

Why Apples are More Expensive than Twinkies: A Historical Analysis of America's Deficient Food System and Recommendations for a Path Forward

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Abstract

The food culture of the United States is characterized by cheap, ultra-processed foods detrimental to individual health, societal health, and national security. In attempting to pinpoint when the country shifted to prioritizing the production of fast calories epitomizing today's food landscape, this paper identifies the domestic and international factors responsible for this development through a descriptive approach. The fact is that the country's contemporary production and distribution systems are tied to systemic agricultural changes of the 1970s, whereupon internal dynamics and world developments created the necessity for quick calories. In the second half of this paper, my focus transitions into outlining potential changes and ways forward to promote sustainable and nutritional systems that can be integrated in American society. While the state of nutrition in America is quite poor, converting to local and regional food systems in addition to changing agricultural policies can cultivate a healthier, stronger society.

Introduction

At any American grocery store, consumers are likely to find both ultra-processed foods like Twinkies and nutritional products such as apples. Those who examine their respective prices may be shocked to find that products like Twinkies are cheaper than most fruits. This dichotomy encapsulates the contemporary American food system—a set of infrastructure, policies, and priorities that promotes the production and consumption of unhealthy, ultra-processed foods over the accessibility and affordability of quality options that serve to enrich both diet and lifestyle. The first part of this paper uncovers the driving historical factors responsible for the formation of the modern food complex, displaying how these conditions led to the priorities cementing agricultural production and distribution today. Then, my analysis shifts to synthesize the most promising, realistic ideas addressing how the United States can modify its agricultural industrial complex to foster prevailing nutritional needs. Although many propose that the deficiencies of the national food system can be attributed to currently inadequate food policy and influential parties roadblocking institutional change, the incomprehensive food system in place today is the result of structural changes inherent to the 1970s that transpired in response to evolving domestic and international demands for food consumption and security. Considering the deeply rooted issues associated with a food complex no longer reflective of contemporary needs, systemically modifying the agricultural industrial complex will provide a practical pathway conducive to meaningful change and current demands.

Historical Factors Driving Institutional Changes

The modern American food system was forged by several influential factors, one of the most notable being rapid population growth during the 1950s and 1960s. In the Annual Review of Nutrition analysis on food structure developments in the wake of this trend, Woteki et al. (2020) detail, “...the drivers of food system changes...include...demographic factors including population growth” (451). As domestic demand for food grew, the agricultural sector needed new systems to amplify food supply. It did so by elevating the

production of cheap calories through new policies, subsidies, and programs. As a result, “American farm policy was guided by a cheap food policy that encouraged farmers to produce as much as possible” (Woteki et al. 2020, 449). The implications of this constitutive framework are grand and continue to have enduring impacts today.

By cultivating an updated food network, Congress designed an infrastructure revolved around generating the maximum number of calories possible. The Agricultural and Consumer Protection Act of 1973 encouraged a productivity-driven agricultural model that exhibited a correlation between new policy and evolving domestic demands. In contemporary America, this model of productivity is of little value, for enough food exists to exceed the minimum nutritional requirement twofold (*The Washington Post* 2023). The system devised to meet 1970s food demand rendered the existence of food more important than that food’s quality, and this construction has sparked the externality of nutritionally deficient foods in American diets, which serve to perpetuate rather than solve modern food problems related to nutrient intake. Leading these problems is insulin resistance, a fundamental factor of diet-related diseases such as obesity, diabetes, and heart disease, all of which are driven by the excessively carbohydrate-rich diets commonplace today (Singh, Ghai, and Singh Bedi 2022, 56). These diets, in turn, catalyze the ongoing public health crisis by corroding society’s physical condition, mental wellbeing, and overall performance. In incorporating new policies and agricultural practices to expand food supply, Congress solidified an agricultural industrial complex that normalizes lacking diets and pervasive disease.

While internal population growth heavily contributed to the creation of an agricultural complex no longer reflective of current needs, the prevalence of nationwide food insecurity furthered the need for revisionary policies. As the economic growth of the 1950s slowed and transitioned into the sweeping poverty and inequality of the 1960s, millions were left without funds to consume fulfilling diets (Mayer 1972, 237). This development, coupled with a lack of consumable food during the 1960s, led to reductions in the quality of lived experiences

because of food insecurity (Brown 1973, 3-4). Correspondingly, lawmakers of all levels tried to organize changes by adjusting "...regulatory aspects of food production and supply" (Mayer 1972, 239). Social circumstances demanded an updated approach to nutrition policy, and the government responded by drastically reorienting state-sponsored agriculture.

Institutional features such as mass subsidization and output-driven policy brought the supply and demand of food into equilibrium, providing more calories to individuals in need of them. Further, initiatives to "...expand the area under cultivation" and "...raise the output of the existing cultivated area" (Brown 1973, 7) to reduce food insecurity were achieved through government-sponsored shifts to large agribusiness farming, the incorporation of fertilizers and pesticides, and heavy subsidies. The amalgamation of these newly implemented structures accomplished their goal: to reduce food insecurity, hunger, and malnutrition by providing an abundance of food.

Despite the initial success of new production networks, these policies were short-sighted and quickly became detrimental to public welfare. Specifically, the implementation of this system has impaired contemporary health in the following ways: (1) the overconsumption of ultra-processed foods, (2) reduced accessibility to nutritious foods, and (3) a difficult to modify food framework. As two lawyers promoting policy as a tool to ameliorate social issues, Beyranevand and Leib (2017) link these factors to an imbalanced subsidy system, which champions the allocation of funds to commodity crops while providing only a fragment of available resources toward the cultivation of fruits and vegetables (233). This highlights how longstanding agricultural policies shaping production incentivize the consumption of "...highly processed and unhealthy foods...the very foods the Dietary Guidelines of America recommend limiting" while the country simultaneously "...does not grow enough fruits and vegetables to support healthy diets" (Beyranevand and Lieb 2017, 233). In mitigating food insecurity, the United States triggered the larger problem of waning public health as consumers became psychologically forced into poor diets.

Evolving state objectives further pushed the United States toward a productivity-based agricultural structure. Newfound national interests to mitigate world hunger, stimulate development in low-income countries, and financially profit from food exports during the 1970s motivated the United States to export more food (Paarlberg 1982, 110; Abrams and Harshbarger 1979, 4). With higher exports in mind, there was a 21% increase in acreage allocated for agricultural purposes between 1970 and 1980 (United States Department of Agriculture 2019, 11). Additionally, food turnover, derived from the use of pesticides, fertilizers, and the production of fast-growing staple crops, improved as strategic input tools like pesticides were increasingly integrated (Popp, Pető, and Nagy 2013, 246). These advancements made the mass exportation of commodity crops possible. Abrams and Harshbarger (1979) quantify greater U.S. involvement in international agricultural trade by stating, “U.S. agricultural exports have more than quadrupled, rising from \$6.7 billion in fiscal 1970 to \$27.3 billion in fiscal 1978” (3). Guided by aims to reduce world hunger and capitalize on net export opportunities, the United States used international trends to rationalize increasing food productivity. Consequently, this structure has come at the expanding cost of public wellbeing as diets are plagued by cheap calories enabled by the mass production processes honed to export food. As the United States confronted both domestic and international challenges and opportunities to reform its food system, policymakers set forth practices that are now harmful to the public good.

The outdated nature of these agricultural policies are hinderances to national health that must be reversed, but the parties these policies gave power to are now interfering with institutional change. This context is comprised of two powerful entities: large agribusiness firms and Congressional members. Since agribusiness monopolies have and continue to utilize large-scale lobbying to prevent reform contradicting current subsidy and production systems, many individuals postulate that changes capable of improving the food system will be denied by Congress (Stewart 2013). Bellemare and Carnes (2015) second this line of thought, referencing that members of Congress often deny instrumental nutrition policy changes to maintain a stream of financial contributions from the

benefiters of contemporary policy (25). The current relationship between the agricultural industrial context and Congress has slowed change temporarily, but the reforms discussed in the following paragraphs possess incentives that outweigh the influence of lobbying, thereby allowing progress to be realized if pursued.

Systemic Changes to Bolster Nutrition and Efficiency

Despite the extensivity of problems associated with the modern food system, reform to improve diets and to reduce the quantity of ultra-processed foods can be accomplished through alterations in food frameworks, production systems, and distributive operations. In turn, these modifications to food infrastructure would enhance national nutrition and economic welfare, spur reductions in disease, and foster more sustainable environmental practices.

Such reform can most efficiently be achieved through new government policy, where obsolete incentives and insurance programs are replaced with policies that enrich consumer diets and lives. Namely, the institution of new production, input, and trade policies will cumulate in change, for Hawkes (2007) elaborates that these agricultural policy levers heavily impact the type and quantity of food produced, which processes are utilized, and when food is grown domestically (315). These factors have strong implications, for altering production policies through specific price supports results in the "...increasing availability of the targeted foods..." (Hawkes 2007, 316). Furthermore, modifying input policies such as infrastructure "...stimulate farmers to choose certain crops over others, thus increasing the availability of those foods" and changing trade policies like export incentives "...has the effect of increasing the availability and lowering the prices of targeted foods" (Hawkes 2007, 316). Put simply, changing policy allows the government to improve the quantity and affordability of nutrient rich foods associated with good health, thereby bettering diets and tackling health problems. Changing the prevailing food complex will be difficult, but

pursuing reform through policy measures will secure a food system capable of improving nutrition and overall health.

To complement changes in agricultural policy, converting food production from large- scale corporations to more local and regional food systems can reframe food infrastructure. The value in this transition lies in increased accessibility to food for nearby consumers and the integration of shorter supply chains, two factors that serve to increase food security, nutritional value, and environmental sustainability. The United States Department of Agriculture (2025) confirms these benefits, describing that "...local and regional foods...create more sustainable, resilient, healthier, and equitable food systems." Moving the consolidation of food production from large businesses to small and medium-sized operations will enhance the nutritional quality, accessibility, and reliability of foods to surrounding populations. Despite the overt benefits of localized systems, proponents of the monopolistic agribusiness structure attempt to refute the movement by stating that the shift will lead to the loss of farming jobs. However, local and regional food systems employ more farmers and bolster benefits of the profession, for emphasis on local production creates market conditions for more farmers to enter, solidify themselves, and benefit from supplying a greater number of people. In analyzing how local food systems correlate with job growth and economic advantages through a six city, multi-year study, the Center for Good Food Purchasing (2023) certified that investment in local food system contributes "...billions of dollars of economic output and hundreds of thousands of jobs" (51). Furthermore, local and regional systems foster sustainable and viable connections between land, farmer, and consumer as reduced distance from the farm to the kitchen table results in greater freshness and nutritional quality. Redistributing who is producing foods will go a long way in forming a more nutritious, sustainable agricultural network with priorities of human health and wellbeing above corporate profit.

Building on the positive effects of new government policies and production networks, imposing regulations on targeted foods and changing food marketing could further strengthen the quality of diets. Introducing a tax on food known to

be nutritionally deficient and involved in the production process or on foods recognized as catalysts for nutrition-related diseases would limit their distribution and consumption. Nutrition expert and agricultural economist Pinstrip-Anderson (2014) champions this idea, iterating that taxes on fats, oils, sugar, and sweeteners would help shift food processing and cultivation from high-fat and high-sugar foods to those with more micronutrients (79). Resulting reductions in the supply of dangerous foods would force producers to distribute nutrient rich products, both limiting the supply of unhealthy foods and raising the supply of healthy products. Similarly, changes in domestic demand for food products would influence the production of specific foods. Most notably, reducing public demand for fast food by regulating its promotion and encouraging healthy eating habits would demand that producers shift the types of food produced to meet consumer markets. The ascent of fast food as a portion of the consumer diet started in the 1970s and has increased in recent decades (Nielsen, Siega-Riz, and Popkin 2002, 111), making it one of the most promising areas to address dietary and health problems. If the United States desires to shift the quality of diets and agricultural production systems to support public health and prosperity, it would be wise to apply regulations to specific products and involve itself with the dissemination of information supportive of health and against disease-inducing foods.

Conclusion

At the crossroads between consumer diets, public health, environmental sustainability, economic growth, and international trade, the United States' food system is an entity capable of supporting domestic and international health, development, and prosperity. However, the contemporary food infrastructure juxtaposes its potential, and the negative externalities of this fact are seen through declining public health, degrading environments, and lowered productivity. Food is essential for the survival and optimal functioning of humanity, affecting the quality of lived experiences, ability to support desired lifestyles, and the experience of physical and mental benefits. Yet the supply of food in America is not only inadequate but detrimental toward achieving these

benchmarks, which are fundamental human rights. Therefore, the system responsible for the production and distribution of food must meet these grave implications. Nutrition scientists have long been pertinent to the threat food has become to modern health, but it is time for policymakers, economists, and citizens to become aware of and responsive to the necessity to improve the current food system. Pushing the government to modify policy is a viable start, but change can be realized fastest if individuals selectively consume nutritional foods, thereby sending a demanding message for change in systemic production and distribution.

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