The biopolitics of consumption: the role of space, race, and income in the current U.S. food system and their effects on the U.S. biopolitical corpus

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26 April 2019

To my wonderful parents and friends who have continually provided me with support through this writing process.

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# Table of Contents

**Chapter 1—Introduction**

**Chapter 2—Biopower, Discipline, Biopolitics, and Necropolitics: The Philosophical Foundations of the Modern-Day U.S. Food System.**

- Part 1–The Transformation from “Taking Life or Letting Live” to “Making Live and Letting Die”
  - (I) The First Pole of Biopower: Discipline
  - (II) The Second Pole of Biopower: Biopolitics

- Part 2–Modern-day Biopower and Necropolitics: Analyzing the Infrastructures of Racial Segregation

**Chapter 3—Corporations, Government, and Consumers: Who Has Power?**

- Part 1–Food Corporations Versus the Government
  - (I) The Recent Food History of America
  - (II) The Residual Effects of U.S. Food Policy and the Rise of Agribusinesses and Corporate Influence
  - (III) Government or Corporations: Who Has the Power to Decide?

- Part 2–Food Corporations Versus the Consumer
  - (I) The Various Loci of Corporate Control in the Consumer Realm
    - a. Corporate Control of Supply and Price
    - b. Corporate Control of Food Information
  - (II) The “Eat More” Discourse

- Part 3–Conclusions

**Chapter 4—The Effects of Corporate Control on the U.S. Biopolitical Corpus**

- Part 1–Chronic Diseases: The Consequences of Overconsumption in a Corporate-Controlled Food System
  - (I) Obesity
  - (II) Type 2 Diabetes

- Part 2–The Unsustainable Nature of Our Eating Habits: We are Living Longer but Sicker

- Part 3–The Racial Inequities of Consumption caused by the Corporate Takeover of the Food System

- Part 4–Conclusions

**Chapter 5—Four Sites of Corporate-Controlled Supply**

- Part 1–Everyday Spaces
  - (I) The Grocery Store
  - (II) Fast Food Restaurants

- Part 2–Institutionalized Spaces
  - (I) Prisons
  - (II) Schools

- Part 3–Conclusions
Chapter 6–Why Diet Matters and Proposed Solutions to Our Current Food System

Part 1–Why Diet Matters: The Preventative Role of Food and Diet
Part 2–Challenges and Considerations
Part 3–Proposed Solutions

(I) Solutions from Below (By the Consumer)
(II) Solutions from Above (From the Executive, Legislative and Judicial Branches)
(III) Part 3–Conclusions
CHAPTER 1–INTRODUCTION

We have all heard the adage, “you are what you eat.” Yet, we, as consumer, often fail to think about the ways in which food and consumptions are contingent upon our racial identities and the spaces in which we inhabit. As such, this thesis explores the ways food is utilized as a mechanism of biopower that demarcates zones of consumption and reinforces the biopolitical paradigm of “make live and let die.”

Much like in the advent of biopower in the seventeenth century, food today is a mechanism by which both governments and private corporations exercise biopower over the U.S. population from above, especially populations situated in the lower socio-economic strata and minority races, specifically been black and/or Hispanic populations. In the U.S, the vulnerability of black and Hispanic populations to the necropolitical forces of biopower can be traced to the inherent and residual racist mandated by the housing and urban planning policies in post-Jim Crow America. As such, these policies and ideologies have largely informed the ways by which modern infrastructure and urban planning have been conducted in the country and, as a result, severely affected vulnerable populations of individuals delegated into certain spaces of “letting die.”

While the U.S. government is, in theory, appointed with the role to protect its citizens and secure their means of consumption, I argue that it has largely failed to meet these biopolitical roles. As such, despite the fact that the U.S. government as set up various subsidies and frameworks to mitigate the ill-health of men with hunger and diet-related diseases, the government has, for the most part, failed to follow through with its intended promises of increasing the health of its citizens. As such, this lack of follow-through by the government alongside government oversight has set up the necessary frameworks for another entity, food
corporations, to take reign of the pre-existing frameworks of food production and distribution and utilize them for profit-driven goals.

To begin, government subsidies like the Farm Bill have disproportionately favored the growth of certain crops that feed livestock over people, corporate supply of food to the U.S. population has largely been skewed towards prioritizing quantity over quality. Here, it is important to disclaim the goal of this thesis is not to stick value-laden categories of “good” and “bad” onto various types of food, it does compare food on a sliding scale based on calorie and nutrient content. In short, I argue that not all foods are located on the same positions on a sliding spectrum of nutrient or caloric values. By conceptualizing food on a comparative scale, we will be able to take two related factors into account: the caloric content and the nutrient content of foods in relation to each other (i.e. is food “A” more or less calorically dense than food “B,” and is food “A” more or less nutrient-dense as food “B”?). Such distinctions are evident if we compare a McDonald’s Big Mac (nutrient poor, but calorically rich) to a salad (nutrient dense and lower in calories).

Thus, by taking the considerations of quantity over quality into account, I argue that the effect of the corporate takeover of the modern-day American food system is not without many negative effects, both for the government and for the consumer. As the corporate goals towards profit align towards that of quantity and not of quality, the corporate takeover of the U.S. food system has entailed that the supply of foods has disproportionately favored those that are calorically dense foods over those that are nutrientously dense. As such, this entails an explosion of health implications, such as chronic illnesses and an increased susceptibility to toxic accumulation. Thus, as corporations are driven by profit and not by ensuring the “make live”
paradigm assigned to that of government, I argue the result of this corporate food system has largely led to consequences of “letting die.”

Furthermore, I argue that the spaces by which food are supplied, then, are indicative of the health and status of the consumers around it, as we are not only what we eat, but also where we eat. Such spaces include grocery stores, fast food restaurants, schools and even prisons. These spaces, which rest on the residual racist ideologies of the U.S., are sites of inherent necropolitical harms, target low-income and black and/or Hispanic populations the most.

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Taking the harms inflicted by the current food system into consideration, this thesis utilizes Foucault’s theory of biopower, biopolitics, and discipline, alongside Achille Mbembe’s necropolitics to examine the extent, effect, and role of the food provisioning and distribution system in the United States. I argue that food is a mechanism of biopower that has been used for necropolitical purposes by corporations, and as such, the balance of “make live and let die” has been tipped to favor the latter. Thus, I argue that we must reform our current food provisioning and distribution system to repurpose food as a biopolitical mechanism that no longer demarcates black, Hispanic, and low-income populations to be excluded from the biopolitical corpus and to suffer the attritional harms of a food system that favors quantity over quality. To support these claims, this thesis uses the philosophical frameworks and the necessary evidence to make these claims and seeks to proffer a variety of possible reforms and solutions cure the imbalance “letting die” over that of “making live.”

To begin, chapter 2 examines the philosophical framework of biopolitics and biopower and the ways they have been implemented in the U.S. through the mechanism of food via physical infrastructures and spatial demarcations. Chapter 3 explores the ways in which food
corporations have essentially hijacked the biopower held by the U.S. government and its various entities. This chapter argues that corporations, through various tactics, has overpowered both the government and the consumer. As such, this has granted corporations with the power to unduly influence the biopolitical corpus. Chapter 4 expands on the effects of the dominance of corporations in the U.S. food industry and illuminates the unsustainability of our consumption habits, both in terms of economic feasibility and with relation to the rise of chronic illnesses. Chapter 5 delves into specific sites of control by which food corporations have control over, presenting the argument that we are largely where we consume. Finally, in Chapter 6 (the conclusion), the importance of diet is explored alongside various solutions or reforms that could be taken in response to the corporate takeover of government biopower, both at the level of the consumer from below and from government and corporations from above.
CHAPTER 2–Biopower, Discipline, Biopolitics, and Necropolitics: The Philosophical Foundations of the Modern-Day U.S. Food System

This chapter begins with a brief overview of shift from juridical power to biopower in the seventeenth century. The different “poles” of biopower, discipline and biopolitics, are explored as imagined by Foucault, and Achille Mbembe’s necropolitics is offered to fill in an essential gap that the theory of biopower fails to consider. These frameworks are then applied to the modern-day U.S., specifically the importance of race and space in the construction of American infrastructures and housing policies that demarcate certain individuals and populations based on their racial identities. Then, this chapter will connect the theories of biopower, biopolitics, discipline, and necropolitics to food and consumption arguing that food in the U.S. functions as a mechanism of biopower that may dictate whether certain populations will be made to “make live” or made to “let die.”

Part 1–The Transformation from “Taking Life or Letting Live” to “Making Live and Letting Die”

According to Foucault, classical societies prior to the seventeenth century organized themselves based on a sovereign-juridical model, which provided a sovereign with the power to “take life or let live.”¹ This framework of governance provided a sole sovereign with the sole power to impose death and various subtractive forces to ensure its own defense.²³ Such subtractive forces included “a right to appropriate a portion of the wealth… a right of seizure…

³ Ibid.
[and] the privilege to seize hold of life in order to suppress it.”⁴ Using its own survival as the justificatory mechanism to use these punishments and prohibits, the sovereign unilaterally decided which individuals and populations were to die for its own safety.

The juridical model of social and political organization shifted after the seventeenth century into a model that placed the protection of society over that of the sovereign. As such, it was society—the citizens within a state—that required protection. This new framework of governance was what Foucault refers to as “biopower,” which focused on the management of individual bodies and populations to control, transform, improve, and ultimately, optimize them.⁵ In contrast to juridical power, biopower focused on the optimization and proliferation of life, over the subtraction of life, and encompassed the framework of “making live and letting die.”⁶ This shift to biopower, however, does not mean that death ceased to exist in these societies, as states retained the power to declare internal wars, or “holocausts on their own population[s],”⁷ and external wars against its enemies abroad. However, the major difference between the deaths that occurred was that

… wars [would] no longer waged in the name of a sovereign who must be defended… [but] waged on behalf [of] the existence of everyone; entire populations are mobilized for the purposes of wholesale slaughter in the name of life necessity: massacres have become vital. It is a means of life and survival [for society].⁸ (my italics)

In short, the shift from juridical power to biopower did not entail that death would be absent completely, but that the primary focus under the era of biopower would be the promotion and protection of life of citizens and whole populations over taking these lives away. This distinction

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⁴ Ibid.
⁸ Ibid., 137.
becomes clearer if we conceptualize the shift from juridical power to biopower as the shift from the “ancient right to *take* life or *let* live… [to] a power to *foster* life or *disallow* it to the point of death.” As such, this shift to this new era of biopower entailed “an explosion of numerous and diverse techniques for achieving the subjugations of bodies and the control of populations,” delineating a genealogy of two separate, but compatible “poles” of biopower: discipline and biopolitics.\(^9\)\(^{10},\)\(^{11}\)

(I) The First Pole of Biopower: Discipline

The first pole or stage of transformation from juridical power to biopower was discipline, a form of power exercised upon the individual and its subjectification, known as the “*anatomo-politics* of the human body.”\(^12\) According to Foucault, the goal of discipline was to create docile bodies that would undergo “subtle coercions” and micro-adjustments to its movements, gestures, attitudes\(^13\) for purposes of correcting and optimizing these behaviors in reference to the social norms of a given society.\(^14\) To create optimized individuals, discipline focused on manipulating, shaping, and training various mechanisms *within* the body to increase its skill or productivity.\(^15\) Examples of correctable mechanisms under discipline include behaviors like exercise and diet.

The implementation of discipline occurred through the “spatial distribution of individual bodies… and the organization, around those individuals… [in a] whole field of visibility.”\(^16\)

These divisions and specific allocations of bodies into spaces ensured that “each individual [had]
his own place; and each place [had] its individual,”¹⁷ which allowed disciplinary controls and mechanisms to be more precisely performed. These allotted spaces ranked individuals based on their “status” in respect to the social norms of society, and as such, executed disciplinary mechanisms according to this rank.¹⁸ Additionally, these partitioned spaces allowed for a greater field of visibility for observing (and therefore correcting) bodies, and often resulted in data collection that updated and/or reinforced a society’s social norm. As such, these data enabled for the creation of a “whole set of regulations and… empirical and calculated methods… for controlling or correcting the operations of the body.”¹⁹

These practices of spatial partitioning derives from historical responses to the plague in 17th century Europe, which isolated and confined plague victims (and their contagions) within fixed spaces for surveillance, observation, and writing.²⁰ Even today, “all the mechanisms of power… are disposed around the abnormal individual, to brand him and to alter him, are composed of [a binary division].”²¹ As such the creation of the plague town is the main reason why we do not exile populations outside of the state, but instead, enclose upon these deviant populations and/or individuals to not only observe them, but to correct them. These enclosures upon abnormal populations allowed for the state to not only “break up collective dispositions… [and analyze] confused, massive or transient pluralities”²² but to also preserve the “purity” of the “disciplinary monotony”²³ of normal, healthy individuals.

The internal enclosures of abnormal individuals paved the way for the construction of disciplinary institutions and physical buildings that encapsulated such mechanisms of discipline.

¹⁷ Foucault, *Discipline and Punish*, 143.
¹⁸ Ibid., 141.
¹⁹ Ibid., 136.
²⁰ Ibid., 198.
²¹ Ibid., 199-200.
²² Ibid., 143.
²³ Ibid., 141.
One of the most well-known institutions is Jeremy Bentham’s panopticon, which represented the ultimate apparatus of discipline because it allowed for individuals within a central tower to “[see] everything without ever being seen,”\(^{24}\) to both observe, alter, and correct those deemed abnormal. Thus, the individual in the panoptic apparatus not only serves as an object of information but also creates a new, physical space by which discipline may be exercised.

![Figure 2.1](image.png)

**Figure 2.1** The elevation, section, and plan of Jeremy Bentham’s panopticon penitentiary.


Today, the residual effects of the panopticon alongside the plague town and disciplinary mechanisms are illustrated in prisons, schools, and even medical wards, whereby populations are enclosed in specific spaces and, in theory, are to be corrected and/or optimized.

(II) The Second Pole of Biopower: Biopolitics

The second pole, or stage, of biopower was that of biopolitics, a mechanism of taking control of life and the *biological* processes of man-as-species to ensure that they are not disciplined but *regularized* to fit a *statistical norm*:\(^{25}\) For Foucault, biopolitics focused on the species body, the body imbued with the mechanics of life and serving as the basis of the biological processes: propagation, births and mortality, the level of health, life expectancy and longevity, with all the conditions that can cause

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these to vary. Their supervision was [affected] through an entire series of interventions and regulatory controls: a biopolitics of the population.\textsuperscript{26}

As such, under biopolitics, life was rendered into an object that could be manipulated for political actions at the population level,\textsuperscript{27} where power was directed not towards \textit{individual} bodies, but a \textit{collective body} or “unitary corpus.”\textsuperscript{28} In other words, biopolitics focused on the propagation and optimization of whole populations, or a “species body… imbedded with the mechanics of life [that served] as the basis of the biological processes: propagation, births and mortality, the level of health.”\textsuperscript{29} Under biopolitics, whole populations were grouped and allocated into a “biopolitical corpus” that represented the power and health of the state and optimized through various biological processes.\textsuperscript{30} As a result, this meant that the bodies were politicized, whereby the “basic biological features of the human species became the object of a political strategy… [and] a general strategy of power.”\textsuperscript{31,32}

The goals of biopolitics dovetailed those of discipline (but on a population level) but would no longer utilize social norms to rank populations; instead, biopolitics would utilize \textit{statistical} norms. Under biopolitics, life would be calculated and ranked based on the data collected by disciplinary institutions, which would serve to qualify, measure, appraise, and hierarchize populations based on a \textit{statistical} average of society.\textsuperscript{33} Examples of statistical norms include BMI and height-weight charts (which lies in contrast to social, “behavior” norms). This

\begin{footnotes}
\item[26] Foucault, \textit{The History of Sexuality}, 139.
\item[28] Ibid., 36-7.
\item[29] Foucault, \textit{The History of Sexuality}, 139.
\item[31] Foucault, \textit{The History of Sexuality}, 140.
\item[33] Foucault, \textit{The History of Sexuality}, 144.
\end{footnotes}
ranking system created the foundations that allowed for: (1) the multiplication of and propagation of life through the processes of “foster[ing] life or disallow[ing] it to the point of death,” 34 and (2) the creating a hierarchical class structure that prevented “lower,” abnormal, or unwanted populations, from disturbing of the biopolitical body by separating these populations and altering them. While in theory, the determining factor of these divisions were based on biology, in practice, however, the historical implementation of distributing individuals into groups has been predicated on that of race. The mechanism that enabled such divisions based on race, however, was that of biopower, which operated using racism to facilitate a means to hierarchize different populations and people.

It is important to note that biopower is not inherently racist but has been employed (historically) in such a way that has largely been predicated on the criteria race. In its purest form, biopower is merely the power to demarcate populations and groups based various “biological determinants” based on an individual’s or population’s rank on a bell-curve. 35 However, as Achille Mbembe illustrates, the modern employment of biopower has centered on the racism to determine “those who must live and those who must die” and operates on a binary those who get to live and those who must die. 36 Furthermore, in Mbembe’s discussion of Foucault’s biopower, he argues that the framework of “make live and let die” fails to account the fact that not everyone in a biopolitical society are recipients to its corrective mechanisms, particularly those who are deemed “abnormal” and fail to fit within the norms of a given society. As such, Mbembe argues that Foucault’s description of biopower fails to illuminate the “let die” side of the biopolitical framework of “make live and let die,” where there lies

34 Foucault, The History of Sexuality, 138.
35 Lemke, Casper, Moore, and Trump, Biopolitics, 41.
a dynamic relation between the life of one person and the death of another. Racism not only allow[ed] for a hierarchization of “those who are worthy of living” but also situates[d] the health of one person in a direct relationship with the disappearance of another. It furnish[ed] the ideological foundation for identifying, excluding, combating, and even murdering others, all in the name of improving life: the fact that the other dies does not mean simply that I live in the sense that his death guarantees my safety; the death of the other, the death of the bad race, of the inferior race… is something that will make life in general healthier.37 (my italics)

What Mbembe illuminates is that biopolitics does not improve the lives of all. In fact, the inclusion and optimization of some comes at the cost (and lives) of racial “Others.” The form of subjugation that biopower, biopolitics, and discipline fails to capture is what Mbembe terms necropolitics, a power that accounts

for the various ways in which, in our contemporary world, weapons are deployed in the interest of maximum destruction of persons and the creation of death-worlds, new and unique forms of social existence in which vast populations are subjected to conditions of life conferring upon them the status of living dead.38 (my italics)

For Mbembe, the mechanism of necropolitics is “a way of [analyzing] how “contemporary forms of subjugation of life to the power of death” forces some bodies to remain in different states of being located between life and death.”39

Part 2–Modern-day Biopower and Necropolitics: Analyzing the Infrastructures of Racial Segregation

Today, biopower is both employed through biopolitical and necropolitical means through the urban infrastructures within the U.S., which have historically physically separated certain

37 Foucault and Ewald, Society Must Be Defended, 255.
races into fixed neighborhoods. These divisions, which parallels the plague town and panopticon, serve as a means to police and allegedly provide “equitable” governance over weak and strong resident communities. Yet, the racial segregation of certain populations into neighborhoods and communities within the United States has served to create, whether intentionally or unintentionally, zones of “making live” (biopolitical) and those of “letting die” (necropolitical). Like the past, space today acts as the “raw material” by which biopolitical and necropolitical mechanism were and still are implemented.

Unlike 17th century Europe, however, the boundaries that separate populations in the U.S. were created as a response to the recent conflicts engaged by the nation, starting with World War I. In fact, much of the urban planning and development within the U.S. can be traced to the twentieth century. Specifically, the interstate highways built during and after World War II has paradoxically both connected the country via 48,000 miles of role, while dividing the country (and many cities) in to isolated zones of existence. Though this $425 billion investment has connected the country from coast to coast, it has also forced many cities to tear down multi-ethnic neighborhoods and isolate many communities by race. As Figure 2.3 depicts, below, the construction of highways through Downtown Minneapolis has destroyed the presence of high-rises in the area, which has discouraged the integration and inter-mixing of different races within this area, as the modern-day downtown is cut by these roads and have strictly demarcated spaces of inhabitance.

Additionally, other racial divisions have been implemented as a response to the mass migration of black populations to the North at the conclusion of World War II,\(^{43}\) which was met by a less than ecstatic response from the white residents. As such, between 1930 to 1960, the Federal Housing Administration (FHA) and Veteran’s Administration (VA), implemented restrictive covenants that barred non-white residents from securing mortgage loans.\(^{44}\) The most prominent examples of this housing discrimination redlining, which was enacted in the thirties after the Great Depression. Redlining evaluated the “riskiness” of mortgages in regard to various racial groups and these different “risk” zones were assigned to a map constructed by the Home Owner’s’ Loan Corporations (HOLC), whereby the HOLC “graded” neighborhoods. Much of this “grading” involved a consideration of a neighborhood’s racial makeup, as neighborhoods with minority populations were deemed “high risk” for mortgage lenders and were thus colored with red (hence “redlining”).\(^{45}\) For the HOLC, one black household in a neighborhood could make that entire area “dangerous” and “risky” for mortgage loans in eyes of federal government.\(^{46}\)

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\(^{44}\) Ibid., 10-11.

\(^{45}\) Domonoske, "Interactive Redlining Map Zooms In On America's History Of Discrimination.”

\(^{46}\) Ibid.
As such, when black homebuyers sought to relocate to Caucasian-dominated neighborhoods, banks refused to provide them with loans to make mortgage payments (even if they had the same credentials as a similarly-situated Caucasian applicant). The effects, policies, and demarcations left behind by the HOLC created a portrait of racism and discrimination within the American housing and urban planning policy that demarcated certain zones of existence within the U.S.

In short, redlining has served to place specific racial groups in specific parts of the city, and as such, has created distinct boundaries between individuals who could and could not inhabit the biopolitical corpus. The residual effects of these racial separations between “higher races” (urban elites) from “lower races” (disenfranchised minorities) are depicted at the level of the city (Figure 2.4) and also at the level of the nation (Figure 2.5), below.

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50 Calame and Charlesworth, “Cities and Physical Segregation,” 32.
The residual effects of modern-day infrastructures and discriminatory housing policies have created separations between not only different races of individuals but also different socioeconomic classes (as these two categories are often related). Thus, despite recent attempts at integrating the separated racial zones within the U.S., such as the Fair Housing Act and the Voting Rights Act, it is still the case that the internal divisions within the nation continues to persist, as illustrated by Figure 2.5, above.
Part 3–Food as a Mechanism of Biopower

Although there are a many mechanisms of biopower that we could use to illuminate the effects of the racialized biopolitical and necropolitical demarcations within the United States, I have chosen food because it is perhaps one of the most important mechanisms of biopolitics, as it allows individuals to “make live” through consumption, and “let die” through ill-consumption. Foucault, himself, illuminates the importance of food to biopower and biopolitics, arguing that without eighteenth century agricultural advancements, nation-states would have never acquired biopolitical controls because populations would be continuously threatened by the onset of famines and epidemics.51 As such, prior to these agricultural advancements, Western societies were vulnerable to various “natural” phenomena, believing that they were divine condemnation for the misbehavior of mankind.52,53 However, the West eventually realized that the “natural” and “unavoidable” phenomenon were, in reality, controllable using its new agricultural technologies because they enabled governments to exercise relative control over imminent risks of death. This new-found control by states over their agriculture and urban planning enabled them to replace a “moral economy of hunger” with “a political economy of food security,”54 and as such, allowed states exercise and retain control over food production and therefore its citizens. In short, agricultural developments allowed various nation-states to begin developing discourses such as right to life, body, and health—all of which did not exist under the classical juridical system due to the constant threat of death.55

51 Foucault, *The History of Sexuality*, 142.
54 Nally, “The biopolitics of food provisioning,” 37.
Furthermore, this era of biopower has been described to bring forth a betterment and security for humankind at the level of biology in the realm of health and food provisioning.\textsuperscript{56} Arising as a result of food security, the disciplinary town provided the spatial dynamics of states and capital... that [would] encourage, undermine or other attenuate the potential for life to replenish and flourish"\textsuperscript{57} through food provisioning and distribution,\textsuperscript{58} which acted as the foundations of biopolitical control. Thus, as a result of the agricultural advancements of the eighteenth century, we now live in a framework dominated by a “society of consumers” that “promotes, encourages or enforces the choice of a consumerist lifestyle and life strategy.”\textsuperscript{59} These acts of consumption, particularly, in the capitalistic society of the U.S., provides us with the very basis of membership within this society. As such, the relationship between food and biopower is not simply limited at food security, but also at the level of biopolitics and consumption because food becomes a part of the consumer.\textsuperscript{60} Thus, food is inherently biopolitical because it provides individuals and whole populations with the ability to either “make live” or “let die.”

While food choices and various decisions of lifestyle may seem to be “innocuous personal preferences,” in actuality, what we consume may “represent an identity, a politics, or a threat to population health.”\textsuperscript{61} In this context, those who are viewed as “abnormal” or “dangerous” to the biopolitical goals of life (those who consume “badly”) are excluded and isolated into various communities and disciplinary institutions whereby they will not threaten the

\begin{flushleft}
\textsuperscript{57} Ibid.
\textsuperscript{58} Ibid., 39.
\textsuperscript{59} Bauman, \textit{Consuming Life}, 53.
\end{flushleft}
health, safety, or security of the state.\textsuperscript{62} Today, those who eat “healthily” and develop “healthy lifestyles” remain within a secured, optimized biopolitical population. However, those who fail to consume “correctly” are rendered into the necropolitical realm, as their actions are deemed “abnormal” to the established norms of life.\textsuperscript{63}

\textbf{Part 4—Conclusions}

An exploration of Foucault’s conceptualization of biopolitics, biopower, and necropolitics illuminates the philosophical and structural underpinnings of both the societies of seventeenth century Europe and modern-day America. This chapter has illuminated mechanisms of biopower that are inherent in the way that the U.S. is organized today through urban planning and housing policies, all of which have been influenced by racism and classism. These racially demarcated zones between the U.S. serve as the foundations by which biopower is enacted. Those who fail to fit into the white, middle-class “norm” of American society are deemed abnormal and excluded from partaking in the biopolitical corpus. These same populations are thus not regularized or optimized under biopolitics but made to “let die” through necropolitical mechanisms.

\textsuperscript{62} Mayes, “Food at the nexus of bioethics and biopolitics,” 26.
\textsuperscript{63} Ibid.
CHAPTER 3–CORPORATIONS, GOVERNMENT, AND CONSUMERS: 

WHO HAS POWER?

This chapter attempts to answer the question of: who has the power over the food system in the U.S.? While in theory, the U.S. government is tasked with the role of regulating the biopolitical corpus in terms of its consumption by “monitoring and modifying the nation’s diet,” this chapter argues that, through various tactics, corporations have taken government biopower and used this power to generate profit through food sales. As such, this chapter explores the ways corporations have garnered control and influence over government entities through corporate lobbying and bribery. Then, this chapter analyzes the ways by which corporate biopower has enabled corporations to exercise control over the modes of consumption of the consumer through: (1) the supply and price of food, and (2) the food information to advocate a rhetoric of “eat more.” The chapter concludes by arguing that the rise of food corporations over both government and consumer has enabled corporations to acquire a biopower to dictate, whether intentionally or unintentionally, which populations are included or excluded from the U.S. biopolitical corpus.

PART 1–Food Corporations Versus the Government

(I) The Recent Food History of America

Much like the physical infrastructures of the U.S. demarcating segregated zones of inhabitation, the food policies in place today have also been largely influenced by the recent historical events of the twentieth-century. Most prominently, these events include World War I, the Great Depression, World War II, and the Cold War, which highlighted importance of food

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64 David Bell and Gill Valentine, *Consuming Geographies: We Are Where We Eat*, (London: Routledge, 2006): 165.
for the defense of the state. For instance, when more than one-third of all men called for military service in World War I were found to be malnourished, underweight, or diagnosed with a nutrient- or diet-related health condition, the government, perhaps for the first time, realized the importance of food as a biopolitical mechanism that secured the national defense of the country both domestically and internationally. Taken aback from number of malnourished soldiers during the time of WWI, and the “specter of a weak defense and malnourished citizenry, army officials, public health physicians, and home economists spent the next decade preaching the science of nutrition.” For government officials, it was apparent that they had failed to ensure that its citizens were healthy and optimized under the biopolitical model. Thus, for many American public and food reformers, these malnourished enlistees ignited a rising awareness that “many Americans, whether out of ignorance or poverty, did not enjoy the benefits of healthful diets,” while others failed to acquire foods to “make live” altogether. This rising awareness by citizens would also spark a newfound awareness that “nutrition science held the very real promise of improved health, stronger bodies, and longer lives.”

However, when the Great Depression hit in the thirties, it not only latched on to the residual devastation left from WWI, but would also incite “the worst economic-social-political wrenching in history,” plunging America into a period of great food scarcity while crop prices dropped more than 50%. This state of emergency illuminated the findings by government and food reformers during WWI, and this time, the government had no choice but to intervene. This

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66 Ibid.
67 Ibid., 57-8.
68 Ibid., 29.
69 Ibid., 26.
would begin with the agricultural sector, where government provided emergency relief for farmers through direct payments, counter-cyclical payments, marketing assistance loans, crop insurance, and disaster assistance, and government subsidies. The most prominent intervention by the government was the passing of the Farm Bill in 1933, which subsidized four main crops: corn, hay, soybean, and wheat. In tandem to these government subsidies, new agricultural technologies such as insecticides and pesticides (specifically DDT, the “miracle insect-killer”), enabled farmers to mass produce crops to keep the agricultural sector afloat.

The changes in the U.S. food system was not simply limited to government and agricultural sectors, as the food processing industry, too, began to introduce new methods of conserving food, both to help the war effect and to make food more readily available to the consumer. These new pounded, dried, stretch, and shrunken foods, which included canned foods and breakfast cereals, eventually pervaded the public food supply, where “high-quality food became synonymous with long shelf life and low spoilage.” This advent of processed foods vastly increased the quantity of food available for many Americans, as the new technologies like moisture-proof packaging also allowed for distribution of meats, veggies, and fruits year round. To keep up with the advancements in both the food production and processing industry, the modern-day supermarket was built to contain the variety of new food

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72 Ibid., 22.
73 Ibid., 5.
76 Ibid.
77 Bentley and Hobart, “Food in Recent U.S. History,” 169-70.
78 Ibid., 170.
79 Ibid., 167.
80 Ibid.
options available. The advent of these stores, however, would replace independent businesses like mom-and-pop grocery chains, fresh fruit markets, butches, and bakeries because it was now possible to sell a variety of food items under one roof. 81

(II) The Residual Effects of U.S. Food History and the Rise of Agribusinesses and Corporate Influence

The advent of the grocery store was merely one change to the overall food landscape of the United States, as the passing of the Farm Bill would dictate the types of food that would be supplied in America for years to come. To begin, the subsidized crops under the Farm Bill have accounted for more than 83% of harvested crops acres in 2007 82 and has created a system of mass production where these crops are largely consumed not by humans, but by animals, cars (as biofuel), and the rising industry of processed foods. 83,84 Furthermore, alongside new technologies that increased crop yields such as chemical fertilizers, pesticides, mono-cropping, extensive irrigation, genetically modified and high-yield plant varieties, and mechanized harvesting, the evolving state of American agriculture paved the way for the rise of corporate mega-farms, known as “agribusinesses.” 85 Equipped with modern machinery and new technologies of speeding up processing, packaging, and distribution, agribusinesses acquired the ability to mass produce and distribute crops, which not only increased competition between farms, but often

81 Ibid., 171.
82 Comess, “From Agricultural Subsidies to Health Outcomes,” 22.
drove small, independent farms out of business.\textsuperscript{86} Forced to either “get big or get out,” small farmers were faced with the choice to either sell their farms to these corporate businesses or to become tenant farmers under these agribusinesses.\textsuperscript{87}

As a result, these corporations eventually eroded non-market access to food, expanding their reach to encompass the entire collection of enterprises involved in the production and consumption of food and beverages: producers and processors of food crops and animals (agribusiness); companies that make and sell fertilizer, pesticides, seeds, and feed; those that provide machinery, labor, real estate, and financial services to farmers; and others that transport, store, distribute, export, process, and market foods after they leave the farm.\textsuperscript{88}

The power of agribusinesses to exercise vertical control over both the production and distribution of their crops furnished them with the ability to exact profits from any point of production, distribution, and retail. Accounting for 27.8\% of all farms sales in 1987 and 42\% of all farm sales in 1997,\textsuperscript{89} agribusinesses continue to expand in the United States. Today, the food industry situates itself as the second largest industry in the United States, valued at $404 billion\textsuperscript{90} and food sales from food corporations generates more than $1 trillion, more than 8\% of the U.S.’s yearly gross national production (GNP).\textsuperscript{91}

Despite the rise in agribusinesses, it is important to note that this occurrence was catalyzed by government policies and subsidies. However, this is not to say that the rise of food corporations was without any pushback or regulation by the government. In fact, food use an array of tactics to wager with the government and its policies, which include corporate lobbying

\textsuperscript{86} Lyons, “Food, Farming, and Freedom,” 20.
\textsuperscript{87} Ibid., 21-22.
\textsuperscript{89} Lyons, “Food, Farming, and Freedom,” 22.
\textsuperscript{90} Ibid., 20.
\textsuperscript{91} Nestle, \textit{Food Politics}, 11.
and “donations” via PAC funds. Corporate lobbying, defined as “any legal attempt by individuals or groups to influence government policy or action” aims to: (1) promote the aims of special-interest groups, (2) attempt to influence government laws, rules, and/or policies that might affect said groups, and/or (3) communicate with government officials or their entities regarding specific laws, rules, or policies of interest.\textsuperscript{92} Corporate lobbyists are not elected, but hired by private interest groups to advocate their goals, and as such, much of the activities of lobbyists are hidden from the public.\textsuperscript{93} As a result, corporate lobbying raises important questions pertaining to how much government and public health officials are influenced by third parties. Furthermore, as the number of food producers engaging in agricultural lobbying continues to rise,\textsuperscript{94} one is left to wonder how much of public policies regarding food are actually made with the intention of improving or securing goals of public health.

In addition to corporate lobbying, another form of advocating corporate interests is through donations to the Political Action Committee (PAC). On the surface these PAC funds may seem like a way for “unions, corporations, and other groups for the collecting and allocating voluntary campaign contributions,”\textsuperscript{95} but often, these “donations” are forms of disguised bribery. In part, this is because these “donations” can get allotted to government officials or entities that would support or vote for favorable laws and policies. Furthermore, these funds tend to be allocated to where they will most benefit corporate donors, which means most of these funds are distributed to House and Senate Agriculture Committee.\textsuperscript{96}

\textsuperscript{92} Nestle, \textit{Food Politics}, 95.
\textsuperscript{93} Ibid.
\textsuperscript{94} Ibid., 99.
\textsuperscript{95} Ibid., 102.
\textsuperscript{96} Ibid., 103.
(III) Government or Corporations: Who Has the Power to Decide?

The fact that corporations have to either lobby against government and/or bribe officials highlights the fact that the goals of corporations and government do not always align. To be more specific, the role of governments is, in theory, biopolitical, while the goals of corporations are geared towards profit, which usually entails necropolitical consequences. In fact, as a result of the rise of agribusinesses, around 200,000 people in the U.S. everyday are made ill by foodborne disease, while 900 people are hospitalized, and 14 others die.\textsuperscript{97} Moreover, the Centers for Disease Control and Prevention (CDC) “estimates that more than three-quarters of other food-related illnesses and deaths in the United States are caused by infectious agents that have not yet been identified.”\textsuperscript{98} As such, our current food system by corporations has created an ideal system for new pathogens to disseminate, blatantly threatening the public health interests of government.

One of the most troubling incidences of food-related illness and deaths is illuminated by an \textit{E. coli} 0157:H7 outbreak whereby stains of the bacterium were found in frozen meat products, causing nausea, vomiting, severe abdominal pain, and bloody diarrhea in both children and adults.\textsuperscript{99} Despite the fact that this strain of the bacterium was immune to antibiotics, the U.S. government was largely powerless in their regulation of the meat industry because it did not possess the power to recall the bad meat. The irony of the situation remains that while the “U.S. government can demand the nationwide recall for defective softball bats, sneakers, [and] stuffed animals… it cannot order a meatpacking company to remove contaminated, potentially lethal ground beef from fast food kitchens and supermarket shelves.”\textsuperscript{100} Perhaps even more worrisome

\begin{footnotes}
\item[97] Schlosser, \textit{Fast Food Nation}, 195.
\item[98] Ibid., 196.
\item[99] Ibid., 196-8.
\item[100] Ibid., 196-7.
\end{footnotes}
is the fact that food products must be “voluntarily recalled” by food corporations because government officials cannot mandate these companies to do so. Furthermore, even as these recalls are taking place, “food companies have no legal obligation to inform the public – or even state health officials” about them.\textsuperscript{101}

The \textit{E. coli} outbreak is merely one of many examples that illustrate the reach and power afforded to food corporations as they have lobbied and bribed their way past the regulatory mechanisms of government. However, this rise is not merely attributable to corporate influence, but also that of explicit government oversight over its \textit{duties} to ensure that its populations are healthy and made to “make live.” As such, the corporate acquisition of biopower has generated profound effects, as the “strategies for managing life, a synergy that becomes more pronounced as agrarian structures [have been] transformed to suit commercial interests \textit{rather than human needs},”\textsuperscript{102} which result in the infliction of necropolitical harms on a \textit{national} scale.

\textbf{Part 2–Food Corporations Versus the Consumer}

The newly-acquired ability to mass produce and distribute food by food corporations has paved the way food corporations to not only influence the government, but also the every-day consumer through corporate control of supply and price, alongside food information and nutrition discourse. Though food corporations will counter this argument by citing a consumer’s ability to exercise “consumer sovereignty” in their selection of products and argue that consumers can use “dollar voting” as a signal to influence the supply of products corporations produce,\textsuperscript{103} these narratives fail to consider the combination of social, economic, political, and

\textsuperscript{101} Schlosser, \textit{Fast Food Nation}, 212.
\textsuperscript{102} Nally, “The biopolitics of food provisioning.” 2.
\textsuperscript{103} Lyons, “Food, Farming, and Freedom,” 39.
technologic forces that dictate a consumer’s ability to choose, consume, or purchase food products. Accordingly, not every consumer in the U.S. has equal access to food nor the same quality of food. As consumers today no longer live in agrarian societies, they no longer have the ability nor means to grow their own food or herd their own livestock. As a result, it is difficult, if not impossible for consumers to abstain from partaking in the corporate-mandated food market.

As such, the section below will explore the effects of the many loci of corporate control and their influence on consumers to adopt the mentality of “eat more” and never less, and the dismantling of “choice” in regard to food, as corporations permeated into the ways by which consumers perceive, purchase, and consume food today. These loci of control include: (1) corporate control of supply and price and (2) corporate control of food information.

(I) The Various Loci of Corporate Control in the Consumer Realm
(a) Corporate Control of Supply and Price

The corporate control of food supply would not be possible without the help of government subsidies. Specifically, Farm Bill has ensure that four crops—corn, hay, soybean, and wheat—accounted for more than 83% of harvested crops acres in 2007. As such, these subsidies have greatly influenced the supply chain of the U.S. where a majority of the food on the shelves of our grocery stores made from ingredients that derive from one of these crops, which have been “extensively process[ed] into unhealthy derivatives with huge markups.” Furthermore, thanks to the subsidy system, a system of mass production of said crops has been created, where most of these agricultural yields are not used by humans, but by animals, cars (as

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104 Schlosser, _Fast Food Nation_, 3.
106 Comess, “From Agricultural Subsidies to Health Outcomes,” 22.
fuel), and the rising industry of processed foods (for ingredients like high fructose corn syrup). Thus, the subsidy system has encouraged a system that encourages excess production that is inefficient at feeding people.

This inefficiency, despite mass production of these four crops, has entailed that many U.S. citizens to this day still fail to establish a sense of food security, defined by the United Nations (UN) as the physical and economic access to healthy food, including long-term access to food. Today, many households are classified as “food insecure,” as they are unable to have or acquire enough food to meet the dietary needs of all household members. In 2017, 11.8% (15 million) of U.S. households were food insecure. As defined by the USDA, there are also varying tiers of food insecurity:

- **Very low food security**, where “normal eating patterns of one or more household members were disrupted and food intake was reduced at times during the year because they had insufficient money or other resources for food.” As of 2017, 4.5% (3.8 million) of all American households had very food security some time during the year.

- **Low food security**, where households are able to “[obtain] enough food to avoid substantially disrupting their eating patterns or reducing food intake by using a variety of coping strategies, such as eating less varied diets, participating in federal food assistance...”

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108 Foley, “It's Time to Rethink America's Corn System.”
110 Foley, "It's Time to Rethink America's Corn System."
113 Ibid.
programs, or getting emergency food from community food pantries.” As of 2017, approximately 7.3% (9.3 million) of households fell into this category.

The different levels of food insecurity highlight an importance distinction between quality and quality. To begin, while very low food security includes households who fail to consume a sufficient amount of food, low food security, in contrast, includes households who fail to consume a varied, quality diet. For many food insecure individuals, the omission of “fruits, vegetables, and dairy in favor of meats and energy-dense carbohydrates… and the purchasing [of] prepared and processed foods” is a technique to on food costs and other bills such as gas or electricity. Thus, the consumption habits of most Americans those that tend towards calorie-rich, nutrient-poor over expensive, nutritiously-dense food because they are cheaper. As a result, most Americans overconsume convenience foods (fast foods), high in saturated fat, and under-consume quality foods like whole grains, fruits, and vegetables due to these price considerations.

Furthermore, this problem of quality of quantity is exacerbated by the sheer number of junk foods available in stores today, most of which contain at least one ingredient from government-subsidized crops. These junk foods are not only processed, but also cheaper in price in comparison to non-processed, whole foods (which coincidentally is not subsidized). As a result, fresh produce is often more expensive than processed foods because “once food gets to

115 Eisenhauer, “In poor health,” 19.
supermarket, the proportion represented by the farm value declines further in proportion to the extent of processing... the remaining 80% of food dollar goes for labor, packaging, advertising, and other value-enhancing activities.”\textsuperscript{118} For farmers to cover these fees, they must raise the prices of fresh produce because these fees are not subsidized by the government. Yet, while whole foods are more expensive than processed foods, consumers receive more nutritional bang” for their buck by purchasing whole, non-processed foods, as “vegetables offer six times more nutrition per dollar compared to highly processed foods,”\textsuperscript{119} many consumers opt to spend their hard-worked money to purchase food on a cost-to-calorie basis.

Furthermore, food corporations tend to “add value” to fresh produce by selling them frozen, canned, precut, and prepackaged.\textsuperscript{120} Processed food, then, reigns over whole, non-processed foods because they are not only cheaper, but also more convenient because they require little preparation, though they are significantly higher in calories, fat, sugar, and/or salt than whole, non-processed foods.\textsuperscript{121}

\textsuperscript{118} Nestle, Food Politics, 18.
\textsuperscript{120} Nestle, Food Politics, 18.
\textsuperscript{121} Ibid., 19.
(b) Corporate Control of Food Information

In conjunction to corporate control of supply and price, food corporations harness great control over food information and nutrition discourse through the methods of abstraction and creating favorable information. To begin, a prominent aspect of corporate control of information lies in their ability to take nutritional advice and abstract it to make it more difficult for consumers to understand these guidelines and put them into practice. One of the most prominent examples of this abstraction in our food labels, which are often written in terms of food nutrients and biochemical elements, both of which are not understandable by most shoppers. Figure 3.2, below, displays the abstraction within the 1992 Food Pyramid. On the pyramid, suggestions like the “use sparingly” and “2-3 servings” are vague, as it is unclear to most consumers what constitutes as a serving and what “use sparingly” entails.

![The 1992 Food Guide Pyramid](http://www.nal.usda.gov/fnic/Fpyr/pyramid.gif)

**Figure 3.2** The 1992 Food Guide Pyramid


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122 Nestle, *Food Politics*, 20.

The abstraction of food to their “scientific” and biochemical qualities have been used by food industry executives to marketing their products,\textsuperscript{124} by claiming that product “x” grams less fat over their competitors—which sound great in advertisements, are incomprehensible by most consumers.

The second tactic by which corporations control the food information today is through the construction of favorable information. This could entail corporations paying scientists or nutritionists to perform “studies” of their own products and gear their findings to make their products “favorable,” such as stating that their products are “healthy” in comparison to rival products. An instance of this is Wendy’s self-sponsored studies and brochures “devoted to tips for choosing a restaurant when “on the go”,”\textsuperscript{125} where after “extensive research,” these findings placed Wendy’s at the top of the list of recommended restaurants. However, while it is important to “pay attention to who the experts actually are—by asking questions about their credentials, their past and current research, the venues in which they are subjecting their claims to scrutiny, and the sources of financial support they are receiving,”\textsuperscript{126} many consumers fail to do so because of a laziness to track this information or because they lack the means to do so.

\textbf{(II) The “Eat More” Discourse}

The combination of corporate control over supply, price, and food information results in a nutrition discourse that promotes “eat more” and never that of “eat less.” Historically, when suggestions of “eat less” have been offered, they are often met with intense corporate pushback,

\textsuperscript{124} Nestle, \textit{Food Politics}, 50.
\textsuperscript{125} Koch, \textit{A Theory of Grocery Shopping}, 55.
as was the case when the 1977 *Dietary Goals for the United States* was published.\(^{127}\) Riled up, corporations intensely pressured food scientists and nutritionists to take back their recommendations because they were worried that they would affect their profit margins. Eventually the USDA took back these recommendations, abstracting this language of “eat less” into the vague “avoid too much.”\(^ {128}\) In doing so, the USDA constructed a view of diet whereby *all foods* can be “incorporated into healthful diets… [where a] balance, variety, and moderation are the keys to healthful diets.”\(^ {129}\) Much of the reluctant willingness by USDA to yield to the demands of corporations can be explained by the fact that although it is a government entity, part of the USDA’s mission is to “[expand] markets for agricultural products.”\(^ {130}\) Thus, when the corporations and the USDA are at odds, these goals of agricultural expansion are considered. As a result, most suggestions of “eat less” will repackaged and abstracted into “avoid too much.”\(^ {131}\)

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\(^{127}\) Nestle, *Food Politics*, 41.

\(^{128}\) Nestle, *Food Politics*, 46.

\(^{129}\) Ibid., 21.

\(^{130}\) Greger and Stone, *How Not to Die*, 260.

\(^{131}\) Ibid.
Finally, this discourse “eat more” are also frequently reinforced through advertisements and corporate marketing, which actively promotes the foods and products that corporations want the consumer to buy. As there are often little profits to be made by promoting healthy foods like vegetables and fruits, corporations, instead, dish out a disproportionately large amount of money to more profitable foods like that are high in fats, oils, and sugar\footnote{Greger and Stone, \textit{How Not to Die}, xi.} (as depicted in Figure 3.3, above).

**Part 3–Conclusions**

Ever since the 1970s, the American agricultural system has been producing an overabundance of calories, harvesting enough food to feed the whole country twice\footnote{Nestle, \textit{Food Politics}, vii.}. Yet, despite this fact, the Food and Agriculture Organization (FAO) has reported that 75 million people have been added to the number of chronically hungry since 2006. This seemingly impossible situation can be explained the “paradox of plenty” as suggested by historian Harvey Levenstein, who uses the term to “refer to the social consequences of food overabundance” but specifically “the sharp disparities in diet and health between rich and poor.”\footnote{Ibid., 1.} As our current food system devotes most of its crops to everything but human consumption—to animals, biofuel, and food processing, and favors the generation of processed foods, perhaps this “paradox” isn’t so difficult to fathom.

Furthermore, as the effects of corporate control (or at least \textit{increased} corporate control) over the food system has resulted in a disparate supply of healthy, non-processed foods between high- and low-income groups, which nudges low-income groups to consume diets markedly
higher in not only calories, but also in fat, meat, and sugar.\textsuperscript{136} Thus, while low-income (and racial minority) populations are “fed” calorically—through quantity—they are not fed in terms of the nutrient quality necessary to “make live.” As a result, the rise of food corporations and agribusinesses has created a population of “stuffed and starved” bodies.\textsuperscript{137}

In the words of Michael Pollan, agribusinesses and food corporations have radically changed the foodscape of America, as they continue to

\begin{quote}
... add “value” to cheap raw ingredients by processing them (i.e., transform a few pennies’ worth of grain and sugar into five dollars’ worth of breakfast cereal); spend billions to market these products as aggressively as possible (to children, by using sugar and cartoon characters, and to their parents, by making dubious health claims); use every trick of food science and packaging to induce us to eat more of these products than we should; and then, just to make sure no one tries to interfere with this profitable racket, heavily lobby Congress and nutrition scientists to keep anyone in power from so much as thinking about regulation or officially whispering that maybe we should eat a little less of this stuff.\textsuperscript{138}
\end{quote}

This multi-level takeover by corporations, both at the level of the government and the consumer, has created a food system that makes it increasingly difficult for us to make our food decisions—nevertheless \textit{healthy}, nutritious food decisions. While in theory the state is appointed with the task of regulating the health of its citizens, the rise of food corporations and agribusinesses has largely thwarted the efforts of government entities and officials to follow through with their biopolitical goals.

\textsuperscript{136} Ibid.
\textsuperscript{137} Nally, “The biopolitics of food provisioning,” 48.
\textsuperscript{138} Nestle, \textit{Food Politics}, viii.
CHAPTER 4: THE EFFECTS OF CORPORATE CONTROL
ON THE U.S. BIOPOLITICAL CORPUS

The rise of corporate-control over not only the government, but also over the consumer has shifted modern-day American into an “Age of Degenerative and Man-Made Diseases.” In contrast to our concerns regarding infectious diseases that plagued the country a hundred years ago, we now shift our health concerns to the main killers of Americans today: diet and lifestyle. Today, the primary concern by government and health officials relate to the harms of overconsumption both in terms of calories and nutrient-poor foods (which are often processed), which have largely been mandated by the “eat more” discourse as discussed in chapter 3. As such, this chapter will explore the health effects of the corporate takeover of our food system by analyzing the advent of two diet-related chronic diseases: obesity and type 2 diabetes. Then, this chapter will analyze the unsustainable nature of our current modes of consumption, both in terms of health and economics. Finally, this chapter will conclude by illuminating the tendency of the current food system to disparately affect the health of racial minorities.

Part 1–Chronic Diseases: The Consequences of Overconsumption in a Corporate-Controlled Food System

In this new era characterized by the “paradox of plenty,” many populations within the U.S., especially those of low-income and racial minority groups, have been diagnosed with some type of chronic disease. Defined by their acute nature, chronic diseases, or noncommunicable diseases (NCD), are typically gradual in their onset, multi-causal, and long in duration.

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139 Greger and Stone, How Not to Die, 4.
140 Ibid.
Though chronic diseases have primarily been associated with aging in developed countries, more recently, these diseases have begun to plague developing nations as well. In fact, chronic disease now takes more lives globally than infectious diseases, and makes up over 70% of deaths annually in the U.S.\textsuperscript{142} Though most chronic diseases are preventable in younger individuals (those under 65), these diseases are much harder to prevent and treat in the long-run, as older populations can die from as many as four or five chronic diseases.\textsuperscript{143} Thus, despite the fact that the average life-expectancy for Americans has increased to 67 years, living longer in the U.S. today has not come without the advent of various diet-related chronic diseases.\textsuperscript{144}

(I) \textbf{OBESITY}

Today, 35% of women and 31% of men are considered seriously overweight, while 15% of children between the ages 6 and 19 are overweight.\textsuperscript{145} These weight categories of obese and overweight are determined by an individual’s Body Mass Index (BMI), which takes an individual’s weight in proportion to their height. Under this index, a BMI of 18.5 to 24.9 is considered normal, 25+ overweight, 30+ obese, and 40+ severely obese.\textsuperscript{146} As such, overweight and obesity are not the same, but represent different points on the “same path of weight, ranging from underweight to obese.”\textsuperscript{147}

In the U.S., the increasing prevalence of obese and overweight individuals is attributable to a mix of “societal, economic, demographic, and environmental changes that not only

\textsuperscript{142} Callahan, \textit{The Five Horsemen of the Modern World}, 85-6.
\textsuperscript{143} Ibid., 86.
\textsuperscript{144} Ibid., 88.
\textsuperscript{147} Ibid.
encourage people to eat more food than needed to meet their energy requirements but also encourage people to make less healthful food choices and act as barriers to physical activity.”

The result of these habits of consumptions has led to an unimpeded rise in obesity in the past 40 years, despite “considerable public health attention.” While obesity is 60% genetic and 40% “environmental” or lifestyle-related, the rapid onset of obesity in America in the 1970s has occurred to quickly to be attributable to genetic factors alone, and as such, the biggest cause of the increasing prevalence of obesity in America today is most likely overconsumption. In fact, the number of calories provided by the U.S. food system has increased from 3,200 to 3,900 calories per capita since the 1990s. This increased production, in conjunction with the reported increase of caloric intake by Americans, has caused the rates of obesity to skyrocket.

Another cause of obesity can be attributed to the increased tendency for many Americans to consume a larger proportion of their calories outside of the home in places like fast food chains, restaurants, contract corporations, and hotel operations, where food is often higher in fat and calories. Furthermore, the introduction of high-fructose calorific sweeteners, found in many popular beverages in America could also account for America’s rapid weight gain. In a 2004 study analyzing the effects of consuming high-fructose sweeteners, researchers found an 1000% increase of these sweeteners between the 1970s and 1990s, and that these sweeteners interrupt hormonal signals for leptin in the body, a protein that regulates fat storage in the body. Lastly, the 27% increase in fat supply from the 1970s to 1990s in the food supply has

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148 Nestle, *Food Politics*, 175.  
150 Ibid., 111.  
151 Nestle, *Food Politics*, 8  
152 Ibid.  
153 Ibid., 13.  
155 Ibid.
also arisen as a possible explanation for the rapid onset of obesity, as the prevalence of overweight individuals nearly doubled from 8% to 14% in children 6-11 and, from 6% to 12% in adolescents, and from 25% to 35% in adults within this same timeframe.\textsuperscript{156}

Despite many causes and possible causes of obesity, the fact of the matter is that the percentage of Americans who are either obese or overweight is rising and continues to rise, which has both physical and economic harms to both individuals and on society. To begin, obesity causes an estimated 300,000 \textit{premature} deaths in the U.S. and has been attributed to health conditions including, but not limited to: high blood pressure, diabetes (type 2), heart disease, joint problems in the knees and hips, sleep apnea, cancer, and various psychosocial issues.\textsuperscript{157} Economically, the rise in obesity has increased healthcare costs for everyone in the nation in the form of taxes.\textsuperscript{158} Each year, the cost for treating obesity and obesity-related conditions amounts to over $150 billion,\textsuperscript{159} while the costs for the adult obese population make up 5-7\% of the annual U.S. healthcare bill.\textsuperscript{160} In addition to these economic effects, obesity has various psychosocial effects for obese and overweight individuals themselves, as these people are often blamed for their weight and their lack of “willpower” to consume “healthy” foods.\textsuperscript{161} In a society that idealizes being thin, weight has also served a prominent source of occupational and medical discrimination for obese and overweight individuals.\textsuperscript{162,163}

\begin{flushleft}
\textsuperscript{156} Nestle, \textit{Food Politics}, 7-10.
\textsuperscript{157} “Obesity,” Stanford Health Care (SHC) - Stanford Medical Center, Accessed April 26, 2019, \url{https://stanfordhealthcare.org/medical-conditions/healthy-living/obesity.html}.
\textsuperscript{158} Nestle, \textit{Food Politics}, 8.
\textsuperscript{159} “Obesity,” Stanford Health Care (SHC) - Stanford Medical Center, Accessed April 26, 2019, \url{https://stanfordhealthcare.org/medical-conditions/healthy-living/obesity.html}.
\textsuperscript{160} Callahan, \textit{The Five Horsemen of the Modern World}, 110.
\textsuperscript{161} “Obesity,” Stanford Health Care (SHC) - Stanford Medical Center, Accessed April 26, 2019, \url{https://stanfordhealthcare.org/medical-conditions/healthy-living/obesity.html}.
\textsuperscript{162} Callahan, \textit{The Five Horsemen of the Modern World}, 110.
\textsuperscript{163} “Obesity,” Stanford Health Care (SHC) - Stanford Medical Center, Accessed April 26, 2019, \url{https://stanfordhealthcare.org/medical-conditions/healthy-living/obesity.html}.
\end{flushleft}
(II) **Type 2 Diabetes**

Diabetes is a chronic disease characterized by high blood sugar and an inability insulin to regulate the body’s blood sugar levels. Normally, the digestive system is able to break down the carbohydrates from food into glucose (simple sugar), which is the primary fuel that powers the cells within the body. However, in order for glucose to be transported from the bloodstreams to our cells, insulin is required, acting as a “key that unlocks the doors to [our] cells to allow glucose to enter.”\(^{164}\) Without insulin, the body fails to have a means to accept glucose, resulting in a glucose (sugar) build-up within the body, which can lead to damage to blood vessels, blindness, kidney failure, heart attacks, and strokes.\(^{165}\) Too much sugar in the bloodstream can overwhelm the kidneys,\(^{166}\) enabling glucose to kill us from the inside.

There are two types of diabetes: type 1 and type 2 diabetes. Type 1 diabetes accounts for 5% of all cases of diabetes and results in one’s immune system mistakenly destroying insulin-producing beta cells in pancreas.\(^{167}\) The cause of type 1 diabetes is currently unknown, but suspected to be caused by various genetic redisposition, combined with various environmental triggers.\(^{168}\) Type 2 diabetes, in contrast, accounts for approximately 90-95% of all cases of diabetes and is caused by the interference of insulin function in the body. Unlike type 1 diabetes, type 2 diabetes is preventable, treatable, and reversible—though it depends one’s diet and lifestyle.\(^{169}\) The main cause of type 2 diabetes is believed to be the consumption of too many “bad fats” (which is found in many of the processed foods that we eat today).\(^{170,171}\)

\(^{164}\) Greger and Stone, *How Not to Die*, 101.
\(^{165}\) Ibid., 101.
\(^{166}\) Ibid.
\(^{167}\) Ibid.
\(^{168}\) Ibid.
\(^{169}\) Ibid.,102.
\(^{170}\) Ibid.,102-103.
\(^{171}\) Ibid.,101-2.
Despite the preventability of type 2 diabetes, more than 1 million new cases of diabetes are diagnosed each year due to our diet and food system that promotes high-fat and high-calorie diets and about 27 to 28.5 million Americans are currently battling 2 diabetes.\(^\text{172}\) Due to its pervasiveness in American society, diabetes has been called the “Black Death of the twenty-first century” due to its exponential spread and its devastating health impacts.”\(^\text{173}\) The Centers for Disease Control and Prevention (CDC) estimates that type 2 diabetes causes about 50,000 cases of kidney failure, 75,000 cases lower extremity amputations, 650,000 cases of vision loss, and 75,000 deaths in the U.S. every year.\(^\text{174}\)

**Part 2 – The Unsustainable Nature of Our Eating Habits: We are Living Longer but Sicker**

Altogether, the effects of chronic diseases like obesity and diabetes have entailed many physical consequences that correlate with these diseases but may also include susceptibility to other physical conditions and/or harms. For instance, individuals with chronic diseases like obesity and diabetes are more likely to be susceptible to toxic bioaccumulation, which involves the gradual accumulation of toxic chemicals within our bodies from either our food or atmosphere.\(^\text{175}\) For instance, DDT, the infamous insecticide known for its health and environmental effects, is still actively consumed by Americans in trace amounts (along with 20 other banned chemical) after its ban in 1972.\(^\text{176}\) Furthermore, recent findings have suggested a relationship between a food’s fat content and the number of toxic chemicals it contained. Thus, foods such as peanut butter, ice cream, cheese, butter, oil, fish, and high-fat meats are much more


\(^{174}\) Ibid., 101-102.


\(^{176}\) Ibid.
contaminated than foods items of lower-fat content such as low-fat milk, fruits, and vegetables. The high-fat, high-chemical relationship can be explained by the fact that persistent organic pollutants and toxins are usually lipophilic, or “fat-loving,” and therefore tend to reside in the fat of animals to become progressively more concentrated through bioaccumulation. This is especially problematic in America because of the high-calorie, high-fat diets that many in nation consume.

Furthermore, for individuals who are already battling chronic diseases, the implications of bioaccumulation are magnified because these individuals already carry a “personal toxic waste dump” within them as a result of the various chemicals, fats, and other pollutants already in their system from their diet. As such, it may take individuals with chronic illnesses “between fifty to seventy-five years to clear the chemicals from their bodies.” The necropolitical implications of bioaccumulation are clear for those with chronic diseases, as these pre-existing diseases set the foundations for “personal toxic waste dumps.” Here, it is difficult not to see these individuals with Achille Mbembe’s descriptions of the “walking dead” under necropolitics.

Though it is true that certain populations in the U.S. can afford to utilize various life-sustaining technologies to combat, or perhaps in rare cases, even reverse chronic diseases and toxic bioaccumulation, the viability of these technologies is highly debated, though it is without a doubt that these methods are tremendously expensive. Furthermore, even though we now have the means to “expensively keep elderly people alive and in poor health for a longer,” in most cases, these technologies are utilized not to optimize one’s life, but to sustain it, or prevent future

177 Elert, “U.S. Food Still Tainted with Old Chemicals.”
178 Ibid.
179 Greger and Stone, How Not to Die, 113.
180 Ibid.
181 Callahan, The Five Horsemen of the Modern World, 100,
182 Ibid., 265.
necropolitical harms from incurring. In sum, the case of chronic diseases along with that of bioaccumulation illuminates that we may be living longer, we are living sicker, as these extra years are not without function loss, disability, and/or multiple chronic diseases.\textsuperscript{183,184}

Part 3–The Racial Inequities of Consumption caused by the Corporate Takeover of the Food System

Lastly, it is important to note the ways by which chronic diseases and various mechanism of necropolitical harms depend on the racial, social, and economical inequities that underlie the United States.\textsuperscript{185} Though food corporations will vehemently deny that the ill health of many populations today are caused by the poor judgments of these consumers and not by the systemic and structural foundations informed by racism and post-Jim Crow ideologies,\textsuperscript{186} these arguments fail to take into account both the limited resources and access that low-income and racial minorities have to food in comparison to their white, middle-class counterparts. In fact, this chapter has largely focused on the implications of the adage “we are what we eat,” and has illuminated the harmful, necropolitical tendencies of our current habits and modes of consumption today.

However, the simplicity of the adage “we are what we eat” only captures part of the problem in the corporate-controlled food system in place today, as a look at Figure 4.1, below, illuminates the almost 1:1 relationship between poverty and race, and the correlations between poverty, race, and chronic diseases (specifically obesity and diabetes). Though it is true that the

\textsuperscript{183} Callahan, The Five Horsemen of the Modern World, 100.
\textsuperscript{184} Greger and Stone, How Not to Die, 1-3.
\textsuperscript{186} Callahan, The Five Horsemen of the Modern World, 122.
food system affects *all* within the nation, it is clear that specific populations are singled out through the mechanism of food and made to bear the attritional harms of poor diets. These populations are primarily those who occupy the lowest levels of the socioeconomic strata and/or are racial minorities, though most of them are either black or Hispanic.

Figure 4.1 (from top to bottom, left to right) Maps depicting the 2010 % of black populations nationally, 2010 % of Hispanic populations, 2015 poverty rate nationally, 2013 adult obesity rate, nationally, and the 2013 adult diabetes rate nationally.

Part 4–Conclusions

The intentionality of these divisions through food, however, are unclear, as these necropolitical harms could simply be a byproduct of the profit-drawn goals of the corporation. However, seen in another light, one could also argue that the biopower exercised by corporations today intentionally creates a cycle that predisposes said populations to more diseases, limits income potential, and perpetuates a cycle of a difficulty to secure a good education and employment because it is difficult to perform at one’s best with persistent hunger.\footnote{Shaw, \textit{The Consuming Geographies of Food}, 119.} Regardless of the intentionality behind these explicit inflictions of necropolitical harms on the health of those who fail, by their diet, to fit into the biopolitical corpus (which has largely been a result of the corporate-controlled food system), it is important to imagine and develop solutions to the harms that have been inflicted as a result of our modern-day food systems. The need for change and reform are great, as the food system within U.S. is not only unsustainable in terms of the poor-health it inflicts on consumers but is also economically unfeasible due to the enormous healthcare bill that they rake up.
CHAPTER 5: FOUR SITES OF CORPORATE-CONTROLLED SUPPLY

“A sixty-year-old American man living in San Francisco has about a 5 percent chance of having a heart attack within five years, should he move to Japan and start eating and living like the Japanese, his five-year risk would drop to only 1 percent.”

As illustrated by the quote above, the role of space plays a major role in the health of individuals and populations because the spaces that we inhabit dictate both the accessibility and quality of foods available to us. For instance, in neighborhoods that with limited food outlets, consumers are stripped of the ability to choose the foods that they consume. Furthermore, the variety of foods available within the various spaces dictate the quality of diet for consumers within an area. An important part of the ability to consume, however, is predicated on the fact that we are, at least in part, where we consume. As such, it is vital to remind ourselves that spaces are about exclusion and inclusion, as food is one mechanism by which boundaries are established between those who are included and excluded from the biopolitical corpus. In many cases, this means that once again, low-income and black and/or Hispanic populations are those who are most affected by the corporate-controlled sites of supply and consumption.

Thus, this chapter will continue to analyze the effects of our current food provisioning system within specific sites by which agribusinesses and food corporations exercise biopower through both food distribution and provisioning. Furthermore, this chapter will focus on various controlled spaces of consumption that include “everyday” spaces like grocery stores and fast food restaurants and “institutionalized” spaces like prisons and schools.

188 Greger and Stone, How Not to Die, 12.
189 Bell and Valentine, Consuming Geographies, 91.
Part 1—Everyday Spaces

(I) The Grocery Store

Today, our health and modes of consumption are contingent not only on our ability to acquire foods, but also on our ability to consume quality foods. As such, sites like the supermarket and grocery store serve as markers of a community’s “livability” because they are centers that provide access to food to enable one to “make live.” Thus, it is important to note that grocery stores tend not to locate themselves in areas with a higher proportion of low-income, non-white populations. Specifically, in comparison to neighborhoods with predominantly white and/or racially-mixed populations, grocery stores are scarce in neighborhoods where black and Hispanic populations reside because these spaces often “high development costs, high crime rates, and high security costs,” all which discourage businesses development. As a result, supermarkets and grocery stores tend not to be constructed in areas that are predominately lower-income or are predominately black and/or Hispanic. This relationship between race and the number of food outlets (grocery stores) is illuminated by Figure 5.1 below:

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192 Ibid.
193 Shaw, The Consuming Geographies of Food, 115.
Furthermore, even when food outlets are located in lower-income and black and/or Hispanic neighborhoods, they tend to be *further away* than stores in moderate- and high-income neighborhoods.¹⁹⁴

The effects of one’s access to grocery stores are quite significant, as studies have shown that people living in communities with at least one grocery store consumed higher *quality* diets than those who did not.¹⁹⁵ However, the quality of diet consumed by populations is not as simple as that of access. For instance, even though there may be food retailers in lower-income neighborhoods, this does not automatically mean that individuals residing close by are...
consuming higher quality diets because the foods within these stores may not be nutritionally dense foods. Instead, it is often the case that lower-income neighborhoods have smaller food stores and convenience stores tend to stock up on processed foods due to space restrictions and a minimized need to refrigerate foods that can go bad easily.\textsuperscript{196} A comparison between larger grocery stores and supermarkets and these smaller food stores reveals that larger stores not only contain a larger selection of food “options,” but a healthier array of food products as well.\textsuperscript{197} This fact is significant because studies have shown that the amount of healthy or junk foods available at the site of the grocery is largely indicative of the quality of diets—and therefore the health—of the residents in the same area.\textsuperscript{198} Thus, in neighborhoods or areas were the provisioning of healthy food is overpriced and unhealthy foods abundant, populations are barred from eating healthily.\textsuperscript{199}

\textbf{(II) Fast Food Restaurants}

Another prominent site of corporate control is that of fast food restaurants and chains. Today, fast food has not only become a cultural symbol of the U.S., but has also become a key food staple in the nation, as Americans spend approximately $200 billion on fast food annually.\textsuperscript{200} In fact, Americans today spend more money on fast food than “on higher education, personal computers, computer software, … new cars… movies, books, magazines, newspapers, videos, and recorded music – combined.”\textsuperscript{201} Furthermore, at least 80\% of Americans visit one fast food restaurant per month and the typical American consumes an average of 3 hamburgers

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\textsuperscript{196} Dimitri and Rogus, “Food Choices, Food Security, and Food Policy,” 21. \\
\textsuperscript{197} Ibid. \\
\textsuperscript{198} Ibid., 23. \\
\textsuperscript{199} Lyons, “Food, Farming, and Freedom,” 39. \\
\textsuperscript{200} University Hospitals/North Ohio Heart/Ohio Medical Group, "Fast Food Statistics Infographic," North Ohio Heart, Accessed April 26, 2019, https://www.partnersforyourhealth.com/fast-food-statistics#slide0. \\
\textsuperscript{201} Schlosser, \textit{Fast Food Nation} 3.
\end{flushleft}
and 4 orders of French fries a week.\textsuperscript{202} This omnipresence of fast food in the American diet, however, has lasting necropolitical effects, as the CDC estimates that at least 2 million Americans contact antibiotic-resistant infections as a result of consuming fast food annually, where 23,000 of those people die.\textsuperscript{203}

A mapping of the various fast food restaurants in the nation will reveal that they are often in close proximity to low-income populations and/or or areas with a dense population of blacks or Hispanics,\textsuperscript{204} as depicted by Figure 5.2, below.

\textbf{Figure 5.2} (from top to bottom, left to right) Maps depicting the 2010 \% of black populations nationally, 2010 \% of Hispanic populations nationally, 2014 count for fast-food restaurants nationally, and 2015 poverty rate nationally.


\textsuperscript{202} Ibid., 6.

\textsuperscript{203} University Hospitals/North Ohio Heart/Ohio Medical Group. "Fast Food Statistics Infographic."

\textsuperscript{204} Dimitri & Rogus 21-22
The increased proximity and prevalence of fast food restaurants has various effects and implications on the consumption patterns of the populations around it. For instance, the proximity of fast food restaurants to low-income and black and/or Hispanic neighborhoods prompted higher rates of obesity in comparison to those who occupied wealthier neighborhoods.\textsuperscript{205} These effects can be explained by the fact that fast food restaurants rarely contain fruits and vegetables, and when they are the only food outlets available to the populations around them, the result is that these populations will fail to consume the recommended serving sizes of these food groups.\textsuperscript{206} Thus, although the price of fast foods is cheap, it is important to note that “the real price is never on the menu,”\textsuperscript{207} especially when it comes to consuming to “make live.”

**Part 2—Institutionalized Spaces**

(I) **Prisons**

Following the Reagan-Bush era, the U.S. experienced the largest boom in prison construction and in mass incarceration in history.\textsuperscript{208,209} The construction of many of these prisons were justified under the “Good Neighbor Policy,” which held the promise that prisons would not only reduce crime in certain areas, but “would also provide jobs and stimulate economic development in out-of-the-way places.”\textsuperscript{210} Both claims, however, eventually proved to be false, as many prisons went on to devour the social wealth of the neighborhoods and communities they inhabited and would “reproduce the very conditions that [led] people to prison.”\textsuperscript{211} The negative

\begin{itemize}
\item[$^{205}$] Dimitri and Rogus, “Food Choices, Food Security, and Food Policy,” 21-22.
\item[$^{206}$] Ibid.
\item[$^{207}$] Schlosser, *Fast Food Nation*, 9.
\item[$^{208}$] Lyons, “Food, Farming, and Freedom,” 30.
\item[$^{210}$] Davis, *Are Prisons Obsolete?*, 15.
\item[$^{211}$] Davis, *Are Prisons Obsolete?*, 16.
\end{itemize}
effects of prisons also extended to local farmers, as many prisons were constructed on devalued or unused farmland,\textsuperscript{212} which dislocated many farms and agricultural lands in the process. Furthermore, the construction of prisons dismantled the infrastructures of local farms and social capital related to food,\textsuperscript{213} which in turn paved the way for “big farms” (agribusinesses) to take the place of independent businesses and farmers. With a “get big or get out” mentality,\textsuperscript{214} many agribusinesses and food corporations eventually took control of both the food sources \textit{around} the prison and \textit{within} the prison.

Although the food within prisons today adheres to State and Federal regulations, the provided is both bland and minimally nutritious. Furthermore, while most prisons are mandated to serve at least 3 meals every 24 hours, some budget-conscience states have proposed to reduce meals down to 2 meals a day, in addition to outsourcing food services to private contractors to reduce costs.\textsuperscript{215}

\textsuperscript{212} Lyons, “Food, Farming, and Freedom,” 35.
\textsuperscript{213} Ibid., 37.
\textsuperscript{214} Ibid., 21-22.
In the prison, the bland food provided and available in the cafeteria encourages prisoners to buy overpriced (but flavorful) snacks out of pocket rather than eating the meals provided by the cafeteria. Even with the “choices” of food sold in the prison, the food options of prisons remain severely limited. As such, many prisoners choose to purchase junk foods to construct meals called “spread,” where various concoctions of foods are put together to mimic the taste and/or textures of foods that exist outside of the prison.

Seeing the profits that food in prisons could generate, food corporations began making their way into the prison food system by “[exploiting] political ties and the noncommercial consumer’s lack of agency” to implement a prison food system that capitalizes on this growing demand for overpriced, nutrient-poor junk foods. The effects of the newly-established

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217 Ibid., 40.
218 Sandra Cate, “‘Breaking Bread with a Spread’ in a San Francisco County Jail,” Gastronomica 8, no. 3 (2008): 17.
presence of food corporations into the prison has had profound effects on not only the prison food system but also the health of the inmates. By increasing the supply of tasty processed foods, food corporations have begun to use the prison as an outlet by which they could sell their products (most of which are “tasty snacks”).\textsuperscript{220} However, this new, corporate-controlled food system within the prison poses serious health issues, as various chronic illnesses begin to either manifest or accumulate within the bodies of inmates after years of consuming starchy cafeteria foods alongside various sugary and sodium-packed snacks.\textsuperscript{221}

In addition to its negative impacts on the physical health of inmates, corporate-supplied food in the prison also has mental health consequences for inmates. For instance, when Terry Moreland bought the private Victor Valley Medium Community Correctional Facility in 1997, he gave inmates the option to consume a high-nutrient vegan diet combined with occupational training, bible training, and anger management. The result of this program, called “New Start,” revealed that those who participated became stunningly cooperative” and that the recidivism rate for inmates that participated in the seven years following the project dropped 2%.\textsuperscript{222} Another study in 2002 conducted by Bernard Gesch at the University of Oxford also illuminated the effects of diet on the violent behavior of prisoners. In a 142-day study, Gesch analyzed the behaviors of 231 young adult prisons that received either a placebo or a multivitamin and fatty-acid supplement and discovered that “prisoners who took the supplement had a 35% drop in disciplinary incident and 37% decline in violent behavior.”\textsuperscript{223}

\textsuperscript{220} Ibid. 99
\textsuperscript{221} Ibid., 42.
\textsuperscript{223} Ibid.
Today, almost 2 million people are confined within a system of prisons and jails, while more than 70% of this population are people of color and most of which are either black or Native American. What these statistics reveal is the very racist and classist functions of the prison system that serves as a site that utilizes food to inflict various necropolitical harms on minority and low-income populations. Ironically, this necropolitical site is nothing like the prison as conceptualized by Foucault in disciplined and biopolitical societies, as prisons were once used as “correctional” facilities to change behaviors toward the goal of “making live.” As such, today, the supply of food within the confines of the prison serves as a mechanism of reducing life and excluding specific populations from inhabiting the biopolitical corpus by removing the means of consumption that enables “making life.”

(II) The Site of the School

In addition to the prison, schools illustrate another institutional site by which food corporations exercise control in terms of food supply. Specifically, this section focuses on the corporate takeover of the school lunch system, which was first conceived of as a response to the number of malnourished enlistees during World War I, where hunger and malnutrition posed as a major threat to the national defense of the United States. School lunches were viewed by government agents and agricultural policy makers as a solution that not only allowed children to get the food they needed, but also allowed farm prices to be protected and their crops distributed. For nutrition reformers and social scientists, the goal was clear: to improve the diet of Americans in hopes of achieving bodies that could become soldiers for national defense. To meet these

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goals, the National School Lunch Act was established in 1946 and initiated the National School Lunch Program that provided free and or reduced-priced lunch to low-income students.\textsuperscript{226} By 1996, the federal government spent $5.4 billion on the program, and it ranked as the nation’s second largest domestic food program after Food Stamps.\textsuperscript{227}

The 1980 Census Bureau report revealed that 50\% of all black households and 43\% of Hispanics participated in the school lunch program, though for many, it was obvious that the National School Lunch Program was a poverty program to provide school lunches in most public schools.\textsuperscript{228} For the government and nutrition reformers, school lunch programs stood as a symbol and promise for the government to “protect America’s youth from the scourge of malnutrition… [as] healthy children, like public education more generally, signaled America’s democratic strength” and as site to “[teach] children the values of and health.”\textsuperscript{229} Yet, despite these grandiose goals by food reformers and government agencies, it seemed that “no one was willing to appropriate the funds it would take to actually carry out [these goals].\textsuperscript{230}

Due to this lack of government oversight, the school quickly become an outlet of corporate control and profit-generation. For farmers, the school lunch program provided the perfect outlet for distributing surplus commodities, as a billion dollars’ worth of cheese, butter, and dry milk were distributed to school by 1990.\textsuperscript{231} For food corporations like Marriott, Aramark, and Daka, schools became profitable sites by which they could market their food products. By 1996, these three food corporations were supplying school lunches in over 15,000 counties.\textsuperscript{232} For many school lunch administrators, the prospect of having large food

\textsuperscript{226} Nestle, \textit{Food Politics}, 193.
\textsuperscript{227} Susan Levine, “Welfare for Farmers and Children,” 179.
\textsuperscript{228} Ibid., 179.
\textsuperscript{229} Ibid., 12.
\textsuperscript{230} Ibid., 191.
\textsuperscript{231} Ibid., 180.
\textsuperscript{232} Nestle, \textit{Food Politics}, 193-4.
corporations—particularly fast food chains—enter the cafeteria was not widely debated because the high markups of corporations like PizzaHut, Subway, McDonalds, and Taco Bell, made for “tastier” meals and more lucrative investments. Where the reduced-cost federal meal amount to $0.40 in total, the entrance of well-known food corporations like McDonald’s and Pizza Hut created significant mark-ups, charging $2 to $3 for a “name-brand,” fast food meal.233

When the school lunch system began providing options like pizza, bagels, tacos, salads, and hamburgers, their sales began to soar. These sales generated by food corporations, however, did not just end the schools, as the presence of many name-brand food products established within children a deep sense of brand loyalty in child customers as young as age six.234 Then, as children in the U.S. began eating one out of every three meals outside of the home, they often consumed foods by food corporations because of this loyalty, though most of these foods “[high] in calories, fat, saturated fat, and salt… [and] lower in more desirable nutrients.”235 By 1997, American children were receiving 50% of their calories from added fat and sugar and only 1% of them ate diets that resembled the USDA’s Food Pyramid, while 45% of all U.S. children failed to meet any of the serving numbers recommended by the Food Pyramid.236 Much of this can be attributed to the fact that food corporations often purposefully fudged their numbers to pass state regulations and “forgot” to keep track of the food items children bought from their menus.237 Thus, more often than not, many school children ate meals that failed to meet the minimal nutritional standards, which were low enough to begin with—for instance, corporate influence has allowed some types of pizza sauce to count as a “vegetable” under USDA guidelines.238

233 Nestle, Food Politics, 195.
234 Ibid., 176.
235 Ibid.
236 Ibid., 175-6.
The harms of the school lunch system directly affect many children, who were once conceptualized by government officials as the future line of national defense for the country. Yet, the prevalence of corporate-controlled food supply and the advent of “name-brand” food corporations have drastically altered the food program in schools that was originally intended to be an “equalizing” mechanism for food provisioning and access for low-income and racial minority populations. However, as a result of the prevalence of corporate-controlled school lunch programs, children today are “full” in their consumption of calorically-dense food options offered but be *severely* undernourished and suffering from various nutritional deficiencies.\(^{239}\) Regrettably, the failure of government to provide adequate funds and devote attention to the school lunch program has created a generation of “short-term malnutrition and a lifetime of serious and costly health problems”\(^{240}\) such as obesity, diabetes, and other diet-related chronic diseases.

**Part 3—Conclusions**

This chapter has illuminated the relationship between race, space, and consumption both in everyday spaces and institutionalized spaces and has illuminated the fact that racial minorities and low-income populations are more likely to bear the necropolitical harms that arise as a consuming from these corporate-controlled sites of food provisioning. Taking the effects of these sites into consideration, the next chapter will illuminate the importance of diet and prevention and propose solutions to reduce the harms that are inflicted by the current food system. It will also suggest that these sites need to be repurposed as sites to engender biopolitical modes of consumption versus their current necropolitical uses by food corporations.

\(^{240}\) Ibid., 187.
CHAPTER 6—WHY DIET MATTERS AND PROPOSED SOLUTIONS TO OUR CURRENT FOOD SYSTEM

The rise of agribusinesses and food corporations in the American food system has caused, whether intentionally or unintentionally, vast amounts of necropolitical harms to both those who inhabit the biopolitical corpus, the “chosen” populations, and specific populations that are deemed “abnormal” and excluded from the biopolitical corpus as a result of their modes of consumption (low-income and black and/or Hispanic populations). The consequences of corporate food supply regardless of which site of dissemination, has incited an Age of Degenerative and Man-Made Diseases, an age where we are living longer but sicker, and most importantly, an age where our current food options promote the goals of “letting die” versus that of “making live,” and has generated healthcare bills that are unsustainable.

In response to the various necropolitical consequences that our current food system was inflicted as a result of the corporate takeover of the food system, this chapter begins by illuminating the importance of diet in the prevention and possible reversal of chronic illnesses. It also illuminates the reasons why the current medical system fails to utilize this framework of prevention for its patients today. The chapter will then explore the challenges that present for food reformers today and considerations we must consider when evaluating various solutions and/or reforms. Finally, the chapter concludes with proposed “solutions” and tactics both from below and from above for the purposes of not only reforming the nation’s food system, but also to argue that we must repurpose food as a mechanism of biopolitical power from its current use as a necropolitical power that has been used against many minority and low-income populations.
Part 1–Why Diet Matters: The Preventative Role of Food and Diet

Food has been used as a preventative, biopolitical mechanism since Hippocrates (born 460 BC, died 370 BC), who was believed to have either composed parts of or the entirety of the Hippocratic Oath. The foundation of modern-day medicine, the Hippocratic Oath contained various sections concerning the effects of food and diet on health, which later influenced Galen (born 130 AD, died 210 AD), to write about the effects of food on balancing the body’s four humors. In his texts, Galen argued that diseases were caused by “food residues” that failed to be expelled or used within the belly, and argued that diet and regimen were the means by which one could achieve and maintain health. For Galen, diet and regimen were “the safest way of treating disease,” preferred over drugs because he viewed them as risky and more dangerous. These beliefs were echoed in 1903 by Thomas Edison, who predicted that “the doctor of the future will give no medicine, but will interest his patients in the care of [the] human frame, in diet and in the cause and prevention of diseases.” Yet, more than 115 years later, the role of the doctors has remained largely unchanged, as many continue to treat the symptoms of diseases and illnesses with drugs and rarely prescribe diet or lifestyle changes to prevent or cure their patients.

Though there have been attempts in the past at prevention, these movements have often failed to catch steam. For instance, in 1978, the World Health Organization (WHO) began to advocate primordial prevention, which “conceived as a strategy to prevent whole societies from experiencing epidemics of chronic-disease risk factors… [which meant] not just preventing chronic disease but [also] preventing the risk factors that lead to chronic disease.” For

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242 Ibid., 97.
243 Greger and Stone, How Not to Die, 2.
244 Ibid., 4.
instance, instead of trying to prevent an individual who already has high cholesterol from suffering a heart attack, primordial prevention seeks to prevent the risk factors that cause the heart attack to occur in the first place: high cholesterol. This attempt at raising awareness towards prevention, however, has no doubt increased the awareness of some individuals in the U.S. However, the reality is that in the diet remains the number one cause of premature death and disability in the U.S. today, and as such, we have largely failed to take a preventative stance against the advent of diet-related diseases.

Perhaps one of the most prominent reasons for the lack of preventative measures taken by Americans is our reliant on drugs, a mentality that is largely based on the way that the U.S. healthcare system is constructed. To begin, most medical schools fail to emphasize diet and nutrition in their course offerings, as only a quarter of all medical schools provide a single dedicated course on nutrition. Of these schools, approximately twenty-one hours are spent on diet and nutrition studies, though no lesson is taught on using diet to treat or reverse chronic disease. Furthermore, the material taught in medical school has primarily focused on treating the symptoms of risk factors with a “lifetime’s worth of medications.” The lack of diet-related training for doctors, however, is only part of a larger explanation for the failure of our current health system to promote prevention. Another part of the explanation for the lack of preventative measures by Americans can be traced to the fee-for-service model, where doctors are paid by a based on the number of prescriptions and procedures they prescribe. As a result, nearly 70% of

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246 Ibid., 1.
247 Ibid., xi.
248 Ibid., 11.
249 Ibid., x.
Americans take at least one perception drug,²⁵⁰ accounting for a third of the global drug expenditures per year (which amounts to approximately $333 billion).²⁵¹

As a result of these factors, the approach taken by the U.S. in terms of treating diseases is equivalent to “mopping up the floor around an overflowing sink instead of simply turning off the faucet… [because] drug companies are more than happy to sell you a new roll of paper towels every day for the rest of your life while the water continues to gush.”²⁵² Today, only one corporate sector directly benefits from keeping people healthy—the insurance industry. As such, Kaiser Permanente, the largest managed-care organization in the U.S., has worked to promote healthy eating and diet by “[publishing] a nutritional update for physicians in their official medical journal, informing… [them] that healthy eating may be “best achieved with a plant-based diet.”²⁵³ This diet, which encourages the consumption unrefined, plant foods and discourages the consumption of meats, dairy products, eggs, and processed foods, resembled many of the diets followed by the healthiest and longest-living societies in the world (e.g. Asian and Mediterranean).²⁵⁴,²⁵⁵ In part, this is because this diet has direct effects on the health and longevity of our telomeres that exists in each of our cells,

which have] forty-six strands of DNA coiled into chromosomes. At the tip of each chromosome, there’s a tiny cap called a telomere, which keeps… DNA from unraveling and fraying. Think of it as the plastic tip son the end of [our] shoelaces. Every time [our] cells divide, however, a bit of that cap is lost. And when the telomere is completely gone… cells can die. Though this is an oversimplification, telomeres have been thought of as [our] life “fuse.”²⁵⁶

²⁵⁰ Greger and Stone, How Not to Die, 3.
²⁵¹ Ibid., 1.
²⁵² Ibid., 11.
²⁵³ Ibid.
²⁵⁴ Nestle, Food Politics, 6.
²⁵⁵ Greger and Stone, How Not to Die, 10.
²⁵⁶ Ibid., 7.
Diet, then, directly effects the lengthening, shortening, and/or maintenance of our telomere lengths, or our “life fuse.” In fact, an estimated 70% of our health can be attributed to our diet, while the other 30% by our genetics.\textsuperscript{257} Thus, even individuals with high-risk genes for certain genetic diseases retain the power to control, at least in part, their “medical destiny” through what they consume. As such, diets that consist largely of refined grains, soda, meat, fish, and dairy have been linked to shortened telomeres whereas diets rich in fruits, vegetables, and other antioxidant rich foods have been associated with longer, more protective telomeres.\textsuperscript{258}

However, shortened telomere length is not irreversible, as a study funded by the U.S. Department of Defense has found that three months of consuming a whole-food, plant-based diet can yield a significant reversal in cellular aging and a prevention of further telomere shortening.\textsuperscript{259} This possible reversal is explained by the fact that the consumption of a whole-food, plant-based diet promotes the production of telomase, a naturally occurring enzyme found in our bodies, which reverses telomere shortening. Yet, in stark contrast to this plant-based diet, the current caloric breakdown of the American diet reveals that “32 percent of our calories comes from animal foods, 57 percent comes from processed plant foods, and only 11 percent comes from whole grains, beans, fruits, vegetables, and nuts.”\textsuperscript{260}

The employment this diet, however, is challenging, especially due to the combination of social, economic, and political frameworks bars the entirety of the U.S. population from consuming this whole food, plant-based diet. Furthermore, an abidance of this diet by a large portion of the U.S. could entail that people no longer need to take prescription drugs to combat

\begin{footnotes}
\item[]\textsuperscript{257} Greger and Stone, \textit{How Not to Die}, 7.
\item[]\textsuperscript{258} Ibid., 8.
\item[]\textsuperscript{259} Ibid., 8-9.
\item[]\textsuperscript{260} Ibid., 6.
\end{footnotes}
or mitigate their diet-induced health issues.\textsuperscript{261} As such, the “consequences” of this diet would be
the profits lost by a variety of corporations, including those in health care and food production
and distribution, which include, but are not limited to: meat packers, dairy producers, grain
producers, and soft drink makers.\textsuperscript{262} In short, the real “loss” of this whole-food, plant-based diet
would be that many corporations and businesses would lose profits if people stayed healthy for
longer.

**Part 2–Challenges and Considerations**

In addition to the challenges proposed by industry officials in terms of possible profit
loss, there are various other challenges and considerations we should take into account in an
attempt to change not only our consumption habits, but also the food system as a whole. Yet, just
because there has been and will continue to be resistance to reforms and changes within the food
system and our current modes of consumption does not entail that change is impossible. Despite
past failures of government to interfere and rework the frameworks within the food system (e.g.
school lunches), we can learn from these failed attempts and take the following challenges and
considerations into account when proposing and evaluating solutions to our current food system:

1. **Blame and Responsibility**—While corporations are “guilty” or at least casually involved
   in the necropolitical harms inflicted by our food system today, it would be inaccurate to
   blame all these harms as solely attributable to corporations. Instead, it is important to note
   the role of government in the creation of various food policies and various federal
   executive departments like the USDA to follow through with the biopolitical goals of the
government. Similarly, it is important to note the amount of government oversight in

\textsuperscript{261} Greger and Stone, *How Not to Die*, 12.
\textsuperscript{262} Callahan, *The Five Horsemen of the Modern World*, 12.
regard to corporate activity and lobbying/bribery.

It is also important to consider the role of consumers and the cues consumers send to corporations by consuming processed foods or foods made from the crops subsidized by the Farm Bill. While we do not exist in a perfect “supply and demand” economy, it is still important to be conscious of “dollar voting” and the effects our purchases have on the supply chain. Albeit low-income individuals have less choice in what they consume, the awareness and implementation of dollar voting will largely depend on middle- and upper-classes.

2. **Shifting Current Power Dynamics**—As illuminated in chapter 3, corporations have acquired an upper hand against governments, but also against consumers. Though the takeback of power from corporations will be difficult due to the vast economic reserves of such corporations, a shift—however big—is necessary to at least begin to shift the power dynamics between food corporations, government, and consumers.

3. **Multi-causal Factors**—The advent of chronic illnesses and the dominance of the corporation cannot be solved by single-step solutions. Instead, the causal factors for these conditions are multiple, which means no *one* solution or action will change the way things are currently.

4. **Our Laziness and Unwillingness to Change**—Perhaps this may be one of the biggest difficulties that bars changes from being made to our food system, both from the consumer and government end. As demonstrated in part 1 of this chapter, the easier thing to do is “mop up an overflowing sink.” Thus, just because implementing real change uses effort and large amounts of energy and compromise does not mean that we should fail to do so. The labor of reform is significant, but so are the rewards.
5. **Socioeconomic and Racial Barriers**—Inherent to the laws, policies, architecture, and even urban development of the U.S. are the racist and classist biases that keep certain individuals and groups from accessing food education, quality foods, and a steady income—amongst many other things. As such, a main challenge to reforming the food system is to provide these populations with the information, access, and resources to access better quality foods to make healthier consumption choices.

**Part 3—Proposed Solutions**

**(IV) Solutions from Below (By the Consumer)**

It is important to note that the solutions proposed in this section are merely a few of the possible solutions that consumers may utilize to spark changes within the current food system:

1. **The implementation of food substitutions** to reflect or borrow certain elements from the whole food, plant-based diet. This can either entail switching out various groups altogether like meat or dairy or substituting meat with foods of similar nutritional value like eggs and beans (which are cheaper than meat). With these substitutions, price-sensitive consumers can attempt to “eat better for less” by not switching their whole diet, but various aspects of it.

2. **The creation of groups dedicated to spreading food and nutrient information to the public**, which can take place through various mediums and forms, such as an online blog, a YouTube channel, a Facebook page, etc. Much of this rests on the access to information afforded to most middle- and upper-class individuals and the willingness to share and disseminate this information (reliably) to the public in a way that is understandable and

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implementable, even for consumers who are most affected by the necropolitical harms of our current food system. These groups of organization may also dedicate themselves to protest and a center to disseminate information regarding government candidates and their positions on food reform, etc.

3. **Introduce children to fresh produce and food discourse at an early age** to not only allow them to develop a taste for these foods as adults, but to also familiarize them with the food and nutrition discourse we use today (reading serving sizes and nutrition labels).

4. **Imaging and creating alternative spaces** that we currently inhabit to function in ways that do not serve as necropolitical hubs of control. For instance, building community gardens or even school gardens that involve fresh produce and the community around these spaces.

While these solutions are small in scale, an application of any or all of these solutions at a national level could amount to a profound change in the way Americans not only view food but consumes food. What I hope these solutions from below will incite, however, is an increased knowledge and awareness of the way the food system works today and the importance of diet. Furthermore, I hope that these solutions and actions from below will incite consumers to begin demanding changes from above, either through activism or by voting for officials that will fulfill the biopolitical goals of government through food (and not reelect past officials who continue to be bribed by corporate influence).
(V) Solutions from Above (From the Executive, Legislative and Judicial Branches)

In comparison to the solutions from below, the solutions from above that I propose below are exponentially harder to accomplish, but results in changes that have cascading effects due to the systemic changes that they will proffer:

1. **The creation of regulatory control and policies** in regard to food and food corporations.
   a. Government regulation of corporate biases and dissemination of “favorable” nutritional information.
   b. Limiting the number of minutes of air time dedicated to “junk foods” and/or fast foods (or every sugary drinks)—or the equivalent of this in the various media that now exists.
   c. “De-abstracting” or reconceptualizing nutrition labels and the dietary recommendations proposed by the USDA and other government agencies/entities to make them understandable and clear to the everyday consumer.
   d. Taxing foods that are inherently necropolitical (sugary foods, fast foods, etc.).

2. **Repurposing the school lunch program** to provide nutritious school lunches for students that cannot afford them and restricting the number of corporate food items (specifically fast food items) in the school—perhaps even banning them on certain days (and not banning them altogether).

3. **Using schools as centers of information centers** by establishing programs that focus on food education for kids.\(^{264}\)

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\(^{264}\) Eisenhauer, “In poor health,” 19.
4. **Reforming the prison food system** to not only supply healthier, more nutritious (and perhaps even more flavorful) food options, but also to provide prisoners with more information regarding food so that they can make better food choices. If successful, the prison will no longer serve as necropolitical sites that inflict attritional dietary harms within the bodies of inmates even after they have been released from the prison.

5. **Redirecting food subsidies towards “real food” and crops that feed humans** versus those the Farm Bill currently caters towards, which goes to feed cars, animals, and the growing food processing industry. This would devote more acreage in our current modes of production to humans.
   
a. Perhaps it would even be possible to put a tax on fast-food items and use this money to subsidize the production of fresh produce so that, eventually, fast-food restaurants are not as prominent in low socioeconomic neighborhoods and are replaced with actual grocery stores carrying fresh produce.

6. **Make healthy, nutritious food more available and consumer to consumers** (either through subsidies or the erection of more grocery stores in neighborhoods without them, or where they are inaccessible to those who do not have a means of transportation).
   
a. However, the caveat here is that increased access to grocery stores does not entail better access to nutritious foods, because lower socioeconomic populations fail to have the means to afford the items on the shelves of new grocery stores or food outlets. Thus, increased access to food sources can create “food mirages” where old food deserts appear as if they have disappeared, but really are just covered by increased access for *some* (white-middle class).

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7. **Mandating nutrition courses in medical schools (and schools in general)** to educate the public about nutritional value and the preventative and disease-causing qualities of food and consumption (e.g. primordial prevention).

Part 3–Conclusions

While many challenges are present in the face of food reform, it is important to note that the point of this thesis and chapter is not to provide a “one-size-fits-all” solution to our current food system. Instead, by illuminating these challenges along the many that reformers will face, this chapter and thesis seeks to propose realistic and tangible solutions to our current food dilemmas. Thus, the propositions provided are not meant at overthrowing the whole framework of the food system, but to work from within it to slowly change its pillars and foundations until, perhaps one day, the whole system can be rebuilt and radically altered to serve biopolitical goals once more. As such, these solutions seek to repurpose food as a mechanism of biopolitical power from its current use as a necropolitical power, which has affected the lives and health of many minority and low-income populations.

However, due to the discrepancies within the U.S. in the *quality* of foods both available and consumed, chronic illnesses have pervaded American society, incurring both unsustainable health problems, but also economically unsustainable healthcare bills. As such, it is important for consumers to not only acquire a better understanding of food and their food environments, but also for consumers to take a preventative, defensive stance against the necropolitical habits and means of consumption that the profit-driven goals of corporations either intentionally or unintentionally promote. The road to a healthier biopolitical corpus, however, does not simply
include the actions of the consumers, as it also requires systemic and policy changes from above by government to take back its lost biopower. As such, we must reverse the current use of food as a necropolitical tool and begin the steps to utilize food as a preventative, biopolitical tool that “makes live” instead of “lets die.”
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