Sweet Tea: The British Working Class, Food Controls, and The First World War

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Sweet Tea:
The British Working Class, Food Controls, and The First World War

An Honors History project by Nicholas Benson

Advised by Cynthia Curran

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Introduction and Thesis:

The European world faced a revolutionary set of problems with the onset of the Great War in 1914. Never before had the fate of victory or defeat rested on the shoulders of the common man. What had previously been a profession for only the elite, the military needs of World War I necessitated that the army begin to recruit from all walks of life. Furthermore, the conflict ushered in the first instance of total war for much of the continent, converting the laborers of the private sector to fulfill the needs of the war effort. How the transition occurred for the way war was conducted is an interesting question, but even more so is how the small but powerful island contender operated under the new military schema.

Britain was already existing in a precarious economic situation as the state most dependent on foreign goods and trade, a role which was exacerbated by their unique economic and political history which had resulted in the rapid expansion of industry without any interference or protections of the workers by the government. The working class comprised over 80% of the population of Britain, the vast majority of whom were suffering the destitution and poverty brought on by the unrestricted industrialization that had begun over a century earlier. The beginnings of the Great War however, threw the working poor into even more dire straits, as the cost of food (the item which consumed the bulk of weekly budgets) inflated uncontrollably. The government responded to this crisis in various ways over the four years which followed, and historians often argue that the crisis response of the British Parliament actually improved the

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1 It is argued that the Napoleonic wars were the first total war for the French people, as well as parts of Germany and Austria. However the sheer industry involved in the production of munitions and equipment in the Great War has caused many historians to argue that it was the first true instance of total war in the world. Strachan, Hew. "Essay and Reflection: On Total War and Modern War." The International History Review: 341-70.
dietary and nutritional conditions of the majority of workers when compared to pre-war levels.  
However, my research shows that if one is able to appropriately use nutritional intake as a measure of standard of living, the actions of the British government towards this problem did not improve the quality of life of the working class, mostly due to the fact that there was little understanding of the way the other class lived. Because of the lack of comprehension on the part of the socially superior strata of British society, the nation spent a long period of the war suffering from unaddressed food shortages. The overall effect of Great War food policy however, did mark the beginning of a progression bridging the social gap between the lower classes and the elite. This was a process which would be required for the creation of the welfare state nearly three decades later, and which was brought about from a lasting change in both the economic conditions and social paradigm of the socially affluent as a result of Great War policy, as opposed to an economic improvement for the working class.

The governments of the European powers became increasingly involved in the day to day affairs of their citizens during the Great War. National control over manufacturing, agriculture, and trade became common in those nations in order to cope with the enormous stress brought on by total war economic mobilization. Germany, France, and Great Britain all have well documented shifts in government policies which highlight the significant change in the acceptable role of government to varying degrees. All of these nations had previously been skeptical of government interference in economics, but the war convinced many that it was sometimes necessary for the state to safeguard their people from the inconsistent economies of wartime nations. Because of their dedication to free market economics, the British steered away

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from the protective tariffs which Germany and France had instituted. Germany acted with greater prudence prior to the war, rallying its national food production towards efficiency and the growth of staple crops, protected from cheaper foreign markets by domestic tariffs. Their economic and social policies were used as early guides of what measures worked and what didn’t by the administration across the channel, whose reliance on free market economics and historical ignorance of the needs of the working poor resulted in very little government aid outside of what was forced by workers organizations and or unions.

Examining the perceptions of the governing classes towards government interference of the traditionally capitalist market will help further two primary historical dialogues. First, identifying the political and ideological shifts which took place during the Great War will help historians’ understanding of the rise of the post-World War Two social state. Second, answering the question of how the British social elite viewed the working class throughout the war will lay additional foundations for the study of historical classist issues. It is common knowledge that there was little regard for the working class among the ruling strata in post-industrialized Britain, and the trending political ideologies of that time often countered policies which would extend them a helping hand. Trade unions and the Labour party began to gain power in the late 1800s, but, for the most part, the government and the people generally accepted the premise of free

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3 Barnett, British Food Policy During the First World War, 14
4 Historians have cited the German case as having a more lasting and democratizing impact on the foundations of their society, one arguing that “it provided the basis for a ‘new view’ of social politics and welfare”. Davis, Belinda J. Home Fires Burning: Food, Politics, and Everyday Life in World War I Berlin. (Chapel Hill: University of North Carolina Press, 2000, 3
See Appendix B, Figure 6 for comparative rates of domestic food production between Britain and Germany.
5 By the time Britain began to look at Germany’s system of domestic food production, it was already too late to implement a program with similar success, but other policies on distribution and government importation remained fair game. Barnett, British Food Policy, 38
market capitalism and saw government interference as infringing on personal liberties and economic progress.

An important clarification is necessary with regards to the nature of the British class system and population demographics. This paper often refers to the “elite”, “ruling class”, “upper class”, etc. These terms are used universally to refer to any individual who has significant political influence. This contains the aristocracy (the landed elite), the gentry (a class which is based on family ties, but doesn’t inherit estates), the educated, the wealthy, and the socially popular (who are most likely educated and wealthy). While this category comprises many descriptions, it consists of less than 20% of the population of Great Britain, yet controlled nearly every facet of political authority. This was the class which engaged in political discussions through letters, the press, or Parliament, and while it was still a very small group of people who physically sat in the houses, the political sphere of influence extended to all of whom I define as “social elites”. The working-class rarely saw an opportunity for political influence other than through trade unions and token votes, and so the upper classes of Britain rarely heard or took seriously the voice of the lower. I do not make a sharp distinction however between what we would today consider the middle class and the upper class for several reasons. Firstly, there is no rigid distinction between the middle class and the social elite in terms of political clout, and the former regularly wielded a varying amounts of political influence, justifying my combining them in this paper. Secondly, data collected by individuals of the time I have chosen to study neglected to reference the middle class in a majority of their documents, focusing on the high and low, and

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6 Robert Roberts recalls that many of the working class considered themselves not educated enough to vote, trusting that the more intelligent upper classes knew what was best for Britain and them. Roberts, Robert. The Classic Slum: Salford Life in the First Quarter of the Century. (Manchester: Manchester University Press, 1971). 151
ignoring those who would potentially fall in the middle. Furthermore, the middle class simply had less influence on the issues discussed in this paper; they were not making laws, nor were they often the intended target of wartime policies.

**Historiography**

The Great War is a historical event which is often overlooked by historians attempting to navigate the vast number of social upheavals which took place in the 20th Century, and it is unfortunately overshadowed by the catastrophic Second World War. Historians focus on WWI’s effects on warfare, and its changes to military technology and tactics, but very few take the time to delve into the socio-political impacts of the conflict. A plethora of works exist dealing with nearly every facet and nuance of the complicated interactions among the European powers in the 1930s and 1940s, largely overshadowing the social and political issues of the events taking place during and after the previous war which had plagued Europe, and which ultimately laid the foundations for international attitudes over the next four decades. While the subject of World War Two is far more popular than that of the Great War, examining the lasting societal impacts of the latter is essential in progressing our understanding of the events which shaped the first half of the 20th Century. The international political climate was heavily influenced by the social elite’s reaction to the Armistice, and developments in social policy in future decades were likely a direct result of historical precedence set during years of the Great War. Overall, the copious attention paid to the Second World War has resulted in a dearth of literature concerning the issues first. It is in this gap that I wish to address the social impacts of British food policy and the economics situations which led up to it.

Not much has been written previously dealing with the First World War food issue, at least for Britain. The only major work was published by Margaret Barnett in 1985, titled *British
Benson,

*Food Policy during the First World War.* Barnett’s primary question was how effective the various policies were in dealing with the food security crisis, and how difficult it was to enact those policies among the political elite. Her chapters often include summaries of ministerial meetings in which the proposed food legislation was discussed, and she is not shy about pointing out the conflicted support or partisanship which regularly limited government involvement. The focus of Barnett’s book is strictly on assessing government ideology and economic success, ignoring the role of cultural perceptions and neglecting sources which color the motivations or benevolent attitude of the government. She concludes that although political change towards socialistic policies was hard won by the more liberal faction of upper-class society, it served as effective in keeping Britain in fighting shape throughout the war, and had the lasting impact of increasing the quality of working class diets to levels superior to the pre-war era.¹ I wish to reevaluate her conclusions regarding the government’s complete success and post-war impacts, but also expand on her research by examining public opinions of both upper and lower classes with regard to the food problem, an evaluative frame which Barnett only indirectly addresses in her study.

Secondary sources other than Barnett have been considerably useful in ascertaining the actual rates of food import, among other significant statistics, in addition to supplementing this paper with a wider array of historical opinions. The authors Colin Spencer, P.E. Dewey, and Simon Litman all have addressed the socioeconomic aspect of food regulation in Great Britain as well as the effect culture has had on food equality and distribution. These sources also provide essential figures and data tables detailing levels of imports, dietary intake, and food price-indexing, values which are necessary for providing an accurate view of early 20ᵗʰ century

¹ Barnett, *British Food Policy*, 216-217
working class living conditions. While Spencer and Litman avoid making sweeping conclusions concerning the overall quality of lower class food consumption, favoring economic statistics over historical opinion, Dewey agrees with Barnett that the quality of diets improved as a result of the war, citing improved agricultural infrastructure and a positively amended system of distribution. Authors such as Matthew Woollard and Timothy Hatton write on topics of social significance (i.e. the role of domestic servants and the cause and rates of infant mortality, respectively) which are also valuable for my evaluation of the role of food in the variety of British cultural contexts. Unfortunately, very few historians have chosen to specifically address the role of food in the Great War, but authors such as these contribute heavily to a gleaned understanding of diet’s role in both survival and British social policy.

A substantial portion of the primary sources I have used to establish my argument come from a digital collection of The London Times. Historically, newspapers prove to be an effective source in determining the popular opinions of a time, and when examining The Times specifically, it is easy to see how the publication can be used to examine middle and upper-class perspectives on government involvement in social and economic issues, as its authors were the most popularly read in the Island, and written exclusively by members of that class. The press itself had a unique role in the politics of the time, exercising their almost monopolized influence over the moneyed classes. Historian Michael de Nie states that there was “a mutually dependent triangular relationship between the press, its readers, and politicians… Journalists, readers, and politicians regarded the press as an authoritative expression of public opinion”.

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8 While the authors are rarely listed, the few which are fit into certain strata of the social class, giving us enough evidence to provide an overall idea of the variety of authors. For this paper, the socioeconomic status of Times writers seems to range from School Master, to gentry, to an administrative office holder.

substantiated by the fact that nearly all of the contributors to the *Times* and other newspapers were members of the educated class, and, while they sometimes printed controversial views, for the most part, the popular London paper serves to reflect the ideology and paradigm of the governing classes.

**Historical Background**

The history of food supply in Britain is unique among the other European nations, as its overseas colonies and trade partners provided nearly enough grains and meats for the entire population. On the eve of war in 1914, Britain relied heavily on imported foodstuffs, with nearly 60% of the caloric intake being made up of foods from overseas.\(^\text{10}\) While this number is severe in its own right, the actual situation was that those foods which were reported to have been domestically produced were mostly meats, which required foreign imports of barley and grains to raise. Furthermore, the staple foods of the working class (grains and flours) were produced abroad closer to 80% of the time, while the middle and upper-class more regularly enjoyed locally grown vegetables, fruits, and meats.\(^\text{11}\) Because of this, the diet of the working poor was extremely fragile and entirely dependent on a very limited spread of imported foodstuffs. The moneyed classes however, enjoyed a much greater variety in their dining and therefore, greater food security, possessing the purchasing power to buy any foods which were available, and were not limited to simply the cheapest. This division in food security has its roots in Britain’s post-industrial agricultural history. Benjamin Hibbard cites the early 1870s as the years when the British food market become almost irrecoverably dependent on foreign trade.\(^\text{12}\) At this time,

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\(^{11}\) Gazeley, I., and A. Newell. “The First World War and Working-class Food Consumption in Britain”.

grain production in North America had become so efficient and cheap that British growers were forced to either sell at a loss or go out of business. As a result, many farmers converted their fields to grazing acreage for livestock, reducing the overall tillable farmland by 26% from 1872 to 1914. The potentially devastating fragility caused by the shift in supply was made worse by the fact that Britain’s population increased nearly 30% in this same time span. The shift from domestic to foreign production of foodstuffs had been taking place for nearly a century, and by the time the island nation committed itself to the trenches of the First World War, it was completely at the mercy of independent merchantmen to supply its population with sustenance.

**Early Discussion of Potential Food Shortages**

Out of all the shortages and economic problems that Britain was predicted to undergo if a war developed, none seem so threatening than the issue of food security, and it is through this lens that I will examine the status of social perceptions and political economic involvement. Food security is roughly defined as the resilience of a population in retaining their required food consumption throughout times of crisis. Because food is innately necessary for the survival of a people, maintaining food security was an extremely important government task, one which is seen to either make or break ruling regimes. Over two thirds of British foodstuffs came from overseas, and much of that food which was produced at home (primarily meats) relied on imported feed. Questions were raised as early as the 1890’s concerning the security of the trade lines which Britain depended on to feed its people, and in 1903, the president of the Board of

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13 Ibid. 168
14 The actual increase in population study was for 1867-1911, but it is unlikely that this figure is very different from the corresponding dates given for reduced land under the plow. Ibid. 169
15 See the significance of bread shortages for the French Revolution, or the effect of pirate raids on Egyptian grain shipments to Rome in the 1st Century AD.
16 Barnett, *British Food Policy*, 6
Agriculture spearheaded an investigation to determine the levels at which island consumed imported or domestically grown food. The report published by the investigative team (who mostly came to represent the Board of Trade) in 1905 enlightened the British government on the deep dependence the country had on foreign food imports. However, it was summarily concluded that nothing could be done to alter the overall situation, as Britain’s domestic production composed only a negligible part of total food stores and it lacked proper infrastructure for expansion, and regardless, British naval forces were sufficient to prevent any danger to their trade routes. The complete trust in the superiority of the British navy was a habit, and one which turned out to be ill placed, as admirals themselves were criticizing the government for its lack of preparedness against the possible German threat. The sentiments and ideas in the report served as the basis for how the British government saw the food issue since the onset of the war, and was effective at establishing in the minds of the ruling class their unique international situation. Despite its concluding assurance of food security however, the Board of Trade report emphasized the likelihood of immediate price spikes of specific imported foods (namely cereals and sugar), something which would likely cause riots or widespread panic to take hold of the working class population if or when a war should break out. In a review by *The Spectator* of the 1905 investigation shortly after its release, the author argues the idea that any such increase in food prices would be balanced out after a short period of time by an adjustment in the supplier to meet the changing demands. This sentiment was resonated by the

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18 The thought was that if there were immediate price increases due to either panic or initial shortages because of the war, the profit margin for foreign merchants would increase, leading to an increased supply, which would eventually result in the return of mostly normalized prices. "Our Food Supply in Wartime. The Report of the Royal Commission" *The Spectator*, Aug 12, 1905. Found in "The Spectator Archive". Accessed November 27, 2014. [http://archive.spectator.co.uk/article/12th-august-1905/8/our-food-supplies-in-wartime-the-report-of-the-ro](http://archive.spectator.co.uk/article/12th-august-1905/8/our-food-supplies-in-wartime-the-report-of-the-ro).
original Board of Trade report itself, as well as the immediate actions (or lack thereof) of the government in the first two years of the war.

While the issue was not discussed as thoroughly as it should have been, there was in fact a series of higher-up conversations and suggestions from the influential elite establishing concerns and possible solutions for problems of food security in the event of official hostilities. As was previously mentioned, the Board of Trade was tasked in 1903 to determine the exact rates of foreign imports and the international reliance of the British food supply, but while their conclusion was startling to the modern historian, their contemporaries’ complete trust in the U.K. merchant marine and royal navy dispelled any fears which it had brought up. Other publications did raise concerns, however, regarding the effectiveness of the British navy to hold together supply lines in case of war. Sir Arthur Conan Doyle’s short story, “Danger”, which was published in Strand Magazine in early 1914, revealed public concern over the possible outcomes of submarine attacks on British merchant ships. The strangely prophetic short work described a hypothetical war with Germany, in which submarine attacks pummeled British trade routes with such effectiveness that the nation was forced to surrender after only eight weeks. The more interesting bit of this story is the published comments of various naval experts on the realism and plausibility of the tale. Admiral Lord Charles Beresford stated that “we shall never be really secure until we have installed granaries in the country”. Admiral Sir Algernon de Horsey comments that:

In writing to the Press I have ever claimed the absolute importance of food supply, and I have repeatedly suggested one of the three following courses: (1.) The establishment of

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19 "Our Food Supplies in Wartime". The Report of the Royal Commission, The Spectator
20 Doyle, “Danger”, 4-19
21 Ibid. 20
granaries to maintain always a three months' supply of grain. (2.) The encouragement of farmers always to keep their harvest in stock for one year. (3.) To induce at least double the present area of wheat cultivation by a tax on foreign supplies. Failing provision of food for our people, we continue to run a deadly risk of ceasing to exist as an Empire and the loss of all our colonies.²²

While some other admirals and experts decry the story as pure fantasy, it is worth noting both that the elites had already been thinking about the probability of such harm to British food security, and that discussions of preventative measures were underway before the outbreak of war.

Diets and Living Conditions

Diets varied drastically between the highest and lowest classes of British society. Those who we would now consider the middle or upper-class had their own cultural recipes and foods, and often had domestic servants to do their cooking for them. In 1914, the higher echelons of the population consumed multi-course meals, with a large variety of food types. Evidence for this is scattered, but plentiful. Mention of multiple course-meals can be found in a plethora of period literature (Sir Arthur Conan Doyle’s tales of Sherlock Holmes, for instance), and the place of servants and domestic help, whose sole job was to prepare complicated meals, is documented in similar works, as well as in employment records. Cooks, butlers, and kitchen and scullery maids all had roles in the preparation or presentation of food. According to Matthew Woollard, 51% of all working women in 1851 were domestic servants, a significant portion of these comprising

²² Ibid. 20-21
kitchen staff. This is especially notable when one considers the fact that the cooks themselves were very often men, approaching almost equal rates by 1911. As far as nutrition goes, the upper classes enjoyed diets rich in fruits, vegetables, and meats, granting them far more access to necessary vitamins as A, B12, C, and D. This heavily impacted the overall health and physical fitness of the upper and middle classes, who literally stood several inches taller than their lower class counterparts.

Members of the working class were not so fortunate in their food selection, and were only able to consume foods which fit in their horrifyingly limited budget. Simon Litman records that food comprised 61% of the average working-class family’s spending in 1904, the rest going towards rent, soap, and onetime expenses. The survey from which he draws his information was the same one conducted by the Board of Trade, and involved 1,944 family budgets (with the average family size being 5.77 persons). The average weekly income of the household was 36s. 10d. per week, and approximately 22s. 6d. of that was spent on the foodstuffs listed in Appendix B, Figure 1. The accuracy of this survey is difficult to analyze, but several factors are able to give further meaning and specificity to the data. Given the government’s general ignorance of the working-class’ conditions and social hierarchy, those who fell under the umbrella term, “working-class”, were looked at without distinguishing between location, income, or occupation.

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23 1851 was when the last survey of female domestic servants was conducted prior to 1914, but there is little evidence to suggest that employment trends changed drastically in this time. Woollard, Matthew. "The classification of Domestic Servants in England and Wales, 1851–1951." AHDS History 2, Seminar 2 (2002). University of Essex, England.
24 Ibid.
25 Fussell, Paul. The Great War and Modern Memory, 14
28 For readers who are not aware of the British monetary system of the period, the ‘s’ stands for a shilling, and the ‘p’ or ‘d’ a pence. There were 12 pence in a shilling.
Luckily, a later study was done which revisited the original survey returns, and was able to separate the working class into more distinct groups: skilled, semiskilled, and unskilled laborers. Regardless of these differences for this instance, it is accurate to say that by July of 1914 the cost to purchase the same quantities and types of food listed in Appendix B, Figure 1 had increased to 25s, and only rose for the duration of the war, which can be seen in Appendix B, Figure 2.29

Bread was the staple for working class diets, and attaining and buying sufficient quantities of flour was the primary concern of mothers, who were often the ones responsible for procuring food for their families. As is seen in the budget distribution in Appendix B, Figure 3, bread and flour were by far the most plentiful substance consumed by laborers of all skill-levels. In general, the lower one’s socioeconomic status, the more bread one ate, and less of everything else. Grains were cheap and filling, obtained abroad, and kept well, all of which facilitated their dominance in the diet of the common population. It is also important to note that wheat and grains comprised only 6% of the total cost of food imports, yet represented the vast majority of the diet for approximately 80% of the population. This discrepancy establishes two things: 1) that grain was extremely inexpensive in 1914, and large quantities could be purchased for very little, and 2), that there was a dire inequality of food security.30 Any slight increase in wheat prices would largely effect pocketbooks of the British working class, but changes in other imported goods which comprised larger portions of the overall budget could be more easily sustained by a reduction in consumption. This latter category represented the items purchased by the upper classes.

29 Litman, Prices and Price Control in Great Britain and the United States during the World War. 88
Sugar, as is well known, was also a staple for the working class, primarily for fast energy, and to make some of the less appealing foods at least somewhat palatable. British sugar imports largely came from Germany and Austria-Hungary, as home production was entirely non-existent and nigh-impossible. Sugar was most commonly associated with tea, and the working and upper-class alike relied on the sweetener to liven up the almost cultural necessary beverage. Robert Roberts recalls that the desire for sugar was so strong that young children would often “take leaves from the bottom of their father’s [tea] pot, and spread them over bread to make the ‘sweat tea leaf sandwich’”. Not only was the substance purchased for simply taste, but it was a good which acted as an effective preservative, and it was commonly held as the most nutritionally beneficial food. During wartime, this fact, combined with the level at which the British taste buds (among all classes) had adopted a craving for sugar, caused significant unrest among those who had to scale down their consumption. Because of the enormous demand and lack of domestic production, sugar would eventually be the first item whose distribution was officially rationed and regulated in 1917, an action necessitated by the general population’s tendency toward rioting when their supply of sugar was threatened.

Meat and dairy were also available for the working class, but their consumption was heavily restricted, and the distribution of these more costly foodstuffs was almost entirely limited to the father or other working males in the household. It is important to note the price of meat

31 Barnett, British Food Policy, 30
32 Hibbard, Benjamin. Effects of the Great War upon Agriculture in the United States and Great Britain, 179
33 Roberts, Robert. The Classic Slum, 111
34 The concept of the calorie had recently been developed, and sugar rated as the highest calorie to cost food available to the working class. Barnett records that it was commonly believed by the lower classes that “children would die unless they ate a pound of sugar a week”. Barnett, British Food Policy, 30.
and dairy in Appendix B, Figure 1. Meat as its own category consumed over a quarter of food budgets, and if one lumps all dairy products together, they comprise about one-fifth of a family’s food spending. Analyzing how much these two food categories (which were the most nutritious foods available) were consumed by individuals of the working-class is problematic, primarily because of the unequal distribution of food within the household. Nearly half of weekly food spending was budgeted specifically for meat and dairy products, but it is likely that the majority of these goods were given to the working male of the house in order to sustain him while working long hours in labor intensive industries.\textsuperscript{36} Eggs were sometimes added to working men’s diets as an additional source of protein and were at least somewhat available, as shops were often looking for individuals to buy off their broken or old eggs.\textsuperscript{37}

Modern analysis of early 20\textsuperscript{th} Century food consumption shows that malnutrition was the most common culprit for the horrendous infant mortality rates of early 20\textsuperscript{th} Century Britain.\textsuperscript{38} During the first decade of the 1900s, scientists had discovered the calorie, and placed undue emphasis on its value, largely ignorant of the necessity of unidentified vitamins and nutrients. Because of this, vast swaths of the working-class population suffered from malnourishment without recognizing it as such. As the diets of the lower classes consisted of more and more grains, certain vitamins were not as prevalent in their weekly intake as they should have been to foster good health, most notably vitamin A, B12, C, and D. Furthermore, calcium quantities were sadly lacking in all subsets of the working class, particularly among unskilled laborers who

\textsuperscript{36} Robert Roberts recalls that in his youth (early 1900’s), he was sent to the shop to purchase 2oz of meat for his father fairly regularly, but he and his siblings were only allowed meat (other than in soups) on Sundays. Roberts, \textit{The Classic Slum}.

\textsuperscript{37} Roberts, \textit{The Classic Slum}, 113

\textsuperscript{38} Infant mortality was sitting on average between 100-160 deaths per thousand births. The causes listed for infant mortality are complicated, but it is clear that the many diseases which killed off new born children were brought on by inappropriate food intake (i.e. diarrhea and enteritis). Hatton, Timothy J. "Infant Mortality and the Health of Survivors: Britain, 1910-50." The Economic History Review: Discussion paper 4932, May, (2010). 951-72
simply couldn’t afford sufficient dairy products or produce.\textsuperscript{39} The misunderstanding of nutritional values and of the lack of cheap, nourishing food in general hit infants hardest, whose milk was often substituted with the less nutritious and sugar rich condensed milk.\textsuperscript{40} The understanding of nutritional issues at the time (or lack thereof) shaped the way the upper classes viewed the majority of food consumers, and the problems of food access were not as obvious as they would have been if they had understood the role of vitamin intake, instead of just the misleading calorie. This lack of knowledge led to food policies aimed at increased \textit{quantity} of consumption (in order to maximize caloric intake) at the expense of a varied, vitamin rich diet. Because of this, the well-known dependence of the working class on bread as a primary source of energy was not perceived as a problem, and hence not addressed until the availability of grains was thrown into question. If there was better communication between the lower and upper-class, it would have relatively easy to correct this discrepancy, as many members of the working class recognized the need for nutrient-heavy foods (even if they didn’t possess the scientific vocabulary to discuss it). However, cross-class communication simply didn’t exist between the classes outside of numeric data, and this opportunity for solvency was lost.

\textbf{Early Discussions and the Crisis of 1917}

Immediately after the formal declaration of hostilities in 1914, the British government saw the need to begin taking seriously the issue of food security. The Board of Agriculture and Fisheries commissioned a report in June of 1915, which covered the initial plans of the

\textsuperscript{39} Gazeley, I., and A. Newell. "The First World War and Working-class Food Consumption in Britain".
government to deal with potential food issues, “providing that the war lasted past 1916”. It also records the reactions and suggestions of British farmers on topics of price ceilings, subsidies, and government mandates on the acceptable use of pasture and cropland. The majority of the report is an exploration of the potentials of restricting land use for pasture, and what it would take to mandate extra tillage for wheat production. The text suggested that the most probable (and only) solution, if a food shortage should arise, would be an increase in domestic wheat growth by 95%, something which was stated to only be possible if the government subsidized and guaranteed a minimum bushel price of 45s, since very few farmers were willing to take on the extra risk of growing wheat which could be bought so cheaply abroad. Policies to partially implement this change were put forward for the 1916 growing season, but parliamentary bureaucracy and partisanship kept the legislation under debate until the passage of time rendered the bill meaningless, as it was too late to actually act on it. Barnett argues that this was an unrealistic plan from the start, as nearly half of Britain’s agricultural laborers had moved to the cities since the late 1800’s, and the number of horses necessary to cultivate and till areas which had been converted to pasture and grass were simply unavailable without ignoring other essential tasks, a statement backed up by the actual events that unfolded in the years following the report. Dewey’s analysis of the events which unfolded after the implementation of policies aimed to increase food production shows that, while it did have a noticeable impact on the overall rate of domestic yields, it was nearly irrelevant when compared to the total food consumption of Britain, which was typically supplied by foreign producers. Even larger food corporations failed to

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42 Barnett, British Food Policy, 63
43 Ibid. 4
44 Dewey, P. E. "Food Production and Policy in the United Kingdom", 85
realize the difficulty in converting food back to a domestic good, whereas individual farmers did, illustrating how difficult it was for the politically influential to understand the issues of labor and labor costs. It also reveals the political hubris of the elites, demonstrating their belief that they could control the behavior of workers by simply imposing legislation or appealing to their sense of patriotism.

The British food supply didn’t see much variance in the first two years of the war, but a series of crises drastically altered the situation, beginning with widespread crop shortages across Europe and the Americas in 1915 (which affected the next year’s supply), and compounded by several other international factors. Harvests in all areas were low, primarily wheat and potatoes, which comprised the largest portion of working-class diets both in Britain and abroad. The Australian wheat crop had almost entirely failed, and in India, where yields were also low, the government declared that it would retain the majority of its stock in order to curb the soaring prices there. For around five years prior to 1916, harvests in both Europe and the Americas hit all-time highs, which both inflated the international markets with cheap grains, as well as draining the soil of vital nutrients which would allow for continued levels of production. Once shortages began to appear in the global trade lanes, countries which produced excess wheat began to reserve more for internal safeguards, and those which depended on imports competed with each other for the remaining limited supply. France, who had previously been nearly self-sufficient, also entered the world wheat market in early 1916 in order to recuperate from losses brought on by the destruction of crops in war torn areas.

45 Ibid. Also, see Appendix B, Figure 5 for a detailed record of the variety and quantity of consumed foods.
46 Barnett, British Food Policy, 28
47 Ibid. 56
48 Ibid. 28
To make matters worse, the first months of 1917 saw the beginnings of Germany’s unrestricted submarine warfare policy, drastically reducing the safety of shipping lanes and resulting in the destruction of a frightening portion of British merchant ships. The German navy had already cut off the rest of the world from the Dardanelles, severely limiting British grain imports (35% of British grain was typically produced from the Black Sea region).\textsuperscript{49}

Unfortunately, the shipping attacks began just as the crops from Argentina were being sent over the Atlantic, and shipments from across the Eastern colonies (namely meat from Australia and India) faced severe, disincentivizing dangers. 1.3 million tons of British shipping was destroyed in the first 3 months of 1917, and over the remainder of the war, a total of 14 million tons of Allied ships were sunk. For Britain, this meant that during the particularly unlucky months, Germans sank roughly one third of all ships to leave port.\textsuperscript{50} It wasn’t until the last few months of 1917 that the British government finally fully instituted a protective convoy system, severely diminishing the U-boats’ success rate.\textsuperscript{51} The impact of the submarine strikes against British merchantmen created a clear economic deficiency pushing the government further towards official working-class aid. The most imported product was grains, and thus the item most depended upon by the general population of Britain was also the one which suffered the most losses at the hands of the German torpedoes.

The final variable in the major food security crisis was that the British government, prior to the U-boat attacks, had been acquisitioning huge numbers of merchant ships for military use.

\begin{footnotes}
\footnote{Ibid. 29}
\footnote{Ibid. 70}
\footnote{The political ideology of government non-interference reigned supreme throughout debate on this, and other relevant topics. Decisions regarding price-fixings, agricultural mandates, and official protection of foreign merchantmen all incurred a struggle between the conservatives and Labour. Lloyd George’s election to PM served to ease the gridlock, but all anti-\textit{laissez faire} policies still faced constant criticism and objection. "The Military Conflict, 1914-1918." Accessed January 11, 2015. http://www.nationalarchives.gov.uk/pathways/firstworldwar/military_conflict/war_sea.htm.}
\end{footnotes}
By January of 1915, the government had already requisitioned 3.1 million tons of merchant vessels, and this figure doubled by December of that same year, accounting for one-third of the entire British merchant fleet. This hit to the merchant carrying capacities most severely impacted trade from more distant, foreign ports, such as India, Australia and New Zealand, whose total contributions previously had accounted for roughly 22% of British food imports. The overall economic effect of these conditions can be seen in Appendix B, Figure 2. Between July of 1914 and February of 1917, food prices had increased on average by 93%, a price difference which was impossible to cope with for working class Britons who were screaming for some form of official price regulations. For the most part, these cries fell on deaf ears until Lloyd George took office, and even then it was extremely difficult to persuade Parliament to implement any economic aid for the working class due to strong political ideologies.

**Official Responses to the Crisis**

With imports being cut off, either by German submarines or through internal deficiencies due to ship requisitioning, it became evident that Britain had to become more efficient in the way it consumed grains. Almost immediately after Lloyd George became the prime minister in late 1916, he took it upon himself to address the issue, creating the Ministry of Food in hopes that this expanded department could help curb the difficulties of what was becoming a full-blown crisis. To head the new organization, he appointed Lord Devonport as Britain’s first Food Controller. In December of 1916, the new organization took its first action by purchasing large amounts of grains from North America in the name of the British government. This aided to relieve some of the initial burdens of that year, but wheat stocks were falling rapidly, and had

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52 Barnett, *British Food Policy*, 70  
53 Ibid. 4  
54 Dewey, P. E. "Food Production and Policy in the United Kingdom", 81
nearly halved between January and May of 1917. The seriousness of the issue was apparent to the Ministry of Food, as well as the prime minister. To address the situation, the government hatched a threefold plan: increase the amount of flour extracted from wheat stalks, eliminate non-food grain use (primarily brewing), and reduce overall consumption, all in an attempt to help mitigate the grain shortages hitting the working class.

The policies aimed at increasing the quantity of flour harvested and at decreasing unnecessary cereal use were put forward immediately, and, while the government faced some ideological opposition regarding its economic infringement, the needs of the time brought the change about surprisingly easily. The extraction rate from wheat to flour had been increased for the first time in late 1916, increasing efficiency from 70% to 76%. The Ministry of Food increased efficiency further by ordering the mixture of different flours in with wheat grains. By April 1917, at least 10% of bread flour had to come from either barley, oats, rice, or potatoes. With regards to non-food use of grains, the government directly addressed the brewing industry. British breweries consumed large amounts of barley imports, and the businesses were large enough that it had a heavy impact on total grain supplies. Lord Devonport requested that alcohol production be reduced to less than 50% of pre-war levels, but there was enough opposition to keep the legislation in committee until March 21, when a compromise was made, limiting barley consumption to two-thirds of what it had been previously in the alcohol industry. This political battle exemplified the ongoing debate between those championing free market ideals and

55 Barnett, British Food Policy, 105
56 Similar to many processes, the extraction of flour from wheat was a balance between energy and output. Eventually, one hits a point of diminishing return when grinding wheat, and the remainder of the stalk is thrown out. In 1916 however, the need for flour was so great that more time was spent extracting the flour from the grain, which made each wheat stalk go a little farther. Barnett, British Food Policy, 105
57 Ibid.
58 Ibid. 106
individuals who wanted to use government power to improve conditions for the working class via economic intervention.

The more direct action the government took to combat the food shortages was to institute specific land and agricultural labor policies which were meant to increase home production. Since the onset of the war, experts almost unanimously agreed that Britain’s lack of domestic production compromised its food security, but it wasn’t until it was clear that the global trade lanes could no longer adequately supply the island nation that the British government addressed the need specifically, finally engaging in necessary discussion with farmers to figure out what was needed to incur internal progress. They found that farmers had a large portion of their capital tied up in livestock, and the government was slow to put in place an economically feasible price threshold or protective tariffs. In February 1915, the National Farmers’ Union openly rejected suggestions by the government that they should grow more grain because the lawmakers refused to institute a guaranteed price. Furthermore, because wheat drains the soil of nutrients faster and more thoroughly than other crops, farmers required increased quantities of fertilizer, a need which was difficult to fulfill. Before the war, Britain had used less fertilizer than other European nations, and by 1914, the unprecedented need competed with arms factories for shipments of nitrogen and sulfuric acid, substances which were necessary for both fertilizer and munitions. The resulting shortages, and the government’s general dilly-dallying in instituting protective policies which might affect post-war agriculture, led to a largely insignificant alteration to British food security through early domestic production.

59 Barnett, British Food Policy, 25
60 Ibid.
61 However, the government did begin to invest in American made tractors to compensate for labor and horse shortages, securing over 6000 of them by the end of the war, arguably increasing food security for the years after the war. "World War One: The Few That Fed the Many." National Farmers' Union
After the initial years of political failure, the British government was finally able to take action, and in early 1917, the Corn Production Act was put in place to address both farming corporations and laborers, “guaranteeing minimum prices of wheat and oats. A minimum wage was specified for agricultural workers and established the Agricultural Wages Board to ensure stability for farmers and farm workers.” 62  Much of what had previously been pasture was now being converted into farmland. A total of 2.5 million acres of land were converted to fields during the war, resulting in an increase in cereal production visible in Appendix B, Figure 7. 63  It is important to realize however, that while the figure shows a stark increase in grains by 1918, a significant portion of this was in the form of oats, which was produced mainly as fodder for both farm, and war horses. 64  A more accurate measure for the success of agricultural policies would be the quantity of wheat produced by the end of 1918, a statistic which was recorded to be 2.4 million tons by the National Farmers’ Union, a fairly dramatic increase from the 1.7 million it had been at in 1914. 65  This 41% increased domestic production represented a net increase of 8% wheat supplies when compared to pre-war levels, and amount which didn’t come close to solely correcting the food shortages, but which was also not completely insignificant. These changes to home production would have prevented much more working class hardship if they had been implemented at the onset of the war, but the government heavily resisted any policies which could lead to lasting economic impacts.

63 Ibid.
64 Production of oats increased by 33% from 1914 to 1918. Technically counted as grains, oats were only served to horses, the Irish, and the very poor. "World War One: The Few That Fed the Many." National Farmers' Union.
65 Ibid.
First Food Policy and Voluntary Rationing

Despite the supply of food staying more or less the same during the first two years of the war, 1914-1916 saw a dramatically increased cost of living, primarily due to a jump in food price, without sufficient increases to real wages. As can be seen in Appendix B, Figure 2, prices of food skyrocketed with every passing month. In August of 1914, or immediately after the declaration of war, the initial food panic caused prices to rise about sixteen percent. This spike plateaued until December of that year, when food prices suddenly began to climb again, this time more rapidly, resulting in an upward trend which left many of the working poor in abject poverty until the introduction of government subsidized bread in early 1917.66 The increasing cost of foodstuffs was largely due to the lack of supply in 1916, as well as the inefficient distributions, and near non-elastic demand. In order to better adjust the rate of consumption and curb the rampant price increases, Lord Devonport, upon taking office in the last month of 1916, requested every person to follow a scheme of voluntary rationing for the foods which were most prone to shortage problems, namely bread, meat, and sugar, whose suggested quantities were set at 4lbs, 2 1/2lbs., and 3/4lbs a week, respectively.67 The interesting reality for the people being asked to ration however, is that the majority of them were already at or below the consumption levels requested. Appendix B, Figure 3 shows that working class individuals were eating, on average, 4lbs of bread, .92lbs of meat, and .96lbs of sugar.68

There are few reports concerning the public’s reaction to the voluntary rationing policy of Lord Devonport, but what there is exemplifies how detached the British government was from

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66 Ibid.
68 Only sugar was really asked to be reduced, and the levels of meat consumption were already far below the rationing line. The Unskilled working class were the only ones eating levels of grain above the requested amount, and it is obvious that they were only doing so because they could not afford to eat anything else
the majority of its citizens. Articles in *The Times* can be examined for this issue particularly, as long as one keeps in mind the already horrid food conditions of the working class, and that *The Times* was written primarily by members of the ruling or moneyed elite. One of the very first publications which detailed Lord Devonport’s plan for voluntary rationing displays this. In an attempt to show the British people the possibility of following his rationing plan, the Food Controller himself told the press that he had already taken part in his own rationing scheme by reducing his bread consumption by a pound and a half per week (down to the 4lb level which was the official request). But, apparently feeling the need to reassure the people that they could continue to dine on tastier food, he ended by emphasizing that “the allowance of 4lb. [includes] cakes and similar foods.”

An article published in May of 1916, titled “The Failure of Voluntary Restrictions”, attempts to point out the rationale of individuals who refused to go along with Lord Devonport’s call for reduction. Referencing a housewife who was in charge of a four person household, the articles relates that “where servants are concerned, a voluntary scheme of self-denial is always liable to meet with opposition”. The author clearly is of the sentiment that domestic servants, working class individuals, are generally unwilling to restrict their diets, and she goes on to call them “unpatriotic”. The same article includes a sample budget explaining the increased price of food. What is particularly notable about his price breakdown is that the author labels the buyer as spending 2s. 6d. on preserved fruit alone, and another 1s. on simply cocoa (Appendix A, Figure 3). Clearly the purpose of the article is to call into question why anyone would refuse to reduce their consumption, but the suggested spending provided by the article is so entirely beyond the

69 “Voluntary Rations.” *Times*
71 Ibid.
affordability of the majority of the British urban population that its meaning is completely lost on its target audience.

Another article published in June of 1918 discusses again the problems with the policy of voluntary rationing, placing the blame almost entirely on the working-class. The author of the article writes that the purpose of the recent government has been to redress the inequality “between ‘Labour’ and the other classes,” stating that the “underlying assumption is that the [upper classes] consume far more than their fair share per head… This is a delusion. The class which [rationing] would fall heaviest is ‘Labour’. The bulk of the other classes have already reduced their consumption to the rationing line”.72 The article goes on to argue that “the higher classes of society are rather delicate than large eaters, and care more for quality than quantity”. While this specific letter may be one of the more explicit in its views, placing complete blame on the uncooperative “Labour” class, it is certainly not unique, and it is even somewhat founded (from a certain point of view). There is very little evidence that the working-class purposefully restricted their diet at all, much less reduced it as by much as their wealthier counterparts. What reduction there was in consumption was almost solely a result of workers’ inability to keep up with the ever climbing food prices, and their already bare-bones diet was not one which could further be restricted without suffering extreme nutritional drawbacks.

A *Times* Article from February 17 1917, is critical of those not following the request of the Ministry of Food’s first announcement. With regard to the official call for voluntary rationing, the author shares that “large numbers of households are still ignoring Lord Devonport’s prescription of voluntary rations, and are still eating more of the staple foods than

they ought to do.”\textsuperscript{73} The language used to describe those who are for some reason \textit{not} limiting their consumption is not withheld: “the conscientious rigidly limit their consumption, while the indifferent and the greedy continue as in the old days of plenty”.\textsuperscript{74} The article states further that the reason many are not complying with the demands of the Food Controller is simply because they are unaware of the request. Since nearly every issue of \textit{The Times} addressed Lord Devonport’s speech, there is very little chance someone of the educated classes would fall under this category, and so it is most likely that the author is indirectly referring to the working poor. Another article from February of that year shared a similar sentiment, and chastised the lower classes for “panic buying”, and labeled them as “selfish and unpatriotic individuals”, when, in reality, wheat consumption remained high because it was still the cheapest option available to the working class.\textsuperscript{75}

The British press and government worked closely with each other during the announcements of new policies and schemes, but simply did not understand the inability of the working class to reduce their consumption levels of the rationed three primary types of imported foodstuffs (bread, sugar, and meat). While many insulted the lower classes’ patriotism, others were more sympathetic, identifying the problems faced by the voluntary rationing system to be based on a lack of proper education and knowledge. The biases which influenced the derogatory tone in these articles most likely stemmed from the same misinterpretations which still colors our view of the working poor or unemployed. Because economic opportunity was always open to those of higher social standing, there was little comprehension that job security was a major issue among the working class. Furthermore, the migration of rural farm workers to urban centers


\textsuperscript{74} Ibid.

throughout the 19th Century flooded employment centers, and there simply weren’t enough jobs for many of the new comers. Again, since the upper classes rarely had to worry about job shortages, it is likely that their perception of the working class as lazy or stupid stemmed from a misinterpretation of their very real economic struggle.

Those who attributed voluntary rationings lack of success to a lack of education took it upon themselves to numerous several menus and stories of how to reduce a household’s consumption. These were published in The Times, with the hopes that it would instruct those who couldn’t understand out how to alter their diet on their own. A December, 1916 article written in conjunction with the announcement of self-rationing by Lord Devonport, discusses two things to help those attempting to ration themselves. The first is the earliest meal restrictions of hotels, private restaurants and businesses (limiting them to only two or three courses per dinner!). This fact is put forward in such a tone that it is supposed to inspire others to make similar sacrifices. The second is a criticism by a Cambridge schoolmaster on “meatless” days, and the potential for meat rations. His argument is that there should be heavier voluntary restrictions on meat, but there should not be entire days devoid of it for “growing schoolboys”, calling out all classes for not reducing their meat consumption. Overall, the article focuses on communicating the importance of limiting meat consumption, and gives several recommendations for how to achieve this. Reading between the lines, it is clear that he is most likely addressing the working class (by far the majority), for they had done very little to restrict meat in their diets, inflicting the consequences of their greed on the children of Britain.

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77 While the author was including the interests of lower class children in his plea, he didn’t understand that children of the working class were not provided meals in schools (at least, ones which were affordable to most families), and they already were suffering extreme nutritional deficiencies (especially the young girls, who were seen to need less food than “growing boys). Roberts, The Classic Slum, 110.
In the article “Potato Substitutes”, the author attempts to give reasonable advice to families struggling between customary diets and their sense of duty. This article bases its merits on studies done at the King’s College for Women and the “experiments in catering” which were taking place, supposedly making it easier to comply with the voluntary reductions. Miss Dyer, head of the Cookery Department at the college, put together the menus included in the article, which can be seen in Appendix A, Figure 2. The problem with these suggested meals are twofold. Firstly, the meals are based on a budget of 10-14s. a week per individual. As was previously stated, the weekly budget for food was 25s. for an average household of between 4-6 people (and this spending would be significantly lower for many of the unskilled working-class), and this menu was created in order to feed students, not working adults. Working families saw the heathier portion of their weekly food expense go towards feeding the head of the household, and it would be very rare for any child or woman to receive anything close to what the male was given, especially in meats and dairy. The second issue is that the foods are simply unrealistic, and some take far too much effort and time to cook (or are nearly impossible to, as the majority of working class families could only prepare food over an open flame in a frying pan). The chances of any working-class mother of going out and buying oranges, or ingredients for chocolate mould and apple fritters are slim to none. Dessert was not a set part of every dinner for the working family, despite it appearing to be for researchers at the King’s College. Furthermore, a large portion of the budget appears to go towards meats, while bread is rarely included in meals. The focus of rationing was on the reduction of wheat consumption, and this article is built

79 See Appendix A, Figure 2.
80 Roberts, The Classic Slum, 108
on the premise that the working-class has access to substitutes, ignoring the question of whether or not they are reasonably priced, preserved, or prepared.

**Political Ideology**

The changing nature of the debate concerning the economic and protective role of government either reveals the increasing awareness of the upper-class of the working man’s plight, or simply demonstrates the recognition that their support was necessary to carry on the war. Both of these were likely true. The new role the British government had been taking in running the economy sparked heated contention among the higher classes, but in light of the new struggles and the clearer need for change, the liberals found a much stronger foothold in late 1916 until the end of the war within the active government. While political opinions varied, the pre-war majority were of the mind that an economically intrusive action on the part of the state constituted an interference in personal liberties. A 1916 *Times* article states that officially mandated rationing “destroys the freedom of the individual”, but would be required if the war with Germany caused continued damage to British supply lines.\(^{81}\) While inherent opinions regarding the unfavorable nature of government interference seemed to remain the same, the notion that such actions could become necessary measures was a political thought hitherto rarely encountered. Its growing prevalence was not due solely to a recognition of the working class’ importance to the war effort (though, this had certainly also occurred), but also because of the growing prevalence and influence of trade unions

**The Growing Influence of Trade Unions**

The years just prior to and after the outbreak of the war witnessed the most significant influences of trade unions that they would have for many years, a fact which explains much of the pressure on the federal government to cater to the needs of the working class, despite it being fearful to do so.\textsuperscript{82} From 1914 to 1918, trade unions’ total membership increased from 4,143,000 to 6,533,000, a 58% rise.\textsuperscript{83} In 1914, unions and corporations formed peace agreements with a majority of corporations in light of the new economic needs of the war, but it wasn’t long after that many old grievances were again stirred up, and by 1916, a renewed movement of protests were shaking Britain. From July to August 1914, or before and after the declaration of war, disputes fell from 99 to 14. By February of 1915 the numbers were at 47, already scaling back up, and by the Spring of that year, the rate of riots and strikes exceeded the pre-war rate.\textsuperscript{84}

Benjamin Hibbard takes some time explaining his view on the reason for industrial unrest, an opinion he apparently shared with many British colleagues, which I will include here:

This unrest... was not due so much to actual distress among wage earners as to the desire on their part to participate more fully in the fictitious prosperity which war activities have created. There were some groups of laborers whose family earnings had not risen sufficiently to meet the added expense of living, but these were not to be found among the trade unionists... The unrest may also be attributed to an innate belief... that food, being an obvious absolute necessity for existence, should be within reach of everybody, obtainable on terms easy to meet. Any

\textsuperscript{82} Another important global factor was playing a role in British attitude towards the working class and Labour party. In 1917, Russia experienced its most severe revolution, instilling in their neighbors the fear of proletarian uprisings.
\textsuperscript{83} Barnett, British Food Policy, 129
\textsuperscript{84} Hibbard, Benjamin. Effects of the Great War upon Agriculture in the United States and Great Britain, 92
enhancement in the price of such commodities as bread or milk is immediately resented as an injustice, a taking of unfair advantage which should be set right by public authority.\textsuperscript{85}

This view of working-class motivations gives us a complicated picture of its author. On the one hand, there is at least some acknowledgement of the dire situation many found themselves in during the hikes in living costs. Hibbard is most likely even more sympathetic since his work includes an analysis of working class budgets and income levels throughout the war, which appears to have fairly represented the actual conditions of millions of Britons. On the other hand, it is fairly obvious that the general view towards the poor by the ruling classes was one which saw them as inherently greedy or unintelligent, and as feeling entitled to government benefits without respect for the free market. It was against this image that the new Labour Party and heavily mobilized unions fought, demanding change from the very non-representative government.

\textbf{The Growth of the Labour Party}

The Labour Party represented the ideas of the unions within the government, and their stance on food began as one of non-interference, but gradually shifted in favor of more equal distribution (hardly a startling fact considering the horrendous diet of their constituents). This became a larger, more pressing issue after the spring of 1917, when an unprecedented number of industrial and union strikes swept the nation, alongside of the increased problems of food security. Eight regional commissions were established in May of that year in order to ascertain the reasons for the sudden rush of protest after the previous peace which had presided over the

\textsuperscript{85} Ibid. 93
first two years of the war. These bodies found that “food was at the root of the discontent”. 86 Furthermore, they stressed that “food not only caused specific complaints… but aggravated other issues… The less difficulty a people experienced in satisfying its food wants, the better prepared it was psychologically to withstand other stresses”. 87 Even before these official reports were sent by the commissioners, the government had realized that the food issue was an essential one to deal with, as it had such extensive backing by both the working class on the streets, and the Labour Party in Parliament. In light of this, Lloyd George sought a Labour representative to take the position of Minister of Food, hoping it would emphasize his commitment to the working-class cause.

**Causes and Policies of Rationing.**

Prior to and during rationing, it was common to see long queues of women lined outside of grocery stores, most commonly waiting for sugar, or other staple goods. Early in 1917, lines for purchasing potatoes could be seen outside shops in London, reflecting the poor harvest the year before. The inability to depend on regular shipments of goods resulted in massive quantities of some items and a complete lack of others on store shelves. 88 Towards the end of 1917, a queue for margarine, a substance which was increasingly desired because of the shortage of butter and other dairy products, formed which consisted of over 3000 people, and had begun gathering as early as 5:00 a.m. 89 The disgruntled poor who sat outside waiting for food to become available to them were only agitated more by the belief that they suffered the ill effects of the war more so than the political elite. While this was not technically true, as upper-class diets actually became

87 Ibid.
88 Barnett, *British food Policy*, 142
89 Ibid.
fairly restrictive, it effectively was, seeing as the poor were suffering from near starvation as a result of the wartime economy, and the political elites were simply going without their second or third course at lunch. The resulting diet for the working class was different than it was in the pre-war period, shifting meals toward even more bread consumption (as it was still the cheapest and more filling option), and away from what little vegetables and other vitamin rich foods there was.

Eventually, the situation became dire enough that rationing became inevitable, but mainly for meats, butter and margarine, and, most painful to the British taste buds, sugar. Sugar was the first product to be fully rationed, a method of distribution which took effect in some areas by March of 1917 in an attempt to reduce the discontent caused by the long queues for the sweetener. Reports from The Times verify that the rationing system seems to have immediately eased the stress of attaining sugar, though other shortages were still present (namely butter and margarine). The rationing system was based on official ‘cards’ which were used to record purchases of certain goods, and could only be attained by registering with local offices. The plans and needs for each district were different, and so the system of rationed distribution came slowly on a region per region basis. In Nottinghamshire, for instance, farmers’ rushed their livestock to market in order to avoid monetary loss which would come with an impending piece of legislation, which caused a surge, and then a shortage of meat in the area. This drastic variance of supply was enough to cause the local government to immediately institute rationing for tea, butter, margarine, and sugar in addition to meat. For the most part, the overall

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90 "Food Saving." *Times*
92 Ibid.
93 Ibid.
production of goods was not at fault for shortages or unrest, but rather the chaotic distribution system, which was previously entirely at the mercy of British merchants’ luck in avoiding German U-boats, and the method by which deliverymen decided to distribute the goods to shops.94

The institution of the rationing policy served to return the working class to their pre-war food consumption levels (with some shifting based on skilled/unskilled labor), mostly due to the fact that the inflated wartime prices no-longer served as an insurmountable deterrent because of the government grain subsidies (See Appendix B, Figure 4). The fact that the government was able to reinstitute the previous diet of the working class by mid-1917 enabled the nation to continue fighting the war, until the German surrender in late 1918. While public support went through highs and lows, it appears that the government maintained the essentials of their food supply enough to continue the fight, eventually recovering from the crisis it faced in 1916. The intended purpose of the rationing system seems to have only directly affected few individuals, as food supply wasn’t the issue by the time the system actually came about in 1917. By then, India and the United States both released an increased supply of grain into the global market, reassured of their own food security by the increased crop yields which had taken place in 1916.95 What was preventing a reduction of inflated food prices was a difficulty in urban distribution, a problem which rationing unintentionally came to solve, normalizing the merchant offloading process and mainstreaming distribution, as well as eliminating the constant problem of panic buying and near-hysteria from housekeeping women.96 Rationing seems to have calmed workers’

95 Ibid. 183
96 Panic buying, while often blamed for many of the food shortage/inflation problems by the ruling class, in reality had very little impact on the overall availability of food. In order for panic buying or food speculation to occur, an individual needs to have a saved source of capital from which he/she can purchase the initial stock. It is fairly evident that the working class simply couldn’t engage in this activity, as they already were only buying food
fears regarding their food supply, and worked to provide the impression that the government was finally taking action to relieve their wartime suffering.\(^\text{97}\) The remaining years of the war saw small changes to the system of rationing, but overall, the policy seemed to have been effective enough to normalize distribution where it was needed, and to have kept the nation in fighting shape.

The implementation of rationing was an answer to the food shortages which struck Britain after the crisis of 1916, but its success was merely lucky happenstance in the presence of a poorly understood problem. The British middle and upper-classes finally passed rationing policy in an attempt to save grain, meat, and sugar supplies, but, if they had acquired data on wartime diets already, they would have discovered that the lower classes were already the members of society contributing the least to food problems. As is seen in Appendix B, Figure 3, the lower classes were consuming less than a pound of meat per week per head, less than 40% of the rationed limit, and they were at levels of grain and sugar consumption at desired levels. If the working class was eating anything else, there would have been much more drastic shortages in the foodstuffs which were consumed by the upper class. The entire rationing system was established because the working class “refused” to alter their dietary consumption, not in order to

\(^{97}\) It is important to distinguish the fact that civil unrest during 1914-1918 was caused mostly by a lack of necessary goods, and were only exacerbated by feelings of unfairness. For the most part, the working class were not upset because of their social standing, or the fact that they were incurring new burdens after the declaration of war. This was expected. The riots and unrest that did take place were most likely simply caused by the individuals’ lack of basic goods and near or total inability to sustain oneself or one’s family. This was discussed throughout Roberts, The Classic Slum, as well as Litman, Prices and Price Control in Great Britain and the United States during the World War, 92-103.
lighten their financial burden. The reasons for the policy were based on misunderstood statistics, whose numbers only showed a single dimension of the complex problem. The strategy worked, but for none of the reasons the government expected.

**Aftermath**

After the signing of the peace, the seemingly apologetic British government almost immediately repealed a majority of the laws which had sustained them during the war. The war official ended on the 11th of November, and on the 10th, the food controller received a memorandum detailing the Ministry of Food’s path toward eliminating government intervention.98 The rationing system was completely eradicated by 1920, and only sugar rations had persisted until that point due to the continued lack of production from war-torn Germany and Austria-Hungary (Britain’s previous suppliers). This rapid deregulation most likely came about because of conservative political ideology. Much of the government’s initial resistance towards implementing economic and agricultural regulation was due to an unwillingness to interfere in a way which could have lasting effects after the war. Another theory which addresses the immediate policy removal was that the British government believed that the German economy would quickly bounce back and threaten British industry.99 However, since this certainly wasn’t the case, the government no longer saw a need for its recent agricultural and trade policies, as there was no pressure from German production. Whatever the influences, it is clear that the politics of the time demanded rapid deregulation after the end of the war, displaying the upper-class’ traditional commitment towards *laissez-faire* government.

98 Barnett, *British Food Policy*, 209
99 Ibid. 213
Workers were not greatly affected by this sudden change, as global food producers quickly regained more normal levels of harvests, and British shipping lines were open to free trade once again. The result of these factors was that the food supply returned to the system of pre-war Britian, a level which was only just regained thanks to rationing. Neither the working class and the upper classes saw much actual change from their wartime diets (only changes in administration and sales), but where the working class had been returned to habits of 1914, the shift in labor norms made it so that very few members of higher classes were able to rehire their old cooks and servants, and thus they adjusted more to cooking and shopping for themselves in the decades that followed.100

Conclusion

Before the Great War, politicians in Britain relied solely on the archaic basis of naval superiority for sustaining their food imports. Since the World War One was the first experience the island nation had had of incorporating its working class citizens into the necessary public and military industries (primarily in the army and munition factories), the social issues facing them became more apparent. From 1914 until the end of 1918, discussions regarding the role of government in protecting workers was taken more seriously than in the surrounding decades, due to both personal exposure and union and Labour representation, but overall, a government which was mostly true to capitalistic values returned to power only a few years after the Armistice. When one examines how crisis was able to push the British political ideology so far away from the traditional *laissez faire* policies, yet how quickly the socialistic policies were repealed afterwards demonstrates the complex nature of the 20th century perception of government and its

100 Ibid. 217
role in protecting workers and industry. Past free market ideology collided with modern
economic necessities during the war, when the working class were saddled with maintaining both
the front lines, and the merchant ships delivering their food and munitions. Domestic production
of food was protected for the first time in almost a century, and the rationing system for food
distribution went above and beyond any direct governmental measures which had previously
been seen. This socialistic direction of official aid towards the working class was largely seen as
a necessary evil, but it set a precedent which marked the beginning of a modern, interventionist
trend which would manifest itself nearly three decades later during the devastation of the Second
World War.

When examining the policies put in place by the government regarding food, it is
significant to identify the biases the upper classes had incorporated in their fashioning of these
laws. Most of the policies which were examined were put in place to perform one task: increase
British food security. While the working class obviously were the ones most in need of
assistance, the perceived struggle of the middle and upper classes enabled the government to
bypass many of the older, purely capitalistic ideals. The food crisis affected all members of
British society (just some more than others), and because of this, there was finally an issue which
the upper and lower classes were able to collaborate to solve. Other historians have focused their
work simply from the top down, examining official strategies for combatting the food problem,
but ignoring the role of innate misconceptions towards the situation. The evidence presented in
this paper hopefully has shed some light on the assumptions and prejudice with which the ruling
classes viewed the vast majority of British population. Views toward the working class varied
along a similar derogatory axis, with adjectives such as “unpatriotic”, “lazy”, “greedy”,
“entitled”, “uneducated”, and “indifferent” applied to them in the official newspaper of the day.
Evidence indicating an understanding of the worker’s condition by the government is rare, but present. Economists such as Litman and Hibbing seem more inclined to understand the numerical data pointing toward rampant destitution, but union and Labour leaders also carried with them knowledge of the living conditions of their constituencies, gaining significant political power through the crisis government. Fairer portrayals of working class individuals became more prevalent due to their increased voice in government, but unfortunately, the workers would have to wait until the next total war to see their government again actively attempt to care for their needs.

The social outlook of the British nation did begin to change after the cooperative effort which was the Great War, but not for the reasons many historians argue. The working class suffered under the economic effects of the Great War, but these were eventually nullified by the institution of grain subsidies and rationing. Barnett, Roberts, and others claim that the working class saw improved standards of living and increased food availability as a result of the wartime policies, but this is only true with regards to the diminished diets of 1914-1917. There is little evidence that food access for the lower classes improved at all between the dawn of the 20th Century and the close of the First World War, but, we do see an increased acceptance of the idea of government intervention and aid. These ideas came from perceived necessity. The social issues of the working class were brought to the fore during the first few years of rampant price inflation, and the increased voice of unions caused many elites to finally recognize that some action on the part of the government might be necessary to address the problems. While these specific policies fell with the lowering of arms, the idea of an increasingly interventionist government was present for the first time in British history. Furthermore, the British upper class never regained much of their former dietary patterns, inherently bridging the gap of social
understanding. Very few households re-hired cooks and servants, and the people were used to having to prepare simpler meals for themselves. This began to fundamentally shift the culture of the elite away from unnecessary extravagance towards more realistic and economic lifestyles.

It is evident that a ‘phasing in’ process was needed in order to transition the Victorian Great Britain to a modern social state, capable of mobilizing every facet of its economy towards combating Nazism, as well as the starvation and deprivation which followed. While few historians have written specifically on the topic of Great War food policy, it is evident that the governmental actions of the time had lasting impacts on the minds and legislation of the British population. Hopefully, this investigation into class paradigms regarding the food issue is helpful in furthering society’s understanding of both British history and the effects of a rigid class structure on human life as a whole.
Appendices

Appendix A: Segments from the London Times

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Appendix B: Images from Economic or Historical Works

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Appendix A: Segments from *The London Times*

Figure 1


As noted, over two thirds of the British food supply came from overseas. The supply lines shown by the 1912 article illustrate the major suppliers of grain to the islands. This figure becomes increasingly poignant when one keeps in mind that the 1916 South American crop was almost entirely sunk by German U-boats.
Appendix A: Segments from *The London Times*

**Figure 2**


The proposed menu (above) attempted to reduce flour and meat consumption of individuals undergoing self-rationing. The study itself was conducted for the purpose of educating the lower class and middle class, who had not reduced their share of consumption of these certain goods to an “acceptable” degree. Below is a segment of the article’s text, giving further description to the expectations and reality of the author. For more menus, see Appendix A, Figure 4.
Appendix A: Segments from *The London Times*

Figure 3


The segment from the above article depicts almost a two year difference in the price of several varieties of food. Furthermore, in the text itself, one reads that main concern for the author of the article was that housewives were having an extremely difficult time complying with self-rationing request and still making ends meet. It is also evident however, that the housewives in question composed a class far above the poorest of society, as part of the reported problem, was the failure of servants to obey scheme of self-limitation. Furthermore, if a single meatless day would result in a family of four saving nearly 1½ of meat, it is quite evident that the author is not addressing the problems faced by those working-class individuals whose families saw a total of .95lbs of meat in their pantries *per week*. 
Appendix A: Segments from The London Times

Appendix B: Images from economic or historical works

Figure 1


Above is the standard Litman uses from which to assess the inflated price of foodstuffs in the First World War. The amounts given are roughly the weekly expenditure of a working class family, encompassing over 61% of the gross weekly budget. The survey yielding these results was conducted by the Board of Trade.
Appendix B: Images from economic or historical works

Figure 2

<table>
<thead>
<tr>
<th>Year</th>
<th>Month</th>
<th>Cost of One Week's Food for Family</th>
<th>Percentage Increase above July, 1914</th>
</tr>
</thead>
<tbody>
<tr>
<td>1904</td>
<td></td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>1914</td>
<td>July</td>
<td>25</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Aug.</td>
<td>29</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Sept.</td>
<td>27</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Oct.</td>
<td>28</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Dec.</td>
<td>29</td>
<td>17</td>
</tr>
<tr>
<td>1915</td>
<td>Jan.</td>
<td>29</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>March</td>
<td>31</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>June</td>
<td>33</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Sept.</td>
<td>34</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Dec.</td>
<td>36</td>
<td>46</td>
</tr>
<tr>
<td>1916</td>
<td>Jan.</td>
<td>37</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>March</td>
<td>37</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>June</td>
<td>40</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>Sept.</td>
<td>42</td>
<td>68</td>
</tr>
<tr>
<td></td>
<td>Dec.</td>
<td>46</td>
<td>87</td>
</tr>
<tr>
<td>1917</td>
<td>Jan.</td>
<td>47</td>
<td>91</td>
</tr>
<tr>
<td></td>
<td>Feb.</td>
<td>48</td>
<td>93</td>
</tr>
</tbody>
</table>


This figure records the increased cost in prices of the same quantity and type as App. 2 Figure 1. The prices of different foods were ascertained by Litman from the *Labour Gazette*, and organized into a comparative chart for total food-price inflation. The most important statistic from this chart is that prices surpassed average weekly incomes in 1915.
Appendix B: Images from economic or historical works

Figure 3

<table>
<thead>
<tr>
<th>Food</th>
<th>Average BoT published in Cd.2337</th>
<th>Average BoTR census weighted</th>
<th>Skilled working class</th>
<th>Semi-skilled working class</th>
<th>Unskilled working class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bread</td>
<td>n/a</td>
<td>3.77</td>
<td>3.87</td>
<td>3.94</td>
<td>4.26</td>
</tr>
<tr>
<td>Flour</td>
<td>n/a</td>
<td>1.73</td>
<td>1.69</td>
<td>1.74</td>
<td>1.56</td>
</tr>
<tr>
<td>Bread/Four</td>
<td>5.61</td>
<td>5.50</td>
<td>5.56</td>
<td>5.66</td>
<td>5.82</td>
</tr>
<tr>
<td>Biscuits/coke</td>
<td>n/a</td>
<td>0.17</td>
<td>0.20</td>
<td>0.10</td>
<td>0.08</td>
</tr>
<tr>
<td>Fresh meat</td>
<td>n/a</td>
<td>0.95</td>
<td>1.00</td>
<td>0.94</td>
<td>0.83</td>
</tr>
<tr>
<td>Sausages</td>
<td>n/a</td>
<td>0.05</td>
<td>0.05</td>
<td>0.03</td>
<td>0.04</td>
</tr>
<tr>
<td>Bacon</td>
<td>0.25</td>
<td>0.27</td>
<td>0.30</td>
<td>0.23</td>
<td>0.18</td>
</tr>
<tr>
<td>Offal/toasted</td>
<td>n/a</td>
<td>0.07</td>
<td>0.08</td>
<td>0.06</td>
<td>0.08</td>
</tr>
<tr>
<td>Fish</td>
<td>n/a</td>
<td>0.34</td>
<td>0.37</td>
<td>0.31</td>
<td>0.25</td>
</tr>
<tr>
<td>Lard/duet</td>
<td>0.17</td>
<td>0.18</td>
<td>0.19</td>
<td>0.20</td>
<td>0.13</td>
</tr>
<tr>
<td>Eggs</td>
<td>n/a</td>
<td>2.14</td>
<td>2.45</td>
<td>1.75</td>
<td>1.10</td>
</tr>
<tr>
<td>Milk</td>
<td>1.57</td>
<td>1.78</td>
<td>1.90</td>
<td>1.59</td>
<td>1.09</td>
</tr>
<tr>
<td>Condensed milk</td>
<td>n/a</td>
<td>0.05</td>
<td>0.06</td>
<td>0.02</td>
<td>0.06</td>
</tr>
<tr>
<td>Cheese</td>
<td>0.18</td>
<td>0.18</td>
<td>0.19</td>
<td>0.11</td>
<td>0.12</td>
</tr>
<tr>
<td>Butter</td>
<td>0.33</td>
<td>0.36</td>
<td>0.38</td>
<td>0.36</td>
<td>0.25</td>
</tr>
<tr>
<td>Margarine</td>
<td>0.03</td>
<td>0.02</td>
<td>0.02</td>
<td>0.01</td>
<td>0.06</td>
</tr>
<tr>
<td>Potatoes</td>
<td>2.67</td>
<td>3.35</td>
<td>3.59</td>
<td>3.01</td>
<td>2.95</td>
</tr>
<tr>
<td>Vegetables</td>
<td>n/a</td>
<td>0.92</td>
<td>1.08</td>
<td>0.69</td>
<td>0.80</td>
</tr>
<tr>
<td>Fruit</td>
<td>n/a</td>
<td>0.40</td>
<td>0.46</td>
<td>0.30</td>
<td>0.18</td>
</tr>
<tr>
<td>Rice/ tapioca</td>
<td>0.18</td>
<td>0.22</td>
<td>0.23</td>
<td>0.18</td>
<td>0.20</td>
</tr>
<tr>
<td>Oatmeal</td>
<td>0.22</td>
<td>0.22</td>
<td>0.23</td>
<td>0.26</td>
<td>0.20</td>
</tr>
<tr>
<td>Tea</td>
<td>0.11</td>
<td>0.11</td>
<td>0.13</td>
<td>0.12</td>
<td>0.09</td>
</tr>
<tr>
<td>Coffee</td>
<td>0.02</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Cocoa</td>
<td>0.03</td>
<td>0.03</td>
<td>0.03</td>
<td>0.02</td>
<td>0.01</td>
</tr>
<tr>
<td>Sugar</td>
<td>0.94</td>
<td>1.02</td>
<td>1.11</td>
<td>0.98</td>
<td>0.79</td>
</tr>
<tr>
<td>Jam</td>
<td>n/a</td>
<td>0.23</td>
<td>0.26</td>
<td>0.13</td>
<td>0.18</td>
</tr>
<tr>
<td>Syrup</td>
<td>n/a</td>
<td>0.06</td>
<td>0.05</td>
<td>0.05</td>
<td>0.07</td>
</tr>
<tr>
<td>Dried fruit</td>
<td>n/a</td>
<td>0.14</td>
<td>0.16</td>
<td>0.12</td>
<td>0.08</td>
</tr>
</tbody>
</table>

All foods measured in lbs per head, except milk (pints per head), and eggs (number). Column (1) was derived from Summer table 1, p. 11. This table reports consumption per week, converted into per capita consumption by dividing by 5.6 persons.


Gazeley and Newell reexamined the same census which Litman used in 1920 to evaluate food-price inflation in order to evaluate the purchasing habits of First World War era working class. With a modern framework, the authors of the article separate the working-class into three distinct groups: skilled, semi-skilled, and unskilled. This differentiation is significant because, historically, very little was written about the varying conditions of the vast multitudes which comprised the lower classes.

I have taken the liberty of underlining the types of foodstuffs whose trends are most relevant. While it is to be expected that quantitative consumption of food would diminish as the income of their consumer decreased, it is significant to note what foods were introduced (i.e. breads) in order to compensate for the dramatic reduction in other foodstuffs. Also, it is clear that vegetables and fruits were among the first foods to be seen as luxuries and forthwith disposed of in times of financial shortage.
Appendix B: Images from economic or historical works

Figure 4

<table>
<thead>
<tr>
<th></th>
<th>Skilled, 1904</th>
<th>Unskilled, 1904</th>
<th>Skilled, 1918</th>
<th>Unskilled, 1918</th>
<th>Δ% for skilled</th>
<th>Δ% for unskilled</th>
<th>RNI per capita for the average BoTR family</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kcalories(^1)</td>
<td>2,384.9</td>
<td>2,001.4</td>
<td>2,186.7</td>
<td>2,060.1</td>
<td>-8.3</td>
<td>2.9</td>
<td>1,984</td>
</tr>
<tr>
<td>Protein</td>
<td>70.0</td>
<td>59.8</td>
<td>73.8</td>
<td>70.6</td>
<td>5.4</td>
<td>18.0</td>
<td>34.8</td>
</tr>
<tr>
<td>Fat</td>
<td>72.5</td>
<td>52.3</td>
<td>65.9</td>
<td>61.4</td>
<td>-9.1</td>
<td>17.3</td>
<td>76</td>
</tr>
<tr>
<td>Carbohydrate</td>
<td>398.4</td>
<td>356.9</td>
<td>360.3</td>
<td>341.2</td>
<td>-9.6</td>
<td>-4.4</td>
<td>264</td>
</tr>
<tr>
<td>Vitamin A</td>
<td>438.2</td>
<td>339.6</td>
<td>263.7</td>
<td>242.0</td>
<td>-39.8</td>
<td>-28.7</td>
<td>578</td>
</tr>
<tr>
<td>Vitamin B6</td>
<td>1.1</td>
<td>0.9</td>
<td>1.0</td>
<td>1.0</td>
<td>-5.7</td>
<td>16.4</td>
<td>1.12</td>
</tr>
<tr>
<td>Vitamin B12</td>
<td>3.1</td>
<td>2.4</td>
<td>2.4</td>
<td>2.3</td>
<td>-22.6</td>
<td>-8.1</td>
<td>1.20</td>
</tr>
<tr>
<td>Vitamin C</td>
<td>45.3</td>
<td>31.8</td>
<td>38.6</td>
<td>34.2</td>
<td>-14.8</td>
<td>7.5</td>
<td>36</td>
</tr>
<tr>
<td>Vitamin D</td>
<td>2.4</td>
<td>1.5</td>
<td>2.1</td>
<td>2.2</td>
<td>-11.9</td>
<td>50.1</td>
<td>1.0</td>
</tr>
<tr>
<td>Vitamin E</td>
<td>2.4</td>
<td>1.7</td>
<td>2.5</td>
<td>2.4</td>
<td>5.7</td>
<td>39.8</td>
<td>10.4</td>
</tr>
<tr>
<td>Niacin</td>
<td>5.8</td>
<td>8.0</td>
<td>11.3</td>
<td>11.0</td>
<td>15.8</td>
<td>25.4</td>
<td>13.2</td>
</tr>
<tr>
<td>Riboflavin</td>
<td>0.7</td>
<td>0.5</td>
<td>0.7</td>
<td>0.6</td>
<td>-5.2</td>
<td>10.0</td>
<td>1.05</td>
</tr>
<tr>
<td>Thiamin</td>
<td>1.1</td>
<td>1.0</td>
<td>1.1</td>
<td>1.1</td>
<td>-1.9</td>
<td>13.2</td>
<td>0.86</td>
</tr>
<tr>
<td>Iron</td>
<td>9.6</td>
<td>8.4</td>
<td>12.3</td>
<td>11.9</td>
<td>-28.8</td>
<td>40.9</td>
<td>10.5</td>
</tr>
<tr>
<td>Calcium</td>
<td>455.9</td>
<td>307.8</td>
<td>501.7</td>
<td>399.2</td>
<td>10.0</td>
<td>29.7</td>
<td>865</td>
</tr>
</tbody>
</table>

\(^1\)For nutrients other than Kcalories, units are milligrams, except for protein, fat, and carbohydrate, which are in grams and Vitamins A, B13, and D, which are in micrograms.

\(^2\)BoT represents the Board of Trade. Source draws from a 1904 BoT census.

\(^3\)BoT represents reference nutritional intake, a comparative measure established in 1991.


Gazeley and Newell reexamined the 1904 Board of Trade census, and utilized modern nutritional analysis to estimate the average nutritional situation of the working class. A 1918 survey was conducted by the British government, allowing for a pre and post-war comparison. One important note, is that this information is based solely on the statistics of the head of the household, and it is extremely unlikely that a wife or child was receiving anything close to these levels of nutrition. The authors conclude that “the energy value of the working-class diet was broadly maintained during the First World War. The main changes in diets that occurred during the War were the reduction in sugar, cheese, butter, butcher’s meat, and fruit and vegetables consumption, and the increased volume of bacon, sausages, and margarine. We estimate that the likely adverse nutritional effect of these changes was a reduction in vitamins A and B12 for both skilled and unskilled workers and additionally reductions in vitamins C, D, and riboflavin for skilled workers.” It is also clear that while there was no general change for the working class as a whole, that war did seem to equalize members of the working class, slightly lessoning the nutritional intake of the skilled workers, and slightly raising that of the unskilled.
Appendix B: Images from economic or historical works

Figure 5

| Table III.—United Kingdom net food imports, 1914-18 (billion calories) |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                 | 1909–13 average | 1914            | 1915            | 1916            | 1917            | 1918            |
| Cereals*        | 14.0            | 16.3            | 15.0            | 16.5            | 16.6            | 15.2            |
| Meat            | 3.5             | 4.0             | 4.0             | 3.8             | 3.4             | 4.6             |
| Dairy produce   | 3.5             | 3.5             | 3.5             | 2.5             | 1.9             | 1.2             |
| Sugar†          | 6.6             | 8.5             | 7.4             | 6.5             | 5.9             | 5.4             |
| Poultry and eggs| 0.2             | 0.2             | 0.2             | 0.1             | 0.1             | 0.1             |
| Fish            | 0.1             | 0.2             | 0.2             | 0.2             | 0.1             | 0.2             |
| Fruit           | 0.9             | 0.9             | 0.9             | 0.9             | 0.4             | 0.3             |
| Potatoes and vegetables | 0.8 | 0.6 | 0.6 | 0.8 | 0.8 | 0.9 |
| Totals          | 29.6            | 34.2            | 31.8            | 31.1            | 29.2            | 27.9            |
| As percentage   | 100             | 116             | 107             | 105             | 99              | 94              |

* As flour at pre-war extraction rates.  † Including cocoa and chocolate.


The numbers given by Dewey mostly illustrate the gross reduction in sugar over the war years, as well as the basis for the 1916 food crisis (not the low rates of cereal import in 1915). Furthermore, it shows the lower quantities of meats, eggs, and especially dairy products being taken into the country. This had a harsh impact on the lower classes, as the scarcity of dairy and meats lead to price inflation for the already most expensive food groups.
Appendix B: Images from economic or historical works

Figure 6

This chart, provided by Margaret Barnett, demonstrates the different priorities of the two competing European nations. Not only was the U.K. seeing less acreage under the plow between 1893 and 1913, but their overall productivity of these areas also decreased. Germany had the opposite experience, increasing the area of their farmland slightly, but seeing dramatically improved production. The focus of the German government in securing its own food supply provided to drastically lessen the burdens of importation during the war.

<table>
<thead>
<tr>
<th></th>
<th>United Kingdom</th>
<th>German</th>
<th>Per cent</th>
<th>United Kingdom</th>
<th>German</th>
<th>Per cent</th>
</tr>
</thead>
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<tr>
<td></td>
<td>1893</td>
<td>1913</td>
<td>Change</td>
<td>1893</td>
<td>1913</td>
<td>Change</td>
</tr>
<tr>
<td>Area under</td>
<td>13,987,000</td>
<td>12,797,000</td>
<td>-9</td>
<td>42,175,000</td>
<td>45,414,000</td>
<td>+8</td>
</tr>
<tr>
<td>cultivation</td>
<td>acres</td>
<td>acres</td>
<td></td>
<td>acres</td>
<td>acres</td>
<td></td>
</tr>
<tr>
<td>Wheat (quarters)</td>
<td>7,597,000</td>
<td>7,175,000</td>
<td>-6</td>
<td>14,523,000</td>
<td>20,023,000</td>
<td>+38</td>
</tr>
<tr>
<td>Barley (quarters)</td>
<td>9,617,000</td>
<td>7,276,000</td>
<td>-24</td>
<td>13,338,000</td>
<td>19,186,000</td>
<td>+44</td>
</tr>
<tr>
<td>Oats (quarters)</td>
<td>21,023,000</td>
<td>20,600,000</td>
<td>-2</td>
<td>33,505,000</td>
<td>60,187,000</td>
<td>+80</td>
</tr>
<tr>
<td>Potatoes (tons)</td>
<td>5,634,000</td>
<td>5,726,000</td>
<td>+2</td>
<td>27,539,000</td>
<td>49,403,000</td>
<td>+79</td>
</tr>
</tbody>
</table>

Appendix B: Images from economic or historical works

Figure 7

United Kingdom net food production, 1914-18 (billion calories)

<table>
<thead>
<tr>
<th></th>
<th>1909-13 average</th>
<th>1914</th>
<th>1915</th>
<th>1916</th>
<th>1917</th>
<th>1918</th>
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</thead>
<tbody>
<tr>
<td>Cereals</td>
<td>4.42</td>
<td>4.63</td>
<td>5.36</td>
<td>4.40</td>
<td>4.80</td>
<td>6.83</td>
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<tr>
<td>Potatoes</td>
<td>3.15</td>
<td>3.46</td>
<td>3.54</td>
<td>2.36</td>
<td>4.32</td>
<td>4.37</td>
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<tr>
<td>Meat</td>
<td>6.13</td>
<td>5.83</td>
<td>5.85</td>
<td>5.67</td>
<td>4.90</td>
<td>3.78</td>
</tr>
<tr>
<td>Milk</td>
<td>3.02</td>
<td>3.08</td>
<td>2.83</td>
<td>2.62</td>
<td>2.31</td>
<td>2.09</td>
</tr>
<tr>
<td>Butter, cheese</td>
<td>1.14</td>
<td>1.19</td>
<td>1.19</td>
<td>1.17</td>
<td>1.08</td>
<td>0.99</td>
</tr>
<tr>
<td>Poultry, eggs</td>
<td>0.06</td>
<td>0.06</td>
<td>0.06</td>
<td>0.06</td>
<td>0.06</td>
<td>0.06</td>
</tr>
<tr>
<td>Cottage produce</td>
<td>2.65</td>
<td>2.65</td>
<td>2.65</td>
<td>2.65</td>
<td>2.65</td>
<td>2.65</td>
</tr>
<tr>
<td>Other vegetables</td>
<td>0.31</td>
<td>0.31</td>
<td>0.29</td>
<td>0.29</td>
<td>0.28</td>
<td>0.51</td>
</tr>
<tr>
<td>Fruit</td>
<td>0.18</td>
<td>0.20</td>
<td>0.18</td>
<td>0.17</td>
<td>0.20</td>
<td>0.14</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>21.06</strong></td>
<td><strong>21.41</strong></td>
<td><strong>21.95</strong></td>
<td><strong>19.39</strong></td>
<td><strong>20.60</strong></td>
<td><strong>21.22</strong></td>
</tr>
<tr>
<td><strong>As percentage</strong></td>
<td><strong>100</strong></td>
<td><strong>102</strong></td>
<td><strong>104</strong></td>
<td><strong>92</strong></td>
<td><strong>98</strong></td>
<td><strong>101</strong></td>
</tr>
</tbody>
</table>


The primary statistic of Dewey’s table is noting the increased production of cereals from 1914-1918, and the extent to which this increased lessened production of animal products (dairy and meat).
Bibliography

Primary Sources:


Primary Sources from The Times Digital Archive:


Secondary Sources

Amos, Denise. "Infant Mortality in Three East Midland Towns: Similarities and Differences, 1890-1910."


