, concern for farms-of-the-middle emanated from the dramatic decline in the number and vitality of these farms. While the initial impulse was largely market driven, the broader context embraced concern for the structure of agriculture as a whole. A farm structure comprised of only very large and very small farms is less diverse. Experts have shown that diversity in farm structure fosters resilience, competition and opportunity. Farms of all sizes are needed- particularly those that can respond to the other value considerations articulated here. Finally, healthy competition by aggregations of mid-size farms can offset trends toward consolidation and away from competition. As Strange (1988) suggested was necessary 25 years ago, farms of the middle can aggregate economic power to compete in the marketplace.

Environmental stewardship and ecological health

The ideal AOTM farm should foster ecological resilience, although research shows no evidence at present that mid-scale farmers are more ethical than small- or large-scale producers in their approaches to stewardship and marketing (James and Hendrickson 2010; George 1991). Ecosystems are constantly changing and so the biological functions within them, including farming, constantly change. In fact, as resilience thinkers are now pointing out, all systems—economic, social and biological—always go through adaptive cycles (Walker and Salt 2006). Given such changing environments adaptive management rather than control management is critical to sustainability, and mid-sized farms integrated into values-based supply chains may demonstrate this flexibility.

Rural vitality

In a review of seventy years of research on farming and rural community well-being, social scientists found consistent support for the argument that mid-size, family-organized farms and ranches are strongly associated with positive measures of community economic development, quality of life, civic participation and environmental outcomes (Lobao and Stofferahn 2008). Measures of community well-being included population and employment

growth, family incomes, poverty rates, quality of schools and public services, and number of churches, civic organizations and retail establishments. These positive associations suggest that farms-of-the-middle tend to buy and sell locally and regionally, which increases the circulation of dollars within communities and regions. They also suggest that family members of farms-of-the-middle provide support and leadership for community-based organizations such as schools, churches, and business associations.

Trends and Challenges

This new way of doing business in agriculture, as elsewhere, may eventually create a new culture based on a "generative economy" that is dedicated to a flourishing of life for all individuals in a community, rather than an "extractive economy" which only seeks to extract as much individual wealth as possible from one's social and ecological neighborhood. Within U.S. agriculture there are promising trends such as the rise in interest in alternative and regional supply chains, networked systems for producers, and aggregating "food hubs" that target mid-size farmers (Barham 2012). To date, most studied values-based chains are in fact hybrids in that one or more of the partners are "conventional." For example, Archer Daniels Midland is a milling partner in the Shepherds Grain food supply chain. This underscores the contention that developing these new models is a complex and iterative process.

There are other challenges and unsolved problems. Conventional agriculture and traditional business supply chain models are firmly entrenched. Policy tools to leverage changes that would foster favorable conditions for these new models are so far inadequate. The logistics around pulling together and sustaining successful values-based supply chains are formidable and in the early stages of development.

It is not known whether the trends described in this entry will continue on a positive or negative trajectory. New surveys will show whether the rate of decline in mid-sized farms has eased; whether the numbers of values-based food supply chains continues to grow; and whether the demand for these types of products will increase. Purchases of organic foods

continue to rise, but only a few organic enterprises have adopted a transparent business model. Markets very likely will grow as a result of the development of food hubs. They will probably grow if more attention is paid to regional food systems which operate at a larger scale than local food systems. They are more likely to contain numbers of mid-sized farms that can supply larger volumes of food and support more values-based supply chains (Ruhf and Clancy 2010).

The economics of the situation are also hard to predict. In a time of high commodity prices to farmers some will leave values-based supply chains, but it is unclear what will happen when the prices inevitably drop. Energy prices may remain high enough that national and global food transport is reconsidered and more regional food supplies demanded.

Summary

There are five important ethical areas associated with the decline and potential renewal of "the middle" of the U. S. farm structure. Renewal prospects are based on emerging markets for significant volumes of high-quality differentiated food products for which farms-of-the-middle appear to have a comparative advantage if organized effectively. Values-based food supply chains offer promising business strategies and organizational structures to engage these new markets. Case studies demonstrate successful values-based supply chains in the meat, dairy, grain, and vegetable sectors. Public policy changes as well as research and education are needed to support these alternative business structures. There are challenges associated with the continued growth of values-based supply chains.

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Farms: small versus large; farmer types and motivation; food marketing; local and regional food systems.

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