

US 19th to 21st Century Foodways

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SUMMARY

America from 1830's to 2000's: W Expansion (1829-1859) on through Progressive Era (1890-1913), World War I & Roaring 20s-Jazz Age (1914-1928), Depression & World War II (1929-1945), Modern Era (1950s -Present):

While it took some time for American farmers to find regions that were suited for growing wheat, by the end of the 1800s, wheat cultivation had expanded westward as new frontiers were being settled. It was not long before the wheat-growing of the Middle Atlantic region crossed the mountains of Pennsylvania and headed for the still wild prairies and plains of present-day Kansas, North Dakota, Washington, Montana, and Nebraska, establishing America's modern day breadbasket. This led to the production of wheat in larger quantities than ever before, building the foundation for making raised breads, a staple filler to the American diet, more widely available.

Building upon the foundation of larger widespread wheat cultivation, the inventions of new industrial tools decreased labor, allowing farmers to obtain a greater yield with a decreased production cost. The major innovations that changed the way American farmers harvested wheat included the reaper, the John Deere steel plow, and the thresher. These innovations made a previously laborious and time-consuming task efficient and much less physically demanding.

The high-status staple, white wheaten flour, retained its status amidst its steady decrease in price as a result of new technologies and the opening of the Erie Canal in 1817. Beginning in

the 1840s and spanning the rest of the 19th century, white wheaten flour continued to become more affordable to more Americans as new flour milling processes became available in the 1840s and 1870s, decreasing production costs. However, up to the end of the 19th century, middle class housewives were still baking their own bread that was as light and white as they could get it, many considering it central to their family's health and happiness.

While this technology led to a cheaper and more affordable product, it oftentimes compromised the nutritional quality of the flour. Beginning in the late 1870s, white flour and cornmeal were processed in new, high efficiency roller mills that lost many of the nutrients in the processing leading to an inferior product. In the end, the Americans got what they paid for, a cheaper and inferior product compared to flours made by older and slower technologies.

Following in line with the decreasing price of flour was sugar, the former luxury that had been reserved mainly for use only by the wealthy in America's past. The decrease in the price of cane and beet sugar reached a peak in the mid-nineteenth century, encouraging people among all classes to consume these sugars. Their popularity soared, leading America on the path to a new level of sweetness. Soon, preserved vegetables became sweeter as they acquired an ample dosing of the white stuff. This also led to the invention of many American staples such as 'catsup,' a concoction of tomatoes and mushrooms boiled down with plenty of sugar, salt, pepper, and vinegar.

When the price of sugar reached an all time low in the 1880s, sugar refiners were forced into creating an oligopoly that would put a halt on price drops that would otherwise continue in the name of competition. The resulting oligopoly launched a successful campaign to lower the perceived quality of brown sugar, whose refining it did not completely control. By painting brown sugar as impure and prone to infestation by microscopic insects, the campaign was able to further increase the intake of white sugar, doubling its per capita consumption. With an unbeatable duo of low prices and a historically high-status reputation, the transition from the 19th to the 20th century marked a dramatic change in the favored sweeteners of the general population. Abandoning molasses, home-made sorghum, brown sugar, maple syrup, and honey, Americans rung in the 20th century with sugar in their cupboards and on their table like never before. Sweets in all forms snuck their way onto the table for two or three meals a day. Even more astounding, foods that did not used to be sweet were dressed up with a helping of sugar, making the entire cuisine of America to become more reliant on sweetness than any other major cuisine in the world.

Just as much as the food on Americans' plates was changing, the food habits surrounding eating were changing as well. By 1880, as more and more middle and upper class residential areas expanded to areas far from the workplace, workers were forced into eating their mid-day meal close to work. Thus, what was formerly a rather significant mid-day meal turned in a much smaller meal that was eaten much earlier than before. To compensate, the evening meal that was still eaten with the family at the table became much larger, and was considered the most leisurely meal of the day.

An increasing urban life also led America to increase its waistline around the 1880s. This was largely due to an abundance of food that American freedom did not fasten the reins upon to prevent overeating. Overeating paired with an increasingly sedentary urban lifestyle made a larger, plumper America a given. Foreigners even wrote about their amazement, shock, and even disgust of the quantity of food that was consumed in America. Enormous breakfasts that resembled dinners were particularly peculiar to the foreigner visiting America.

Americans seemed to welcome this abundance, favoring the plump body over the slim silhouette that is today most ideal. The starvation diets of today were non-existent in the 19th century. Instead, books focusing on "how to be plump," advocating diets filled with starchy foods, fats, and sweets speckled the stores' bookshelves. Following hard times in the past, plumpness was considered a sign of good health and was highly esteemed by health and female beauty experts. Women looked to achieve "florid plumpness" rather than today's thin waistline.

The nutrition of the day held no arguments against this hearty eating behavior as nutritional science was just finding its bearings. Based on work done in the 1840s-1850s, the great German scientist Justus von Liebig had discovered that food was much more than an undifferentiated mass, and that it could be separated into proteins, carbohydrates, fat, minerals, and water. Furthermore, Justus von Liebig and scientists concluded that each of these nutrients had a specific physiological role with carbohydrates and fats serving mainly as fuel and proteins acting to repair tissues. This revelation planted a seed in American psyche that food may be selected according to a "chemical composition" rather than simply a favorable taste or appearance. Nevertheless, Americans continued to eat their way through carbohydrates, fat, and protein fueling their way to the desired "florid plumpness."

Food was indeed wasted on the way to plumpness. It seemed that while Americans were very fond of eating, they were less picky about what they were eating. Abundance appears to have bred indifference to food leading many to inhale their food without much awareness. As work in the city increased the pace of life, meal time became more of a "disagreeable interruption of business" and wasted food that one did not have the time nor attention to eat was culturally accepted.

Unfortunately, the abundance of food did not lead to the consumption of more vegetables by the working class. Overall, the intake of fruits and vegetables was low compared to present-day standards. Vegetables were typically thought of as sauces or condiments to accompany meats. By the mid-19th century, potato and cabbage were the two main vegetables that were sometimes accompanied by peas, beans, turnips, and onions served in small quantities. Green and leafy vegetables were generally disdained, and were considered food of the French (leafy greens were known as "French Salad") and the social elite of America. Tomatoes were used primarily in condiments and root vegetables were used as fodder, left unconsumed by humans.

The star fruit of New England, the apple, maintained its popularity, partly due to its supposed medicinal properties that would keep the doctor away. However, an apple was not nearly as

sweet as the cakes and pies that formed an important part of two to three meals a day in the working class diet. The sweets followed the ample amounts of fresh meat served two or three times a day as well. A steady intake of salted meats resulted in the portrayal of American workers as "committed carnivores." Plenty of meat, sweets, and few vegetables came to characterize the typical working class diet. Regionally, this only differed by type of meat and the small side that accompanied the meat. Workers in New England, the Midwest, and the mid-Atlantic ate more beef and potatoes, while those in the South ate their two staples of pork accompanied by cornmeal.

Farmers' diets differed according to their region's staples. New England farmers relied upon their "great trinity" of bread, bacon, and beans, supplemented by root vegetables. After the 1870s, the Midwest farmers adapted to a diet laden with their newly cultivated corn that had replaced the wheat cultivation that once resided in much of the region. Midwest farmers often paired their corn with pork, salted, smoked, and pickled, following in line with the diet of the southern planters. Indeed, the southern planters were reported to have lived on little more than bacon, corn pone, and coffee sweetened with molasses. This was also the diet of the slaves known as the "three M's" diet that included meat (in the form of salt pork), meal, and molasses which continued to be the core diet in the past.

Similarly, sharecroppers were restricted to a diet composed of the very cash crops they produced including the omnipresent salted pork, flour, molasses and sugar. Fresh meat of any kind including pork, milk, and fruits and vegetables were largely unavailable for the croppers' tables. Outside the South, many processed foods had made their way onto the tables of farmers by the 1880s. White wheaten flour and refined white sugar became commonplace on most farms. Dried fish was quite common, and canned varieties were becoming more well-known. Biscuits and crackers could be obtained from the general store. Home canning was also improved with the invention of the mason jar in the mid-century that allowed fruits and vegetables to be stored in a form closer to their natural state since lower amounts of sugar or vinegar were required for preservation.

By the 1880s, rural farmers of New England and the Midwest also benefited from the rapid expansion of dairy farming that resulted in the availability of fresh milk, butter, and cheese all year round. Growing stocks of poultry also provided another source of protein, adding more variety to those farmers of the Midwest who had diets saturated with pork. While the diet of the New England or Midwestern farmer was rapidly changing to accommodate the incorporation of store-bought foods, rural food habits had maintained their roots in the dominant Anglo-Saxon culinary tradition, free from any major influence from the Native American, Spanish/Mexican, or Northern European cultures.

For poorer workers, sufficient quantities of food were also available, but the quality and variety of food suffered. The poorly paid had access to some fresh fruits and vegetables during the summer and fall, but were forced into a monotonous diet composed of potatoes, cabbage, and perhaps turnips during the winter and spring. Of course, there was always coffee to wash it all down. Coffee was available to all classes, and was enjoyed in relatively equal quantities among

the rich and the poor. Other beverages such as milk were often suspect in the poorer areas of the cities where one could only find "swill milk," a yellow brew made from the milk of scrawny cows fed brewers' and distillers' wastes. "Swill milk" was often whitened with chalk or other unregulated additives.

The labor elite, however, bought farmers' milk in new glass bottles. The elite could also afford to buy food including fish, fruits, vegetables, and milk in cans, a new form of food preservation that had become more advanced in the 1870s and was considered "high status." With higher income came an increased consumption of steak, roast beef, eggs, butter, and likely, poultry as well.

While the separation between the foods eaten by the poor and the elite is apparent, there is much less of a distinction between the upper and middle classes. This may be attributed partly to the considerable social mobility seen between these classes in the 1880s. It also may be the result of the social values of the time that encouraged well-off Americans to have tables filled with food that reflected the straightforwardness of purpose and achievement, the values that would have been needed in order to acquire wealth through production and contribution to one's society. Thus, food was not used to differentiate the well-off, but rather, servants were a more accurate indicator of the degree of wealth of a household. The richer one was, the more servants one could have. Otherwise, the table should remain a mark of pure democracy.

Thanks to falling prices of many food staples that had previously been considered luxuries by most, pure democracy was becoming more and more obtainable at the dinner table. The railway opened up the grasslands of the Great Plains to giant herds of beef cattle that could be finished on corn in Chicago or Kansas City, slaughtered, and then shipped in refrigerated railroad cars to the markets in the East. The expansion of cattle lands out west continued to drop prices for beef, making it cheap enough for the common man to have beefsteak for breakfast, a practice that was 'de rigger' (i.e. in fashion) by the 1880s. The low price of beef also resulted in a widespread pandemic of the 'beef and potatoes' syndrome that was fueled by the contagious belief that Americans were living in the "Golden Age of American Beef." This was further reinforced by a growing disdain for pork felt among all classes. It seems that the American population was finally sick of the salted hog that had been an important source of protein through much of the Colonial era in America.

In the eyes of the middle class, pork was of a lower quality than beef, lamb, poultry, and even wild game. Pork was considered difficult to digest, unwholesome at large, and downright unhealthy for anyone with a particular health concern. Thus, despite pork's even lower price than in the past, the middle and upper classes shunned all fresh and salted pork, except for the occasional consumption of a slice of smoked ham. Pork's lowly reputation continued on until the end of the 19th century.

While the sale of pork continued to decrease, milk sells increased substantially from 2 billion pounds in 1870 to over 18 billion pounds in 1900 due mainly to new transportation networks that linked American dairy farms to American cities. Transportation also resulted in a substantial

decrease in the prices for many commodities from the 1870s to the end of the 19th century. The price of flour was more than halved, and one dollar could purchase 43 percent more rice, 35 percent more beans, 49 percent more tea, 51 percent more roasted coffee, 114 percent more sugar, 62 percent more mutton, 25 percent more fresh pork, 60 percent more lard and butter, and 42 percent more milk.

The middle class was also given a hand up in cooking more and more like the elite with new technologies such as the iron stoves and ranges that replaced the open hearths by 1880. These massive coal and wood-burning stoves were large enough to enable a cook to produce more than one dish at once, and also allowed a more precise regulation of the temperature. This would have helped Americans who were known worldwide for their frying habits that included frying foods in ample amounts of lard or butter, resulting in the greasiness that American cuisine was largely noted for. This attachment to the frying pan added an element of heaviness to American cuisine that at times could be perceived as overwhelming, particularly by those from other cultures. To the foreigner's dismay, liquid grease appeared to be the sauce of choice.

The greasiness of the American diet did not come without its consequences, in terms of health that is. "Dyspepsia," an umbrella term that stands for stomach disorders of all kind including the ubiquitous stomach pain and upset that was experienced on a routine basis by the average middle-class adult male. With appreciable daily quantities of foods overly sweet or overly greasy, the majority of foods eaten by the middle class man were difficult to digest. The other pain of a diet replete with heavy meats and low-fiber starches is constipation, a condition that was also rampant during the 19th century, particularly during the first four or five decades.

A nutritionally deficient diet, especially within the urban working class, was reflected in a decrease in the mean stature beginning around 1830 and lasting until the 1870s. This came after a period in the later eighteenth century of increased nutrition where the stature had come close to reaching modern levels. The nutritional deficiencies also affected Americans in other ways, increasing the chance of contracting an infectious disease. Infectious diseases such as tuberculosis and diphtheria, an upper respiratory tract illness, could easily result in death with infectious diseases as the leading cause of death in 1900. The life expectancy at birth for both men and women in the year 1900 barely exceeded 47 years, a significantly lower figure than the life expectancy of 77 years in 2000.

The even more nutritionally deficient diet of the slaves led to very high infant mortality rates. They were so high that infant mortality was considered rather normal for the African American people of the south. Freedom won in the later half of the 19th century did not do much to improve their nutritional status, as most stuck to their previous nutritionally deficient diet, unaware of the repercussions.

While agriculture had been pushing its way out west throughout the 19th century, the major push out west did not occur until the railroad connected the western frontier with the cities of the east. The agricultural and subsequent food landscapes were changed forever with the

westward expansion of the railroad. The railroad fueled the expansion of wheat cultivation, corn cultivation, hog farming, and the rise of the dairy cattle industry.

The westward expansion of the railroad allowed for larger quantities of flour to be shipped back east from the fields where it was grown in the west. In this way, new markets continued to open up for farmers out west, allowing them to increase their production and still maintain enough clientele to buy their harvest. At the same time, new varieties of wheat introduced by European and Canadian immigrants were introduced around the mid-1850s. These new varieties were known as hard wheat varieties and were very different from the soft wheat varieties that were previously cultivated in the U.S.. These hard varieties were harder. The hard spring wheat variety could be planted in the spring and sown in the summer, providing a huge advantage to farmers who lived in regions where the soft winter wheat could not be grown due to harsh winter conditions. Thus, these new varieties could be grown in areas where wheat previously could not be cultivated, leading to a nationwide expansion of wheat cultivation that centered upon these new hard wheat varieties.

While these new varieties provided many advantages to farmers, they presented new challenges for the millers. As the name suggests these hard wheats had a harder husk that when ground in milling grindstones fractured, making the desired clean separation of starch and gluten from the bran and germ nearly impossible. Thus, parts of the brown bran and the yellow germ passed through making the final product creamy in color with flecks of brown. This product was undesirable to the American public who had already been trained for centuries to cherish the whitest flour as the highest quality.

The race to invent newer milling technologies therefore ensued. The first invention that would assist in the production of a highly valued white flour was the steel roller mill. The steel roller mill would come to replace the millstone grinding that was used up until the 1880s. The corrugated roller mill allowed for the clean separation of the starch from the bran and the germ. To complement the roller mill, a French inventor hired by the major milling company Washburn-Crosby that would later become known as General Mills invented the "Middlings Purifier." The "Middlings Purifier" further separated the bran from the usable part of the flour. The finished product was not only of a much desired pure white color, but also had a longer shelf life without the brain that tends to soak up moisture and the germ with its oil that can turn flour rancid. With a longer shelf life, this new industrially produced flour could be shipped longer distances, making it an ideal product for railroad-based commerce.

The "Middlings Purifier" paired with the new steel roller mill became the perfect technological duo to fuel the rise of a major milling industry devoted solely to the production of finely ground white flour. With the "Mill City" of Minneapolis leading the way, the U.S. flour production hit its peak in 1915-1916. As the industry grew, smaller mills could not compete with the larger mills who could pay for the newest technologies, causing smaller mills to consolidate into corporations. Minneapolis' two largest mills Pillsbury and Washburn-Crosby (later renamed to General Mills) dominated the market, grinding 14.1 percent of the nation's grain into a fine, white flour. The Pillsbury "A" mill, built in 1880-1881, would become the world's largest flour mill with

continued improvements and additions over the years that helped to make Pillsbury into a well-known household name as Americans were drawn to its reputation for pure, white flour.

The industrialization of the wheat industry and the rise of milling corporations paralleled the transition from family farms to commercial agriculture that was taking place all across the country. By 1915, the shift to the corporate food age was most apparent, marked by the evolution of small producers and distributors to major ones. This shift would not have been possible without the expansion of the railroad and the opening of canals that provided the transportation that was needed to support the expansion of large producers and distributors. Large new organizations arose in nearly every industry, and as transportation and technology continued to improve, these organizations continued to grow.

This change was not just reflected in the sizes of companies, but rather, led to an entirely new system, particularly reflected in agricultural practices. American agriculture no longer produced a variety of crops and livestock to feed a family and yield some extra surplus for the local market. Instead, the new agriculture was based upon large commercial farms that grew single crops for national and international markets. The new system was set up to support these large commercial farms, and made it more and more difficult for small farms to compete. Little by little the small American farms of the past would be removed from the agricultural landscape, leaving a few as relics of a past era.

As the distance between farm and table continued to increase, the farmer's bounty no longer resembled its natural form. Instead, consumers could find the farmer's work carefully packaged into cans that sealed out the so-called dangerous bacteria, ensuring a more "pure" agricultural product. Assembly lines and machine-cut cans superseded handmade cans after 1868. In 1897, John T. Torrance applied his knowledge from his PhD. in chemistry to invent the "condensed soup," replacing the bulky cans of canned soups and laying the foundation for his soon to be famous company, Joseph P. Campbell Company. With the turn of the century, American canning technology became a major industry in itself, promising a large return on investment if an effective innovation could be created. With such interest, it took only 10-20 years for canning technology to significantly improve productivity and therefore availability so that canned goods were soon making their way into every American household. The traditional producer serving his food "can-less" was seen in a new light as people came to see the traditional foods of the butcher, baker or homemaker as less "clean and sanitary" and overall "less efficient."

The investment into canning was a part of a wider trend of investments into the food processing industries in the 1920s, making them the largest of America's manufacturing industries of the time. This new age displayed the face of an anonymous giant corporation that was founded at its roots by Wall Street magnates who had all the tricks of financial wizardry at hand. Well aware that financial wizardry can only go so far without proper advertising, mega companies diverted a substantial amount of their resources into advertising campaigns for their new mega companies. Right from the start, brand-named foods were advertised for their purity, reliability, quality, and above all, convenience.

In a new world of look-alike cans, companies eventually resorted to making ambitious health claims to try to help differentiate their brand among others. Addressing a naive and uneducated public made it easy for brands to make whatever claims they desired. With a little artfully done advertising, Fleischmann's Yeast became "the richest known source of water-soluble vitamin" that "also cleared up skin disorders, and corrected run-down conditions, indigestion, and constipation." (Levenstein, Harvey p. 153).

Other major companies advertised to the same tune. Morton's Salt became "health salt" bringing "new health and vigor to countless thousands of youngsters." Welch's Grape Juice was "Rich in Health Values" and even had "the laxative properties you cannot do without." (Levenstein, Harvey p. 153). The milk industry did their part to change milk from being merely a refreshing beverage for children and adults to a drink that is nutritionally essential to all. Schools were flooded with pamphlets, posters, and lesson outlines that advocated their own recommended dose of daily milk.

During this time, a network formed between the new nutritionists of the day and food manufacturers eager to fund and fuel the latest nutrition finding they might add to their latest advertising campaign. This was reflected in the behavior of one of the most noted nutrition biochemists of the day, McCollum, a man who discovered Vitamin A, Vitamin B, and that Vitamin D prevent rickets. McCollum once wrote of white flour as being "notably deficient in more dietary factors than any other food entering into the diet." However, this viewpoint quickly changed when McCollum became General Mills' nutrition consultant to one that advocated the virtues of wholesome white flour. Researchers such as McCollum paved the way for future "pure" nutrition researchers that would continue to work in conjunction with the food industries, advocating the health of any food they were being paid to research. Such behavior resulted in an even more confused American public.

With the help of nutritionists, advertisers were able to craft an image that communicated the healthfulness of their mass-produced products. The health claims printed on every box of Kellogg's Corn Flakes and Post's Grape Nuts made processed breakfast cereals the smart breakfast option for those housewives who were looking to promote the health of their families by providing a breakfast of "healthy" whole grains doused in milk.

Post was perhaps the greatest master of creating slogans that implied everything but promised nothing, marketing his cereal as "brain food" that might even cure malaria or a nagging loose tooth. Beyond health, advertisers stressed convenience as well as cleanliness. Convenience was especially important for the rising culture of professionalism in the 20th century, which afforded the businessman little time for a large breakfast. Cleanliness was a rising concern with the discovery of bacteria in the 1880s, and the neatly packaged foods had gained the reputation of being germ-free. Breakfast cereals were in fashion by the end of the 19th century and were considered an all-American food staple by the mid-20th century. With the changing views on nutrition coupled with a need for convenience and an attraction to clean and neatly packaged food products, the era of large, lavish morning meals quickly came to an end.

In 1906, cleanliness had also become increasingly important among consumers with the release of Upton Sinclair's novel "The Jungle" that depicted Chicago's stockyards as shockingly unsanitary. This book coupled with the writings of other journalists concerned with the new processing practices of the rising food industries led to nationwide concern. This rising concern prompted the institution of both the Meat Inspection Act and the Pure Food & Drug Act in 1906. These acts established the government inspection of processing plants in an effort to prevent further sales of adulterated or mislabeled products. While this would come to change some of the practices of the big businesses, it would also help to further warrant the acceptability of processed foods with a big stamp of government approval placed on each package. Smaller companies that could not afford to take all the necessary measures for the government's stamp of approval would be considered inferior, leaving big businesses to prosper in an even more open playing field.

Flooded by a plethora of new nutrition "findings" married with new nutrition recommendations that seemed to change by the minute, the American public was ripe and ready to fall victim to a series of food fads that arose one by one at the turn of the century (~1900), a time that would be later noted by U.S. historians as a "Golden Age of Food Faddism." Vegetarian eating, raw food diets, a no eating breakfast fad, and ways to deal with the newly discovered "poisonous" bacteria flooded American's psyche.

"Fletcherism" was perhaps one of the trendiest and most widely noted fads, even catching the attention of President Theodore Roosevelt, writer Mark Twain, and one of the famous diet reformers of the 19th century, J.H. Kellogg among others. "Fletcherism," invented by Horace Fletcher, advocated "thorough mastication" above all, recommending that a mouthful of food be chewed until its taste had completely left and the food was involuntarily swallowed. This could translate to chewing a mouthful of food as much as one hundred times. This much chewing naturally resulted in a lowered consumption of food, especially protein, which was traditionally thought to be needed in large amounts for good health. While Americans did not succumb to chewing for too long as their jaws soon grew tired and their bellies called for more food, Fletcher's fad had a lasting impact upon protein intake as people observed that a lower protein intake did not appear to compromise one's health.

The only food faddist to exceed Fletcher in popularity, albeit still lauding the practice of "Fletcherism," was the previously mentioned diet reformer J.H. Kellogg. Before the famous breakfast cereal came about, J.H. Kellogg was the founder of Kellogg's Battle Creek "Sanatorium," that abided by the vegetarian diet practices of the Seventh-Day Adventist sect. Attracting thousands of middle- and upper- class Americans to its 'cures,' the Sanatorium raised Kellogg's reputation, making him into a leader in American science and medicine, all without the scientific and medical credentials that would be expected for such a title.

For those who were not struck by the ideas of "Fletcherism" and were not drawn in by the vegetarian practices of J.H. Kellogg, Dr. Hay, the health director of the Sun-Diet Sanatorium, also brought a string of nutrition ideas to the general public's attention, becoming known as "one

of the country's best-known dietary advisors" by 1932. While Dr. Hay was not a proponent of vegetarianism, he did recommend eating only small amounts of meat that were advised to be eaten separate from carbohydrates. He encouraged people to abstain from milk, and to eat mainly fruits and vegetables. Dr. Hay did not approve of eating breakfast or sugar-laden, "unnatural" desserts (he advocated fruit for dessert if one absolutely feels they need a dessert). One of his over-arching theories was that foods could either be alkali or acid-forming, and that too much acid-forming food resulted in illness.

Despite these high held beliefs of these nutrition faddists, the majority of the middle-class people remained robust eaters. That being said, these fads left their mark, making vegetarianism somewhat more common and possibly further facilitating the decrease in the size of breakfast, a meal that used to provide ample nutrition for the day. Although, both of these trends may have been adapted due to their utility. Vegetarianism would become a more necessary dietary measure during the World Wars and the Great Depression, and a press for time would make breakfast a quick meal that ideally could be swallowed down as one was running out the door.

By the late 1920s, Americans were consuming less in general, about 5 percent fewer calories per capita to be exact. Although, the average American was consuming more variety than at the end of the century. This included more fruit, especially citrus, and more vegetables, particularly the green ones, along with substantially greater amounts of milk and cheese, coupled with fewer cereals including flour, potatoes, corn meal, and sweet potatoes. Even beef consumption fell from 72.4 pounds per capita in 1899 to 55.3 pounds in 1930. Despite a recorded decrease in food in terms of quantity, many studies observed a surge in height from the 1890s onward. Remarkably, this surge in height seen in the generations born between 1906 and 1931 was more rapid than that of any other period for which comparable data exists! Among these years, the greatest increase in height was observed in those born after about 1915, the time when new norms of eating were really taking hold and the overall nutrition of Americans appeared to improve. Not surprisingly, this improved nutrition also marked a decline in infant mortality rates after about 1915, except within the lower income levels where babies still died at rates around 50 percent higher than those in the middle and upper classes.

This high infant mortality rate among the poorer classes made them wary of the new artificial milks made for infants that were rising in popularity from the end of the 19th century onwards. These brand-named artificial foods partly arose from the new nutrition ideas surfacing from the newly birthed science of nutrition. This young science helped in the formulation of a much needed alternative milk that would be of great value to an increasing population of married working-class women that needed to wean early in order to return to work. With a shortage of servants that had previously served as wet-nurses, married women who worked faced little alternative to artificial food. However, mixed studies on the healthfulness of artificial foods bred controversy that made many fear, especially, as previously mentioned, within the urban poor who were already at higher risk for infant mortality. Despite its possible dangers to the baby's health, artificial feeding continued to increase in popularity, finding a secure place in the American infant's diet by the late 1920s.

While the rise of the science of nutrition, the input of food faddists, and the changing face of American agriculture in the form of mega-companies all had their own substantial impact upon the American diet, religion, that had played a central role in diet for millennia in the Old World, had become less and less of an important factor in determining one's diet in the New World. By the end of the 19th century, occasional communal fast days performed by Protestant Christians were no longer community events. Fewer and fewer Catholics abstain from meat throughout the year, consolidating their meat-free days for Fridays during the Lenten season. With so many religious cultures living side by side, religious food traditions were sometimes mixed, making it so even non-Jews learned to appreciate the specialties at the kosher butcher and matzo bakeries.

It was amidst this huge period of flux that World War I entered into the picture, forcing the Americans to continue on the path of changing their diet in ways that would never be reversed. With the first World War, the U.S. government took on the role of former food faddists, encouraging Americans once more to cut back on their food consumption. This time the cut back was not for health, but rather, was to ensure that that soldiers and civilians overseas would have sufficient supplies. The government sponsored food administration advocated both "meatless," and "wheatless" days. Americans were encouraged to eat beans and pulses over meat, to choose cornmeal, oats and grains over wheat, and to consume their fats in the form of lard and vegetable oils.

The results of these guidelines were not starvation, but instead was an overall increase in health among many Americans. Suggestions to cut back on food allowed many Americans to observe, for the first time, that eating less did not make them feel bad, but instead often made them feel better. Fruits and vegetables that could not be shipped overseas were advocated by the government for their health-promoting nutritional value. This led to an increased consumption of fruits and vegetables, particularly by middle-class populations and more well-off farmers. Among the immigrant food cultures that could be adapted to a lower meat diet, Italian food rose in popularity, providing some meatless or meat-conserving recipes that could be easily adapted into the American kitchen. It was not long before pasta and tomato sauce were on the dinner menu all across America, making Italian food the first immigrant food to become widely accepted throughout America.

World War I did more than increase American's intake of nutritious food such as fruits and vegetables, it also taught Americans more about nutrition. In order to avoid nutritional deficiencies, Americans were taught the difference between fats, carbohydrates, and proteins. With the discovery of vitamins by scientists from the 1910s-1920s, Americans became aware of the presence of other previously unknown substances in food that were vital for good health. In a range of approximately ten years, Americans were introduced to the importance of vitamins, minerals, and trace elements. Americans were taught that in the absence of these substances, illness would ensue, and that by eating certain "protective foods" they would obtain more of these substances. Thus, the previous food fads that advocated cutting down on food intake and abstaining from certain foods faded farther into the back of Americans' minds as their new

concern was how they were going to get enough protective foods in their diet to ward away illness.

However, determining what was "enough" was becoming increasingly confusing as no consensus had been made on exactly how much of these nutrients were needed in order to protect health. The estimated ranges were large enough to make getting your daily vitamins, minerals and trace elements nothing more than a guessing game. Vitamin C ranged from 10 to more than 100 milligrams per day and those for vitamin A ranged from 1,000 to 10,000 international units daily. Thus, while many Americans would have been well aware of the new term "vitamin," no one quite knew what diet would provide the ideal amount of these novel substances.

At the same time that the word "vitamin" was revealed onto the American public, the term "calorie" entered into the mainstream. The term arose from the scientific findings of chemist Wilbur Atwater who shined a light on how the body uses up the energy it derives from food. When Americans became aware that calories and weight loss had a connection, they began the practice of counting calories, often doing so in ways that did not make scientific sense. Similar to vitamins, no clear agreement had been met on how many calories should ideally be consumed each day. Deviating through the confusion, many Americans chose to aim for the lowest number of calories as calories had already become a necessary evil in the minds of many Americans.

This belief was largely rooted in a major downsizing of the ideal human figure, occurring at the turn of the century. All the way up to the end of the 19th century, American women were considered the most aesthetically pleasing in their more plump form. At the turn of the century, the large-bosomed, massive-hipped, well-nourished Venus de Milo ideal was replaced by a slim-hipped, small waisted, more nymph-like ideal that at times appeared more boyish than womanly. By the 1920s, the former "voluptuous" knockout had become a short-haired, athletic, and extremely thin "flapper."

Slenderness had become the ideal, and extra flesh, a former sign of economic success, had come to represent an individual's lack of control over his or her passions. Extra flesh was a potential indicator of a less productive member of society. Since men were still held to be the most economically productive members in society, slimness came to affect men as well. Almost gaunt looking figures with toned and visible muscles became associated with virility in men. In addition to the aesthetic appeal for being slim, being overweight was now perceived as unhealthy, letting the traditional notion that underweight communicated poor health fall to the wayside.

To support this downsize, and to obtain adequate vitamins, minerals, and trace elements, Americans increasingly ate salad as a main course, a novel eating habit in America's hearty eating past. Apart from lettuce, the vegetables in a salad were typically cooked since raw vegetables still raised some concern through the first half of the 20th century. The cooked vegetables were mixed and commonly tied together with a mayonnaise and cream heavy

dressing. In addition to store-bought mayonnaise used almost daily, salads were sometimes bound together and made into a work of art with commercially packaged gelatin. The most popular vegetables to include in a salad included potatoes, tomatoes, corn, beans, peas, cauliflower and carrots. Salads were also sometimes made with fruit such as pineapple, a fruit that rapidly made its way into mainstream America once James Dole developed a way to can pineapple in 1903. Other fruit commonly consumed on its own or in a fruit salad included apples, pears, peaches, cherries, and apricots. Strawberries, raspberries, and blackberries were often made into preserves or pies, and blueberries, cranberries, and loganberries were favored in certain regions.

To meet the needs of a new ideal, stores that formerly sold pills for obtaining that desired "florid plumpness" began selling diuretics and laxatives marketed as slimming salts and teas. Other diet pills supposedly used thyroid to speed up metabolism including such products as Faid, Silph Chewing Gum, PHY-thy-rin, Rengo, and Kellogg's Safe Fat Reducer. Many looked to Hollywood for extreme diets such as the eighteen-day diet, the orange juice diet, the skimmed milk and baked potato diet, and the liquid bread diet. The Hollywood Eighteen Day Diet was reported to have been particularly popular, putting dieters on a strict regime that included grapefruit and Melba toast that caused drastic weight loss due to its low calorie approach. This diet was, of course, backed by the California citrus industry and the Cubbison Cracker Company, the manufacturer of Melba toast. Since many of these diets required a detailed and strict way of eating, dietary cookbooks served as a necessary resource for any serious dieter who was looking to learn a new way to cook and eat for a healthier, more slim figure. With a mix of real science and quackery, these diet cookbooks provided dieters with a plan of action.

Diet cookbooks found their way into middle class and upper class homes, but remained out of sight for people of the working class. At the beginning of the 20th century, the working class was not yet secure enough with its food supply to engage in dieting and calorie counting. In fact, the working class in general seemed to disregard the new nutrition ideas of the day, opting for more sugars and sweets and less of the so-called 'protective foods.' With less money to buy meat, the working class also consumed less meat than the higher classes. With a diet heavy in refined white bread and starches, sugars and sweets, the working class quickly developed ailments that still plague society today including hypertension, diabetes, and obesity at large. The era of the rich fat man with a round belly and face had transitioned into a time where the former emaciated worker had become the fatter of the two. That being said, beginning around the 1910s and continuing on through the 1920s to 30s, workers spent more of their budget on milk, cheese, fruits, and vegetables possibly as a result of increased affordability. This helped to alleviate but not nullify nutritional deficiencies within the working class.

While the working class feasted on white breads, starches and sweets, the middle-class diet of the 1920s included ample amounts of canned, processed, and prepared foods. Taste was sacrificed in order to lessen the even busier working woman's time spent in the kitchen. In order to accommodate the new, more processed diet, the household's expectations were lowered in terms of the quality of food. In a race to meet the needs of her family, the 1920s housewife

prepared the food ahead of time so that food would always be available for the new "eat and run" behavior that characterized the eating patterns of many middle class households.

The food industry made these new convenience foods so alluring that many of the immigrant housewives also succumbed to the lure of Corn Flakes, Jell-O, bottled ketchup, mustard, mayonnaise, pickles, and other canned goods. The traditional dense and dark breads that had served as staples in many immigrant households disappeared as the soft white industrially produced breads available from the chain bakeries came to be the new staff of life. The traditional foods were pushed off the weekday table, relegated to the holidays, special occasions, and the Sunday dinner table where it would serve as a tribute to the immigrants' past before their table had become "Americanized."

The African Americans migrating from the rural South to the North and the Midwest were not free from the lure of the processed foods. African American mothers were just as pressed for time, making dried breakfast cereals, sweet snacks, and other nutritionally deficient foods a viable option. Thus, while African Americans in Northern and Midwestern cities left behind the salt pork and corn meal diet of their Southern past, they largely replaced it with an even unhealthier combination of refined white flour, sweets, and other highly processed foods. Their diet, largely devoid of milk, fresh vegetables, and other "protective" foods, led to many health problems such as soaring infant mortality rates that were two times that of urban whites.

Northern and Midwestern African Americans were not the only ones to abandon their staple grain, corn, in favor of the pure and white wheat. Mexican-Americans with higher incomes made the switch as well, favoring white bread or tortillas made from nutritionally deficient white flour over their traditional lime-soaked corn tortillas. Mexican Americans of a lower income still made corn tortillas at home, but with packaged, store-bought corn meal that had already been ground with industrial means, losing many of the nutrients in the process. The corn that composed a major portion of the old diet of the South had changed drastically as well, welcoming in refined or "bolted" corn meal, deprived of much of its nutritional value. Thus, those southerners eating cornbread in the 1920s were getting less nutrition than before.

Of all of the minority groups, the most drastic change in diet was experienced by the Native Americans. In the 1920s, the Native Americans went from a largely carnivorous diet to a diet where the staple food was a white-flour grease bread that was served aside potatoes, beans, and a monthly government ration of beef that lasted a week or two at most. This left the Native Americans with little meat, except perhaps the occasional young dog. Such a diet resulted in a high prevalence of decayed teeth, bowed legs, sore eyes, and even blindness. Most alarming of all were the infant and child mortality rates with one-third of the children reported born dying before the age of two, and almost one-half dying before seven years of age.

While no situation seemed to be as dire as that of the Native Americans, poor farmers and sharecroppers who grew cash crops during the first half of the 20th century were typically largely dependent on store-bought, packaged foods. Some poor farmers in the 1940s even showed preference for "urban" foods due their higher social status. These poor farmers

yearned for the pre-packaged foods that stood for the purity, prestige, and science of the more sophisticated urban culture. They considered their homegrown culinary traditions to be "old timey," "country," and "nigger." Farmers that were better-off, however, were less allured by the packaged goods, with the exception of foods considered healthy and "protective" including tropical and citrus fruits, and prepared breakfast foods that provided a quick jumpstart to the farmer's busy day. Otherwise, the more well-off farmers were quite self-sufficient, producing everything on their own apart from the sugar, salt, and flour they bought in town. However, as time went on and transportation improved, even these farmers increased the number of store-bought foods in their diet.

As farmers continued to eat more processed foods from the store, nutritionists and extension agents working in nutrition research for the government were encouraging poor farmers to eat greens, milk, and lean meats to help prevent diseases such as pellagra that had plagued the south at the beginning of the 20th century. In the cities, nutritionists encouraged housewives and home cooks to prioritize nutrition above aesthetic or taste when formulating the family meal so that the proper balance of protein, vitamins, and minerals might be achieved. Many of the nutritionists of the time felt that Americans ate too much meat than was good for them, a belief in line with many of the food faddists of the past such as Kellogg, Fletcher, and Dr. Hay. The nutritionists also advocated a diet with more variety in order to obtain all those essential vitamins and minerals.

However, as American life became more and more urbanized the American housewife had less and less control over what her family ate. School lunches became commonplace at the beginning of the 20th century and fathers took short breaks to eat lunch near their work. These lunches were much smaller than before, reflecting the importance placed upon speed and efficiency. While men were at work and the children were at school, middle class women made their way to tearooms located in the heart of shopping districts. Tearooms were created for the "refined" lady shopper looking for a small snack or light meal to satisfy their appetite until dinner. Since lunch was the meal most middle-class women ate without men, the menu was free to be tailored to fit the culturally defined feminine preferences celebrating everything fluffy and sweet. These 'female meals' were composed of treats like 'peanut wafers, cream sponge cake, chocolate with whipped cream, and pineapple lemonade' prepared with un-manly decorative elements. Carefully composed gelatin salads crowned with a mix of mayonnaise and whipped cream also made the menu. Tearooms also catered to the first generation of female office workers of a social status slightly higher than that of factory workers but still far below that of the middle class women who spent their afternoons engaging in leisurely shopping.

As the American lifestyle continued to quicken in pace, tea rooms gave way to restaurants with simpler food, faster service, and lower prices. The most popular among them were self-service cafeterias. Self-service cafeterias were created to accommodate America's increasing working class (women included) that worked too far from home to go home for a midday meal. Originating in California even before the first World War, the self-service cafeteria attracted those workers looking for cleanliness, convenience, and speed in a respectable setting. With steel utensils, enameled table tops, and electric lights, these restaurants exuded a sparkling

clean appearance. Serving hot lunches at first, new nutrition ideas spurred the creation of a menu that featured sandwiches, composed salads, along with other cold dishes that were considered "lighter fare." This food was so simple that it could be prepared by any untrained, unskilled male labor.

With the adults out of the house for the day, schoolchildren ate their lunches at school. For a small fee, or for free if the child was of a poor family, schoolchildren received a soup, usually milk based, one or two hot dishes such as spaghetti with tomato sauce or scalloped potatoes, baked beans or a hot roast beef sandwich. Although, typically, meat provided mere flavor rather than serving as a main component of a school meal. Potatoes, eggs, green vegetables, or fruit salad were also frequently offered along with sandwiches filled with meat, cheese, jam, peanut butter, or lettuce with mayonnaise. Pudding, ice cream, plain cake, or fresh fruit was available as dessert, served every day. The nutritional content of these lunches was not analyzed or controlled until the School Lunch Act of 1946 that required the lunch programs to work with trained dietitians to ensure adequate nutrition was being served. Regardless, school lunches provided an important source of nutrition for millions of children throughout the beginning of the 20th century, particularly during the Great Depression.

When the family did finally come together for the evening meal, it was for a smaller meal than the typical dinner of the 19th century. 20th century dinners seem to have shrunk possibly due to voluntary rationing during World War I that included a decrease in meat and food portions in general, as well as new societal views on the ideal figure that was much slimmer than that of the 19th century. Some families even went out to dinner. For the first time in American history, it was deemed appropriate to go out for dinner partly due to Prohibition that had assisted in making restaurant-going a respectable behavior for the middle class housewife and her family by taking the alcohol out of the equation, turning restaurants into more family friendly establishments. However, Sunday dinner remained at home, serving as the most leisurely and elaborate meal of the week.

The introduction of the automobile in America in the 20th century led to the development of roadside restaurants. The earliest roadside restaurants catered to the well-to-do who had the money to purchase the early models of the automobile, offering tea and sweets served in a formal tearoom setting. As technology advanced to make cars available to the middle and lower middle classes, roadside restaurants took the form of stands or simple shacks that were located right at the edge of the highway. To catch the highway driver's attention, these shacks were commonly built to look like windmills, oranges, hot dogs, or milk bottles. The food served from the shacks was simple with many processed foods that were sure to fill the hungry driver up like ice cream and hamburgers. Any vegetables or fruit would have been mass-produced and likely canned.

Even at home, Americans became more accustomed to mass-produced fruits and vegetables that had been preserved and canned by industrially means. In fact, it had been so long since American women had preserved their own fruits and vegetables that government workers had to be sent out to reteach American women how to preserve their fruits and vegetables during

the Great Depression when fruits and vegetables, canned or fresh, were often scarce. Meat was also scarce during the Great Depression and in World War II, causing the American public to seek out cookbooks and recipes from local newspapers that featured "meatless" meals. Americans learned how to replace beans with meat for protein, and were encouraged by ads to experiment with stretching the household's meat supply by suspending the meat in gelatin to form a "meat loaf" of sorts. When meat supplies were low, eggs also served as an important part of the American diet from the end of the 19th century through the first half of the 20th century. With more Americans living in urban areas, eggs were now bought at the grocery store packaged in a paper egg carton that was invented in 1911.

When Americans did eat meat during World War II, many ate highly processed meats. From 1904 to 1925, the national production of sausages tripled. Pre-sliced bacon became available in 1915 luring even the upper classes to its convenience along with its more elegant shape. The meat packing industry that was behind the development of pre-sliced bacon was also onto the use of preservatives to lengthen the shelf-life of meats. They began experimenting with substances such as borax and boracic acid. However, the 1906 Pure Food Act declared borax unsafe, limiting the list of acceptable preservatives to include salt, sugar, wood smoke, vinegar, pure spices, and possibly saltpeter. After the Pure Food Act was passed, pork processing companies kept experimenting, resulting in the discovery that sodium nitrite and nitrate made it possible to cure a ham in five days, a process that typically lasted several months. Besides processed meats, war efforts to preserve fresh meat also encouraged families to consume more of the "odd" cuts of the animal that were not usually eaten in mainstream American cuisine. This included calves' liver, brains, heads, pigs' feet, sweetbreads, tripe, and kidney. The fact that these cuts were all cheaper in price than muscle meat also made them more appealing.

Just as Americans were consuming more and more of their fruits, vegetables and meats in processed form, the sale, availability and consumption of store-bought, mass-produced bread was growing. From 1918 on through the 1930s consumption of commercially produced bread increased so that by 1939, 85 percent of bread that Americans consumed was produced by 28,000 different commercial bakeries. This was accompanied by a 40 percent overall rise in sales for mass-produced bread. This time also gave birth to the most famous of all commercial refined white breads, Wonder Bread, gaining a national market in the 1920s. Despite this commercial bread boom that was sweeping through the cities, the vast majority of farm families made their own bread, resisting the convenience of Wonder Bread.

Commercial bread wasn't all wheat as commercial bakeries worked hard to meet the "wheat-less" demand that rose with the World Wars, doing the experimenting with other flours such as buckwheat and soy so that the housewife need not worry. Commercial bakeries successfully met another need Americans did not even know they had as they began selling breads pre-sliced. Pre-sliced made the bread even more convenient, even for children. The already sliced bread was ready for spreads, sandwich fillings, and was perfectly suited for the new electric toaster. In addition, the sealed packaging sealed the deal for Americans concerned with sanitation due to the recent discovery of bacteria along with the lingering fears rooted in the pure food scare.

White flour's elite reputation also added to the allure of the commercial white breads. Those who had previously been too poor for the purchase of white bread jumped at the chance to finally afford a slice of the white stuff, gladly leaving their traditional dense and dark breads to fall to the wayside. Although this white bread differed from the white bread of the past in that it was made with flour that had been bleached, and included milk and more sugar as well. This led to a lighter, fluffier and more sweet bread that at the same time had been stripped of important nutrients in the bleaching process. Well aware of the negative nutritional impact of the switch to commercial breads, the National Research Council Committee on Food & Nutrition and the Food & Drug Administration joined forces with flour millers to create a new "enriched" flour to the American consumer. In an attempt to restore some of the most major nutrients lost with the new, modern processing, "enriched" flour came with thiamin, nicotinic acid, and iron added back in. In 1941, a nutrition-hungry public gladly welcomed this new flour, making it the standard for both home bakers and commercial bread makers alike.

The popularity of the new, widely available wheaten white flour had a marked decrease upon the prevalence of cornbread. Although corn still managed to maintain an integral part of the American diet, finding its way in through cans. Canned corn was one of the first vegetables to be successfully sold in cans. Americans also increasingly enjoyed eating corn in its kernel form, growing it in the family garden. Other grains such as barley were used in meat-broth vegetable soups. Oats were made into a porridge that was considered well-suited for invalids. Grains were also used to make pasta. Pasta recipes could be found in cookbooks, particularly after the 1920s, where it served as a key ingredient in casserole-like dishes.

Milk also became more widely available throughout the 20th century. From 1905 to 1955, the production of milk in the U.S. more than doubled. This milk was pasteurized as commercial pasteurization had become possible in the late 1890s and soon became required by law so that by 1916, nearly 90 percent of the milk was pasteurized. The requirement that milk be pasteurized quickly resulted in the consolidation of the milk industry since only large companies had the capital to afford the investment needed in the purchase of pasteurizing equipment and a large inventory of bottles.

While the production of milk in the U.S. more than doubled at the beginning of the 20th century, Americans experienced a shortage of butter during this time, particularly during the World Wars and the Great Depression. Many Americans were first introduced to margarine during World War I when it served as an important butter substitute when butter was being rationed. The American public was responsive, accepting the promulgation that margarine was less fattening than butter. In the beginning, margarine was produced using beef fat but as supplies of beef fat (and animal fat in general) became limited with the World Wars and the Great Depression, margarine began being made with a combination of animal fats and hardened and unhardened vegetable oils. By 1950, margarine was made almost completely to vegetable oils and fats due to both disruptions of animal fat supply and changes in legislation. Besides margarine, another butter substitute, Crisco, was brought to the market in 1911, giving cooks another cheap and neutral-tasting fat to cook and bake with.

Sugar substitutes such as honey, molasses, maple syrup, and corn syrup also became important during World War II when rationing limited the quantity of sugar each family could buy. At the time of the Second World War more of the sugar went to commercial bakeries that received around 80% of their prewar sugar levels while households typically received only half. Thus, while housewives were forced into conserving their use of sugar in the home kitchen, commercial bakeries and candy counters continued to expand as a sugar restricted public was forced into looking for their sugar fix outside of the home. In this way, the rationing of sugar during World War II actually supported the commodification and increased consumption of sugar, taking sugar out of the home and putting it into canned goods, baked goods including bread, candies of every sort, sodas, and ice creams. Sodas became more widely available with the invention of a glass blowing machine that enabled the mass production of soda followed by "hom-paks," the precursor to today's six packs and the creation of vending machines in the 1920s.

Between 1906 and 1946, per capita ice cream consumption increased from one gallon to five gallons per person per year. Soda fountains served ice cream and chocolate syrup "sundaes" as staples, and the 1920s brought along a plethora of chocolate and ice cream treats such as the Eskimo Pie and the Klondike Bar. While many of the New Nutrition ideas backed by the American government encouraged Americans to decrease their sugar consumption due to lack of the new substances known as "vitamins," American sugar consumption soared during the first half of the 20th century. From 1890 to 1930, sugar consumption per capita doubled, rising from 54 to 110 pounds, which was part of a trend in increased consumption that had been taking place in the U.S. since the 1830s. Indeed, between 1830 and 1930, the annual U.S. sugar consumption per capita increased from 12 to 110 pounds. This jaw-dropping increase was due to a multitude of factors that included but was not restricted to a history of sugar as a high status item, a growing American sweet tooth, and the presence of sugar in innovative foods that symbolized modernity. Furthermore, "educated" domestic scientists of the time that were hired by food processors preached of the energetic value that sugar added to food such as canned goods. Thus, it was a conglomeration of factors that led Americans to accept sugar's new central role in the American food system.

When Americans were short on sugar due to the sugar shortages that occurred during and after World War I, saccharin was widely used for sweetening commercially processed foods. Saccharin was profitable for food processors since saccharin's increased sweetness required a lower amount to be added to achieve the same sweetness as sugar. The only possible problem was that no one really knew for sure whether or not saccharin was safe. The USDA began investigating saccharin in 1907 in conjunction with the Pure Food and Drug Act. For over the next hundred years, saccharin would be considered controversial as no definitive answers would be given by the science community. Today, it is the most popular artificial sweetener following sucralose and aspartame. (Wikipedia "Saccharin: Government Regulation).

When Americans weren't consuming saccharin or the pure and refined white stuff, they could get their share of sugar from consuming fruit juices such as orange juice, tomato juice, and

prune juice that became widely available in the 1920s thanks to increased transportation and the introduction of pasteurization. Before the 1920s, Americans did not regularly consume fruit juice as fruit was normally eaten in its whole form. Besides fruit juice, Americans also drank plenty of coffee and some tea. Although, coffee became a rare foodstuff during World War II due to rationing. Alcohol always had a place in the American diet, even during Prohibition. Alcohol consumption declined only during the first year of prohibition, but quickly rose again to levels close to those from before Prohibition. The consumption of wine in America actually increased during Prohibition. When the Prohibition ended, America kept on drinking, albeit this time legally and with a bit more gusto.

This same gusto followed America's coffee consumption once coffee was no longer being rationed with a World War. The invention of the electric coffee percolator further fed American's passion for coffee, offering a speedier and more convenient way to make their cup of morning brew. Another electric appliance that was created for convenience was the electric household toaster, making toasting your already sliced bread as easy as pushing down a lever. The first electric household toaster was introduced in 1910, and by 1950 4.5 million toasters had been sold, reflecting the appeal of convenience to Americans. Other technologies that made cooking that much easier for the common American included the introduction of gas and electric stoves to American homes in the 1920s, replacing the large cast iron stoves of the 19th century. By the 1920s, most homes had one of these new ranges, with the majority having the gas stove.

As was already briefly mentioned, from the end of the 19th century through the 20th century, the amount of people who grew their own food had declined. This resulted in fewer people preserving their own food as well despite the invention of new technologies that made home canning easier. Instead, people quickly became reliant upon store-bought processed foods that were already preserved and canned or jarred for them. The other alternative form of preservation that arose in the 1930s was freezing food. The frozen food industry experienced a rapid expansion with World War II due to efforts to reserve tin on the home front to be used in the war effort. Without cans and the skill or time to do their own home canning, Americans at home turned to frozen foods. The dawn of refrigeration run on electrical power that was small enough for a household took place in the 1920s. However, the first models were considered too expensive for the average household. With improvements in technology that made the mass-production of refrigerators possible, prices began to drop, falling throughout the 1930s so that by World War II half of all American homes had refrigerators. Soon Americans were preserving their food fresh and frozen instead of pickled and preserved. Refrigerators also had the benefit of allowing people to eat a wider variety of foods since leftovers no longer had to be gobbled up in one day.

At the same time that electrically powered refrigeration was making its debut, the Great Depression hit. Widespread unemployment prevented consumers from having the buying power to purchase the farmer's goods. With surpluses of food and no one to buy it, prices for food continued to fall until it no longer became profitable for farmers to bring their goods to market. Thus, the surpluses of milk, fruits, vegetables, and even meat perished before they could be transported to the needy. The food strain of the Great Depression was not a matter of

a lack of food, but rather, the result of a lack of distribution networks. Soup kitchens and bread lines were set up in the major cities in an effort to distribute food to those most in need. Some took measures into their own hands by foraging through garbage cans as well as for berries, mushrooms, and greens in the wild. If nothing else, there was always gravy soup which could be made by browning some flour in a tiny amount of fat and adding water.

Amidst this search for food, one chain restaurant began a new style of dining termed "All You Can Eat," attracting more than 1 million extra customers per month to its grandiose scheme that seemed to stand in direct contrast to the current status quo. While the status quo was bleak for many without work or who were located in isolated pockets of rural America where adequate food could not reach, no serious threats to the nutrition of these people seems to have occurred. Persistent hunger subsisted but starvation was unheard-of. Amazingly, the statistics show nothing that suggests a widespread decline in the health of the nation. In fact, the poorer workers are reported to still have eaten better than poor workers of twenty years earlier.

That being said, when the U.S. engaged in World War II in 1941, many of the young men looking to serve were considered physically unfit due to nutritional deficiencies. A total of 133,000 men were rejected due to a disability that was considered to be either directly or indirectly caused from nutritional deficiencies. The nutritional deficiencies may have been a result of both the Great Depression as well as the general population's lack of knowledge regarding proper nutrition. Worried about the nation's health, President Roosevelt called a Nutrition Conference for National Defense in 1941 in order to devise a set of dietary standards for the American public to strive for. The standards devised could be summarized in one paragraph: "One pint of milk daily for an adult, more for children. One serving of meat. One egg daily or some suitable substitute such as beans. Two servings of vegetables daily, one of which should be green or yellow. Two servings of fruit daily, one of which should be a good source of vitamin C, such as citrus fruits or tomatoes. Bread, flour and cereal, most preferably all of it whole grain or the new enriched bread, flour and cereals. Some butter or margarine with Vitamin A added. Other foods to satisfy the appetite." (Elias, Megan J. p. 136).

This one paragraph summary provided the simplest explanation as to how avoid major nutritional deficiencies. As more became known with nutritional research, these standards and guidelines would be revised and replaced. Although it was not until the 1950s that the U.S.D.A. put together a set of guidelines that detailed the number and size of the servings of each food group, a measure that arose considerable fury within the food industries who were not too happy to see their food group downsized. By the 1970s, this guide would become obsolete as dietary advice changed to focus upon the prevention of chronic diseases as opposed to the avoidance of nutritional deficiencies.

Although chronic diseases were rampant in the U.S. way before the 1970s. The chronic disease known as coronary heart disease became an epidemic after World War II, drawing the attention of scientists, physicians, and the general public by the 1950s. The preliminary research done in the 1950s by such famous scientists as Ancel Keys led to new dietary guidelines for the prevention of coronary heart disease, guidelines that resulted in substantial

changes in American foodways. They are guidelines that still linger in the minds of many Americans today. The guidelines advised a reduction in saturated fats from animal products, margarine, and solid shortenings, and instead favored vegetable oils to these other solid, saturated fats. The consumption of cholesterol was to be reduced to, further translating to a reduction in animal products containing cholesterol. Above all, Americans were encouraged to decrease their total fat intake as to keep the calories from fat to 35% or less of one's total calories. In the end, this new dietary advice would make an American public who was previously noted for their pork eating, bacon grease licking habits into a "fat-phobic" society. To meet a new consumer demand, the food industry quickly began creating a whole new world of low-fat foods to keep America "healthy."

This new fat "phobia" was reflected later on in January of 1977 with a new set of "Dietary Goals for the United States" that lent further support to reducing one's intake of foods high in animal fat such as meat, eggs, butterfat, and whole milk in order to reduce one's intake of saturated fat and cholesterol. Declining sales of whole milk, beef, and eggs indicated that the American public received this message well. Even if they did not get the message the first time around, the "Dietary Goals" of 1977 would act as a standard for all subsequent dietary recommendations backed by the American Society for Clinical Nutrition, the American Heart Association, and the National Cancer Institute that advocated eating less fat, saturated fat, and cholesterol. Foods that were once considered America's most common foods were now held to be lethal. By 1983, consumption of dairy products dropped by 20 percent from the 1950s and following suit, the intake of eggs plummeted by a third. Consumption of whole milk alone was slashed in half. Beef sales made their steady decline beginning in the 1970s when a slab of T-bone steak no longer stood for success and masculinity but instead drew up the image of heart attacks and strokes. In response, sales of poultry and fish would rise due to their healthier and more lean status that made them "safer."

These fat phobic ideals were presented to the public at a time when more and more married women worked outside of the home. These women were too busy to spend the time grocery shopping, cooking, and cleaning up after meals as they used to, thus ushering in a new era of fast-food, chain restaurants, prepared foods to go, and delivery right to the front door. Of course, this new era of fast food had originally been largely rooted in the the continued expansion of the interstate highway system, a project funded by the federal government in the 1950s. This system of highways allowed cities to expand so that homes were farther away from work than ever before, making a quick stop off the highway to procure one's dinner the most convenient.

Realizing that accessibility, speed and reliability were key motives of the fast-food customer, fast food companies such as McDonald's designed their first experimental drive-up restaurant to satisfy these base motives. When the McDonald's brothers opened their first experimental drive-up restaurant, they presented the customer with a simplified menu of hamburgers and cheeseburgers only that could be consumed without any glassware, dishes, or silverware, supplying their customers with only paper cups, bags, and plates. The service was speedy with a kitchen that mirrored the assembly lines of America's factories, and the restaurants were so

accessible from the highway so that the golden arches could be recognized from afar. By satisfying the customers' needs and filling a new niche, a hamburger and french fries became the quintessential American meal in the 1950s.

With such a big market for fast-food, new chains arose in the 1950s one after another. Kentucky Fried Chicken opened its first restaurant in 1952, Insta-Burger-King started in 1953, and the first Carl's Jr. restaurant opened its doors in 1956. Within just a few years, by the early 1960s, Kentucky Fried Chicken was the largest restaurant chain the U.S., and Colonel Sanders could be considered a household name. The expansive boom of the fast food chains took place between 1960 and 1973 when the most prominent fast food chains spread nationwide. Seeing an opportunity for further expansion, Wall Street began investing heavily into the fast food chains turning the group of pioneering entrepreneurs that had had a novel idea for a new kind of drive-up restaurant into the owners of corporations. Now a part of Wall Street, fast food found its integral place within the American economy. Countering this fast-food movement that was quickly growing into a major establishment was a wave of new concern over health instigated by the young neo-romantic counterculture of the 1960s. This group subscribed to the all-natural, free from additives diet, standing in opposition to the mass-produced and artificial food taking over the market in the 1960s.

Running parallel to the surge of fast-food in the 1960s-70s, foreign cuisine became more and more popular, even including peasant dishes of the third world. Restaurants sprang up featuring the new and exciting flavors, falling under the categories of Northern Italian, Shanghai, Szechuan, Hunan, obscure forms of Chinese food, Greek food, Indian, Middle Eastern, Indochinese, and even Afghan and Ethiopian cuisines. Pita bread could now be purchased from the same shelf where America's beloved Wonder Bread sat.

A wobbly economy in the 1970s made cheaper stomach-filling processed, fast foods even more vital to the mainstream American public. The 1980s brought a decreased price and increased size to processed foods such as sodas as soda companies switched to high-fructose corn syrup, saving companies around 20% in costs, allowing them to boost the portion size and still manage to gain a substantial profit. Naturally, larger portion sizes for a decreased price led to soaring levels of soft drink consumption by kids and adults, with the proportion of adolescent boys and girls consuming soft drinks on any given day increasing by 74 percent and 65 percent, respectively. Furthermore, kids were drinking soft drinks in place of milk and other nutrient-rich foods, and were not compensating for the extra calories by decreasing intake at meals.

The result was a substantial increase in obesity among America's youth between 1966 and 1994. By the mid-1990s, doctors witnessed a rise in the number of children with type II diabetes like never seen before. Previously considered an adult disease, type II diabetes was spreading like wildfire, plaguing America's youth to a lifetime of health issues from this chronic disease. There was also a rise of type II among the poor and anyone who was fighting in the battle of the bulge. The increased prevalence was so swift that from 1992 to 1999 the percentage of new diabetic patients diagnosed with type II rose from only 2-4% to nearly 45%. The minority youth

populations of an African American, Mexican American, or Native American descent made up a large portion of these new cases.

Soda was not the only culprit behind the rising rates of obesity and type II diabetes. By the early 1980s, meat production soared with the decreasing price of soy and corn meal feed. Decreasing prices of soybean oil, a byproduct of the meal, gave the food industry an even cheaper fat to work with. All of this coupled with cheaply produced, widely available high-fructose corn syrup resulted in a boom of calorie-dense convenience foods lining the supermarket shelves across the country. Americans flocked to the stores, happy to purchase the most convenient and affordable food yet available in the country's history. Frozen foods, T.V. dinners, and boxed mac n' cheese would soon become household staples, turning a home cooked meal into a relic of the olden days.

The consequences of such a change were marked, probably more so than anyone had expected. Obesity became an epidemic infiltrating into every class, particularly the poor and the working poor where obesity became nothing less than rampant. Culture, ethnicity, gender, and race appeared to also play a role in the prevalence of the fat epidemic. As briefly mentioned, minorities were at an especially high risk. From what seems to be mainly societal at the root, young African American women and their mothers were observed to be heavier than white women regardless of income.

The changes reflected in Americans' more than floridly plump bodies was perhaps a reflection of America's increasingly large farms. By the end of the twentieth century, America had made a full transition from small to large farms, from small business to large corporation, and from a society that depended on the home-cooked food prepared by the housewife to one that depends upon the already prepared take-out and fast-food eaten primarily on the run. Whole foods that had once been commonplace became the food of the elite, the health nut, and the vegetarian among others. The large farms became more and more efficient and specialized, growing one crop with ample technology to greatly decrease the labor. While farms grew larger and more efficient, the number of farms plummeted from 3.2 million in 1960 to 1.9 million at the beginning of the 21st century. Throughout the process, local foods became ever more rare as the distance from farm to fork increased.

EVIDENCE

1830's - 2000's with a focus on Progressive Era (1890-1913), World War I & Roaring 20s-Jazz Age (1914-1928), Depression & WWII (1929 - 1945), Modern Era (1950s-present)

DIET

FLOUR/BREAD/GRAINS

Wheat & Corn Growing kept expanding westward as people experimented with both of these crops in various regions:

“Just as New England’s corn and cornmeal traveled westward with the passage of time and the opening up of new frontiers, so the wheat-growing of the Middle Atlantic region crossed the mountains of Pennsylvania and headed for the prairies and the plains. In some of the new regions like the Blue Ridge and Kentucky, wheat did not do well and corn had to be planted. In other places, the sites of present-day Kansas, North Dakota, Washington, Montana, and Nebraska, wheat began to be produced in large quantities. Today these states, in the order given, are the leading growers, making up the modern breadbasket of the U.S.A.(Perl, Lila p. 66-67).

Raised breads were a staple filler:

“...raised breads, made of wheat, rye, oats and other grains, constituted, if not quite the traditional “staff of life,” at least the staple filler.” (Levenstein, Harvey p. 4).

Porridges were made from a variety of grains:

“Porridges made from a variety of grains also provided sustenance...” (Levenstein, Harvey p. 4)

SUGAR

Falling prices for cane and beet sugars encouraged consumption among all classes:

“By the mid-nineteenth century, falling prices for cane and beet sugars encouraged soaring consumption of these sweeteners among all classes...and as sugar prices declined in the nineteenth century they soared in popularity.” (Levenstein, Harvey p. 6).

American cuisine came to rely more on sweetness than any other major cuisine in the world!!!!...

“Cucumbers, onions, and other vegetables were preserved in sugar, salt, and vinegar.

Tomatoes and mushrooms were boiled down with sugar, salt, pepper, and vinegar to produce ‘catsup.’ The result was cuisine which, even excluding desserts, relied more on sweetness than did any other major cuisine in the world.” (Levenstein, Harvey p. 7).

New technologies continued to bring down the price of sugar through the 19th century, reaching rock bottom levels in the 1880s, forcing the sugar refiners to create a oligopoly to put a brace on price drops due to competition among the quickly expanding sugar industry:

“In the decades before the Civil War, new methods for refining sugar brought down the price of white sugar and greatly increased its consumption. New technological advances then brought even further reductions in refining costs so that by the 1870s newcomers could build a state-of-the-art refinery for only half a million dollars or so. As a result...by the 1880s something close to pure competition reigned in the industry, bringing down the price of white granulated sugar to rock-bottom levels. Desperate to gain control of production and restrict price competition, the sugar refiners created what became a classic oligopoly. (Levenstein, Harvey p. 32).

The resulting oligopoly launched a successful campaign to lower the perceived quality of brown sugar, whose refining it did not completely control, leading to a doubling of per capita consumption of white granulated sugar. They painted brown sugar as impure, prone to infestation by microscopic insects:

“...[The oligopoly]...the American Sugar Refining Company...did mount a successful campaign to denigrate brown sugar, whose refining it did not completely control, by cleverly reproducing blown-up photographs of horrible-looking but harmless microbes, taken through newly invented microscopes, and warning the public of the supposed dangers of eating brown sugar...The combination of relatively low prices and historically high status proved to be unbeatable, and after 1880 white granulated sugar swept all competition aside. Farmers abandoned molasses and home-made sorghum, workers gave up molasses and brown sugar, and between 1880 and 1915 per capita consumption of white granulated sugar doubled.” (Levenstein, Harvey p. 32-33).

CHANGING FOOD HABITS

Long mid-day meals becoming earlier and smaller as people began to work further away from home, eating lunch at work, and then eating longer and larger evening meals:

“In the early nineteenth century, as the workforce expanded and the nature of middle-class occupations changed, work and residence often became separated. Still, the distance between the two was often not so far as to preclude a walk or ride back home for a large mid-day meal. By 1880, middle- and upper-class residential areas in and around the larger cities were quite a distance from where most of their denizens worked, and many pursued occupations that did not have the old flexibility of hours which allowed for long mid-day dinners. Mid-day meals thus tended to become earlier and smaller: lunches were taken in the vicinity of the workplace, and evening meals with families or guests became larger and more leisurely.” (Levenstein, Harvey p. 21).

Overeating accompanied by a more sedentary life:

“It was true that the middle-class diet seemed to lag in adjusting to the increasingly sedentary nature of urban life and that overeating, even by the standards of the day, was rampant.” (Levenstein, Harvey p. 22). **Author’s (Levenstein’s) Note on this conclusion: “Evidence that middle-class bodies and waistlines were getting larger came in the 1880s, when dealers in ready-to-wear clothing, whose major market lay in the middle class, adopted a larger scale of sizes.” (Levenstein, Harvey p. 217).

“To nineteenth-century observers, the major differences between the American and British diets could usually be summed up in one word: abundance. Virtually every foreign visitor who wrote about American eating habits expressed amazement, shock, and even disgust at the quantity of food consumed...The enormous breakfasts aroused particular comment...Had it not been early morning, he [Englishman Thomas Hamilton] would easily have mistaken it for a dinner table.” (Levenstein, Harvey p. 7).

With this Abundance, commonly wasted food “ ‘The thing which strikes me most disagreeably...is the sight of the tremendous waste of food that goes on at every meal,’ wrote a European recalling his sojourns in nineteenth-century American hotels. ‘There are rarely fewer than fifty different dishes on the menu at dinner time. Every day at every meal you see people order three or four times as much food as they could under any circumstances eat, and picking at and spoiling one dish after another, send the bulk away uneaten.’” (Levenstein, Harvey p. 7).

Abundance also led to an indifference to food:

“Abundance also seemed to breed a vague indifference to food, manifested in a tendency to eat and run, rather than to dine and savor. For the American man, said Chevalier, “meal time is not...a period of relaxation, in which his mind seeks repose in the bosom of his friends; it is only a disagreeable interruption of business, an interruption which he yields because it cannot be avoided, but which he abridges as much as possible.” The national motto, according to one European, was “Gobble, gulp, and go.” (Levenstein, Harvey p. 8)...My note: and now we have the BIG GULP.

NUTRITION PERSPECTIVES

No starvation diets; wrote books about how to be plump for good health:

“Plumpness was widely regarded, by health experts and connoisseurs of female aesthetics alike, as a sign of good health. Rather than churning out starvation diets, health experts and faddists wrote books such as *How to Be Plump*, which recommended eating starchy foods, fats, and sweets in order to achieve what the author (an M.D. as well as a homeopath) called “florid plumpness.” (Levenstein, Harvey p. 12-13).

In the 1860s, the general nutritional perspective on food was that quantity of food was more important than what type of food you ate => Germany changed this with a new viewpoint on food centered on “science”:

“...Germany, where a new scientific approach to food had been pioneered earlier in the century. Until then, although various properties had always been attributed to specific foods, food itself had generally been regarded as an undifferentiated mass. Once food was ingested it was commonly thought the body did not differentiate between various substances...To mid-nineteenth-century man, much taken with the idea of the human body as an engine, food was seen mainly as fuel, and it mattered little whether it was composed of grains, meats, fruits, or vegetables....Within a few years, however, thanks to the pioneering efforts of the great German scientist Justus von Liebig in the 1840s and 1850s, scientists were separating foods into proteins, carbohydrates, fat, minerals, and water, and were concluding that each nutrient performed specific physiological functions. Carbohydrates and fat seemed to provide two different kinds of fuel while proteins repaired worn-out tissues. There was general puzzlement over the roles of minerals, but there was agreement that foods should contain those minerals which the body contained. These chemists...thus recommended that people select their foods on the basis of their chemical composition, rather than taste, appearance, or other considerations. In other words, they were telling people to eat ‘what's good for them’ rather than ‘what they liked.’ ” (Levenstein, Harvey p. 46).

SOCIAL INFLUENCE OF FOOD CONSUMPTION

The tables of well-off Americans reflected straightforwardness, purpose, & achievement:

“Except, perhaps, in the South, with its fictionalized ideal of a chivalric landed gentry, the century’s previous generations of well-off Americans were presumed to have gained their status through contributions to the productive process, and their tables were expected to reflect this straightforwardness of purpose and achievement.” (Levenstein, Harvey p. 13).

Not clear lines separating classes with considerable social mobility:

“The lines separating the classes were no clearer in 1880 than they are today, and the imaginary dividing line between the upper class and the upper-middle class is impossible to plot with any precision....However, a line of demarcation can be found in service; in the higher economic strata the number and quality of servants probably played a more important role than the cost of ingredients in determining what people could and could not serve.” (Levenstein, Harvey p. 18).

After 1880, middle class expanded tremendously with middle-class menus closely emulating upper-class menus:

“In the twenty-five years after 1880, the middle class had expanded tremendously in numbers...Falling prices of previously exotic foods and continuing advances in technology of food preservation, processing, and preparation expanded the culinary horizons of the middle class, allowing the to aspire to setting tables with a variety of foods which rivaled those of the upper class. Increasingly, then, in the 1880s and 1890s middle-class menus, particularly for entertaining, began to look like scaled-down versions of upper-class menus. They had fewer courses, less elaborate concoctions, and were less influenced by French cooking styles, but the order of dishes followed the same basic structure and diners were expected to eat about as much.” (Levenstein, Harvey p. 60-61).

“entertaining over food, and particularly at dinner parties, rapidly became one of the central features of middle-class social life. Luncheon and dinner clubs became popular.” (Levenstein, Harvey p. 61).

NEW TECHNOLOGY + LANDS

New technology such as iron stoves and ranges replaced the open hearths:

“...by 1880 technological change was enabling the middle-class kitchen to widen its culinary horizons. Iron stoves and ranges replaced the open hearths which had been the mainstay of cooking until just before the Civil War. These new coal- and wood-burning monsters opened up vast new possibilities in the kitchen, making it possible to regulate heat more precisely and cook a number of sophisticated dishes simultaneously.” (Levenstein, Harvey p. 18-19).

With new cattle lands in the west, beef prices continued to decrease, ultimately leading to an increase of beef in the diet:

“...a decline in beef prices following the opening of new cattle lands in the West. Beefsteak thus played an even more important role than hitherto in their diets. It was even considered de rigueur for the big breakfasts of the day.” [In an 1882 cookbook, beef was lauded], “to replenish the animal spirits” and provide “iron which gives the red color to flesh.” (Levenstein, Harvey p. 21). [This led to a] “beef and potatoes syndrome...reinforced by a disdain for pork, almost universally available in antebellum (pre-civil war) days.” (Levenstein, Harvey p. 21).

PORK DISDAIN

Both upper and middle classes shared a disdain for pork:

“...the middle class followed their social superiors, who shunned fresh and salted pork and deigned only to eat an occasional slice of smoked ham. Although its low price induced them to consume much more pork than it did the rich, in middle-class eyes pork ranked far below not just beef, but lamb, poultry, and game as well...Pork and ham, on the other hand, were called difficult to digest, often unwholesome, and unhealthy for people with certain disorders...The disdain for pork continued into the next decade.” (Levenstein, Harvey p. 21-22).

COOKING

Foods were generally heavy and often fried:

“As for the ways foods were prepared, the major characteristic was an overwhelming heaviness....Foods fried in large quantities of lard or butter were also well appreciated, particularly in America.” (Levenstein, Harvey p. 5).

“Many were struck by the American attachment to the frying pan and the consequent greasiness of American foods...the sauces being composed of little else than liquid grease.” (Levenstein, Harvey p. 8).

SOCIAL CLASS + FOOD

Working class could be described as “committed carnivores” who loved sweets and consumed few vegetables besides potatoes and cabbage:

“salted meats, potatoes, and cabbage were such ubiquitous features of the working-class diet that surveyors did not even inquire about the frequency with which they were consumed...The survey [done in Massachusetts in 1874]...portrays workers as committed carnivores who loved sweets but consumed few vegetables other than potatoes and cabbage. Over half of the families ate fresh meat two or three times a day. Twenty-six of them even managed to eat fresh meat three times a day, quite a feat when the supply of fresh beef and pork in towns and cities was still rather erratic. Over 42 percent, that is, 169 families, reported that sweets such as cakes and pies were an integral part of all three meals and an additional sixty-five families said that at least two meals included sweets. Vegetables were not nearly so popular....A compilation of a number of studies done in the mid-1880s covering about 8,000 workers' families in twenty-four states reinforces these impressions, confirming that American workers not only loved meat but revered beef most of all.” (Levenstein, Harvey p. 23-24).

Vegetables were thought of as sauces and were typically consumed in small quantities compared to today:

“...consumption of vegetables and fruits was limited, relative to present-day standards. Like their counterparts in Britain, early New Englanders thought of vegetables as sauces to accompany meats, much in the way applesauce accompanies pork today, and they commonly referred to the as ‘garden sass.’ By the middle of the nineteenth century the potato and cabbage were the predominant vegetables. Peas, beans, turnips, and onions joined them on the table with some regularity, but were served in relatively small portions. While lettuce was much appreciated among a small segment of the social elite attuned to the popularity of green

salads dressed with oil and vinegar in France (it was called “French salad” in America), green and leafy vegetables were generally disdained. Other vegetables, such as tomatoes, were used mainly as condiments and were served in even smaller quantities. Root vegetables were as often grown for fodder as for human consumption. (Levenstein, Harvey p. 4).

“Apples remained the most common fruit. The belief that they had medicinal properties was well-established by the nineteenth century...If Americans substituted them for pies, cakes, candies, and other sweets, ‘there would be a diminution in the sum of total of doctors’ bills in a single year.” (Levenstein, Harvey p. 5).

“Apples and pears were most popular. Favorite stone-fruits were peaches, cherries, and apricots. Strawberries, raspberries, and blackberries appeared frequently in preserves and pies as well, with blueberries, cranberries, and loganberries more regional favorites.” (Elias, Megan J. p. 23).

Regionalism was an important factor in workers’ diets in the 1880s:

“Regionalism was still an important factor in workers’ diets in the 1880s. Workers in the New England, Midwest and mid-Atlantic ate much more beef and potatoes and less pork and corn meal than those in the Southern and border states, who were very much part of the “hog n’ hominy” culinary world.” (Levenstein, Harvey p. 24).

Poorer workers did not suffer from insufficient quantities of food, but did suffer from a lack of quality and variety to what they ate...with few vegetables other than potatoes, cabbage, and turnips in winter & spring:

“...there is no indication that many of even the poorest workers suffered from insufficient quantities of food. Rather, the problem was in the quality and variety of what they ate. While even the poorly paid could afford some fresh fruits-particularly apples-and vegetables during the summer and fall, the winter and spring saw affordable supplies dry up, forcing them back on the monotonous routine of potatoes, cabbage, and perhaps turnips. These would be punctuated and enlivened by powerful doses of pickled condiments, but not in large enough quantities to overcome the absence of fresh fruits and vegetables.” (Levenstein, Harvey p. 25).

Coffee was the non-alcoholic beverage of choice for most workers’ families, regardless of income:

“Coffee was the non-alcoholic beverage of choice for most workers’ families, regardless of income, and those in the lower income brackets managed to guzzle almost as much of it as those in the top bracket.” (Levenstein, Harvey p. 24).

Milk prices fluctuated markedly and was often suspect in poorer areas of the cities, while the elite could afford to buy farmer’s milk in new glass bottles:

“Milk prices fluctuated markedly, and the poorer areas of the cities relied on “swill milk,” a yellow brew made from the milk of scrawny cows fed on brewers’ and distillers’ wastes, often surreptitiously whitened with chalk or other additives...the labor elite...did not have to buy swill

milk from the street vendor's suspect cans, and by the mid-1880s could afford to buy farmers' milk in new glass bottles." (Levenstein, Harvey p. 24-25).

Food of the Elite: Elite could afford to buy food in cans, a new form of food preservation that had become more advanced in the 1870s & was considered "high status":

"Commercial canning had taken great strides during the 1870s, and made fish, fruit, vegetables, and milk available to them all year round in this high-status form." (Levenstein, Harvey p. 26).

Consumption of steak, roast beef, eggs, butter, & likely poultry all rose with higher income (in the 1880s):

"...the mid-1880s surveys indicate that [the elite]...were never short of protein, for not only did consumption of steak and roast beef rise with higher income, so did that of eggs, butter, and, likely, poultry as well." (Levenstein, Harvey p. 26).

DIET BY REGION

(Farmers)

"Southern planters lived on little more than bacon, corn pone, and coffee sweetened with molasses." (Levenstein, Harvey p. 26).

Slave diet included the "three M's" including meat (meaning salt pork), meal, and molasses which continued on past the emancipation:

"The slave diet was by no means exemplary. Very high infant mortality rates, an indication of poor nutrition, were the norm for the African American people of the rural South, slave and free, throughout the entire nineteenth century. Emancipation, which saw slavery replaced by various forms of tenant farming, hardly improved the nutritional condition of the ex-slaves, for the "three-M's," that is, meat (meaning salt pork), meal, and molasses, continued as the core diet." (Levenstein, Harvey p. 27).

Sharecroppers were confined to eating a diet based on the cash crops they produced (i.e. salt pork, flour, molasses, and sugar):

"Landowners anxious to be paid in cash discouraged the production of non-cash crops such as fruit and vegetables. Because they profited from the sale of salt pork, flour, molasses, and sugar on credit to the tenants they strove to maintain the diet based on these, and sometimes force-ably prevented tenants from raising their own livestock in order to preserve their monopoly over the supply of salted pork. As a result, milk and fresh meat, even fresh pork, were usually rarities on croppers' tables. Only some scrawny chickens and the eggs they laid provided year-round alternative sources of animal protein to the omnipresent salted pork, and egg-laying was by no means a consistent process." (Levenstein, Harvey p. 27).

By 1880, many processed foods had made their way on to the tables of farmers, particularly outside the South:

“By 1880 a number of processed foods became common on farms, particularly outside the South. Although corn meal, molasses, and sorghum continued to be consumed in considerable quantities, white wheaten flour and refined sugar became staples on most farms. Dried fish made frequent appearances and canned varieties were not unknown. Biscuits or crackers were purchased in bulk at village general stores...The invention of the Mason jar in mid-century and improvements in home canning processes in the 1870s allowed fruits and vegetables to be “put up” for the winter and spring in something approximating their natural form, instead of being high sweetened and vinegared.” (Levenstein, Harvey p. 28)...[some farms had less access to affordable processed or exotic foods due to transportation difficulties and cash shortages]. (Summary of Levenstein, Harvey p. 28).

Farmer’s diets differed according to their region’s staples:

New England Farmers: “The winter and spring diets of New England farmers still revolved around the region’s “great trinity” of bread, bacon, and beans, supplemented by some root vegetables.” (Levenstein, Harvey p. 29).

Midwest Farmers: “In the Midwest, particularly after the 1870s, when corn cultivation replaced wheat cultivation in much of the region, the pig, salted, smoked, and pickled, was the farmer’s great storehouse for corn over the winter and dominated that long season’s diet.

“Yet by the 1880s dairy farming was expanding rapidly in both regions [New England & the Midwest], providing fresh milk, butter, and cheese all year round, and growing stocks of poultry provided other sources of protein.” (Levenstein, Harvey p. 29).

“Overall, rural food habits retained their roots in the Anglo-Saxon culinary tradition...the Native American influence was obliterated. The Spanish/Mexican tradition was shunted aside...The food habits of the Northern European settlers of the Upper Midwest and Northern Plains merged almost invisibly into those of the dominant culture.” (Levenstein, Harvey p. 29).

HEALTH CONDITIONS AND STATURE

“While industrialization and urbanization created a wealthy and expanding middle class in the first half of the nineteenth century, they also inaugurated an era of increasing inequality and poorer nutrition for American workers. This was reflected in the decreasing physical stature of Americans. After almost reaching modern levels in the later eighteenth century, around 1830 their mean stature began a prolonged decline which lasted until at least the 1870s, mainly as a result of the poor condition of many of the expanding working class.” (Levenstein, Harvey p. 23).

Dyspepsia rampant among the middle-class male population:

“When one takes into account the quantities of heavy, greasy, sweet, and generally difficult-to-digest foods (let alone the amount of alcohol) consumed by the average middle-class adult male, it is no wonder that “dyspepsia,” a catch-all term for stomach pains, upsets, and disorders of all kinds, gradually replaced constipation as the bane of the mid- and late nineteenth-century middle-class male.” (Levenstein, Harvey p. 22).

Constipation with low-fiber (high meat & starch) American diet:

“The enormous amounts of meat and starch and the short shrift given to fresh fruits and vegetables made constipation the national curse of the first four or five decades of the nineteenth century in America.” (Levenstein, Harvey p. 5).

The leading cause of death in 1900 was from infectious diseases made worse by nutritional deficiencies that became less and less common throughout the 20th century, dramatically increasing the life expectancy as well:

“In 1900, for example, the leading causes of death were infectious diseases such as tuberculosis and diphtheria [upper respiratory tract illness] made worse by the nutrient deficiencies and overall malnutrition that were especially prevalent among the poor. Life expectancy at birth for both men and women barely exceeded 47 years....Throughout the 20th century (1900s), an expanding economy led to improvements in housing, sanitation, and nutrition....Diseases resulting from nutritional deficiencies declined, and by 2000 life expectancy had increased to an average of 77 years.” (Nestle, Marion p. 31).

INDUSTRIALIZATION

WESTWARD EXPANSION VIA THE RAILROAD

The railroad fueled the expansion of wheat cultivation, corn cultivation, hog farming, and the rise of the dairy cattle industry :

“The westward expansion of the railroad opened up vast new lands for wheat cultivation. New varieties of hardy spring wheat and improvements in the technology of planting and harvesting allowed wheat to be cultivated on a massive scale in Minnesota, the Dakotas, and even in parts of what was still called ‘the Great American Desert,’ lowering the price of the farmer’s wheat and the consumer’s flour. The westward expansion of the wheat belt was accompanied by the expansion of the corn and hog belts into much of the Midwest previously devoted to wheat. In a number of states, particularly Wisconsin and Iowa, this was followed by the rise of a dairy cattle industry.” (Levenstein, Harvey p. 30).

The railway opened up the grasslands of the Great Plains to giant herds of beef cattle that could be finished on corn in Chicago or Kansas City, slaughtered, and then shipped in refrigerated railroad cars. The ample supplies of beef led to declining prices.:

“...the railroads had opened up the grasslands of the Great Plains to giant herds of beef cattle....allowed beef to be fattened and slaughtered in Chicago and shipped East in refrigerated railroad cars, fresh, dressed, and cheaper than beef on the hoof...Beef prices declined fairly steadily in the 1870s and 1880s and while the price drop slowed in the ensuing years, the quality of beef in eastern markets improved. Before the refrigerator car, the grass-fed cattle that arrived in eastern cities had generally been scrawny and stingy. The new system, which allowed beef to be ‘finished’ on corn before being slaughtered in Chicago or Kansas City, produced beef Americans regarded as much better tasting. By the mid-1880s, easterners thought they were living in the ‘Golden Age of American Beef.’ ” (Levenstein, Harvey p. 31-2).

Milk Sells also increased substantially (16 billion pounds from 1870 to 1900) due to the new transportation networks:

“Thanks mainly to these new networks the quantity of whole milk sold from American farms rose from 2 billion pounds in 1870 to over 18 billion pounds in 1900.” (Levenstein, Harvey p. 31).

Prices dropped for many commodities including flour, rice, beans, tea, coffee, sugar, mutton, fresh pork, lard, butter, and milk from 1872 to 1897-8:

“Whereas one dollar would buy fifteen pounds of flour in 1872, and close to twenty pounds in 1881, in 1897 it could buy thirty-four pounds. Indeed, in 1898 one dollar could buy 43 percent more rice than in 1872, 35 percent more beans, 49 percent more tea, 51 percent more roasted coffee, 114 percent more sugar, 62 percent more mutton, 25 percent more fresh pork, 60 percent more lard and butter, and 42 percent more milk.” (Levenstein, Harvey p. 32).

The Industrialization of Wheat:

Expansion of Commercial Wheat (& Corn):

- 1844-1855: Commercial Wheat & Corn Belts begin to develop.
- 1870-1885: Wheat belt moves across Mississippi River, influenced by increase in corn production.
- 1910-1921: Wheat production had reached all areas of the Plains.

(Valant, Valerie).

New technologies decreased labor for wheat cultivation, allowing farmers to cultivate greater quantities of wheat with decreased production costs. The creation of the reaper, steel plow and thresher were the most major innovations: “American wheat cultivation and production went through a complete transformation in the early 19th century. Specifically, the inventions of industrial tools increased crop yield while lowering the cost of production. Prior to these inventions, wheat was originally cultivated by hoe and harvested by sickle/sythe both of which were very time consuming and extremely labor intensive. The cultivated wheat was then stored in woven baskets and delivered to market by wagon. However, creations of the reaper, steel plow and thresher quickly eliminated the old time-consuming processes through their new innovative technologies.” (Valant, Valerie.)

Canals and westward railroads opened new markets for farmers, making it easier to sell their products:

“In addition to the influence of industrialized inventions, another contributor in the increase of wheat production was due to the construction of transportation across the United States. Specifically, the development of canals and westward railroads allowed easier access for wheat farmers to grow and sell their products.” (Valant, Valerie).

White wheaten flour retained its high status amid new technologies and the opening of the Erie Canal in 1817:

“Curiously, the traditional high status staple, white wheaten flour, consumed in the form of raised breads, rolls, muffins, pies, and pancakes, continued to be highly regarded among the middle class even though its price had been dropping quite steadily for well over a hundred years, particularly since the opening of the Erie Canal in 1817. New flour milling processes introduced in the 1840s and 1870s produced cheaper, whiter flour and made it affordable to most Americans. Yet a very high proportion of middle-class housewives (probably about 80 percent) continued to bake their own bread, taking great pride in its whiteness and lightness. ‘Nothing in the whole range of domestic life more affects the health and happiness of the family than the quality of its daily bread,’ said Mrs. Lincoln’s Boston Cook Book in 1883.” (Levenstein, Harvey p. 22).

Beginning in the late 1870s, white flour & cornmeal were processed in new, high efficiency roller mills that lost many of the nutrients:

“beginning in the late 1870s, the white flour they bought from the landowner for biscuit and pancake-making was processed in new, high efficiency roller mills and deprived of many of its nutrients. Some years later, new methods for milling corn did the same to cornmeal.” (Levenstein, Harvey p. 27).

After 1865, hard spring wheat varieties replaced the soft wheat varieties that formed nearly all of U.S. wheat production before the 1870s. The spring wheat could be sown in the spring and reaped in the summer which provided an advantage to farmers who lived in regions where deep frosts would kill the softer winter wheat.

“Until the 1870s, nearly all U.S. wheat production consisted of soft wheat varieties. A hard spring wheat variety (originally from Central Europe) with a higher protein content was introduced in Minnesota in the mid-1800s. Westward expansion of the rail system allowed increasing quantities of hard wheat flour to move to the East after 1865.” (USDA, United States Department of Agriculture.

<<http://www.ers.usda.gov/topics/crops/wheat/wheats-role-in-the-us-diet.aspx#.UhZnZ5iE5FI>>.)

“the harsh winter conditions of the upper Midwest did not lend themselves to the production of winter wheat, since the deep frosts and lack of snow cover killed the crop. Spring wheat, which could be sown in the spring and reaped in the summer, was a more dependable crop.” (Wikipedia Online Encyclopedia. "History of Minneapolis: Development of Flour Milling." Retrieved 8/22/2013. <http://en.wikipedia.org/wiki/History_of_Minneapolis>).

The hardy spring wheat had harder husks that fractured between the milling grindstones creating many problems including an undesirable color. This would lead to the search for an invention to keep the flour white with a “pure” appearance:

“...conventional milling techniques did not produce a desirable product, since the harder husks of spring wheat kernels fractured between the grindstones. The gluten and starch in the flour could not be mixed completely, either, and the flour would turn rancid.” (Wikipedia Online Encyclopedia. "History of Minneapolis: Development of Flour Milling." Retrieved 8/22/2013. <http://en.wikipedia.org/wiki/History_of_Minneapolis>).

“When the new hard spring wheat was introduced, U.S. millers initially milled this grain with millstones. The resulting flour was not very desirable. When wheat was ground between millstones, all parts of the kernel were ground down together. When the resulting product was sifted through cloth, some of the smaller brownish particles of bran and the more yellowish parts from the germ (or embryo) also passed through. The stone-ground flour was therefore creamy in color with flecks of brown.” (USDA, United States Department of Agriculture. <<http://www.ers.usda.gov/topics/crops/wheat/wheats-role-in-the-us-diet.aspx#.UhZnZ5iE5FI>>.)

Steel roller mill technology would come to replace the millstone grinding used up until the 1880s. Roller mills allowed for an almost complete separation of the starch from the bran and the germ including its oil. This produced a highly valued white flour that was more fine, and had a longer shelf life.

“In 1880, millstone grinding was replaced by steel roller mill technology from Hungary. Roller mills provided a cleaner separation of the starch from the outer bran layers of the kernel, and the nearly complete removal of the germ and its oil. The result was finer, whiter flour, which was highly valued by bread consumers. In addition, removal of the oil in the germ, which spoils quickly, and bran, which absorbs moisture, made a flour with longer shelf life.” (USDA, United States Department of Agriculture. <<http://www.ers.usda.gov/topics/crops/wheat/wheats-role-in-the-us-diet.aspx#.UhZnZ5iE5FI>>.)

Another invention was the “Middlings Purifier” which was created by Minneapolis milling companies in order to be able to more effectively divide the starch & gluten from the bran & germ by separating them earlier in the milling process. The invention was produced by a French inventor who had been hired by the “Washburn A Mill” which would later merge to become “General Mills.” :

“A middlings purifier is a device used in the production of flour to remove the husks from the kernels of wheat.... It was developed to complement the emerging roller mill technique of the late 19th century, which used corrugated metal rollers instead of abrasive grindstones to grind wheat into flour. The middlings purifier was used in this process to separate the bran from the usable part of the flour. The machine developed by LaCroix passed the partially ground middlings over a screen, and a stream of air blew away the particles of bran.” (Wikipedia Online Encyclopedia “Middlings Purifier”).

“This process was used because winter wheat, sown in the fall and harvested early the next summer was not feasible to grow in Minnesota. Spring wheat was sown in the spring and harvested in late summer. This could be grown by Minnesota farmers, but the conventional techniques of grinding grain between millstones ended up producing a darker flour than consumers desired. It was also difficult to mix the gluten and the starch completely, as well. After Washburn's company developed the roller-milling technique with the use of a middlings purifier, they tried to monopolize the technique, but the Pillsbury Company and other

competitors were able to duplicate the process thanks to employees who left Washburn and passed along trade secrets.

...Washburn later teamed up with John Crosby to form the Washburn-Crosby Company, which eventually became General Mills." (Wikipedia Online Encyclopedia "Middlings Purifier").

Side Note: "the Pillsbury "A" Mill, built in 1880–1881 ... With improvements and additions over the years, it became the world's largest flour mill." (Wikipedia Online Encyclopedia. "History of Minneapolis: Development of Flour Milling.").

With these newer technologies and new hardy spring wheat that could be grown in more regions in which wheat was previously not cultivated, the flour milling business kicked into high gear. With the "Mill City" of Minneapolis leading the way, the U.S. flour production hit its peak in 1915-16. Smaller mills could not compete with the larger companies who could pay for the newest technologies and were able to ship across the country, causing smaller mills to consolidate into corporations.

"In 1891, Northwestern Consolidated Milling Company was formed, consolidating many of the smaller mills into one corporate entity. Between 1880 and 1930, Minneapolis led the nation in flour production, earning it the nickname "Mill City". Minneapolis surpassed Budapest as the world's leading flour miller in 1884, and production stood at about 7,000,000 US dry barrels (810,000 m³) annually in 1890. In 1900, Minneapolis mills were grinding 14.1 percent of the nation's grain, and in 1915–16, flour production hit its peak at 20,443,000 US dry barrels (2,363,800 m³) annually." (Wikipedia Online Encyclopedia. "History of Minneapolis: Development of Flour Milling.").

RISE OF CORPORATIONS

America had been in a transition from family farms to commercial agriculture since the turn of the century (~1900), but by 1915, the transition to the corporate food age was most apparent, marked by the evolution of small producers and distributors to major ones, aided by better transportation:

"By 1915...Improvements in production processes and transportation, along with infusions of capital to finance new forms of organization, led to the rise of large growers who banded together to promote their products...In industry after industry large new organizations arose. Advances in distribution, occasioned by better roads, trucks, and automobiles, played major roles. So did continuing improvements in the technology of large-scale manufacturing and packaging of foods..." (Levenstein, Harvey p. 151).

"In the early 1870s, the food industry in America still centered on small, independent producers growing, raising, and processing their wares, sometimes marketing them themselves but more often selling them to local middlemen who sold them in bulk. By 1914, however, large corporations were playing a major role in almost all aspects of the system." (Levenstein, Harvey p. 43).

"Between 1880 and World War I...The effects of the revolution in technology and organization were even more striking after the food left the farm, for large new organizations now

transported, processed, and marketed the farmer's products. Some sectors of the transformed food industry were dominated by giant new corporations: Swift, Armour, and Wilson in meat packing; Washburn-Crosby (Gold Medal Flour) and Pillsbury in flour milling; Heinz, Campbell's, and the California Fruit Grower's Exchange in canning." (Levenstein, Harvey p. 41-42).

"Since before the Great Depression, back as far as the turn of the century, American agriculture had been in transition from family farms to commercial agriculture...Where family farms had produced a variety of crops and livestock to feed a family and some surplus for a local market, commercial farms grew single crops for national and international markets. The transition made it harder and harder for small farms to compete." (Elias, Megan J. p. 130).

In the 1920s, individual entrepreneurs in the food industry faded into giant corporations:
"The era of the great individual entrepreneurs faded quite rapidly...The newer age belonged to the anonymous giant corporation, organized and capitalized by Wall Street magnates...By the end of the decade [1920s] the amounts of capital invested in the food processing industries had made them the largest of American manufacturing industries, surpassing even such giants as iron and steel and textiles in terms of capital investment." (Levenstein, Harvey p. 151).

CANNED FOOD

"Canning factories had been established there [in the U.S.] as early as 1817 and had soon begun handling not only meat but fish, and then the fruit and vegetables that were very much an American specialty in the early days of business. During the Civil War, Union army sutlers carried stocks of American canned meat, oysters and vegetables....After 1868, handmade cans were superseded by machine-cut, and giant canning concerns grew up, especially in Chicago, where assembly lines helped to cut costs and improve standards." (Tannahill, Reay p. 312).

Improved canning techniques continued to increase productivity and therefore availability of canned goods:

"...continued improvements in canning technology as well as the invention of various machines to speed the preparation of the foods for canning greatly increased the productivity of canners. By the turn of the century (1900)...could turn out 1500 cans a day. By 1910, a single machine could turn out 35,000 cans a day....In 1910, ten years before the real heyday of American canning, processors...turned out over 3 billion cans of food." (Levenstein, Harvey p. 37).

"Canned foods included vegetables and fruits, both evaporated and condensed milk, various chopped meat products, and condensed soups...the canners stressed the cleanliness of the canning process...Germ theory had only recently been popularized so many food processing businesses used the public's new interest in hygiene to sell their products...the traditional producer, whether butcher, baker, or homemaker, was described as unsanitary and wasteful, whereas industrial processing was praised as flawlessly clean & efficient." (Elias, Megan J. p. 63-64).

"In 1897, John T. Torrance, who had a PhD. in chemistry, applied his scientific knowledge to the vexing problem of the bulkiness of the cans used by manufacturers of canned soups. When, in

1898, he came up with the solution-to condense the soup-he set up the Joseph P. Campbell Company of Camden, New Jersey, and ensured himself a hallowed spot in any future Food Processing Hall of Fame.” (Levenstein, Harvey p. 37).

COMMERCIAL FOOD PROCESSING

“By 1900, the American Food Processing industry became very BIG BUSINESS indeed, accounting for 20 percent of the nation’s manufacturing. Significantly, of the top four sectors of the industry-meat packing, flour milling, sugar refining, and baking-only fourth ranked baking was not dominated by a few giant corporations, though its important cracker-baking sector already was.” (Levenstein, Harvey p. 37-38).

“Right from the beginning, brand-name foods were marketed on the basis of purity, convenience, quality, & reliability, and the consumer bought the promises as well as the product.” (Tannahill, Reay p. 331).

“Upton Sinclair’s novel “The Jungle” portrayed shockingly unsanitary conditions in Chicago stockyards more than 100 years ago and led to significant Progressive Era reforms, notable the Meat Inspection Act & The Pure Food & Drug Act of 1906.” (EdTechTeacher Inc. - Web).

“In 1906, the Pure Food & Drug Act was passed, establishing government inspection of processing plants to prevent the sale of adulterated or mislabeled products, but beyond this basic reassurance, little could be learned about a product from its packaging.” (Elias, Megan J. p. 62).

“In the early 1900s, ‘muckraking’ journalists aroused public concern over dangerous food additives and food adulteration. As a result of a nationwide campaign in which many women’s clubs supported the efforts of Dr. Harvey Wiley, Chief Chemist of the U.S. Department of Agriculture, to institute federal regulation of food additives and compulsory labeling of ingredients, the Pure Food and Drug Act was passed in 1906. Often regarded as a blow to the nefarious practices of big business, it too helped the giant food processors...He [H.J. Heinz] saw, correctly, that not only would the government stamp of approval assuage fears of processed foods, it would be particularly beneficial to large companies such as his which did not resort to cost-cutting measures of the small, more marginal processors...[which] often meant cutting costs in processing by using dangerous chemicals and inferior foods.” (Levenstein, Harvey p. 39-40).

BREAKFAST CEREALS

“A small breakfast became associated with the new culture of professionalism and the science of management. The entrepreneur of the 20th century had no time to waste on lavish morning meals. A journalist referred to “the businessman who makes his breakfast of coffee and a sweet roll,” as a commonly recognized figure in American life. Where the rhythms of life were a little slower, however, the custom of a larger breakfast apparently lingered.”(Elias, Megan J. p. 78).

“It was the end of an era [of large, lavish morning meals]. No more American breakfasts of littleneck clams, mushroom omelettes, grilled plover, filets mignons or robins-on-toast; no more British breakfasts of kidneys, sausages, scrambled eggs, and kedgeree. Cornflakes were not, of course, wholly or even mainly responsible for the demise of the traditional breakfast (which had always, in any case, been very much a minority pleasure), but they and competitive products such as Grape Nuts and Post Toasties were sold with such vigor and such claims of healthfulness that they eventually came to dominate the hurried twentieth-century breakfast table.” (Tannahill, Reay p. 329-330).

“The popularization of Breakfast Cereals, begun in the late 19th century, facilitated the shrinking of breakfast. Quaker Oat’s campaign to convince American consumers that its products was the “ideal breakfast” dish succeeded quite well...Cereal eating also fit well with the recommendations of public health experts who encouraged Americans to use more milk and whole grains. First introduced by food faddists in the mid-19th century, the boxed cereal served with cold milk became an all-American staple food by the mid-20th century.” (Elias, Megan J. p. 79).

“Breakfast cereals had become fashionable toward the end of the 19th century, as health advocates like J.H. Kellogg recommended eating whole grains...Breakfast cereals, made from processed grains and marketed in tidy, sealed paper boxes, seemed to fit this new approach to breakfast...the four main processed cereals on the market: flaked, puffed, shredded, the “variety resembling crumbs,” and malted. Flaked cereals, like cornflakes, were produced by flattening out grains that had been heated until they lost all their moisture and popped. Puffed cereals consisted of grains that had been popped but not flattened and followed in an old New England tradition of eating popcorn for breakfast. There was only one kind of shredded cereal - shredded wheat...The process of making it was complicated, involving ‘some twenty to twenty-five different processes.’ Cereals ‘resembling crumbs’ included Grape Nuts, which actually was bread crumbs, another New England tradition. To make Grape Nuts, wheat and barley flours were mixed, baked into a loaf, sliced, toasted, and crushed.” [It was purported that these breakfast cereals] ‘save much time, labor and fuel in the home...[and] from a sanitary standpoint there is an advantage, being sold in cardboard boxes well lined with air-tight paper, they are protected from air, moisture, dust and micro-organisms.’ ” (Elias, Megan J. p. 67-68).

The rise of Kellogg’s “Corn Flakes” and Post’s “Grape-Nuts” and “Toasties” led the way for other food processors through their marketing that focused upon the health, convenience, and cleanliness of the their products:

Health Claims:

“Corn Flakes had been invented as a vegetarian health food at the Seventh-Day Adventist “sanatorium” at Battle Creek, Michigan, by William R. Kellogg [who] turned the modest little outpost into a thriving health resort attracting thousands of non-Adventists, including many of the era’s rich and famous, to its cures....Initially, much of Corn Flakes’ success in the wider market derived from this link with good health...” (Levenstein, Harvey p. 33).

“Post, a master of the dubious health claim whose genius lay in slogans that implied everything but promised nothing, marketed his cereal as a “brain food” which was also likely to cure consumption, malaria, and loose teeth.”

(Levenstein, Harvey p. 34).

Convenience:

“Second, of course, there was convenience. The appeal of breakfast foods which required no cooking was not to be denied in the majority of American homes, which did not have servant girls to arise early in the morning...” (Levenstein, Harvey p. 34).

Cleanliness/Hygiene:

“Third, there was hygiene. The existence of bacteria had been discovered in the 1880s, and even before the pure-food scare of the early 1900s, middle-class Americans were greatly concerned that “germs” infested everything. The neatly packaged cereals promised absolute cleanliness and, presumably, germ-free food.” (Levenstein, Harvey p. 34).

These mega companies understood that advertising would be their bedrock, eventually using vitamins and minerals as their weapon: “...the large new organizations were ready to devote their resources to massive advertising campaigns to create consumer loyalty toward their nationally distributed brand names.” (Levenstein, Harvey p. 151).

“As canning and other forms of processing boomed, pressure on processors to come up with catchy brand names and promotional gimmicks to differentiate their products from those processed in essentially the same fashion increased....Desperate for anything that could help differentiate foods and brands, advertisers turned to the New Nutrition for weaponry. Invisible, unmeasurable, and tasteless, obviously important but with little knowledge of exactly why, vitamins and minerals were an advertiser’s dream. One could claim virtually anything for them and almost everything was.” (Levenstein, Harvey p. 152).

“Hard hit by the decline in home-baked bread in the 1920s, it (Fleischmann’s Yeast) turned to advertising yeast cakes as a health food. Eating its yeast, “the richest known source of water-soluble vitamin,” headed off “the two constant dangers-not having our body tissues built up and not ridding the body of poisonous waste matter.” Millions of Americans were now spreading Fleischmann’s yeast on crackers or bread, it said, and mixing it with water, fruit juice, and milk. Two to three cakes a day (later increased to four) was the recommended dosage, to be taken at home and in the office...An added benefit was that it also cleared up skin disorders, and corrected run-down conditions, indigestion, and constipation.” (Levenstein, Harvey p. 153). (“Finally, in 1938 the Federal Trade Commission stepped in, and forced Standard Brands, Fleischmann’s parent, to agree to stop making such claims, as well as to cease advertising that its yeast prevented tooth decay, kept the intestinal canal healthy, cured “fallen stomach,” and would not make one fat.”). (Levenstein, Harvey p. 198).

“Morton’s salt became “health salt,” bringing “new health and vigor to countless thousands of youngsters.”...Welch’s Grape Juice...advertised as “Rich in Health Values”...and “the laxative properties you cannot do without.” (Levenstein, Harvey p. 153).

“The milk industry demonstrated that, in the hands of the new commercial forces using the latest promotional techniques, the Newer Nutrition could be a major force in shaping food habits. There, a number of powerful interests managed to use conclusions derived from McCollum’s photographs of fat and scrawny mice to have milk, previously regarded as necessary for infants but merely a refreshing beverage for children and adults, come to be seen as an essential drink for all. The giant milk distributors formed a national organization to inform the public of milk’s nutritional value, inundating the schools with posters, pamphlets, and lesson outlines. Pictures of healthy children sipping their daily quart of milk (the recommended dose) smiled from the newspapers and magazines of the nation...After that, consumption of milk and milk products rose steadily, reaching a new high of over 800 pounds per capita in 1925.” (Levenstein, Harvey p. 154-155).

“The postwar era saw a great increase in the number and circulation of women’s magazines....[that had a] tendency to portray the food industries as bringing more nutritious food to the people.” (Levenstein, Harvey p. 158).

Nutrition Experts/Scientists Assisted in some of the Nutritional Claims and often were funded by food manufacturers...a pattern that would ensue through to today:

“One argument for eating ‘protective foods’ generally ignored by advertisers was that many of the original nutrients had been lost in processing. McCollum made this point a number of times during the 1920s, particularly with regard to white flour and sugar. White flour was the most important energy food in the American diet, he wrote, yet “it is notably deficient in more dietary factors than any other food entering into the diet...Shortly after writing this condemnation, McCollum signed on as a nutrition consultant to General Mills and became a spokesman for the virtues of white flour. In the early 1930s, he lent his name to advertisements emphasizing the ‘wholesomeness’ of white wheat flour...McCollum’s support of the flour manufacturers was typical of the larger nexus which developed between nutritional science and food processors and producers.” (Levenstein, Harvey p. 155).

“Mutually beneficial relationships developed between the food industries and “pure” nutritional researchers, such as McCollum, and helped establish the path for future American nutritional research...Food manufacturers therefore funded research into how processed foods could be reinvigorated, as it were, by adding nutrients.” (Levenstein, Harvey p. 158).

FOOD FADS

[There were many Diets during this time in American History, some of which are still around today: raw food diets, fruit only diet, Horace Fletcher - chew mouthful of food 32 times for healthy digestion.](Summary of Elias, Megan J. p. 110-111).

Food Faddism: an array of vegetarians, raw foodists, no breakfast fad, fear of bacteria, and Fletcherism among others constituted a “veritable Golden Age of Food Faddism” at the turn of century (~1900):

“An unusually large array of vegetarians (who subdivided themselves like amoebae into fruitarians, nutarians, lacto-ovarians)... “Raw foodists” refused to eat anything that had been heated...A “no breakfast fad” flew in the face of the traditional belief in the importance of that meal, while a multitude of methods were proposed for dealing with the “poisonous” bacteria science had recently discovered congregating the nation’s colons.” (Levenstein, Harvey p. 86).

Fletcher - “The Great Masticator”

“His ability to ingratiate himself into the realm of ‘pure’ laboratory science differentiated the turn-of-the-century American faddist Horace Fletcher from most of his competitors. Although he had no scientific training...

his main interest, “thorough mastication”...He therefore recommended chewing each mouthful of food until it had absolutely no taste and was involuntarily swallowed, which normally meant chewing at least one hundred times....the end result of ‘thorough mastication’ was often a drastically reduced intake of protein...[as much as a 2/3 decrease].” (Levenstein, Harvey p. 87).

“But chewing was not enough, Fletcher explained. The eater should always be in a good mood. According to his research, ‘cheerfulness is as important as chewing; and if persons cannot be cheerful during a meal they had better not eat.’ Claiming that ill humor during mealtime led directly to indigestion...” (Elias, Megan J. p. 111).

“The positive spirit of Fletcher’s diet fit well with a cultural focus on vigor and innovation and became popular among social and cultural leaders of the day. President Theodore Roosevelt and writer Mark Twain both tried the diet and even J.H. Kellogg, one of the most famous diet reformers of the 19th century, practiced fletcherism and publicly endorsed Fletcher’s theories. While the fad for ‘munching parties’ faded quickly, one component of Fletcher’s dietary philosophy did have lasting impact. Because he ate less than the ordinary American, Fletcher consumed less protein than what was recommended by experts of the era. That he was able to maintain strength and health on a lower protein diet intrigued contemporary experts who used some of his ideas to redesign emergency rations for the U.S. Army.” (Elias, Megan J. p. 111-112).

“Fletcher’s flair for self-promotion and his physical prowess, buttressed by a monumental ego, made him one of the two best known food faddists of the day.” (Levenstein, Harvey p. 91). [Indeed, Upton Sinclair, anti-socialist Yale professor of economics Irving Fisher, and William Henry James became “ardent chewers” as disciples of Fletcher.] (My summary Levenstein, Harvey p. 91-92)...[However]... “By 1919, when he [Fletcher] succumbed to a heart attack at age sixty-eight, interest in Fletcherizing was dwindling. William James...drifted away from it in 1908. Henry abandoned it in 1909, apparently because surviving on so little food made him miserable...” (Levenstein, Harvey p. 95).

Kellogg was an even more prominent food faddist of the Progressive Era (1890s-1920s) advocating his vegetarian diet:

“...Dr. John Harvey Kellogg, probably the only food faddist of the Progressive era to outshine Fletcher...Kellogg’s Battle Creek “Sanatorium” began as a small Seventh-Day Adventist affair, serving vegetarian food mandated to that sect by its founder Ellen White...[although] its clientele [expanded] far beyond the followers of White...By the early twentieth century, although his scientific credentials were non-existent and his medical ones hardly impressive, Kellogg was widely accepted as one of the leaders of American science and medicine....not only was the ‘San’ attracting thousands of middle- and upper- class Americans to its ‘cures,’ it also counted many members of the elite among its patrons, including John D. Rockefeller and Theodore Roosevelt.” (Levenstein, Harvey p. 92).

Dr. Hay Diet:

“Hay wanted people to think of food as fuel” [must] “look on food as replacement material, not something to tickle the palate.”...[Hay seems to have considered “taste a distraction.” (Elias, Megan J. p. 112-113).

“Hay was appointed Health Director of the Sun-Diet Sanatorium in East Aurora, New York, in 1927.” (Elias, Megan J. p. 112).

“Hay, born in 1866 in New York, practiced as a traditional physician at the beginning of his career but by 1932 was ‘one of the country’s best-known dietary advisors.’ He believed that some foods were alkali forming and some acid forming, meaning that they produced either acid or alkali conditions in the stomach....when too much acid-forming food was consumed, he claimed the result was illness....Hay advocated keeping proteins and carbohydrates separate, using almost no milk, and eating only a small amount of meat, making vegetables and fruits the main foodstuffs...Hay encouraged readers to change their way of eating by beginning with a fast which nothing was consumed but orange juice.” (Elias, Megan J. p. 112).

“In general, Hay did not approve of breakfast as a meal...[and]...believed that end-of-the-meal sweets ‘represent excess, a mere catering to the palate to leave it pleased at the end of a perhaps too full meal.’ If the diner must have dessert, it had better be fresh fruit...he recommended eating meat no more than twice a week. Instead, he suggested dishes such as ‘cream of mushroom soup; vegetable meatloaf; steamed spinach and baked eggplant’ followed by a salad of lettuce, cabbage, and celery dressed with mayonnaise.” (Elias, Megan J. p. 113).

Hay diet based on “his own notions about food and on anecdotal evidence.” (Elias, Megan J. p. 113).

THE FAD’S EFFECTS ON EATING HABITS

However, “The extent to which Fletcher, Kellogg, Chittenden and the rest were victorious against the dreaded “Gluttony” and “gourmandizing” can be overstated, for most prewar middle-class people remained robust eaters.” (Levenstein, Harvey p. 95).

“The influence of such diets seems to have spread most quickly to breakfast, which became a much smaller meal than it had been during the 19th century. One character in a novel published in 1913, for example, ate a ‘wise and cautious breakfast of fruit and cereal and toast and coffee.’ “ (Elias, Megan J. p. 114).

“Vegetarianism became somewhat more common at the turn of the century.”... (Elias, Megan J. p. 114).

“Vegetarianism was associated in the early years of the 20th century with many special diet plans. Sanitaria were established where those who suffered from a variety of ailments could go in search of a rest and diet cure and many of these served mostly vegetarian fare, thereby no doubt keeping their operating costs low.” (Elias, Megan J. p. 115).

“During the food crises of the world wars and the Great Depression, when meat was in short supply, many vegetarians and “meat-less” recipes were published to help Americans deal with shortages of their beloved staple food.” (Elias, Megan J. p. 115).

[Seemed to be arising a common notion that Americans can be well-fed and healthy without meat.] (Summary of Elias, Megan J. p. 116).

Some took advantage of a naive public's new interest in diet and health, creating supplements that often acted as cure-alls:

“For some, diet advice was a true article of faith, for others just another way to make money off the insecurities of the public. A brief list of dietary supplements advertised between 1890 and 1901 include “cactus blood,” which supposedly cured both dyspepsia and eczema; Dr. Epp's cocoa, which “may save us many heavy doctors bills” if we drink it for breakfast; Dr. Pierce's Pleasant Pellets, which could “cure biliousness, sick and bilious headache, dizziness, costiveness, or constipation, sour stomach, loss of appetite, coated tongue,” and a host of other ailments; and lactab, a “pure lactic (milk) ferment,” which could prevent not only dyspepsia but also old age.” (Elias, Megan J. p. 110).

HEALTH CONDITIONS

From 1890-1928 Americans ate a wider variety of nutrients leading to surges in height from the 1890s onward:

“The Americans of 1928 ate less in terms of quantity (about 5 percent fewer calories per capita), but consumed more of a wider variety of nutrients than the American of 1890. He ate much more fruit, especially citrus fruits, and vegetables, particularly green ones, considerably more milk and cheese, and less cereals, particularly flour, potatoes, corn meal, and sweet potatoes. Even beef consumption fell precipitously, from 72.4 pounds per capita in 1899 to 55.3 pounds in 1930.” (Levenstein, Harvey p. 194).

“The effect of the changing diet was literally visible. Any number of studies recorded surges in height from the 1890s onward. Upper-middle-class Boston schoolboys of 1926 averaged three

inches taller than their class counterparts of 1876. Recruits into the armed forces in 1943, particularly those born after 1913, were considerably taller than those of 1917. In 1930, the daughter of alumnae of a number of private women's colleges averaged over one inch taller than their mothers and, interestingly, were nevertheless slimmer-hipped. The growth in stature of the generations born between 1906 and 1931 was more rapid than that of any other period for which comparable data exist...the greatest surge in height occurred for those born after about 1915, the time that the new modes of eating were taking hold." (Levenstein, Harvey p. 194-195).

Much Controversy Developed over the use of brand-named artificial foods for infants from 1880-1930:

"...another great concern of the prewar era, mortality rates among infants. To many experts, extraordinarily high death rates of infants under age one seemed linked to perhaps the most revolutionary change in diet made possible by the ideas of New Nutrition, the rise of proprietary, brand-named artificial foods for infants." (Levenstein, Harvey p. 121).

[With a "servant shortage...by the 1880s and 1890s only the wealthiest could afford to have a servant [wet-nurse]...there were also more married working-class women in the labor force, especially toward the end of the century, making it necessary for them to wean their children soon after birth in order to return to work. The stage was therefore set for vendors of various substitutes for human milk to step in." (Levenstein, Harvey p. 122).

"urban poor of America were relatively resistant to the attractions of artificial feeding because of the high proportion of immigrants among them...Yet despite the relatively small proportion of artificially fed infants, the foreign-born urban poor still suffered appalling infant-mortality rates...the most striking correlations in the studies were almost always between declining fathers' incomes and rising infant mortality...But the analysis still indicated 'that artificial feeding was fraught with greater dangers to the baby's health in the lower earnings groups.' "

(Levenstein, Harvey p. 133-135).

[No argument that] "poorer mothers have smaller babies and smaller babies are at higher risk of early death..." (Levenstein, Harvey p. 136).

"The decline [in infant mortality rates] was particularly marked after about 1915, the very period when the diets of a large number of Americans seem to have improved." (Levenstein, Harvey p. 195).

"Infant mortality statistics also indicate that for forty or so years after 1915 significant differences in nutrition still divided the classes, for while the improvement was generally across the board, babies born into the lower income levels still died at rates about 50 percent higher than those on the middle and upper reaches. However, by mid-century, once one emerged from the lower third of income levels, the correlations between rising income and lower infant mortality rates ceased. This would indicate that a kind of nutritional equality reigned among the upper

two-thirds of society: that those differences in nutrition which existed among the upper two-thirds had little to do with economic status.” (Levenstein, Harvey p. 195).

[However, despite these initial findings]...“By the late 1920s, the opponents of artificial feeding seemed soundly defeated, their positions crumbling in the face of increasing artificial feeding and declining infant mortality rates. Many were forced into the stance they would maintain into the 1960s...” (Levenstein, Harvey p. 135).

“In 1913, an advertisement for Magnesurate Compound announced that a “well-known medical practitioner” estimated that approximately 50% of the American population suffered from ‘dyspepsia,’ a contemporary term for indigestion...Advertising claims aside, American lifestyles were undergoing enormous changes at the turn of the century and ideas about food were changing, too.” (Elias, Megan J. p. 109-110).

RELIGIOUS BELIEFS

“Dietary restrictions have never played a big role in the practice of Protestant Christianity in North America. Occasional communal fast days, invoked by leaders in earlier eras, were no longer community events by the end of the 19th c.. Although Catholics abstain from meat on Fridays in the period of Lent, fewer and fewer also did so throughout the year.” (Elias, Megan J. p. 141).

“Between 1880 and 1924, approximately 2 million Jewish immigrants, mostly from E. Europe, arrived in America. With them they brought a distinct cuisine that required specialty stores such as kosher butchers and matzo bakeries...As America became a more obviously multicultural society, even non-Jews learned to appreciate the availability of a kosher butcher.” (Elias, Megan J. p. 141-142).

WORLD WAR I + FOOD INSECURITY

Americans learn to eat less

“Lots of people discovered for the first time that they could eat less and feel no worse-frequently much better.” (Levenstein, Harvey p. 137).

The government sponsored FA- Food Administration advocated ‘meatless’ and ‘wheatless’ days, which required the education on what foods may serve as proper substitutes:

“...while the FA occasionally issued calls for general reductions in food consumption, its strategy in promoting measures such as “wheatless” and “meatless” days rested on the...concept of...substitution. If Americans could be taught about the interchangeability of proteins, fats, and carbohydrates, they could be persuaded to get their proteins from beans and pulses rather than meat, their carbohydrates from corn meal, oats, and grains other than wheat, and their fats from lard and vegetable oils. If they could learn to fill their bellies on fruits and vegetables too perishable to send to Europe, then soldiers and civilians overseas could be supplied, pressures

on domestic prices could be erased, and there would be no need for rationing.” (Levenstein, Harvey p. 138).

“The FA (Food Administration) home economists...prepared a textbook for upper-level school children explaining the principles of New Nutrition—one of the first such texts to reflect the growing awareness of the nutritional value of fruits and vegetables.” (Levenstein, Harvey p. 139).

“...one of the few conclusions which could be drawn from the Department of Agriculture’s wartime food survey was that, while it likely did reconcile middle-class Americans to smaller portions of meat and other items, the war also saw them, and the better-off farmers, eating more fresh fruits and vegetables and drinking more milk.” (Levenstein, Harvey p. 141).

“...the FA (Food Administration) campaigns...did have some effect on middle-class attitudes toward the food of at least one immigrant group, the Italians. Italy’s new status as one of the nation’s major Allies helped alleviate the disdain with which its food was regarded by the prewar elite...They (Italians) thereby provided some readily available meatless or meat-conserving recipes which were easy to adapt to the American household, particularly since the fear of tomatoes had long since dissipated. The rising popularity of pasta and tomato sauce during the 1920s helped make Italian food (or at least an Americanized version of it) the first immigrant food to gain widespread acceptance in America.” (Levenstein, Harvey p. 146).

“As a consumer advertising specialist noted in the mid-1920s, the wartime campaigns to “Save the sugars, save the fats, save the wheat” taught millions of people for the first time that there was a difference between potatoes and tomatoes, that there were things called calories, that some foods were similar to each other and others were not. These would be important concepts that the advertising industry of the 1920s would exploit.” (Levenstein, Harvey p. 146).

DISCOVERY OF VITAMINS

“...most of the faddists...cures for ailments normally involved abstaining from certain foods and/or cutting down on total food intake. The thrust of scientists who discovered vitamins was in the opposite direction, for they showed that illness could result from the absence of certain elements...When Elmer McCollum and others at Yale began to experiment on rats in 1908, their shorter life cycle enabled scientists to perform a large number of experiments to confirm that there were indeed, as some suspected, other unknown elements in food essential for life and health, substances which in 1912 were labeled “vitamines” by the European chemist Casimir Funk.” (Levenstein, Harvey p. 148).

“In 1911, Funk isolated a water-soluble nutrient, later called Vitamin B, and the next year McCollum identified a fat-soluble vitamin, which he labeled Vitamin A. Most important, McCollum demonstrated that the absence of Vitamin A led to severe deterioration of vision and stunted growth in rats. In 1916 he proved that there was a direct link between the absence of Vitamin B and beri-beri...It had long been suspected that scurvy was caused by a dietary deficiency...by the early 1920s it was known to exist in citrus fruits and potatoes and was

labeled Vitamin C...McCullum and others had induced and controlled rickets with diet among rats...finally isolated the accessory factor and called it Vitamin D in 1922. The following ten years saw other discoveries, both of new vitamins and of the importance of various minerals and trace elements. All of this bred a growing awareness of in the importance of what McCullum labeled 'protective foods.'" (Levenstein, Harvey p. 148).

"By the early 1920s, more Americans would have been familiar with the term vitamin, but few knew enough about these substances to act wisely on their knowledge." (Elias, Megan J. p. 125).

"While the Newer Nutrition now reigned supreme, and it was becoming possible to accurately measure the amounts of vitamins and other nutrients in foods, there was nothing approaching a consensus on how much of these nutrients were necessary to maintain human health. For example, estimates of requirements for ascorbic acid-vitamin C-ranged from 10 to more than 100 milligrams per day and those for vitamin A ranged from 1,000 to 10,000 international units daily." (Levenstein, Harvey p. 200).

"By the time of the Great Depression, the basic ideas of the Newer Nutrition-that vitamins and minerals were essential to stimulating growth, protecting good health, and even prolonging life-prevailed in middle-class America." (Levenstein, Harvey p. 160).

The government began to advise people of what to eat according to the expertise derived from research in the new field of human nutrition:

"The USDA, which had been funding research in nutrition since 1883, opened an office of Home Economics in 1915 to organize research in human nutrition, food science, and dietetics...Extension agents working in nutrition research and outreach were also able to tackle the problem of pellagra, which was common in southern communities, where diets tended to be low in niacin. Pellagra sufferers, who were among the poorest farmers in rural areas [were taught] to eat niacin-rich foods such as greens, milk, and lean meats..." (Elias, Megan J. p. 123).

"Nutritionists encouraged home cooks to think of the family diet mathematically rather than emotionally or aesthetically. What mattered most was the chemical nature and the meal..[and balancing]...units of protein, vitamin, and minerals." (Elias, Megan J. p. 124).

{There was}... "...a shared sense among nutritionists of the era that Americans ate more meat than was good for them and that a more diverse diet would improve national nutrition." (Elias, Megan J. p. 126).

CHANGE IN IDEAL MALE + FEMALE FIGURE

The 1920s brought about an era in which women began to be encouraged to obtain a slimmer figure, engaging in mild exercise to become more fit: "Concern regarding the physical fitness of American women rose in the late nineteenth century...Consequently, women were encouraged to take mild physical exercise such as bicycling, tennis, and swimming, particularly outdoors..." (Levenstein, Harvey p. 164-165).

From the turn of the century, the ideal figure of the woman increasingly shrunk, finally transitioning to the almost boyish-like figure of the 'Flapper':

"At the end of the 19th c., it was still considered aesthetically pleasing for women to be plump." (Elias, Megan J. p. 117).

"The large-bosomed, massive-hipped "voluptuous" woman...was challenged after the turn of the century by less robust but more athletic-looking ideals...amply but not massively endowed upstairs, slim-hipped, with a small waist which seemed to owe much more to one of nature's miracles than to the high technology of corsetry. After the war, she was replaced by more nymph-like ideals, bordering on the boyish, whose most extreme version was the 'Flapper.' " (Levenstein, Harvey p. 165).

"The old, well-nourished ideal of the Venus de Milo became a lummoX." (Elias, Megan J. p. 117).

"Following the tradition of their European ancestors, Americans had long shared an ideal of female and male attractiveness that celebrated the full figure. Plumpness was seen as a sign of economic success, whereas slenderness indicated a lack of means to feed oneself or one's family. In approximately 1910, that ideal changed. Slenderness became the ideal, representative of modernity and echoed in a preference for streamlined design. Extra flesh came to be seen as a sign that a person lacked control of his or her passions and was thus a potentially less productive member of society. In response to this altered ideal, which became especially popular in the 1920s, self-proclaimed experts produced an ocean of advice about how to lose weight. In the same era, the field of human nutrition was born, revealing to researchers, who then shared their knowledge with the public, that there were sensible and foolish ways to eat and that food could make a major contribution to one's health." (Elias, Megan J. p. 109).

"The new ideal of slimness affected men as well. Gold watch-chains surmounting gigantic bellies were now signs of age and decrepitude in a society fond of youthful zest for life's pleasures. Gaunt figures such as F. Scott Fitzgerald and the slender Rudolph Valentino now became the male ideals." (Levenstein, Harvey p. 165).

"Toned and visible muscles, once a mark of low social status, became celebrated as a symbol of virility in men." (Elias, Megan J. p. 117).

Indeed, overall being overweight was finally be perceived as unhealthy:

"By 1918, however, the idea that being overweight was unhealthy had caught up with the traditional idea that being underweight denoted poor health." (Levenstein, Harvey p. 166).

As one might expect, dieting and calories soon became commonplace & somewhat obsessive, leading to the great age of main course salad:

“ ‘Dieting’ and ‘calories’ now became middle-class obsessions, particularly among females...The great age of the main course salad (fruit, vegetables, or broth) now dawned...topped off with eye-catching swirls of bottled mayonnaise.” (Levenstein, Harvey p. 166-167).

“Simultaneous to the discovery of vitamins, the term calorie entered common usage, as Wilbur Atwater, a chemist who studied food, published his findings on how the body used up food energy...As it became clear that burning, or using up, calories had something to do with weight loss, Americans began counting calories in ways that did not always make scientific sense...the ordinary person who worried about weight was more likely to try to limit calorie intake.” (Elias, Megan J. p. 127).

“It did not help the cause of public understanding that nutritionists themselves did not seem to agree on the optimal number of calories to consume each day...The dieting public, lacking patience, had a tendency to search out the lowest number and aim for that, thinking of calories as something bad rather than as the fuel for physiological functioning.” (Elias, Megan J. p. 128).

However, the working class did not yet engage in dieting and calorie counting, which remained specific to the middle class:

“...the working class was not yet secure enough about its food supply to succumb to middle-class calorie counting and dieting. These practices were relatively rare among working-class women and practically unheard-of among working-class men.” (Levenstein, Harvey p. 176-177).

FOOD TRENDS

[At the end of the 19th c. to the end of World War II, Americans ate vegetables either cold as salads or hot as dishes to accompany meat]... “Elements of salad were ordinarily bound together by dressing, usually a mayonnaise, often one fortified with cream. Mayonnaise was first available in groceries after 1906...Once a treat, mayonnaise could now be enjoyed every day, which perhaps accounts for its frequent use in salads during the 1910s.” (Elias, Megan J. p. 17).

“Usually, apart from lettuce, salad vegetables had been cooked before being dressed. A general distrust of raw vegetables prevailed through the first half of the 20th century.” (Elias, Megan J. p. 18). “When Americans cooked vegetables, they usually boiled them, sometimes adding bicarbonate of soda to preserve color.” (Elias, Megan J. p. 18).

“...commercially packaged gelatin offered another way to bind salad ingredients together...For those who considered the salad ideally to be a work of art, Jello offered exciting new possibilities.” (Elias, Megan J. p. 18).

[Potatoes were among the most popular vegetables]. “Commonly consumed vegetables included tomatoes, corn, beans -both fresh & dried- peas, cauliflower, and carrots.” (Elias, Megan J. p. 18).

“Pineapple was easily the most popular imported fruit, probably because canning made it so easy to store and use. After 1903, when James Dole discovered how to can pineapple, the fruit rapidly became part of mainstream American food-ways and a very popular ingredient in salads.” (Elias, Megan J. p. 23).

Peanuts & Peanut Butter as health food:

“Around the turn of the century, peanut butter or peanut paste began to be recommended as a health food. Peanuts were suggested by many cookbooks as filling for sandwiches... “By 1920, peanut butter was available commercially...” (Elias, Megan J. p. 22).

Diets, Diet pills, Slimming Salts & Teas:

“The new aesthetic did not become dominant overnight, however, and advertisements for dietary supplements to fatten one up ran alongside those for supplements to slim one down.” (Elias, Megan J. p. 117).

“Most of the slimming salts and teas marketed were nothing more than diuretics or laxatives either of which, if taken too frequently, was not good for digestive health. Some of the laxatives marketed during the 1920s and 1930s were Germania Herb Tea; Manikin Tea; Elfin Fat Reducing Gum Drops; Slends Reducing Gum; and Figuroids. Diet pills that used thyroid to speed up metabolism included Faid, Silph Chewing Gum, PHY-thy-rin, Rengo, Kellogg’s Safe Fat Reducer, and San-Gri-Na.” (Elias, Megan J. p. 118-119).

Many looked to Hollywood for extreme diets such as ‘The Hollywood 18 Day Diet’:

“Because movies popularized the new aesthetic, the designers of diets and makers of diet supplements often tried to associate their products with Hollywood and the movie stars who worked there....Hollywood, home of the eighteen-day diet, the orange juice diet, the skimmed-milk-and-baked-potato, the liquid bread, the thyrodic bath salt, the paraffin sweat, the holy-rolling machine, the pugilistic massage...” (Elias, Megan p. 119).

“The Hollywood Eighteen Day Diet...was a weight loss plan of ‘unusual popularity’ that, according to one writer, ‘swept the country like a plague during the 1920s...dieters essentially lived on grapefruit and Melba toast, losing weight through drastically lowering their calorie intake. The diet reached a wide audience because the powerful California citrus industry promoted it as did the Cubbison Cracker Company of Los Angeles, which manufactured Melba toast. The diet was so popular that some restaurants added it to their menus...” (Elias, Megan J. p. 119).

“In 1940, socialite and actress Mariposa Hayes attempted to capitalize on the ordinary woman’s desire to look like a movie star when she published the Hollywood Glamour Cookbook...a lively guide to ‘glamorizing’ through diet.” (Elias, Megan J. p. 120).

The Introduction of the Diet Cookbook:

“One of the new specialized kinds of cookbooks to appear in this new era was the diet cookbook that recommended a particular way of eating as protective against poor health.” (Elias, Megan J. p. 110).

“As more people grew interested in losing weight, diet books became a lucrative market...[various diet plans] mixed real science with quackery to produce a weight loss plan.” (Elias, Megan J. p. 121).

DIET CHANGES

WORKING CLASS

In the 1920s, the working class ate more sugar and sweets & less of the ‘protective foods’ and less meat protein, ultimately leading to obesity, hypertension, & diabetes:

“As one moved down the working-class income ladder, consumption of “protective” foods and meat protein declined and that of highly refined white bread and starches rose. At least in part as a result of this, health problems rose in inverse proportion to income. ...they also ate more sugar and sweets...As a result, obesity became a working-class problem and helped make hypertension, diabetes, and other related ailments more common among that class than among those above them. It was likely in the 1920s that the traditional cartoon images of the fat bloated rich man and the emaciated worker came to portray, as they do today, quite the reverse of the corporeal norm.” (Levenstein, Harvey p. 177).

However, there was an overall marked change from the 1910s to 1920s in the eating habits of the working class to include more milk, cheese, fruits, and vegetables, possibly as a result of increased affordability as well as new nutrition ideas sweeping the country...yet there were still nutritional deficiencies:

“In 1914, typical families in Chicago’s stockyard district spent a very large proportion of their total family budget, over 25 percent, on baked goods (including flour) and meat. Only 2 percent went for fruit and 4 percent was spent on vegetables, mostly potatoes and cabbage. New York City workers surveyed that same year followed a similar pattern. In 1928, fourteen years later, when New York City workers were again surveyed, marked changes were evident. Although meat consumption remained at the same high level in terms of quantity, a much smaller proportion of the budget was devoted to it and a much larger part went for milk, cheese, fruits, and vegetables. They did eat less flour and cereals, however, and as income increased, the tendency to eat more meat and less grain became more pronounced.” (Levenstein, Harvey p. 175).

“The fact that the majority of working-class Americans seem to have eaten more and better quality food during the 1920s did not mean the end of nutritional deficiencies.” (Levenstein, Harvey p. 177).

MIDDLE CLASS

Women’s roles changed from “factory girl” to “office girl” lead to declining expectations regarding food due to further time constraints put on even busier working women:

"[In the 1920s], middle-class interest in cooking did decline...Sumptuous dinner parties no longer held center stage in middle-class socializing...When the middle class did entertain at dinner, guests' expectations were markedly lower than in the prewar era, for it was understood that meals were prepared by otherwise busy women with no "help" in the kitchen." (Levenstein, Harvey p. 162).

Canned, processed, and prepared foods helped accommodate new "eat and run" behavior that often entailed family members eating at different times, making traditional food preparation by the working housewife inconvenient:

"The traditional role of food-sharing in reinforcing family solidarity and establishing lines of authority also declined in the face of competing loyalties to peer groups and, most important, to the new leisure activities. To "eat and run" became acceptable family behavior, as did family members eating at different times to accommodate their other social obligations....housewives, who wanted to get on with their own leisure activities, could deal with this by using canned, processed, and prepared foods. However, despite advertisers claims to the contrary, it was generally recognized that this involved reduced expectations regarding the quality of food...Clearly, behind the soaring sales of canned and other prepared foods in the 1920s were millions of individual decisions to sacrifice taste, and even nutrition, in order to lessen the preparation time." (Levenstein, Harvey p. 162-163).

IMMIGRANTS

"Immigration restriction also spurred the spread of the new ideas helping to "Americanize" ethnic eating habits....many immigrant housewives began to succumb to the lure of Corn Flakes, canned goods, and other prepared "American" foods. Bottled ketchup, mustard, mayonnaise, and even pickles became common in their homes. Jell-O became a favorite dessert, often mixed with canned fruits...Crusty dark breads gave way to soft white bread from chain bakeries...old-country cooking was increasingly relegated to Sunday dinners, holidays, and family festivities, to serve as a reminder of common origins and a common past." (Levenstein, Harvey p. 176).

AFRICAN AMERICANS

African Americans migrating from the rural South to the North & Midwest cities transitioned from eating salt pork and cornmeal in the South to more refined white flour, sweets, and other highly processed foods, including little milk & vegetables:

"Hundreds of thousands of African Americans had been migrating from the rural South to the cities of the industrial North and Midwest. Isolated from white middle-class culture in ghettos, most had neither the means nor incentive to change their food habits...But this often meant they altered the salt pork and corn meal diet of the rural South to the northern cities in an unhealthy way, consuming more refined white flour, sweets, and highly processed foods while neglecting milk, fresh vegetables, and other "protective" foods...African American mothers...had little time for their own kitchen and often fed their families on dried breakfast cereals, sweet snacks, and other nutritionally deficient foods...infant mortality rates...were twice that of urban whites." (Levenstein, Harvey p. 177-178).

Those eating corn bread in the 1920s were getting less nutrition than before:

“...much of the corn bread was now made of refined or “bolted” meal, deprived of much of its nutritional value.” (Levenstein, Harvey p. 178).

MEXICAN-AMERICANS

“Mexican American women typically continued to make tortillas at home using corn meal and to serve these as the family’s main breadstuff rather than to buy packaged white bread. By the 1930s, however, most were buying their cornmeal already ground and packaged rather than grinding it themselves as was the custom in Mexico.” (Elias, Megan J. p. 25).

However, the more well-off Mexican-Americans began to eat tortillas made of nutritionally deficient white flour or white bread, abandoning their traditional corn tortillas soaked in lime: “...the processing of the corn for masa, which involves soaking it in lime, removes important nutrients as well and, when Mexican-Americans’ incomes rose slightly, they tended to abandon corn tortillas in favor of white bread or tortillas made of even more nutritionally deficient white flour.” (Levenstein, Harvey p. 179).

NATIVE AMERICANS

Native Americans went from a largely carnivorous diet to their staple white-flour grease bread, potatoes, beans, young dogs, and a monthly government ration of beef leading to decayed teeth, bow legs, sore eyes, blindness, and strikingly high infant and child mortality rates: “Essentially carnivorous people who had lived by hunting, by the 1920s they were in as desperate straits as the buffalo herds upon which many had depended. A 1927 study of nutrition on a Sioux reservation in South Dakota revealed...the staple food was “grease bread,” which, as the name implies, was white-flour bread or biscuit dough fried in fat. Potatoes and beans were the only vegetables in widespread use and, although there was some consumption of squash and canned tomatoes, green vegetables and fruits were almost totally absent from the diets, as were milk, eggs, butter, and cheese. For meat, although young dogs were sometimes eaten, the Native Americans were dependent on a monthly government ration of beef.” (Levenstein, Harvey p. 179-180).

“Even a casual observer could not fail to note the prevalence of decayed teeth, bow legs, and sore eyes and blindness among these families. Even more striking were the infant and child mortality rates. One-third of the children reported born were dead before the age of two and almost one-half had died before seven years of age.” (Levenstein, Harvey p. 180).

FARMERS

Farmers that were poor and grew single cash crops were more dependent on store-bought foods, while better-off farmers were quite self-sufficient, buying only tropical and citrus fruits (which were more widely available), sugar, salt, flour, and prepared breakfast foods:

“...during the first two decades of this century...farmers and sharecroppers tended to be tied to cash crops and were painfully dependent on store-bought foods. On the other hand, many of the better-off farmers tended to be quite self-sufficient in food....produced the vast bulk of the food they consumed: practically all of their bread, butter, pork, lard, sausage, salt pork, milk,

corn meal, bacon, canned (or otherwise preserved) fruits and vegetables, popcorn, and eggs. Tropical and citrus fruits were purchased in town, along with sugar, salt, and flour. (They also bought considerable supplies of Post Toasties, Wheat Puffs, and other prepared breakfast foods)." (Levenstein, Harvey p. 180).

"Farmers were also affected by the mania for citrus and other "protective" fruits. As transportation improved, and better-off farmers became more reliant on store-bought foods, sacks of citrus foods became commonplace in the Model-T's and pick-up trucks returning from shopping trips to town. Farm families surveyed in Kansas, Kentucky, Ohio, and Missouri consumed an average of over 100 pounds of lemons, oranges, grapefruits, and bananas per year...those living closer to towns and cities generally bought more of these and other "protective" foods than farmers in more remote areas." (Levenstein, Harvey p. 182).

Some poor farmers in the 1940s showed preference for "urban" foods due to their higher social status that made them desirable to rural people...yearned for the pre-packaged foods that represented purity, prestige, science, and the wider, more sophisticated urban-centered culture: "Another study, of poor farmers in the Southeast in 1940 and 1941, revealed a preference for processed, "urban" foods over cheaper, often more nutritious, home-grown ones. Canned hams were preferred to country hams, and beef and canned salmon were high-status items. Their own culinary traditions and foods were denigrated as "old timey," "country," and "nigger." The anthropologists concluded that for them, the artificial-looking, lightly colored, packaged brand-name foods of the city connoted purity, prestige, science and being a part of the wider, more sophisticated urban-centered culture." (Levenstein, Harvey p. 202).

RESTAURANT INDUSTRY

Fewer families ate lunch together with the urbanization of American life:

"As breakfasts became smaller and speedier, the character of lunch also changed significantly. The urbanization of American life and establishment of a national public school system meant that fewer families ate lunch together. Children ate at school, while fathers, typically still primary breadwinners for their families, took short breaks to eat lunch near their workplaces. Working class men and women bought their lunches from lunch carts that parked outside of factories or brought their own meals in metal lunch boxes or paper bags. Generally these lunches consisted of leftovers, sometimes packaged as sandwiches...Those who worked in offices took their lunch in newly ubiquitous lunch restaurants....Where businessmen of previous generations might have launched at saloons or in private clubs, the heavy food and alcohol associated with such venues began to seem antithetical to the new business style of speed and efficiency." (Elias, Megan J. p. 81).

Tearooms sprung up in shopping districts to serve the "refined" lady shopper:

"Independent tea rooms also opened in shopping districts to serve the "refined" lady shopper....Meals in these establishments were "almost invariably good, but the portions likely to be small," as cultural norms dictated that respectable women were not to be seen eating hearty meals in public...The meals they served were light and included many sweets, suggesting that the women who dined in these establishments were in the market only for treats, not true

sustenance. In part this protected them from appearing to have animal natures, and in part it suggested that they had servants at home to prepare their real meals.

Tearooms also served the first generation of female office workers, young women who had a social status slightly higher than that of factory workers but still far below that of the leisurely shopping class. Tearooms gave these young women a space in which to enjoy a midday meal without exposing themselves to the eyes of possibly lecherous businessmen and male clerks.” (Elias, Megan J. p. 84-85).

When not out at department stores, “middle class ladies often launched together in their own homes...serving foods not considered ‘masculine’ [with]...‘female meals’...composed of ‘peanut wafers, cream sponge cake, chocolate with whipped cream, pineapple lemonade.’ Because their culture operated under a common assumption that men demanded meat at every meal and that men disliked decorative elements in food, American women’s lunches seem to have gone in the opposite direction, celebrating sweetness and fluff. Many included elaborately composed gelatin salads topped with dollops of mayonnaise mixed with whipped cream...Middle class women’s lunch choices may also have been affected by the fact that until the 1920s, most wore corsets that tightly confined their stomachs, making the pork chop lunch seem somewhat less appealing than the dish of whipped cream.” (Elias, Megan J. p. 86).

Restaurants, such as self-service cafeterias, were created to accommodate America’s increasing working class (women included), working far from home:

“The proliferation of a new lower-middle class of male and female office and shop employees after the turn of the century created a burgeoning market neither the old saloons nor the higher-class restaurants could tap. Short lunch hours and expanding cities made going home for lunch impossible. Hot lunches were regarded as a necessity and lunch pails were too working-class. As a result, new kinds of restaurants tried to fill the growing gap in the middle.” (Levenstein, Harvey p. 185).

“...tea rooms were soon abandoned for establishments which offered faster service and lower prices. Foremost among these was the self-service cafeteria, which had swept California even before the war....The cafeteria’s cleanliness, convenience, speed, and respectable atmosphere helped attract a large share of the growing shop and office girl market...By the mid-1920s, however, cafeterias were beginning to give way to luncheon restaurants featuring even lighter fare. In part, this was related to the new ideas regarding food and nutrition....the mystique of the hot lunch began to fade and sandwiches, composed salads, and other cold dishes became popular luncheon fare.” (Levenstein, Harvey p. 188).

Restaurants stressed cleanliness and high quality ingredients that could be prepared by any unskilled, barely trained, cheap male labor:

“The pure-food scare led entrepreneurs to create restaurant chains which emphasized cleanliness and high quality ingredients. New steel utensils, enameled table tops, mass-produced tiles, and electric lights allowed them to achieve a sparkling-clean, hygienic look.” (Levenstein, Harvey p. 186).

“...the simplification and Americanization of menus...involved roasting, broiling, heating of canned foods, and other simple operations, most food preparation could be accomplished by unskilled, barely trained, cheap, male labor.” (Levenstein, Harvey p. 192).

SCHOOL LUNCHES

School Lunches became commonplace at the beginning of the 20th century:

“From the beginning of the 20th century forward, increasing numbers of American schoolchildren could expect to receive lunch at school. For some, from poor families, lunch was free; for others it was purchased for a small fee. In 1925, schoolchildren in New York City could expect to choose from the following: a soup, usually milk based; one or two hot dishes such as spaghetti with tomato sauce or scalloped potatoes, baked beans, or a hot roast beef sandwich. Meat was ‘not served except in made up dishes where it flavors potatoes or rice.’ Students were also offered potato, egg, green vegetable, or fruit salad, and could choose one of five sandwiches. Fillings included meat, cheese, jam, peanut butter, and lettuce with mayonnaise.” (Elias, Megan J. p. 87).

“Reinforcing gender stereotypes, one writer remarked, “Boys like heavy meat sandwiches thickly cut,” while girls “prefer jam, lettuce, and cream cheese sandwiches thinly cut and daintily served.” Both boys and girls could finish their meals with a baked pudding, ice cream, plain cake, or fresh fruit every day.” (Elias, Megan J. p. 87-88).

“It was not until the School Lunch Act of 1946 that state lunch programs were required to work with trained dietitians to ensure that school lunches were nutritionally balanced...for millions of children they provided a steady source of nutrition, especially important during the lean years of the Great Depression.” (Elias, Megan J. p. 88).

“Legal loopholes permitting the sale of high-profit items encouraged large food service corporations to move into the school meal business.” (Nestle, Marion p. 192-193).

DINNER CHANGES

Dinners also shrank over the first half of the 20th c. due to either voluntary rationing during World War I or due to new diet fads that encouraged decreased food intake, NOT because of a food shortage:

“Just as breakfasts became smaller over the first half of the 20th century, dinners, too, appear to have shrunk. Emily Post thought that it might have been a result of voluntary rationing during World War I, “which accustomed every one to going with very little meat and to marked reduction in all food,” or it might be due to the new reduction diet fads that were ‘causing even grandparents to aspire to svelte figures.’...Even the ‘very rich, living in the biggest houses with largest array of servants’ seldom went beyond four courses by 1922.” (Elias, Megan J. p. 88-89).

“Prohibition helped make restaurant-going a respectable diversion for middle-class women” by removing the unsavory alcoholic aspect to dining out. The heightened importance placed on couples socializing outside the home encouraged this as well. Now, for the first time,

middle-class housewives could look forward to regular relief from the burdens of meal preparation by “going out” for dinner.” (Levenstein, Harvey p. 189-190).

“In many communities, the largest meal of the week was the Sunday dinner, to which guests were sometimes invited...Sunday dinner is the one meal that serves as a time of festivity...The men have more leisure on Sunday and sit down with pleasure to a more elaborate meal.

ROADSIDE RESTAURANTS

The introduction of the automobile led to the introduction of roadside restaurants:

“...roadside restaurants began to appear. Because ‘early automobile travel remained the privilege of the well-to-do,’ however, ‘the earliest roadside eateries catered especially to the gentry.’...This meant that they took the form of tearooms where only tea and sweets, rather than hearty meals and alcohol, were served in a genteel atmosphere....As advances in production technology made it possible to sell more cars at lower prices, the car became a convenience and pleasure for Americans of the middle and lower middle class...For this market, roadside stands, usually just simple shacks with large service windows, began to pop up along the highway. To capture attention, many of these were built in unusual shapes such as windmills, oranges, hot dogs, or milk bottles. Roadside shacks served simple, quickly prepared foods like ice cream and hamburgers.” (Elias, Megan J. p. 92-93

WORLD WAR II, THE GREAT DEPRESSION, AND DIET

Food Preservation:

“Commercial food production was mechanized during this era...Thus, Americans’ relationships with their food changed in this era as more products were brought in stores rather than produced at home, and simultaneously more gadgets, such as toasters and chafing dishes, became available for preparing food within the household.” (Elias, Megan J. p. 45).

Mass-produced fruits and vegetables:

“Increasingly, Americans could expect to buy mass-produced preserved fruits and vegetables from grocery stores. In the 1930s, when the Great Depression shrank family incomes, government workers had to mount a vigorous campaign to remind American women how to make the fruit and vegetable conserves that could save their families from a winter of malnutrition.” (Elias, Megan J. p. 23).

War Rationing:

“On the home front, rationing meant that Americans had to learn to make do with smaller quantities of meat, flour, sugar, and fats, all foodstuffs needed for the army and its allies.” (Elias, Megan J. p. 138).

“Families were also encouraged to make ‘Variety dishes’ from the ‘odd’ cuts of meat that were not commonly used in mainstream American cuisine...including calves’ liver, brains, heads, pigs’ feet, sweetbreads, tripe, and kidney [which] can be made into attractive dishes and served at cheaper prices.” (Elias, Megan J. p. 139).

Soldiers' Ration:

[The K ration for American soldiers in camp and on the battlefield included]...“The three rations - Breakfast, Dinner (lunch), and Supper - each contained a can of meat product, crackers, some kind of sweet (dried fruit, a chocolate bar, or hard candy), instant coffee, and cigarettes, which were not considered unhealthy at the time.” (Elias, Megan J. p. 137).

Meatless Meals:

“Beginning at the turn of the century, cookbook and recipe pages of local newspapers regularly included recipes for “meatless” meals. In such meals, beans featured prominently as providing replacement for the protein in meat. This change did not reflect any significant movement toward vegetarianism, but rather a new interest in nutrition and, during the Great Depression, a real need to economize.” (Elias, Megan J. p. 21).

Beans According to Region:

- Baked beans - “quintessential New England dish”
 - Black eyed peas - South
 - Refried pinto beans - Southwest
- (Elias, Megan J. p. 20).

[An ad related to rationing meat during World War II suggests the use of gelatin]... “a thoughtful ad for Knox Gelatine asked readers “Short of Meat?” and suggested a “meatloaf” of scraps suspended in gelatin as a way to help “you stretch your proteins.” (Elias, Megan J. p. 72).

Eggs:

“Eggs remained an important part of the American diet through the end of the 19th century and the first half of the 20th century. As the population shifted into urban areas, Americans were less likely to keep their own chickens, however, so eggs now came from groceries. The invention of the paper egg carton in 1911 by a Canadian newspaper editor made it much easier to transport eggs reliably to markets.” (Elias, Megan J. p. 31).

Processed Meats:

“During WWII, meat shortages caused many new customers to turn eagerly to processed meats. The national production of sausages tripled between 1904 & 1925.” (Elias, Megan J. p. 64-65).

“In 1915, meat packing companies began selling bacon in slices. The new, more elegant-seeming slices enticed wealthier customers to buy; & bacon which had once been associated exclusively with the poor became standard fare for all classes.” (Elias, Megan J. p. 64).

“By 1920, the meat processing industry in America had become so centralized and efficient that, one writer reported, a single processing plant could produce many kinds of products...” (Elias, Megan J. p. 64).

“The need to provide consumers with a product that would not spoil in its can led to much experimentation with preservatives. In many meat packing plants, for example, borax or boracic acid were used as preservatives. Preservative chemicals were frequently used in the early days of commercial food processing...Preservatives that could limit risk seemed very attractive.” (Elias, Megan J. p. 65).

“Much to the dismay of the producers, Harvey W. Wiley, the Chief Chemist of the U.S. Food and Drug Administration, declared Borax unsafe for use in foods and it was banned by the 1906 Pure Food Act...The Pure Food Act limited acceptable additives to “salt, sugar, wood smoke, vinegar, pure spices, and pending further inquiry, saltpeter.” After the act was passed, pork processing companies, eager to speed up the time it took to cure a ham, typically several months, began experimenting with sodium nitrite and nitrate...[which] made it possible to cure a ham in five days.” (Elias, Megan J. p. 65).

White Bread:

“Between 1918 and 1935, consumption of store-bought baked goods, including bread, increased by 40% in the U.S. Sales of mass-produced bread grew especially after 1928, when the Chillicothe Baking Company of Missouri first successfully used a slicing machine. The most famous of all packaged bread - Wonder Bread - first gained a national market in the 1920s. By 1939, 85 percent of bread that Americans consumed was produced by 28,000 commercial bakeries.” (Elias, Megan J. p. 24).

“Whether one consumed commercial or homemade bread depended largely on what kind of community one lived in. By 1922, a survey of 3,000 families revealed that 94 percent of farm families made their own bread, but only 56 percent of those who lived in cities of more than 25,000 people did so.” (Elias, Megan J. p. 69).

“Commercial baking got a big boost during World War I, when, in order to supply the army and allies, Americans were asked to make two days a week “wheatless,” which meant using other types of flours for breadstuffs. With food scientists on staff, it was easier for large bakeries to successfully make the switch to mixed flours than it was for the average housekeeper.” (Elias, Megan J. p. 69).

“When WWII made white flour scarce...replaced bread with the buckwheat pancake...[or]...soy flour bread.” (Elias, Megan J. p. 26).

“The introduction of sealed packaging for bread made it more appealing to consumers fixated on sanitary goods, and the use of slicing machines made bread suddenly seem like a convenience product....Pre-sliced, it was “ready for spread, safe for children, most inviting for the table, most convenient for sandwich, perfect for toaster.” (Elias, Megan J. p. 69-70).

“The market in packaged bread corresponded to a new interest in sandwiches, which seems to have peaked in the 1940s.” (Elias, Megan J. p. 25).

"If cookbooks are a good guide, home cooks continued to make biscuits, rolls, muffins, and "quick breads" (which use eggs for leavening) in their own kitchens but bought yeast breads from grocers or bakers." (Elias, Megan J. p. 25).

"These store bought breads were almost always made from flour that had been bleached, a process that produced a lighter loaf but also stripped the grain of important nutrients. White flour, because it involved processing, had once been more expensive and therefore associated with the economic elite. The poor and immigrant classes were traditionally identified as eaters of dark dense breads, so when white bread became more widely affordable (thanks to technological advances in flour milling, production, and packaging), its popularity was assured among those who wanted to eat like the rich. In addition to using bleached flour, the new processed breads included milk and more sugar than home cooks traditionally used, changing the nutritional impact of bread in the diet." (Elias, Megan J. p. 25).

"In 1941, the National Res. Council Committee on Food & Nutrition and the Food & Drug Administration collaborated with flour millers to introduce "enriched" flour to the American consumer...This new flour, which would quickly become standard for use by home bakers and commercial bread makers alike, restored thiamin, nicotinic acid, and iron, all of which were lost through modern processing." (Elias, Megan J. p. 25).

Grains + Pasta:

"Between 1890 & 1945, Americans became more likely to eat corn in its kernel form and somewhat less likely to eat it as cornmeal baked in a quick bread - one not requiring yeast for leavening." (Elias, Megan J. p. 26).

"Corn was one of the first vegetables to be sold successfully in cans and also was easily grown in family gardens." (Elias, Megan J. p. 26).

"Barley was used in meat-broth vegetable soups. Oats were used to make porridge and especially recommended for invalids." (Elias, Megan J. p. 27).

"Cookbooks also began to include Pasta Recipes, especially after the 1920s...Pasta was typically used to create casserole-like dishes." (Elias, Megan J. p. 28).

Milk:

"From 1905 to 1955, U.S. milk production more than doubled from 64 billion to 123 billion pounds per year." (Elias, Megan J. p. 29).

"Pasteurization, which kills bacteria in milk by heating and then cooling it down, became possible commercially in the late 1890s." (Elias, Megan J. p. 30).

"In 1908, Chicago was the first city to pass a mandatory pasteurization law and other major cities quickly followed. In 1911, only about 10% of the milk supply in Boston, Chicago, and New York was pasteurized; by 1916, nearly 90 percent was." (Elias, Megan J. p. 30).

“Concern over the purity of milk also led to the consolidation of the milk industry. When local and state governments passed laws ordaining that milk be pasteurized, thousands of small milk distributors, who had plied neighborhoods dipping milk out of cooled milk cans, were forced out of business. Only companies that could afford the considerable investment necessary to purchase pasteurizing equipment and a large inventory of bottles survived...Milwaukee...like many other [cities], would see 85 percent of its milk distribution network taken over by two giant national holding companies, Borden’s and National Dairy Products (Sealtest).” (Levenstein, Harvey p. 41).

Butter/Margarine/Crisco:

“Butter consumption declined somewhat as Americans began to use more margarine. Most first encountered margarine during World War I when its use as a butter substitute was encouraged by local and state food conservation agents. Many subsequently accepted the now questioned belief that margarine is less fattening than butter.” (Elias, Megan J. p. 30).

“Butter use in baking and frying was further challenged by the introduction in 1911 of Crisco, which provided cooks with a cheap and neutral-tasting shortening.” (Elias, Megan J. p. 30).

How Margarine was Produced: from vegetable oils/beef fat etc.:

“The principal raw material in the original formulation of margarine was beef fat. Shortages in supply combined with advances by Boyce and Sabatier in the hydrogenation of plant materials soon led to the introduction of vegetable oils to the process, and between 1900 and 1920 oleomargarine was produced from a combination of animal fats and hardened and unhardened vegetable oils. The depression of the 1930s, followed by the rationing of World War II, led to a reduction in supply of animal fat; and, by 1945, "original" margarine almost completely disappeared from the market. In the U.S., problems with supply, coupled with changes in legislation, caused manufacturers to switch almost completely to vegetable oils and fats (oleomargarine) by 1950 and the industry was ready for an era of product development.” (Wikipedia Online Encyclopedia “Margarine: History”).

“During WWII in the U.S., there was a shortage of butter and "oleomargarine" became popular.” (Wikipedia Online Encyclopedia “Margarine: History”).

Extra Side Notes on Margarine History:

Artificial Yellow Dye was mixed into the first margarines to make it look more like butter. This had to be packaged separately and mixed in by the consumer since law prohibited otherwise. Around 1955, the artificial coloring law was repealed and margarine could be sold colored like butter:

“(The butter that cows produced had a slightly yellow color. The margarine had a white color, making the margarine look more like lard. Many people found it to look unappetizing. Around the late 1880's the manufacturers decided to dye the butter yellow, so it would sell more.) The dairy firms, especially in Wisconsin, became alarmed and succeeded in getting legislation passed to prohibit the coloring of the stark white product. In response, the margarine companies

distributed the margarine together with a packet of yellow dye. The product was placed in a bowl and the dye mixed in with a spoon. This took some time and effort and it was not unusual for the final product to be served as a light and dark yellow, or even white, striped product. In 1951 the W. E. Dennison Company received patent number 2,553,513 for a method to place a capsule of yellow dye inside a plastic package of margarine. After purchase, the capsule was broken inside the package and then the package was kneaded to distribute the dye. Although this was considerably less effort than mixing with a spoon in a bowl, it was a job usually given to the children of the household, some of whom enjoyed it immensely. Around 1955, the artificial coloring laws were repealed and margarine could for the first time be sold colored like butter.”

“The vegetable oil and cream spread “I Can't Believe It's Not Butter!” was introduced into the United States in 1986 and in the United Kingdom and Canada in 1991.” (Wikipedia Online Encyclopedia “Margarine: History”).

Sugar & Sweets:

“The first luxury item to become mass-produced, widely consumed and globally sourced, sugar had a distinctive role in commodification and the culture of consumption. From 1830 until 1930, annual U.S. sugar consumption per capita increased from 12 to 110 pounds.” (Hollander, Gail M. p. 63).

“The doubling per capita consumption between 1890 and 1930, from 54 to 110 pounds, was not merely due to price reduction but also to changes in the role of sugar, materially and symbolically, in the food system.” (Hollander, Gail M. p. 63-64).

“As a result of the Spanish-American War, sugar companies in Cuba, Puerto Rico, Hawaii, and the Philippines were able to export sugar to the U.S. either without paying import taxes at all or paying very low rates.” (Elias, Megan J. p. 32).

“When Americans entered World War II, rationing limited the amount of sugar each family could buy leading to renewed interest in substitutions...honey, molasses, maple syrup, or corn syrup in place of sugar.” (Elias, Megan J. p. 32).

“During the Second World War, sugar was the first food item to be rationed and the last to be lifted from rationing...bakeries received 80% of prewar sugar levels while households received half. While homemakers conserved sugar, commercial bakeries increased in number and candy counters burgeoned; thus rationing hastened the industrialization of the food system.” (Hollander, Gail M. p. 64).

“Improvement in transportation and production also made it possible for the owners of ice cream factories to meet Americans' demand for their product...iced desserts served on sticks were popular with consumers.” [The 1920s saw the invention of many chocolate and ice cream treats such as the Eskimo Pie and the Klondike Bar]. (Elias, Megan J. p. 34).

“In 1906, per capita ice cream consumption was almost one gallon; by 1946, consumption had reached a peak of five gallons per person per year.” (Elias, Megan J. p. 34).

“Soda fountains began serving ice cream “sundae” in the 1890s...ice cream and chocolate syrup were both staples of the soda fountains that were popular gathering places for the first 50 years of the 20th century.” (Elias, Megan J. p. 34).

“Ruth [Atwater - daughter of W.O. Atwater, the chemist credited with initiating the first American ‘scientific’ study of foods & digestion] assured readers that ‘research has shown conclusively that commercially canned foods have...added energy value due to the presence of sugar syrups...’ Thus, sugar entered the diet not only in desserts and sweetened beverages, but also as a component of the industrializing food system promoted by food processors through the educational messages of domestic scientists.” (Hollander, Gail M. p. 64).

“Beginning at the end of the 19th century, Saccharin was widely used to sweeten commercially processed foods and became especially popular during and after world war I when america experienced sugar shortages. Food processors used saccharin in place of sugar because its intense sweetness made it possible to use less and thus save money...Trading on recent findings that excessive amounts of sugar were bad for the health, Monsanto deduced that saccharine, because it was not sugar, was therefore healthy:...the infinitesimal amount of saccharin that is required to sweeten cannot possibly be harmful to any one.” (Elias, Megan J. p. 66).

“Starting in 1907, the USDA began investigating saccharin as a direct result of the Pure Food and Drug Act.” (Wikipedia Online Encyclopedia “Saccharin: Government Regulation.”)

**Lots of controversy on this, see WIKI “Saccharin” under subtitle “Government Regulation” for more details: http://en.wikipedia.org/wiki/Saccharin#Government_regulation.

Coffee/Tea:

“Rationing in World War II made coffee a rare commodity.” (Elias, Megan J. p. 35).

“While Americans also drank tea, it was not as strongly associated with national character as was coffee. Tea consumption was made more convenient after 1903, when the tea bag was patented...[allowing tea to be]...something more often drunk alone than served, as coffee often was, to a larger crowd of guests.” (Elias, Megan J. p. 35).

Soft Drinks:

“Although bottled soft drinks as well as bottled beer had been available since early in the 19th century, a glass-blowing machine patented in 1899 made the mass production of soda bottles cheaper. The invention of “hom-paks,” precursor to today’s six packs and the creation of vending machines in the 1920s brought more sodas to more people.” (Elias, Megan J. p. 36).

Fruit Juice:

“Americans did not regularly consume fruit juice until the 1920s, when orange juice became particularly popular...Those who lived in apple-growing regions might drink cider seasonally, but otherwise fruit was typically enjoyed whole.” (Elias, Megan J. p. 36).

“A surplus orange crop in Cali in the 1910s coincided with the introduction of pasteurization and trucking to make possible the packaging and sale of orange juice to large markets. New canning methods also brought tomato juice and prune juice into American homes.” (Elias, Megan J. p. 36).

Alcohol Intake with Prohibition:

“Although alcohol consumption declined during the first year of prohibition, it quickly rose again to near pre-amendment levels...” (Elias, Megan J. p. 36-37).

“American wine consumption actually increased during Prohibition...” (Elias, Megan J. p. 37).

“When Prohibition was repealed in 1933 by the Twenty-First Amendment, American drinkers returned to full-strength beer and legal liquor with gusto.” (Elias, Megan J. p. 37).

Refrigeration:

“Although refrigeration was common in middle class homes by the 1870s, the refrigerators of this era were not electrified, requiring large blocks of ice, delivered by ice wagons, to keep foods cold. Large commercial food companies used either electric or gas-powered refrigeration routinely by the turn of the century...It was not until the second decade of the 20th century, however, that refrigerator models small enough for household use were developed. These remained expensive and some-what impractical, costing nearly a quarter of an average American’s annual earnings and needing frequent repair.” (Elias, Megan J. p. 46-47).

“...after the 1920s, larger and more efficient refrigerators...” (Elias, Megan J. p. 45)... “And with safe electric refrigerators, available after the 1920s, Americans could keep their frozen treats conveniently in the house.” (Elias, Megan J. p. 46).

“Prices of refrigerators dropped through the 1930s as mass production improved, and by the time the United States entered World War II, about 1/2 of all American homes had refrigerators.” (Elias, Megan J. p. 47).

[Refrigeration led to the consumption of more variety.] (Summary of Elias, Megan J. p. 47).

“The introduction of Tupperware in 1946...[provided] families with lightweight unbreakable storage containers that sealed food and its odors neatly.” (Elias, Megan J. p. 48).

[Americans were storing their food in new ways - fresh & frozen rather than pickled & preserved].(Summary of Elias, Megan J. p. 48).

Stoves:

“Both gas and electric stoves were introduced to American homes in the 1920s, but gas stoves were by far the more popular. Both types replaced the ubiquitous cast iron stoves of the 19th century...[making] kitchen labor noticeably lighter for homemakers...The new ranges became commonplace in American homes by the 1920s, although they remained more expensive than cast iron stoves.” (Elias, Megan J. p. 49).

“The technological change occurred in an era when fewer families were hiring household servants...” (Elias, Megan J. p. 49).

Electrical Appliances:

[New electrical appliances of the 20th c. included the toaster, the coffee percolator, the waffle iron, the mixer, and the chafing dish]. (Elias, Megan J. p. 52).

“The first electric household toaster was introduced in 1910 by Westinghouse.” (Elias, Megan J. p. 53).

“In 1922, Americans bought 400,000 toasters; by 1950, 4.5 million were sold. No doubt the introduction of sliced bread was partly responsible for this great increase in toasters and toasting.” (Elias, Megan J. p. 53).

“Electric coffee percolators were easily as popular as toasters, providing Americans with a speedier way to prepare their favorite beverage...a great benefit in an era when speed and convenience were emphasized as the hallmarks of a modern world.” (Elias, Megan J. p. 54).

[These inventions brought the wife out of the kitchen to dine with her family & husband].
(Summary of Elias, Megan J. p. 49-54).

“...easy-to-use model [of a pressure cooker] [meant for household use] was on the market by the 1930s.” (Elias, Megan J. p. 60).

Home Canning & Home Freezing:

“The period between 1890-1945 saw a decline in the numbers of Americans who grew their own food and therefore a decline in the numbers who preserved part of their agricultural produce for winter months.” (Elias, Megan J. p. 60).

[New technology -i.e. pressure cooker - made canning easier for those who still continued to preserve their homegrown fruits and vegetables]. (Summary of Elias, Megan J. p. 61)... “Even as home canning became safer and easier, it became less essential, as fewer Americans grew food and more processed foods became available through advances in preservation and transportation.” (Elias, Megan J. p. 61).

[Houses were no longer built with fruit closets to store home-canned goods]. (Elias, Megan J. p. 61).

[However], "During WWII, Americans were encouraged to grow and preserve their own foods in order to save tin for the war effort." (Elias, Megan J. p. 138).

"As the frozen food industry began to expand rapidly through the 1930s, home freezing of meat and produce also expanded." (Elias, Megan J. p. 61)... "In the 1930s, freezing became an economically profitable way to preserve food for future use." (Elias, Megan J. p. 66).

"As Americans became accustomed to eating fruits, vegetables, milk, and meat from cans or out of freezers, they also became willing to eat cereal out of boxes, bread from sealed packages, and pies that were made by machines. The first 50 years of the 20th century saw the industrialization of the American diet."

"While men on the front [in World War II] were learning to eat every meal out of a can, their families at home were going without canned foods so that all tin could be used in the war effort. This gave a boost to the sale of frozen foods, packaged as they were in paper. It also meant that when the war ended, civilians were interested in eating canned foods and veterans had grown accustomed to them." (Elias, Megan J. p. 137).

"fish was the typical meal for meatless days in Catholic households. The development of fresh freezing brought frozen fish (perhaps too often in the form of fish sticks) to the homes of observant Catholic throughout the country for many years... [In 1941]... frozen fish 'was now less expensive than fresh fish.' " (Elias, Megan J. p. 101).

GREAT DEPRESSION

"...while the Depression brought bread lines, soup kitchens, hoboes begging for food at middle-class doors, and thousands of hungry families in devastated parts of rural America, starvation was unheard-of. Persistent hunger was more common, but it was localized, affecting mainly marginalized populations who played a small role in politics or the marketplace.... enough federal and state resources seem to have been mobilized to provide enough relief and/or jobs to head off serious threats to the nutrition of most of the poor and unemployed, particularly in the cities. In any event, there is no indication, in mortality or other statistics, of an overall deterioration in the health of the nation." (Levenstein, Harvey p. 196).

"Falling food prices seem to have helped... Even in southern mill-towns, where the Depression brought a reversion to the core "three M's" diet, the poorer workers still ate better than their counterparts of twenty years earlier. While they cut back on meat, fowl, fish, and fresh fruit, they still ate adequate amounts of vegetables, fresh and canned." (Levenstein, Harvey p. 196).

"...unlike the food crises which used to rack the pre-industrial world, this one took place among food surpluses, not shortages." (Levenstein, Harvey p. 197).

"The depression coincided with several years of surplus apple crops..." (Elias, Megan J. p. 23).

“When the depression caused widespread unemployment in industrial sectors, consumers who lost income lost buying power, and many farmers found the market for their goods greatly reduced...prices were so low that it was no longer profitable for farmers to get their goods to market...Crop prices dropped 40 percent between 1929 and 1934.” (Elias, Megan J. p. 130).

“...it proved difficult to get meat to the needy, as distribution networks did not exist. Highly perishable commodities, especially milk, went bad in huge quantities before they could reach the hungry.” (Elias, Megan J. p. 132).

[While there were soup kitchens and breadlines]... “there was public outcry against them because they made the need of the poor so public...” (Elias, Megan J. p. 133).

“Many took to foraging, searching through garbage cans outside of markets and restaurants...Many families who lived in rural or semi-rural areas foraged for food in the wild, living on berries, mushrooms, and greens...Those who lived in rural and semi-rural areas planted gardens...” (Elias, Megan J. p. 133).

“Those who had jobs in the food industry smuggled food home to hungry families.” (Elias, Megan J. p. 134).

“Gravy soup, made by browning some flour in a tiny amount of fat and adding water, was a common dish to get families through hard times between the substantive meals.” (Elias, Megan J. p. 134).

“During the Great Depression, sugar consumption declined when it became difficult for many families to afford necessities. Depression-era recipe writers suggested using dried fruits, honey, and molasses to satisfy cravings for sweetness.” (Elias, Megan J. p. 32).

“In the early 1930s, some chain restaurants offered customers a new style of dining - “all you can eat.”... “By 1932, as the Great Depression deepened, this scheme has brought more than 1 million extra customers per month to one chain that instituted it.” (Elias, Megan J. p. 94).

HEALTH CONSEQUENCES

“When the U.S. entered WWII in 1941, army doctors were shocked to find that many of the young men who signed up to serve were physically unfit to do so because of nutritional deficiencies...approximately 133,000 men had been rejected for service because of disabilities directly and indirectly caused by malnutrition, partly because of the hardships of the Great Depression but also the result of generally poor understanding of nutrition and failure to act on what little was understood...”

President Roosevelt called a Nutrition Conference for National Defense in 1941 to help address this problem. At the conference, experts in the field of nutrition came together to determine a set of dietary standards so that public health workers and ordinary Americans might work toward good nutrition.

The recommendations were boiled down to one paragraph: ‘One pint of milk daily for an adult, more for children. One serving of meat. One egg daily or some suitable substitute such as beans. Two servings of vegetable daily, one of which should be green or yellow. Two servings of fruit daily, one of which should be a good source of vitamin C, such as citrus fruits or tomatoes. Bread, flour and cereal, most preferably all of it whole grain or the new enriched bread, flour and cereals. Some butter or margarine with Vitamin A added. Other foods to satisfy the appetite.’ (Elias, Megan J. p. 136).

“In 1917, the USDA issued its first set of overall dietary recommendations as a 14 page pamphlet, titled “How to Select Foods.” (Nestle, Marion p. 34)...In the early 1950s...[the] USDA...decided to construct a new food guide to help ‘the average person choose his food more wisely.’...To ensure that the guide would describe a diet that met RDA standards they also - for the first time - specified the number and size of servings within each group. In an effort to achieve consensus on these innovations, the USDA invited leading nutrition authorities in government, research, the food industry, and agricultural commodity groups to review preliminary drafts because it “felt that food industry groups would have a vital interest in any food guide sponsored by the government.” Indeed they did. Dairy producers were pleased with the treatment given to milk and milk products--the guide placed the milk group first. Meat industry groups were said to be ‘unhappy about the serving size indicated for meat...They pointed out that this size is smaller than average.’ The proposed serving sizes included two daily portions of 2-3 ounces of cooked meat, then (as now) less than what people usually eat at any one time.” (Nestle, Marion p. 36).

1950s ONWARD

The USDA published the “Basic Four” food guide in 1958:

“The 1958 ‘Basic Four’ food guide established minimum levels of daily servings to prevent nutritional deficiencies...The guide became obsolete in the late 1970s when the focus of dietary advice shifted from prevention of nutrient deficiencies to prevention of chronic diseases.” (Nestle, Marion p. 37).

Coronary heart disease became an ‘epidemic’ after WWII, drawing the attention of scientists, physicians, and the general public by the 1950s:

“...the apparent ‘epidemic’ of coronary heart disease among Americans that followed WWII...In 1959, the physician-researcher Ancel Keys and his wife published a “healthy-heart” cookbook...” (Nestle, Marion p. 39)...Ancel & Margaret Keys’ 1959 dietary guidelines for prevention of coronary heart disease:...Restrict saturated fats - the fats in beef, pork, lamb, sausages, margarine, solid shortenings, fats in dairy products...Prefer vegetable oils to solid fats, but keep total fats under 30% of your diet calories...Favor...non-fat milk products.” (Nestle, Marion p. 39).

“The AHA (American Heart Association) had sponsored research on dietary fat and atherosclerosis in the mid-1950s, in the 1960s, it advised people to reduce calories from fat, and it recommended dietary changes and public policies to reduce risk factors for coronary heart disease in the early 1970s. These changes were to reduce intake of fat (to 35% of calories or

less), saturated fat (to 10%), and cholesterol (to 300 milligrams per day) and by implication to eat less foods containing those substances.” (Nestle, Marion p. 39).

PREVENTION OF CHRONIC DISEASE

The “Dietary Goals for the United States”...released at a press conference in January 1977...To meet the goals, Americans...would have to reduce their intake of meat, eggs, and foods high in fat, butterfat, sugar, and salt, and to substitute nonfat milk for whole milk...Cattle ranchers, egg producers, sugar producers, and the dairy industry registered strong protest...By 1977, this message was well understood...and had already been reflected in declining sales of whole milk and eggs...beef sales also began to decline...” (Nestle, Marion p. 40-41).

To alleviate the uproar made by egg producers & cattle ranchers not benefited by the new guidelines, the government “issued a revised edition of the dietary goals late in 1977...The new recommendations:... “some consideration should be given to easing the cholesterol goal...in order to obtain the nutritional benefits of eggs in the diet...Replaced the statement, “reduce consumption of meat” with the less offensive “choose meats, poultry, and fish which will reduce saturated fat intake.” (Nestle, Marion p. 41-42).

“the Dietary Goals proved to be a turning point; the report set a standard for all subsequent dietary recommendations...[backed by the American Society for Clinical Nutrition & the American Heart Association & the National Cancer Institute that all advocated to eat less fat, saturated fat, and cholesterol]. (Quote & My Summary of Nestle, Marion p. 42-43).

Foods that were America’s most common foods have proven to be lethal at one time or another (at least according to the nutrition advice of some):

“Most upsetting has been evidence which seemed to indicate that many of the most commonly used foods in the American diet were lethal. Fear of cholesterol turned consumers against dairy products and eggs. By 1983, consumption of the former had dropped by 20 percent from 1950 levels and that of eggs had plummeted by a third. Consumption of whole milk, the miracle food of the 1920s, dropped by over half! Porterhouse steak and roast beef, which historically symbolized masculine success and contentment, now connoted heart attacks and stroke to the health-conscious and in the 1970s beef consumption began a steady decline as consumer turned to poultry and fish in the belief that they were less dangerous. Those who use salt, perhaps man’s oldest taste-enhancer, are now regarded with the same mixture of horror and pity as greets smokers and the only familiar star in the firmament seems to be the persistence of the American sweet tooth.” (Levenstein, Harvery p. 204).

THE RISE OF FAST FOOD

Following the trend set in place at the beginning of the 20th c., more and more women continued to join the workforce, leading to an ever increasing demand for convenience: “In 1900, women accounted for 21% of the labor force, and married women for less than 6%, but by 1999, women-married or not-accounted for more than 60%...Working women were unable or unwilling to spend as much time grocery shopping, cooking, and cleaning up after meals.” (Nestle, Marion p. 19).

Married women workers of the post-1960 era ushered in a market for fast-food, chain restaurants, prepared foods, home delivery etc.:

“While the single girls of the 1920s fueled a boom in cafeterias, lunch counters, and sandwich shops, the married women workers of the post-1960s era, and their families, have created a market for fast-food and other chain restaurants to relieve them from the burden of family meal preparation. With added income and less time for cooking, they also constitute a ready market for prepared foods, purchased at “take-home” outlets, supermarket “deli-counters,” or even....delivered by automobile piping hot to the home...Delayed marriages, postponed child-bearing, and smaller families have reinforced the trend, begun in the 1920s, toward relegating the family dinner to a relic of the past.” (Levenstein, Harvey p. 208).

FAST FOOD

“One historian has described the federal government’s 1950s highway - building binge as a case study in ‘interstate socialism’ - a phrase that aptly describes how the West was really won.”... “The fast food industry took root alongside the interstate highway system, as a new form of restaurants sprang up beside the new off-ramps.” (Schlosser, Eric p. 7-8).

“The birth of the fast food industry coincided with Eisenhower-era glorifications of technology, with optimistic slogans like “better living through CHEMISTRY” and “our friend THE ATOM.” (Schlosser, Eric p. 6).

1948 - [the McDonald’s Brothers opened their experimental drive-up restaurant with hamburgers, cheeseburgers, no glassware, dishes, or silverware with just paper cups, bags, and plates, and a commercial kitchen that resembled a factory assembly line]. (Summary of Schlosser, Eric p. 19-20).

“In 1968, McDonald’s operated about one thousand restaurants. Today it has about thirty thousand restaurants worldwide and opens almost two thousand new ones each year.” (Schlosser, Eric p. 4).

“A hamburger and french fries became the quintessential American meal in the 1950s, thanks to the promotional efforts of the fast food chains.” (Schlosser, Eric p. 6).

“That many of these new consumers were teenagers was no chance phenomenon. McDonald’s had already laid the groundwork for their allegiance in the mid-1970s, when it introduced the Happy Meal....‘Fast food restaurant use was positively associated with intake of total energy, percent energy from fat, daily servings of soft drinks...and was inversely associated with daily servings of fruit, vegetables, and milk’ the researchers concluded. Worse, they added, ‘eating habits established in adolescence, including preference for and reliance on fast food, may place them at future risk for higher fat and energy intake as they move into young adulthood...’ (Critser, Greg p. 113-115).

“The first Carl’s Jr. restaurant opened in 1956 - the same year that America got its first shopping mall and that Congress passed the Interstate Highway Act.” (Schlosser, Eric p. 21-22).

“the first Insta-Burger-King in 1953” (Schlosser, Eric p. 22).

“The first Kentucky Fried Chicken restaurant opened in 1952, near Salt Lake City, Utah. Lacking money to promote the new chain, Sanders dressed up like a Kentucky colonel, sporting a white suit and a black string tie. By the early 1960s, Kentucky Fried Chicken was the largest restaurant chain in the U.S., and Colonel Sanders was a household name.” (Schlosser, Eric p. 23).

“The leading fast food chains spread nationwide, between 1960 and 1973, the number of McDonald’s restaurants grew from roughly 250 to 3,000...Wall Street invested heavily in fast food chains and corporate managers replaced many of the early pioneers. What had begun as a series of small, regional businesses became a fast food industry, a major component of the American economy.”(Schlosser, Eric p. 24-25).

1960s MOVEMENT AGAINST FAST FOOD

1960s: renewed concern over health with an emphasis on all-natural, free from additives etc. “In the mid-1960s as well, renewed concerns over health began to sweep the middle classes, inaugurating what seems to be the century’s second Golden Age of Food Quackery. In part, the upsurge of concern over health originated in the neo-romantic youth rebellion and “counter-culture” of the late 1960s, which extolled all that was individual and natural and denigrated the mass-produced and artificial...While food processors were initially able to neutralize this thrust by replacing or deleting the offensive additives and repackaging their products as “All-Natural,” “Nature’s Own,” “Country Pride,” and so on, concern over additives fed a resurgence of concern over nutrition and health, particularly as the “baby boomers” matured into a generation of extraordinarily self-absorbed people with pronounced narcissistic tendencies.” (Levenstein, Harvey p. 204).

1960s-70s POPULARIZING FOREIGN CUISINE

In the 1960s-70s, there was a surge of foreign cuisine, even including peasant dishes of the 3rd world:

“...the plunge into foreign cuisines became quite frenetic. This was first apparent in the restaurant industry. Northern Italian, Shanghai, Szechuan, Hunan, and even-more obscure forms of Chinese food came to the fore, followed closely by Greek, Indian, Middle Eastern, Indochinese, and even Afghan and Ethiopian cuisines...Suddenly, the canned-mushroom-soup and bottled-mayonnaise concoctions on the women’s pages of newspapers and in women’s magazines were giving way to peasant dishes of the Third World. Pita bread joined Wonder Bread on supermarket shelves and American women were initiated into the mysteries of polenta and baba ghanoush...” (Levenstein, Harvey p. 207).

1970s ECONOMICS INCREASE CARBOHYDRATE CONSUMPTION

An unsteady economy in the 1970s made cheaper stomach-filling carbohydrates more vital: “If the wobbly economy of the 1970s had left consumers fulminating over high food prices...” (Critser, Greg p. 20).

“...in the early 1970s the great mass of people simply could not afford to substitute meat for the bulkier-and-stomach-filling meal components like bread and potatoes.” (Critser, Greg p. 51).

SWITCH TO HIGH FRUCTOSE CORN SYRUP

By the early 1980s, soda companies switched to high-fructose corn syrup, saving companies 20% in costs, allowing them to boost portion sizes and still make substantial profit:

“By the early 1980s...In what would prove to be one of the single most important changes to the nation’s food supply, both Coke & Pepsi switched from a fifty-fifty blend of sugar and corn syrup to 100 percent high-fructose corn syrup. The move saved both companies 20 percent in sweetener costs, allowing them to boost portion sizes and still make substantial profits.” (Critser, Greg p. 18).

All of these factors led to soaring levels of soft drink consumption by kids and adults, drinking soft drinks in place of milk and other nutrient-rich foods, and not compensating for the extra calories by decreasing intake at meals:

“Between 1989 and 1994 consumption of soft drinks by kids soared. The USDA estimated that the proportion of adolescent boys and girls consuming soft drinks on any given day increased by 74 percent and 65 percent, respectively. In many ways the pattern reflected the adult population, where, between 1989 and 1994 soda consumption jumped from 34.7 to 40.3 gallons a year. But the kids were doing something with the soda that few people initially understood: They were drinking it in place of milk and other important nutrient-rich foods....Worse, they were not compensating for those extra empty calories when they sat down for regular meals.” (Critser, Greg p. 49).

1980s: Increased Meat Production => supply of soybean oil paired with High-Fructose Corn Syrup => Increased Processed Foods:

By the early 1980s, meat production soared, supply of soybean oil increased leading to lowered prices, and the introduction of high-fructose corn syrup from U.S. corn surpluses increased, all setting the stage for an overabundance of calorie-dense processed foods in the supermarket.

Fast food continued to improve in flavor and come in increased portion sizes.:

[By the 1980s], “Meat production worldwide soared as feed costs of soy meal and corn fell.

That, in turn, spurred huge increases in the supply of soybean oil, a by-product, leading to even lower prices for that industrial fat. At the supermarket, calorie-dense convenience foods were thus becoming more and more affordable. High-fructose corn syrup made from the growing

surpluses of U.S. corn had made it easier and less expensive to make frozen foods, T.V.

dinners, and boxed macaroni n’ cheese were downright cheap. At fast-food stands, portions were getting bigger. Fries were tasting better and better and getting cheaper and

cheaper....And the very presence of such alternatives as palm oil forced traditional fat suppliers like the soybean growers to lower their prices as well.” (Critser, Greg p. 18-19).

1990s DIETS

Revival of Atkinism, Increase in Prevalence of Obesity among Youth with subsequent conditions such as type II diabetes, with obesity especially rampant in the lower classes:

"In 1972, Atkins (a Cornell Uni-trained physician) published a small book that turned conventional wisdom on its head...By 1995, however, Atkinism was back again, this time re-tooled by Harper Collins and [Dr.] Barry Sears." (Critser, Greg p. 50-51).

"...between 1966 and 1994, obesity prevalence among youth jumped from 7 percent to 22 percent." (Critser, Greg p. 74).

"By the mid-1990s...Physicians in inner-city hospitals were seeing unprecedented numbers of children with type II diabetes. (Until then type II had been a disease seen almost exclusively in adults). In the medical literature, obesity was declared a main cause of soaring rates of early puberty among girls as young as nine years old....Weight-induced sleep apnea, hypertension, and arthritis of the knee were on the rise too." (Critser, Greg p. 109).

"...Type 2 Diabetes, a potentially crippling, lifelong chronic disease, had come home to roost among the poor, the young, and the fat. The rate of increase had been swift. In 1992, for example, most pediatric diabetes centers in the U.S. reported only 2 to 4% of their diabetes patients as type 2. Two years later that figure jumped to 16% of new cases. By 1999, the figure in some parts of the country would zoom to nearly 45% of new cases. Most of the new cases were found in African American, Mexican American, and Native American youth. (Critser, Greg p. 133-134).

FACTORS INFLUENCING OBESITY

"In late twentieth-century America, it was the poor, the underserved, and the underrepresented who were most at risk from excess fat...While new studies, particularly those from the CDC, showed that the fat epidemic was slowly but surely crossing over into the middle and upper middle classes, particularly among men, the most consistent numbers concerned the poor and the working poor. Among these classes, obesity was rampant." (Critser, Greg p. 109-110).

"Culture, ethnicity, gender, and race, of course, also play their roles in determining obesity rates. African American girls and their mothers, for example, tend to be heavier than their white counterparts regardless of income level." (Critser, Greg p. 110).

"Looking for evidence that African Americans girls and white girls viewed their bodies in 'dramatically different ways,' the group documented that while 90 percent of white junior high and high school girls voiced 'some dissatisfaction' with their weight, a full 70 percent of African American girls were 'satisfied' with their bodies...other new studies had indicated....that African American men send some of the strongest signals for African American girls to be fat.' " (Critser, Greg p. 118).

"Writing in a recent issue of the International Journal of Obesity, the scholar S. Averett looked at the hard numbers: 44 percent of African American women weigh more than 120 percent of their recommended body weight, yet are less likely than whites to perceive themselves as overweight. Anglo women, poor and otherwise, registered higher anxiety about fatness, and experienced far fewer cases of chronic obesity." (Critser, Greg p. 121).

SUMMARY

Change in Agriculture & the Food Industry from late 19th century through the 20th century:

The U.S. food industry is the remarkably successful result of twentieth century trends that led from small farms to giant corporations, from a society that cooked at home to one that buys nearly half its meals prepared and consumed elsewhere, and from a diet based on “whole” foods grown locally to one based largely on foods that have been processed in some way and transported long distances. These changes created a farm system that is much less labor-intensive and far more efficient and specialized. In 1900, 40% of the population lived on farms, but today no more than 2% do. Just since 1960, the number of farms has declined from about 3.2 million to 1.9 million, but their average size has increased by 40% and their productivity by 82%. Most farms today raise just a single commodity such as cattle, chickens, pigs, corn, wheat, or soybeans. Many are part of a system of “vertical” integration: ownership by one corporation of all stages of production and marketing. In the mid-1950s, chickens were raised in small flocks by many farmers; today, most are “factory farmed” in massive numbers under contract to a few large companies.” (Nestle, Marion p. 11)... “Societal changes easily explain why nearly half of all meals are consumed outside the home, a quarter of them as fast food, and the practice of snacking nearly doubled from the mid-1980s to the mid-1990s.” (Nestle, Marion p. 19).

To sum up the evolution of nutritional recommendations in the U.S.:

“As for nutrition, there seems little agreement on anything except that it must be important.” (Levenstein, Harvey p. 209).

Leading to:

“Perhaps as a result of confusing signals being emitted by the “experts,” few middle-class Americans seem to stick to one set pattern of eating.” (Levenstein, Harvey p. 209).