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Nutrition 1020

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## **ePortfolio Signature Assignment**

### **Learning Outcomes**

**Demonstrate knowledge of human nutritional needs and the role of nutrition in improving individual health and the societal economic impact of food choices.**

Understanding human nutritional needs is essential for improving individual health and making informed food choices. As it pertains to this paper, the documentary "Food, Inc." and the nutrition textbook highlight how access to nutritious foods can promote overall wellness. When it comes to economic implications, making healthier food choices helps to reduce healthcare costs and improve productivity in society.

**Relate technological advancements in medicine and food production to the advancement of the science of human nutrition.**

Innovations in agriculture, such as GMOs and sustainable farming practices, enhance food security and nutritional quality. Advances in food processing and preservation, like new preservation techniques extend food shelf life and ensure nutrient density, while improved food safety technologies ensure product integrity. The integration of these advancements results in comprehensive nutritional solutions, enhancing dietary guidelines, reducing nutrition-related diseases, and promoting global food security!

**Explain the impact that the food industry has on human food choices and the subsequent relationship to health and disease at the individual, societal, and environmental levels.**

Marketing and availability of processed and fast foods often lead to individual poor dietary habits, contributing to obesity, diabetes, and other health issues. Societally, the dominance of large food

corporations affects food accessibility and affordability, impacting public health, especially in low-income communities where these foods in the past might be seen as the “cheapest option.” Environmentally, industrial food production practices contribute to resource depletion, pollution, and climate change, which in turn affect food security and nutritional quality. The food industry's practices and policies absolutely have far-reaching implications for health and well-being across multiple dimensions.

**Provide examples of past and present nutrient and diet trends in modern society and the positive and/or negative implications on human health and the earth’s resources.**

An extreme example from the 1970s is the Wine and Egg Diet from Vogue, which consisted of eggs, steak, coffee, and a bottle of wine daily for three days, claiming a five-pound weight loss. While extreme diets like this can lead to “quick weight loss”, they often result in nutrient deficiencies and unhealthy relationships with food. In contrast, current [low-carb and ketogenic diets](#) promote weight loss and blood sugar management but may cause nutrient deficiencies if not properly managed. [Plant-based diets](#) lower chronic disease risk but require careful planning to avoid deficiencies. [Meat-heavy diets](#) have high environmental costs, whereas sustainable, local eating reduces carbon footprints but may not be accessible to all.

**Provide examples of positive and negative interactions of humankind with microorganisms regarding sickness, health, and food production.**

Beneficial microorganisms, like probiotics, enhance gut health and support digestion, while fermentation processes produce foods like yogurt and cheese, improving flavor and nutrition. On the other hand, harmful microorganisms can cause serious health issues, such as foodborne illnesses from pathogens like Salmonella and E. coli, which pose risks in food production.

**Address diet and nutrient issues and concerns for weight control, disease prevention, physical activity, food availability, and biotechnology.**

Balanced diets with whole foods and portion control aid in weight management, while adequate nutrients help prevent chronic diseases like [heart disease and diabetes](#). Physical activity also benefits from proper nutrition, enhancing performance and recovery. Food availability affects diet quality. Limited

access to healthy foods can lead to poor nutrition and health disparities, but biotechnology, including GMOs, seeks to improve food security and nutritional content. However, it also raises concerns about long-term health and environmental effects which are always being looked at.

### **Original Assignment:**

#### **Food, Inc. (2008): A Comparison of Now and Then**

["Food, Inc."](#) directed by Robert Kenner, is an eye-opening documentary that delves into the intricacies of the American food industry. It uncovers the hidden mechanisms and stark realities of how food is produced, processed, and sold in the United States. According to the documentary, the average American supermarket carries about 47,000 products, yet a significant portion of these items are controlled by a few powerful corporations. The documentary also highlights the origins of the industrial food system, tracing it back to the advent of fast food in the 1940s with McDonald's pioneering the drive-in concept.

According to the [American Film Showcase](#), Robert Kenner is a renowned filmmaker with a background in producing documentaries that tackle complex social issues. While he is not a nutrition expert, his work in "Food, Inc." is supported by insights from various experts in the field, including food advocates, farmers, and scientists, making the documentary a credible source of information on nutrition and food systems. He was nominated for an Academy Award and won two Emmys for his work on "Food, Inc."

Kenner explores the consolidation of the meatpacking industry, noting in the documentary that in the 1970s, the top five beef packers controlled only 25% of the market. By 2008, the top four companies dominated over 80% of the market. The film raises questions about the current state of this consolidation and its implications. "Food, Inc." also examines the prevalence of corn in American agriculture, pointing out that in 2008, 30% of the U.S. land base was devoted to corn production. As of 2022, according to the [USDA](#), the primary feed grains in the U.S. are corn, sorghum, barley, and oats, with corn being the most significant, making up over 95% of total feed grain production and use. The United States is the world's

largest producer, consumer, and exporter of corn, planting about 90 million acres annually, primarily in the Heartland.

I chose "Food, Inc." because it offers a critical examination of the food industry, which I truthfully have been oblivious to for most of my life. The documentary's exploration of food production, safety, and corporate control provides a comprehensive overview that complements my academic pursuits and personal interests in understanding the broader implications of our dietary choices. Knowing where my food is coming from and what's being put in it, especially in this day and age, is very important to me.

"Food, Inc." was produced in 2008, and its themes remain seemingly relevant today. The documentary's critique of industrial food production, corporate control, and food safety continues to resonate very strongly with individuals in 2024. There's a reason that we have the USDA and FDA. Everyone has to eat. Food is unequivocally a part of everyday life. Issues such as the consolidation of food companies, the prevalence of processed foods, and the impact of agricultural policies on public health are ongoing concerns. The documentary's insights into these areas are still applicable as we navigate current debates about sustainable and healthy food systems. While the statistics have changed through the years, the core message and theming at the center of what the original documentary was about remains the same.

"Food, Inc." emphasizes the overwhelming presence of processed foods in the American diet and the challenges people face in accessing fresh produce. The documentary reveals how the industrial food system prioritizes convenience and profit, often compromising nutritional value. This approach creates barriers for consumers aiming to include more fruits and vegetables in their diets, making these healthier options less accessible and more expensive compared to processed alternatives.

In contrast, the nutrition textbook in Chapter 2.3, highlights the importance of fruits and vegetables through the MyPlate guidelines. It recommends a daily intake of fruits and vegetables, emphasizing their vital role in maintaining a balanced diet. This same chapter outlines the number of servings needed for optimal health and discusses the essential nutrients provided by these foods, which are crucial for preventing chronic diseases and promoting overall wellness.

Both "Food, Inc." and the textbook underscore the significance of fruits and vegetables. However, while the documentary addresses systemic issues that limit access to these healthier options, the textbook focuses on individual dietary recommendations and the health benefits of consuming them. The documentary provides insight into the broader societal and economic factors affecting food choices, whereas the textbook offers practical advice on achieving a balanced diet using MyPlate as a guide.

In "Food, Inc.," the issue of obesity is touched on with the rise of processed foods and the dominance of large food corporations. This documentary touches on the topic lightly. It can more so be seen in a documentary like "Supersize Me" that highlights just how unhealthy processed foods are. However, the documentary that's highlighted in this paper reveals how the food industry's focus on convenience and profit has led to an abundance of processed options that are often high in sugar, fat, high fructose corn syrup, and artificial ingredients. This focus on ultra-processed foods contributes significantly to the obesity epidemic in the United States. The documentary highlights how easy access to these unhealthy options, coupled with aggressive marketing strategies, creates an environment where making healthy food choices becomes increasingly difficult. I found it interesting doing the \$10 challenge this semester, as it specifically highlighted that healthy foods are affordable in abundance, versus what we might be told.

Chapter 1.6 of the textbook provides another angle on the issue, focusing more on the nutritional aspects of foods and their impact on health. I find it interesting when a map is shown highlighting obesity in the U.S. with the quote, "In 2006, only one state was above 30%; now 36 states are above 30%." (Chapter 1.6, "What Is the Current State of Dietary Patterns and Health?") The textbook outlines the importance of balancing food intake and making informed choices to prevent obesity. It provides practical advice on how to choose healthier alternatives, and understand the nutritional content of all foods. While the textbook acknowledges the impact of processed foods on obesity, it primarily addresses the issue from a personal health management perspective with the *Healthy People 2030* objectives, offering strategies for individuals to make healthier choices and manage their weight.

Food safety inspections and the risks of foodborne illnesses, referencing Kevin's Law as a potential solution is another thing that the documentary criticizes. The lack of rigorous oversight in the food industry, pointing to instances where contaminated food has caused widespread illness and death was a heavy perspective to see. The movie strongly advocates for stronger regulations and more frequent inspections to ensure the safety of the food supply.

In contrast, the textbook in Chapter 16.4, "Foodborne Illness Caused by Microorganisms," outlines the basics of food safety practices for consumers, such as proper handling and cooking techniques. It emphasizes the importance of personal responsibility in preventing foodborne illnesses by following safe food handling practices at home. The textbook provides practical tips for washing, storing, and cooking food to minimize the risk of contamination.

Building on this, the FDA's [Food Safety Modernization Act \(FSMA\)](#), enacted in 2011, shifts the focus from responding to foodborne illnesses to preventing them. The FSMA was designed to modernize and strengthen the nation's food safety system by establishing specific actions that must be taken at various points in the global supply chain to prevent contamination. This act reflects a significant shift towards a proactive approach in ensuring food safety, highlighting the shared responsibility among different stakeholders in the food industry. The FSMA represents a significant step towards systemic reform, aiming to prevent foodborne illnesses through comprehensive and proactive measures. Together, these perspectives highlight the need for both systemic reform and individual action to ensure a safe and healthy food supply.

Completing this assignment has significantly broadened my understanding of the complexities surrounding our food system. I learned about the deep connections between corporate practices, agricultural policies, and public health. One new perspective I gained is the extent to which industrial food production impacts not just our diets but also environmental sustainability and economic fairness. I truly was inspired to incorporate the themes from "Food, Inc." into my own life.

While I didn't watch it, as I couldn't find it available anywhere without buying it, the sequel, "Food, Inc. 2," builds on these themes by highlighting the manipulation of our brains by ultra-processed

foods. As Joe Berkowitz writes in his piece on "[Fast Company](#)", "Flavor technology has evolved rapidly in recent years...they've also let loose a deluge of so-called health foods that might not be so healthy in the long run" (Berkowitz). This perspective aligns with the original documentary's critique of industrial food practices but takes it further by examining how additives in ultra-processed foods deceive our brains.

The filmmakers of "Food, Inc. 2" are also launching a campaign to address pressing issues such as farm workers' rights, corporate consolidation, and the prevalence of ultra-processed foods. This campaign involves partnerships with organizations like the Open Markets Institute, the Coalition of Immokalee Workers, and FoodFight USA, which aim to raise awareness and drive change in the food industry ([Bahr, AP News](#)).

In October 2023, California became the first state to ban certain harmful chemicals from processed foods, highlighting the documentary's relevance in advocating for food safety reforms. David Linde, CEO of Participant, emphasized the importance of continuing efforts to galvanize change in the food industry, building on the impact of the original "Food, Inc." and supporting new legislative measures to improve food safety (Bahr, AP News)

Overall, "Food, Inc." offers a compelling critique of the American food industry, shining a light on issues like corporate control, food safety, and the overwhelming presence of processed foods. Comparing the documentary's insights with the practical guidelines in the nutrition textbook made it clear that we need both systemic changes and individual actions to tackle these challenges. The ongoing relevance of the themes in "Food, Inc." reminds us of the need for continued vigilance and advocacy for a healthier and more equitable food system. Moving forward, understanding the intricate connections between industry practices, agricultural policies, and public health is crucial for building a sustainable and nutritious food environment for everyone. This assignment has not only deepened my awareness but also inspired me to make better food choices and push for broader systemic reforms. By making informed choices and working together, we can strive for a future where healthy, safe, and affordable food is available to all.

## **Reflection**

**Make connections between what you studied in this nutrition course with what you've learned in other courses at SLCC or before.**

In my nutrition course, I've learned a lot about how diet affects health, weight control, and food production. This connects closely with what I've studied in other classes. For example, in my Lifelong Wellness course (HLAC 1540), we've focused on maintaining well-being through balanced nutrition and physical activity, which aligns perfectly with what I've learned about nutrition. My Composition courses (ENGL 1010 and soon to be ENGL 2010) have helped me improve my ability to write clearly about complex topics like nutrition, making my research and analyses more effective.

**Reflect on how you thought about nutrition before you took this course and how you think about it now that the course is over.**

Before taking this course, I had a limited understanding of the intricate connections between food choices, health, and the environment. Now, I recognize the profound impact that the food industry and agricultural practices have on our diets and overall well-being. My assumptions about the affordability and accessibility of healthy foods have changed, especially after learning about systemic barriers and corporate influences. The documentary "Food, Inc." and activities like the \$10 challenge were particularly influential, deepening my awareness of the complexities in our food system. Moving forward, I'm planning to approach nutrition with a more informed and critical perspective, advocating for healthier, more sustainable food choices to create longevity in my health and overall quality of life. Fascinating stuff!



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