Modern agriculture has roots in the 1860s. Prior to 1860, farming was the predominant way of life in America. Farm families made up close to 50% of the U.S. population and farmers were nearly 60% of the workforce. When Abraham Lincoln established the U.S. Department of Agriculture in 1862, he called it the “people’s department.” Like Thomas Jefferson before him, he was reaffirming the “yeoman farmer” and the foundation of American society.

The Homestead Act of 1862 opened new land on the western frontier for farming, land previously occupied by Native Americans. Homesteads were initially limited to 160 acres, which was considered enough to sustain a family. In the early 1900s, homesteads were expanded to 320 acres for dry land farming and to 640 acres and livestock production. The intent was not to expand agricultural production but instead to expand control over the continent through occupation. However, much of the homesteaded land eventually fell into the hands of large landowners and land speculators. With completion of the transcontinental railroad in 1869, the West was open for business, including agribusiness.

Wheat flour from the Great Plains, beef from the Southwest, pork from the Corn Belt, and Oranges from California all began to flow to the East. Farming and ranching operations in the West grew far larger than was needed to support a family. Farming was still a way of life for many but it was becoming a business for many others. Between 1870 and 1890, numbers of farms in the U.S. grew by 80% to 4.5 million. Even with the rapidly growing national population, farming still employed 41% of the U.S. labor force. Production of all major agricultural commodities – wheat, corn, cattle, hogs… – expanded correspondingly, which ultimately triggered the agricultural depression of 1893-94. Widespread farm bankruptcies halted expansion of farm numbers. Many farmers felt the sharp lashes of economic discipline that reach out as farming becomes a business rather than a way of life.

The economic high-water mark for American agriculture came in the decade of 1909 and 1918, buoyed by a booming U.S. economy during the buildup to World War I. Prices of agricultural commodities rose to levels that have not since been equaled in terms of buying power for farmers. Total farm numbers had leveled out during the 1890s as early mechanization, the forerunner of industrialization, had allowed each farmer to farm more land. Larger farms added to farm prosperity during this Golden Era in American agriculture.

Higher prices and continued mechanization again led to surplus production. Chronic overproduction coupled with the post-war economic recession of 1920-21 heralded the beginning of two decades of depressed commodity prices and farm incomes. The Dustbowl of the Great Plains and the consequent western agricultural migration are parts of the sad legacy of this era. The average farm size in 1920 was still only 140 acres with farmers making up 27% of the labor force. Total number of farms in the U.S. peaked at nearly 6.5 million during in the 1920s and remained stable during the Great Depression of the 1930s. It took the wartime economy of the 1940s to return the American farmer to a position of economic respectability. However, farming

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has never returned to its prior status as a desirable way of life. Agriculture emerged from World War II as a business, on its way to becoming an industry.

Many people associate industrialization with the transition from an agrarian to manufacturing economy. However, industrialization is more accurately defined as a mental model or paradigm for organizing and managing resources – land, labor, and capital. The basic motivation for industrialization is economic efficiency. The basic strategies are specialization, standardization, and consolidation of control. Specialization facilitates division of labor – each person doing fewer things better. Specialized functions then must be standardized so that each contributes its part to a coherent whole. The standardized functions can then be simplified and routinized, allowing control to be consolidated into larger, more efficient production units. In a competitive market economy, profits provide the motivation for the relentless pursuit of ever greater economic efficiency. Industrialization allowed farmers to specialize in food production, freeing others to specialize in manufacturing the other things associated with a modern, industrial society.

Chemical technologies developed during World War II facilitated the industrialization of agriculture. Cheap nitrogen fertilizers and pesticides encouraged farmers to abandon crop rotations and diversified crop and livestock farming as means of managing pests and maintaining soil fertility. The Land Grant University system, created by various Acts of Congress between 1862 and 1914, shifted from its pre-war focus on empowering farm families with education and information to developing and transferring industrial technologies. The USDA shifted from its public service mission of providing food security through viable family farms to economic security through productivity and efficiency. Farms powered by horses and solar energy gave way to farms powered by tractors and fossil energy. Farms were being transformed into factories without roofs and fields and feedlots into biological assembly lines.

Capital and technology replaced labor and management as farms were consolidated into larger and fewer farm businesses. By 1970s, farm numbers had dropped by more than one-half from their peak, leaving only 2.8 million farms. The surviving farms averaged 390 acres, nearly three times as large as in the 1920s and employed less than 5% of the workforce, compared to more than 25% in the 1920s. Agriculture was ripe for the economic euphoria that arose from expanding global markets during the 1970s. At the advice of Secretary of Agriculture Earl Butz, farmers planted fencerow-to-fencerow and tore out the fencerows, windbreaks, and anything else that stood in the way of industrial farming.

The agricultural experts failed to anticipate the global economic recession of the 1980s, which dried up export markets and caused commodity prices to plunge. Farmers were caught with large debts at record high interest rates with prices too low to cover their financial commitments. American agriculture was confronted with the “farm financial crisis of the 1980s,” as it is still called among those who remember the agony of rural America at that time. Roughly one-fourth of the remaining farms went out of business during that decade. Farm numbers fell to around 2 million and have since remained at that general level. However, the agricultural transformation of the 1980s was far more profound than indicated by the drop in farm numbers. The survivors were mostly smaller family farms on which farming had remained a way of life and the large specialized farm businesses that had prospered during the 1970s.
Those who suffered most were on mid-sized, full-time family farms who had decided too late to expand into larger, specialized bottom-line farm businesses.

There will never be another farm financial crisis like the 1980s. The large, specialized operations have continued to grow larger, but most important, are increasingly controlled by large, multi-national agribusiness corporations. Corporate contracts promise economic security by protecting farmers from the vagaries of open markets. The corporations typically don't own farms or feedlots, but they can control the production process through comprehensive contracts. Contractual arrangements range from specifying a selling price or use of a specific herbicide to controlling virtually every aspect of the production and marketing process. The percentage of agricultural commodities produced under comprehensive contracts was estimated by USDA at 41% in 2005, up from 31% in 1993. An earlier estimate placed production under all types of contracts at 63% in 1997. Considering the prevalence of contract livestock and poultry production and genetically modified corn and soybeans covered by licensing agreements, the percentage of production under some form of corporate contract is likely more than 80% today.

The objective of contract production is coordinated control of the food system. When few enough corporations control enough production to stabilize production on the backs of their contract growers, they can ensure consistent profits for their stockholders. As of 2007, four corporations controlled 84% of the beef packer market; four corporations controlled 66% of the pork packer market; four corporations controlled 59% of the broiler market. The turkey, flour milling, seed, and other agricultural markets were similarly concentrated. Once these firms have a large percentage of their raw material needs under contract, they are in a position to manipulate the remaining open markets to their advantage. They essentially have control of the agricultural economy. Once-independent farmers become nothing more than contract workers for the corporate food industry.

Corporatization of the food system is no longer being driven by profits gained through greater economic efficiency. The economic efficiencies of large scale farming operations were probably exhausted by the 1950s and even earlier in most non-farm sectors of the food economy. The motives of further corporate consolidation are market power and political power. Market power can be used to extract profits by exploiting both consumers and producers. Consumers’ food choices can be limited to maximize sales of the most profitable products. Contract growers can be pressured to minimize production costs through production practices that degrade the land and natural environment and diminish the quality of life in rural communities.

Corporations are not real people; they have no ethical or social values. The only common value shared by stockholders in large publicly traded corporations is the desire to enhance the value of their investments. The corporatization of American agriculture has left us with a food system that no longer functions to provide safe, wholesome, nutritious food for people. It functions to maximize the short run economic benefits of corporate managers and global shareholders. The most costly consequence may be declining physical health and rising costs of health care, both of which undermine the future of our nation.