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ENTITLEMENT METHODS – AN EXAMPLE OF THE GREAT FAMINE IN IRELAND, 1845 – 1851

Chenxi Li

23330541

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School of Social Sciences and Philosophy, TCD

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Acknowledgements

Abstract

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Chapter 1 | Introduction

"October playing a symphony on a slack wire paling.
Maguire watches the drills flattened out
And the flints that lit a candle for him on a June altar,
Flameless".
— "The Great Hunger" by Patrick Kavanagh. (Kavanagh and Quinn, 2006)

The Irish Great Famine (1845 – 1851) reshaped the entire history of Ireland. Before the Great Famine, according to the 1841 census, the population of the Ireland had close to 8.5 million [1] . In 1851, when the Irish Great Famine had not yet ended, census noted that about 1 million people had died for hunger, and a similar number had gone into overseas exile [2]. In 1926, as a result of the Irish independence 5 years earlier, the Central Statistical Office was capable to integrate historical documents since famine and showed the fact that the population was decline of roughly 22% [3] in the 10 years from 1841 to 1851. Using parish baptism data, some scholars have estimated that in the year 1847 alone – which is also known as black'47 in Ireland history – there existed counties with a nearly 70% reduction in baptisms in Munster province in the south of Ireland (Cousens, 1960), especially from southwest Cork and including north and east Clare [4] , while it was not the worst hit by the famine compared to the province of Connacht in the west [5] . Apart from these quantitative explorations, the Great Famine is equally pivotal in Irish cultural history and ethnography. From Joseph O'Connor's fiction "Star of the sea" to W. B. Yeats's "The Countess Cathleen", together they expressed that the Great Famine not only pointed to the corpses of the dead, but also to a black hole of identity, naming and meaning (Luchen, 2019).

1 1841 Census of Ireland, Last accessed: 13 May, 2024
2 1851 Census of Ireland, Last accessed: 2 May, 2024
3 1926 Census of Ireland, Chapter II, Last acceseed: 9 May, 2024
4 RTE, How "a truly modern famine" devastated Ireland, Last accessed: 11 May, 2024
5 Wesley Johnston: The Famine: The Summer of Black'47, Last accessed: 13 May, 2024

The effects of the Great Famine were far-reaching, and reflected in the long-term population development, land institution structure and attitude to the UK government directly. It was not until 120 years later, in the 1960s, that Ireland's population began to grow consistently due to large-scale emigration, late marriage and a high incidence of permanent celibacy no longer hold (Grada, 1979), but it was still nowhere near as large as it had been during the Great Famine [6]. This also makes Ireland one of the few countries in the world to suffer population decline over the past 170 years when the world's population has increased more than 6 fold [7]. Regarding the land, on the one hand, in the aftermath of the famine, there was a tendency in Ireland to shift from agriculture to livestock husbandry [8], and on the other hand, when the late blight back in the 1870s, the Land War, which was directed at the landowners and the government, took place at the same time, with a deep consequences for the land structure of Ireland. And finally, there raised hostility between Irish and UK government, which was described as "a bankruptcy of the British-Irish Union of 1800" (Gray, 2021).

But data on Ireland's food imports and exports show increases in specific commodities, even barley, oats and butter, that violate the characteristics of the Great Famine. In History Ireland magazine, Christine wrote:

> *Almost 4,000 vessels carried food from Ireland to the ports of Bristol, Glasgow, Liverpool and London during 1847, when 400,000 Irish men, women and children died of starvation and related diseases [...] The most shocking export figures concern butter [...] That works out to be 822,681 gallons of butter exported to England from Ireland.*[9]

Scholars pondered if potato blight was the root cause of the famine, and they have engaged in many discussions about the origin factor, like Catholic and religious behavior (Miller, 1975), anti-Irish racism (Waters, 1995), the poor law and colonial bio-politics (Nally, 2008) and, typically, the potato blight (Bartoletti, 2001), etc.

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6 2022 Census of Ireland – Summary Results, Last accessed: 8 May, 2024

7 Blog by Ambassador Mulhall on Black'47: Ireland's Great Famine and its after-effects, Last accessed: 9 May, 2024

8 CSO: Farming Since the Famine, 1847 - 1996, Last accessed: 12 May, 2024

9 Ireland's Great Hunger Museum: Learn About the Great Hunger, Last accessed: 13 May, 2024

Although to this day, we can be certain that the root causes of the Irish Great Famine were multiple regardless of the perspective used, historically, the academic discussion of the root causes of the famine changed (Henderson, 2005):

Table 1.1: Timeline of Great Famine Root-Cause Academic Discussion

Timeline	Root Cause Summary	Reference
1845 – 1852: famine	Few food importation and opposition in poor law	1850/01/05 The Illustrated London News[a]
1852 – 1920: neglected	— [b]	(Kinealy, 2017)
1920 – 1960: nationalist	Key grouping, like landlord class or the UK government	(Smith, 2005)
1960 – 1980: revisionism	Focus on history and event itself, ignore outside force	(Daly, 2006)
1980s: post-revisionist	Emotional description also blame UK government	(Hamera, 2011)
1980s: diverse	Malthus population theory	(O'Flynn, 2009) & (McGregor, 1989) & (Weir, 1991)
	Anti-Malthus theory	(Ó Gráda, 1983) & (Mokyr, 1980) & (Guinnane, 1994)
	Blight biological analysis	(Donnelly, 2011)
	Foucault's bio-politics and colonial perspective	(Nally, 2008) & (Kennedy, 2020) & (Madden, 2016)

[a] The original newspaper mentioned: *Free importation of corn into this union is essentially necessary – [...] any attempt to re-impose a duty on the importation of food can only [...] tend to the starving of the people. Poor law [...] relieves the struggling farmer of a heavy burden he had hitherto.* (McNamara, 1850)

[b] The famine literature few. The quantity and quality of work on the famine sparse: *The two standard books of the Great Famine, [...] the chapters were uneven in quality and lacked coherence (some lacked footnotes, some were lost).* (Kinealy, 2017)

Famine narrative travel along the path of Irish history. When nationalism was high, there was a tendency to external attribution; then when the economy and society stabilized, revisionism was born. As Hu Shih, a Chinese philosopher of the 1900s, put it, *Reality, like a block of marble in our hands, is carved into whatever likeness we choose*.

What these strands of history described is that while food shortages are an objective fact, there are nonetheless other causes that conspire to drive famine – as Amartya Sen's rights approach asserts.

Based on the theoretical structure described above, this paper would like to reject some of the established theories on the famine **(Chapter 2.1)** and propose an Amartya Sen entitlement approach perspective on the Irish Famine **(Chapter 2.2)**. Then this paper will discuss the data used in this paper and its collection process **(Chapter 3)**, present the RDD regression methodology employed **(Chapter 4)** and then verify the applicability of the rights approach to this scenario **(Chapter 5)**. Finally, a conclusion will be presented **(Chapter 6)**.

Chapter 2 | Literature Review

"Hunger roared up in him like a hopeless lust.
He walked the ship as though following a chart. Up. Down. Across. Back. Stem. Port. Stern. Starboard. The churning of the waves.
The ropes clanking on the masts. The blind of salt water. The wind ripping at the sails."
— "Star of the Sea" by Joseph O'Connor

2.1 A Brief Famine Outline

The Irish lumper potato with its excellent ability to grow in poor and wet soils, was the predominant potato variety in pre-famine Ireland. It was introduced to U.K. around 1806 (Tucker, 2016), and rapidly replacing almost all other varieties in the recipes of the poor. Usually, on account of its intolerance of frost, the farmer sows in March or April, and the first early potatoes will be harvested in June, followed by the second early potatoes in July, and the third not later than October. With a 1.32 % growth in lower class per year in Ireland from the centennial before 1841, in 1845 about 32% of the arable land in Ireland was already under potato cultivation (Solar, 2015).

The first record of late blight on potatoes in Ireland is thought to be Dr Lindley's letter in September 16, 1845, with his concern words, he wrote: "The potato murrain has unequivocally declared itself in Ireland, where will Ireland be in the event of a universal potato rot"? (Kelly, 1995). Things were getting worse in 1846, a government documents collection book recorded that: "the poor Irish lost their potatoes again" (1 September, 1846) so that "Many, full many, must this winter leave their homes, and traverse the country in quest of work" (15 September, 1846). Government employee pointed out a fact, "to maintain Ireland's population, her agriculture must be greatly improved" (31 October, 1846). Next year, due to a change in the Poor Law, "the poor-

est peasantry were draught to the shore of America" (18 January, 1847), but didn't seems to release the effect of famine. Later, in newspaper's leading article, reporter wrote: "eye-witnesses of scores and hundreds of poor creatures actually dying for want a meal" (8 March, 1847) and all "landlord, tenure and peasant were in a miserable situation" (13 March, 1847). Reflection was raising and people started to realized a serious famine come back since 1741 because "the food that suffered in both years was the same" (14 April, 1847). Till November, the exodus of the population was getting worse and caused the "disorder in Ireland" (November 13, 1847). Finally, because of sharply decrease population, Ireland faced a situation "Labour is the first price" (December 30, 1847) (The Times Office, 1880).

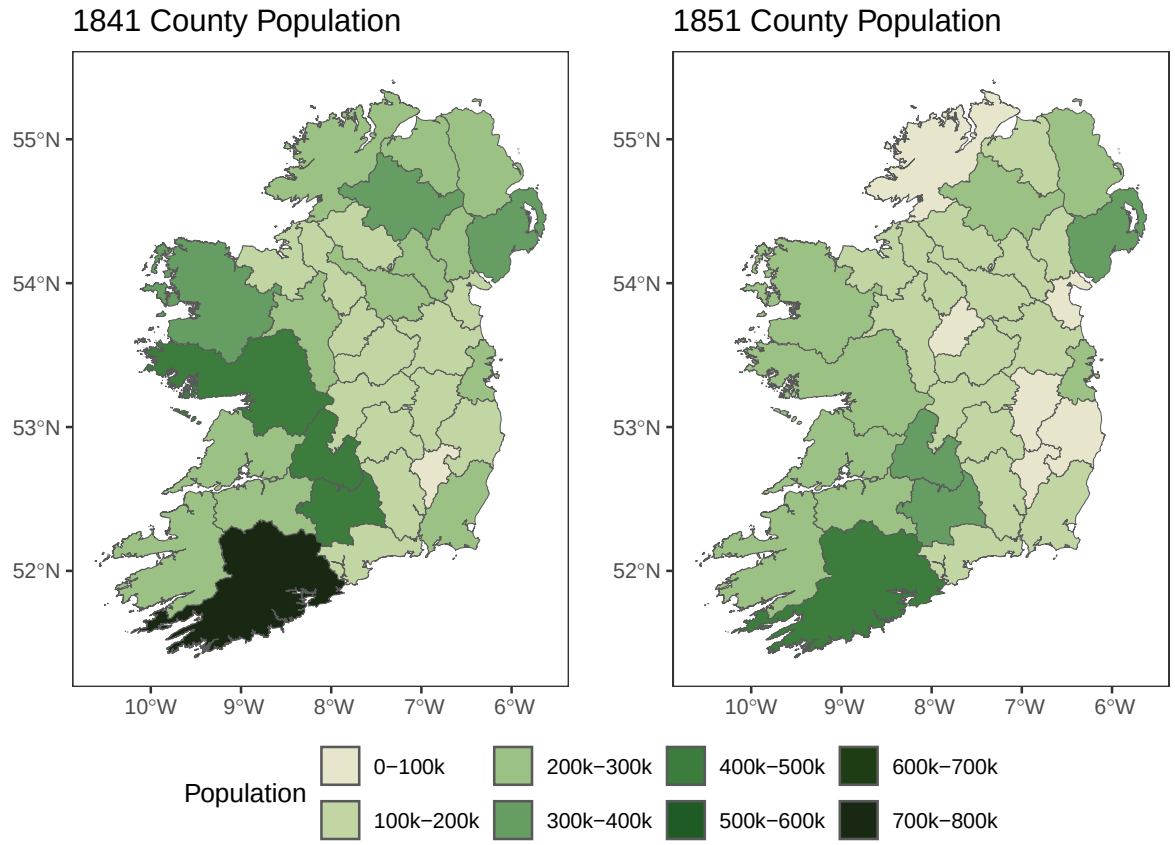
Throughout the history of the famine and pre-famine period, the role of the Poor Law cannot be ignored. The Poor Law was introduced in Ireland in July 1838 with the blueprint of the Poor Law in England and Wales, and provided for the establishment of 130 trade unions throughout Ireland, where the poor were to be relieved and regulated by the guardians of the trade unions (O'Brien, 1985). However, in January 1847, the government pushed for reform of the Poor Law, which exacerbated the ravages of famine in Ireland – particularly in the south and west of Ireland. The most significant consequence of the reforms was the almost complete transfer of responsibility and financial pressure for poverty alleviation to local government finances, which in the context of the famine resulted in the complete collapse of the local poverty alleviation system. It is very difficult to objectively assess the role of poverty law, which on the one hand does provide relief to many poor people (McHugh, 1986), but on the other hand is also characterized by Foucault's theory of power genealogy like "micro-power" and the operation of "bio-politics", as the 1847 letter reads:

> *It is true we have been careful not to put forward a poor-law as a mean to supply, but have claimed for it only a place among the means of distributing supplies – of promoting employment, and of enforcing upon poverty the care and protection of the labour. Still, if that surplus of unfilled mouths is to be always in front of us, it must be confessed that very little good, after all, will be accomplished.* (Spedding, 1847)

After 1847, the rate of depopulation slowed and the most difficult period was over. Some scholars have pointed out that the cause of death of the population during this period was more due to diseases brought about by the famine, including dysentery, diarrhea, tuberculosis, fever, and swelling (Mokyr and Gráda, 2002). The 1851 census showed the population declined by approximately 1.62 million after the famine.

From the census data of 1841 and 1851, we can calculate the change in population of the different provinces after the famine, which showed the result that the west and south suffered far more from famine than the east and north (Figure 2.1). The five counties with the greatest decreases in population are Donegal, Connaught, in the west, 279,601; Cork, Munster, in the south, 209,822; Galway, Connaught, in the west, 125,026; Tipperary, Munster, in the south, 103,986, and Roscommon, Connaught, in the west, 80,155. *The freeman's journal* similarly supports this conclusion in its April 27, 1847 article documenting the damage to parishes including Killedy, Toomavara, Abbey, Lorha and Dorrow, etc (Newell et al., 1847).

Figure 2.1: County Population 1841 – 1851



2.2 Rebut Food Availability Decline (FAD) Theory

As Amartya mentioned and argued against in his book – "*the most common approach to famines is to propose explanations in terms of food availability decline (FAD)*" (Sen, 1982) – In the Irish famine, where the FAD theory contains two aspects: (1) the potato late blight; (2) the monocultural structure of the Irish diet. For a long time it was believed that these two were at the root of the famine. In historical fact, while the existence of both is undeniable, their impact is not decisive.

Firstly, potato late blight. During the middle 19th century, late blight and famine have the most intuitive visual connection, so farmers, governments, and scholars have attributed famine to the potato blight. Native Irish farmers have a set of folk myths about this, believing that fairies in the sky were fighting over the potatoes, or that Fear Liath, the fog man, which led to the blight and famine (Bartoletti, 2001). Also, references in correspondence with the British government mentioned the relationship between late blight and death in potatoes:

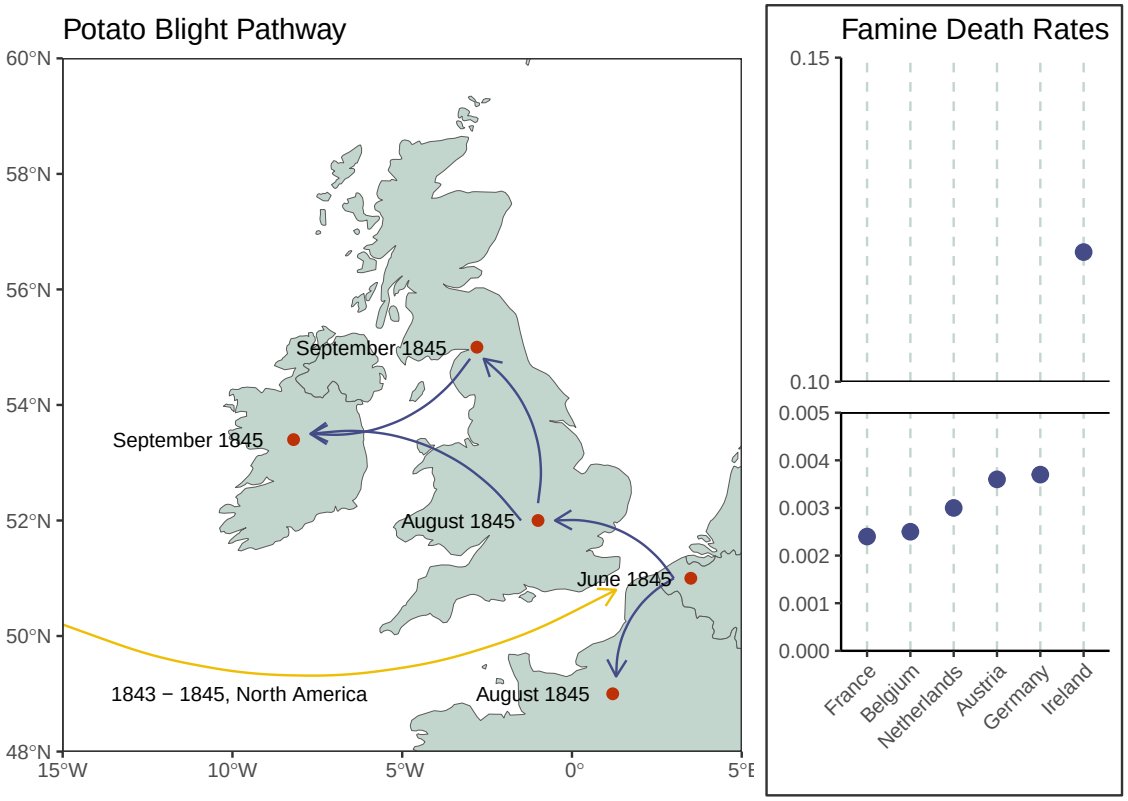
> *"In 1845, about the month of July or the beginning of August, the potatoes withered and decayed all over the country like what you have seen on the watersides with early frost, [. . .] poor families were badly off and striving to live on bran".* (McClure, 1848)

> *"When they came back home, there was not a potato in what they dug but was infected [. . .], it is the whole cry among the people".* (Blackwell, 1845)

One group of scholars, based on potato production data or biological research, attributes the Famine to late blight, such as Kinealy, who discusses poorhouses, potatoes, and death; (Kinealy, 1990); or Dowley, who focuses on the relationship between climate and blight fungus (Dowley, 1997); also Ristaino, who analysis the DNA structure of the fungus in the famine period (Ristaino, 2006); as well as scholars working to biologically analyze the uniqueness of the Irish Late Blight strain worldwide and how it led to the famine (Goss et al., 2014); and the rampant late blight attributed to faulty planting practices (Lidwell-Durnin, 2020).

However, as many scholars opposed to this view have asked, why did Ireland alone suffer such a significantly famine when the late nineteenth-century epidemics swept across the globe (Gray, 2006, Kelly and Gráda, 2015, Mokyr, 2013, Oleksy, n.d., Solar, 2015)? Scholars have ample biological and historical evidence to prove that late blight did not originate in Ireland, and that it has suffered much less elsewhere than in Ireland (Zadoks, 2008). A Nature article (Bourke, 1964) on the traceability of potato late blight stated that in the 19th century it was first detected in 1843 in port cities on the east coast of the United States, and then spread to the western part of the Americas. In Europe, the first case of late blight was detected in Belgium in June 1845, before spreading to France, the United Kingdom and Ireland (Figure 2.2).

Figure 2.2: Potato Blight Pathway & Death Rates, 1843 – 1845



There is thus sufficient evidence against the first argument. Since the late potato blight did not strike Ireland first, and since all the other countries afflicted by the blight did not suffer such a great loss of population, the famine directly caused by the late potato blight can not be justified.

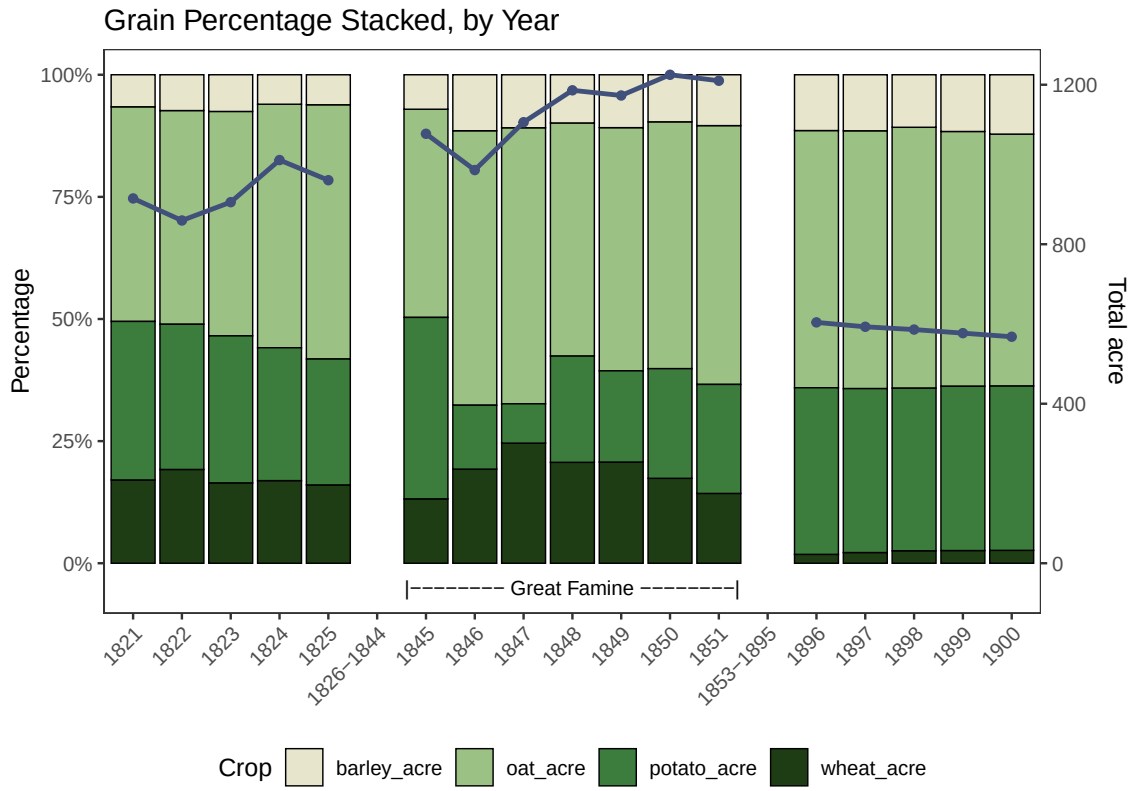
Secondly, the monocultural structure of the Irish diet. A strict distinction must be made between the concepts of dietary structure and cropping structure, since the former relates to daily nutritional intake, while the latter relates to the country's agricultural economy at the macro level. When we say "the potato has become almost the only staple food for the poor", we are actually referring to the former. Ireland in the 19th century was not a country where the potato was almost the only crop, nor was there even more than one variety of potato, the lumper. In 1834, when William Cobbett visited the country, he recorded:

> *"When men or women are employed, at six-pence a day and their board, to dig Minions or Apple-potatoes, they are not suffered to taste them, but are sent to another field to dig Lumpers to eat".*(Gráda et al., 1995)

For scholars who argue that a monolithic diet led to the famine, they have in fact recognized that Ireland has a diverse cropping structure, it is just that the impoverished poor do not have access to a diverse diet (Braa, 1997, De Nie, 1998, Kinealy, 2006, Nally, 2008), which coincides with the entitlement approach that we will address later. And from biological analysis of human proteins (Beaumont, 2014, Beaumont et al., 2013), as well as historically documented import and export data (Fairlie, 1965), it is actually clear that the famine victims were given a certain amount of corn as a supplement to potatoes after the famine.

For scholars who argue that a monolithic planting structure led to the famine (Bartoletti, 2001, Turner, 2002), they are ignoring the real historical data, which shows that Ireland was not actually a monoculture potato country at the time. As Popkin rebutted Scott, Irish farmers appear statistically to have been more like rational peasants, and in fact they cut back on potatoes in response to the blight in 1847, shifting to more wheat and oats (O'Neill, 1952) , which led to a change in the country's overall cropping structure (Clarkson and Crawford, 2001). Data on Irish cropping structure shows that the country was not as dependent on potatoes as people image, and potato plants proportion at the end of 19th century was more than before famine (Figure 2.3).

Figure 2.3: Grain Agriculture Structure 1820 – 1900



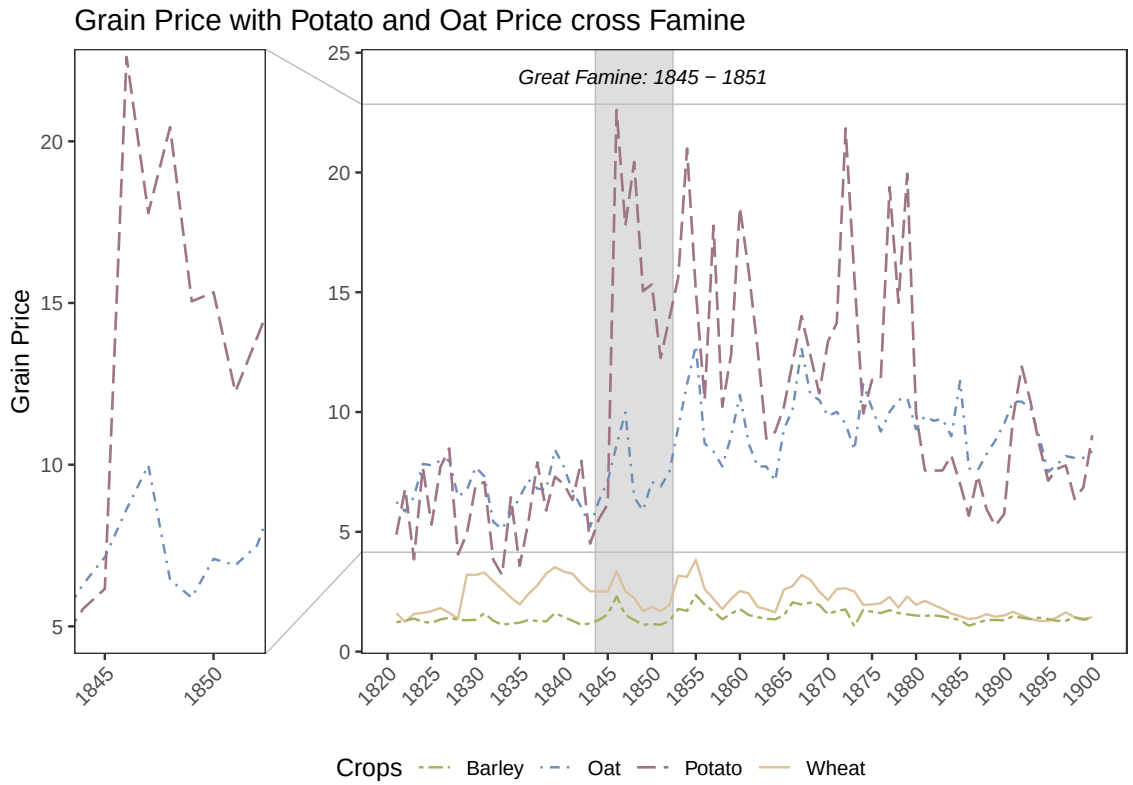
In addition to this, there are a number of explanations that are not directly related to FAD theory but still do not point to the core of the famine, including the problem of poverty in Ireland (Gilleard, 2016, Gray, 2010), the bad quality of the land (Whelan, 2012) or the cyclical cycle of the famine, but they have corresponding counter arguments respectively, such as studies of Irish immigrants' bank deposits proving that they weren't as poor as they could have been (Wegge et al., 2017), the study of the relationship between land quality and Malthusian metrics (Donnelly Jr, 2002), as well as the British government's ability to cope with famine (Kelly and Gráda, 2015), etc.

From this we can make the inferences that: (1) since late blight did not originate in Ireland, but was imported via North America, Belgium, and Britain, and since famine losses in all other countries were significantly smaller than in Ireland, late blight was not a central cause of the famine; and (2) since the structure of Irish agriculture was not entirely monoculture potato, monoculture structure was not a central famine cause.

The FAD theory is thus successfully refuted here, and I will discuss Amartya Sen's rights approach in the next chapter.

2.3 Entitlement Approach

Figure 2.4: Grain Price 1821 – 1900



1. Blame potato blight as the only origin of famine

People believe potato blight was responsible for the Irish Great Famine.

lumper potato

Blight became a semi-permanent fixture until the end of the century, when effective treatments were found (O'Rourke, 1994).

2. Ireland have the bad land quality.

Using Sen's entitlement framework, (Fraser, 2003)

I n the field of famine studies, scholars as diverse asSusan George (1980), Amartya

Sen (1981, 2000),Michael Watts (1983), Amrita Rangasami (1985),and Stephen Devereux (2001) have argued that faminesdo not necessarily begin with crop failures, droughts, orequivalent climatic hazards. On the contrary, their vi-olence is coordinated much earlier when a populationis progressively brought to the point of collapse. Readthis way, a crop failure, or indeed a drought, is simply an"environmental trigger" in a much larger narrative of ag-gregated poverty and mass vulnerability (George 1984;Devereux 2002). Despite the fact that the Great IrishFamine is now a major field of scholarly enquiry, therehas been very little attempt to engage with these criti-cal perspectives—derived primarily from famine expe-riences in the global South—nor has there been any at-tempt to analyze the Great Famine from the perspectiveof colonial governance and population management. (Nally, 2008)

I will operationalize entitlement approach into these 4 dimensions according to the book:

(1) trade-based entitlement: price, grain amount,

(2) production-based entitlement: tax policy

(3) own-labour entitlement: wage, land own amount, poor law

(4) inheritance and transfer entitlement: none, hard to get data

Chapter 3 | Data

3.1 Data Sources

The data for this paper come from several primary sources, including (1) census data, (2) economic history research papers, and (3) original archival material from the National Library Ireland.

Table 3.1: Data and Sources

Data	Details	Time	Sources
Population	Population	1821, 1831, ...	Irish Census [a]
		Remain years	Estimated population [b]
Wage	Craft man wage	1821 – 1900	(Kennedy and Dowling, 1997)
	General wage	1821 – 1900	(D'Arcy, 1989) & (Bishop, 1915)
Ground Rent	Ground Rent	1821 – 1844	(M Solar and Hens, 2013)
		1850 – 1885	(Guinnane and Miller, 1996)
Grain Price	Oat	1821 – 1828	(Daniel Cassidy, 2021)
		1829 – 1859	(Vamplew, 1980)
	Potato	1821 – 1845	(Kennedy and Dowling, 1997)
	Wheat	1824 – 1837	Southampton library [c]
	Barley	1821 – 1828	(Clark, 2004)
	O. P. W. B.	1840 – 1900	(Barrington, 1926)
	O. P.	1821 – 1850	(Kennedy and Dowling, 1997)
	Agriculture index	1850 – 1900	(Turner, 1987)
Plant Acre	Potato	1821 – 1846	(Kenny et al., 2023) [d]
	O. W. B.	1821 – 1846	Estimated from Price Index
	O. P. W. B.	1847 – 1900	CSO agriculture report
Import	O. W. B.	1821 – 1838	Linear Interpolation
	O. W. B.	1839 – 1900	(Brunt and Cannon, 2004)
Export	Wheat	1821 – 1828	(Tennent, 1840)
	O. W. B.	1829 – 1838	(Vamplew, 1980)
	O. W. B.	1839 – 1900	(Brunt and Cannon, 2004)

Continued on next page

Table 3.1: (Continued)

Data	Details	Time	Sources
	Butter	1821 – 1900	(Solar, 1990)
	O. B.	1821 – 1828	NA

[a] *Irish census through history can be found in CSO. In 1851 census, there is a chapter discussing the differences between 1841 and 1851 to show the influence of famine.*

[b] *Base on Documenting Ireland: Parliament, People and Migration,*

[c] *The digital version of this document can be found in Southampton Library. The data was calculated from the Dublin Gazette since May 1st, 1824 to 1st May, 1833*

3.2 Statistical Description

3.3 Research Assumptions

Chapter 4 | Methods

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