The Irish in England

NEIL J. CUMMINS AND CORMAC Ó GRÁDA

We use the universe of probate and vital registers from England between 1838 and 2018 to document the status of the Irish in England. We identify the "Irish" in the records as those individuals with distinctively Irish surnames. From at least the mid-nineteenth century to 2018, we find that the Irish in England have persisted as an underclass, being on average 50 percent poorer than the English. Infant mortality was about 25 percent higher for the Irish between the 1830s and the mid-twentieth century but has subsequently equalized. Sorting, both to urban areas and to the North of England, are important elements in the Irish experience. We discuss the potential roles of selective migration, social mobility, and discrimination in this and signpost directions for future research.

Even before the Great Famine of the 1840s, the Industrial Revolution had attracted hundreds of thousands of Irish immigrants to Britain. In 1841, over 0.4 million of them were to be found mainly as unskilled laborers in the slums of cities such as Liverpool, Manchester, Glasgow, Birmingham, and London, and their satellite towns, where they were resented by most of the local population. During the Famine, the pressure they placed on labor markets and on public health made them even less welcome. Mass emigration to North America also preceded the Famine. Between 1825 and 1845, nearly 0.9 million made the crossing, the great majority never to return (Williamson 1986; Neal 1997; Darwen et al. 2019; Connolly 2022).

As Figure 1a illustrates, the annual exodus from Ireland peaked at about 100,000 during and after the Great Famine and the net outflow remained positive thereafter, with small breaks during the wars and in the 1970s, and a shift to net inward migration from the 1990s on (interrupted between 2008 and 2014 by crash of the Celtic Tiger).

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Neil J. Cummins is Professor, Economic History, London School of Economics, Houghton St., London WC2A 2AE, UK and CEPR. E-mail: n.j.cummins@lse.ac.uk (corresponding author). Cormac Ó Gráda: Economics, University College Dublin, Dublin 4, Ireland. E-mail: cormac.ograda@ucd.ie.

We thank Guido Alfani, John Fitzgerald, Don MacRaild, along with Kevin O'Rourke, Peter Solar, and other participants at the Irish Quantitative History Conference at Trinity College Dublin, and seminar participants in Brussels, Bergen, and York for comments.

Mainly as a result, the population of the island of Ireland (at just over 7m) still falls short today of its pre-Great Famine level of about 8.5m. Further, if Ireland had followed England's population growth rates, Ireland should today be an island not of 7m, but of over 40m (Figure 1b). These missing 35 million "Irish" are instead to be found elsewhere, primarily in North America and Britain.

For most of the past 150 years, England has been richer, per capita, than Ireland. England's inhabitants have lived longer lives, and infants have had a higher chance of surviving their first year than those living in Ireland, as evident in Figure 2.1 Within England, the Irish have long been the "other" ethnic group. In the post-Famine decades, mass migration to North America overshadowed migration across the Irish Sea, but the latter continued to be substantial (Figure 1c). It is reflected in the number of Irish-born in Britain, which rose from 419,256 in 1841 to 727,326 in 1851, and 805,717 in 1861 before falling thereafter to 550,040 in Britain in 1911. After WWI, in the wake of increased U.S. immigration restrictions, Great Britain once again became the main destination of Irish emigrants and continues to be so. In 1971 the Irish-born in Britain reached an alltime high of nearly a million (957,830), but then fell back to 837,464 in 1991 and 681,952 in 2011 (Figure 1d). As the immigrants married and had children the numerical gap between the Irish-born and "the Irish in Britain" rose over time, although due to assimilation most of the latter identified as British rather than Irish in the U.K. census (Hickman 2011).

While the literature on the Irish in Britain is voluminous and interdisciplinary, studies of how they fared in material terms are rather few. How long did it take them to converge with the rest of the population in terms of economic wellbeing and health? Or did they converge? There is a pervasive sense in the literature that, unlike their cousins who opted for emigration further afield, the history of the Irish in Britain was not, by and large, one of success. Even in the new millennium, several studies stress Irish disadvantage in terms of health and life expectancy, with that disadvantage persisting to the third generation (Harding and Balarajan 2001; Delaney, Fernihough, and Smith 2013; Das-Munshi et al. 2013).²

Accounts of Irish underachievement and marginalization dominate the historiography. Referring to men of working age in 1972, Heath

¹ Adding additional, comparable demographic and macro data for the entire period covered in this paper is problematic for the reasons set out in de Bromhead, Fernihough, and Ó Gráda (2023). According to census data, the proportion of the population of Ireland aged 5 and over who could neither read nor write fell from 38.7 percent in 1861 to 11.9 percent in 1911. Comparable data are unavailable for England, but the proportion of grooms (brides) who signed the register at marriage rose from two-thirds (half) in 1840 to 97 percent in 1900 (Mitch 1983). This suggests considerable, but incomplete convergence in literacy in the second half of the nineteenth century.

² The 2021 census of England and Wales tells a more positive story.

and Ridge (1983) found that comparing the Irish to the native English, far fewer of the former had achieved white-collar jobs and many more remained unskilled laborers. As might have been expected, transitions from farming to laboring were common, but there were significant flows too from other backgrounds, such as low-status white-collar occupations and foremen, into unskilled labor. However, Li and Heath (2008) find that while the social mobility of Irish males in Britain, as measured by progressing to white-collar salaried employment, lagged behind British males up to the early 1990s, they were surpassing them by the mid-2000s. More recently, Li and Heath (2020) invoke the first six waves (2009–2014) of the Household Longitudinal Study to study relative status by ethnic group. They find that Irishwomen in Britain matched white British in terms of employment and earnings, while the male Irish disadvantage in terms of unemployment can be accounted for by demographic factors.

None of these studies, however, covers a period of more than a few decades, and measures that would straddle longer periods are scarce. Despite nearly two centuries of substantial flows from Ireland to England, and despite this being a central feature of the cultural identity and history of both nations, the socio-economic position of those of Irish heritage within Britain is poorly understood. There are few empirical studies that assess the social position of the Irish in England, on a consistent basis, over time. Our focus here is not just on the Irish-born but on what used to be described a century ago as "the Irish race," that is, both those from Ireland and those of Irish extraction. Our analysis presents the most extensive documentation of the Irish in England to date.

This paper uses the universe of probate and vital registers of births, marriages, and deaths from England between 1838 and 2018 to document the status of the Irish in England. We identify the "Irish" in the records as those individuals with distinctively Irish surnames. We assign ethnicity to a surname based on the distribution of birthplaces of individuals holding a given surname in the 1911 census of England and Wales.³

We measure status in two ways: wealth at death and infant mortality. In this way, we capture ethnic inequality both at the start and end of life. The results are stark. From at least the mid-nineteenth century until very recently, the "Irish" in England have persisted as an underclass. We document the lower wealth and higher infant mortality of those with distinctively Irish surnames. Using linked data, we show that this Irish effect

³ For robustness, we also calculate ethnicity in this way using Onomap, a contemporary classification system based on billions of global records (see Online Appendix). We also check our results using varying thresholds for the proportion of the holders of a surname born in Ireland in the 1911 census of England and Wales (Online Appendix).

is robust to age controls. Lower Irish wealth is therefore not an artifact of the return migration of richer, older Irish to Ireland. The "Irish" were always poorer than the English, and this pattern is persistent, although not constant, between the 1850s and the end of the last millennium.⁴ We show that the Irish wealth penalty is driven by the experience of the Irish in the North of England. Half of the Irish infant mortality effect is sorting into higher mortality districts.

Only in the 1980s did Irish infant mortality fully converge to that of the native English, and both the average wealth of the Irish at death and the wealth of the wealthiest among them still lag behind the English today. However, data on education and socioeconomic status in the latest (2021) census suggests that full convergence between the Irish and the English in terms of wealth at death is—finally—not far away.

DATA

Wealth

We use estimates of wealth-at-death from a complete transcription of the Principal Probate Registry (PPR) Calendar entries, 1858–1992. This source records all those who die with wealth in England above the probate threshold. Cummins (2021) investigates in depth the quality of the transcription and assesses the credibility of the wealth estimates. The top percentile wealth-share estimates match closely existing estimates from different sources: Atkinson and Harrison (1978); Atkinson, Gordon, and Harrison (1989); Atkinson (2013); and Alvaredo, Atkinson, and Morelli (2017, 2018). The PPR wealth data matches well to estimates of wealth reported by Blake and Orszag (1999).

The PPR Calendar data were supplemented by a database of the number of deaths and the number of probates, by surname, 1996–2018. Every probate case over this period is listed, by name, on https://probatesearch. service.gov.uk/#calendar. Note that the interpretation of probate changed after 2010, when banks had discretion on whether they required an act of probate for estates below £50,000.⁷

⁴ Earlier work by one of us indicates that a significant proportion of probated wealth is "hidden" after 1920 (Cummins 2022). We assume here that, conditional on wealth, the Irish are just as likely to hide wealth as the English.

⁵ The PPR Calendars will therefore include wealth-holders dying outside England. The probate threshold during the period 1858–1900 was £10, 1901–1931: £50, 1932–1964: £100, 1965–1974: £500, 1965–1974: £500, 1975–1984: £1,500, 1984 onward: £5,000 Cummins (2021, table 1).

⁶ See Online Appendix Figure 12 for a reproduction of some of these comparisons over time, from Cummins (2021).

⁷ See Online Appendix for more detail on this.

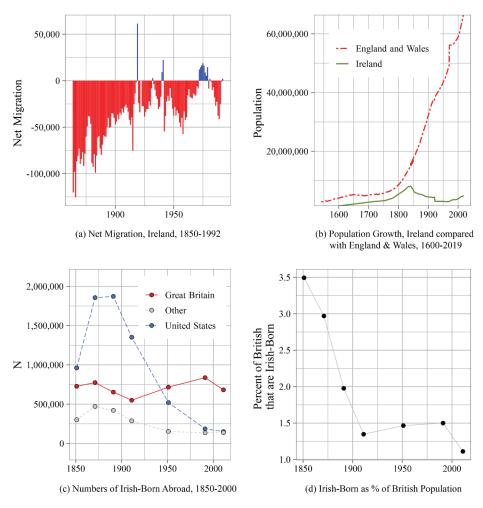
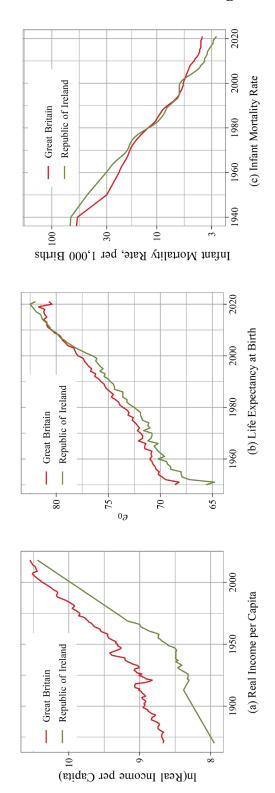


FIGURE 1
THE CONTEXT OF IRISH MIGRATION

Sources: Panel (a): Rothenbacher (2005). (b): Ireland's population, 1600–1850 Ó Gráda (1979), 1850–1951 Rothenbacher (2005), 1951–2019: cso.ie. England and Wales population, 1541–1851: Wrigley and Schofield (1981), 1851–1971 Rothenbacher (2005), 1971–2019: ONS. (c): O'Brien (2018). (d): O'Brien (2018); ONS.

Registers of Births, Marriages, and Deaths, 1837–2007

On the 1st of July 1837, a National Civil Registration system was established in England and Wales. Recently, these records have been digitized by various groups interested in family history. We compiled a database of 125,005,217 births, 47,082,406 marriages, and 85,932,666 deaths, from 1837 to 2007, for England and Wales by downloading the individual index entries from two such websites: freebmd.com (1837–1980)



COMPARISON OF INCOME PER CAPITA, LIFE EXPECTANCY, AND INFANT MORTALITY, IRELAND AND GREAT BRITAIN, 1870–2020

FIGURE 2

expectancy-at-birth-including-the-un-projections); Panel C: CSOI (https://www.cso.ie/en/statistics/birthsdeathsandmarriages/archive/annualreportsonmarriages birthsanddeathsinirelandfrom1864to2000/). This figure describes English and Irish life expectancies at birth and infant mortality ratios, as well as British GDP per capita and a measure of Irish income, for the period since independence. The income data were taken from the Maddison database, adjusted for the assumption that Irish income per capita was about 90 percent of British c. 2020 (as implied by corrected consumption data). The estimates of Irish infant mortality in Panel C are too low before the 1940s for reasons given in de Bromhead, Fernihough, and O Gráda (2023). Clearly, the demographic data tell a more Sources: Panel A, Maddison database, Central Statistics Office Ireland (CSOI); Panel B: Our World in Data (https://ourworldindata.org/grapher/lifeoptimistic tale than the national accounts. and familysearch.org (1980–2007). Figure 13, reported in the Online Appendix, compares the numbers collected versus those recorded by the official records (Office for National Statistics 2021b), by year. They match very closely.⁸

METHODOLOGY

Surnames and Ethnicity

Surnames are hereditary cultural labels typically transmitted along the paternal line of inheritance. Thus, surnames can track clusters of genetically related individuals (primarily men). We use surnames as markers of ethnicity. We define a surname as "Irish" if the proportion of surname holders born in Ireland of a given surname is above a threshold level in the 1911 Census of England and Wales.

This has the unavoidable drawback of imposing an ethno-cultural identity on some who might not self-identify as Irish, such as the distant descendants of mixed marriages. It is certainly the case that the accuracy of surnames as an indicator of ethnicity is likely to decline from generation to generation. Moreover, except at the outset, most of those identified as "Irish" in this analysis were born in England rather than in Ireland. The frequency of "Patrick" and "Bridget" as forenames amongst second-generation Irish migrants of the nineteenth century was significantly lower than that of the first generation (declining to 1.5 percent from 10 percent for both names), suggesting at minimum some aspirational assimilation (Smith and MacRaild (2009) compare Connor (2021)).¹⁰

We use the 19 million de-anonymized individual adult records in the special access version of the 1911 census to examine the distribution of place of birth for the over 500,000 surnames that it includes (Schurer and Higgs 2021).¹¹ We confine our focus to adults so that the fertility of

⁸ In all cases, the harvested counts closely match those expected from official statistics for the vast majority of years between 1837 and 2007. The exceptions are the sharp drops in numbers harvested in the 1970s for births and marriages; this is because the underlying website (freebmd. com) was incomplete for those years when the data was collected.

⁹ Overviews of the use of surnames to infer ethnicity, in the social sciences and genetics, are given in (Mateos 2007; Mateos, Longley, and O'Sullivan 2011).

¹⁰ In Table 3, we find 63 percent of those with the surname "Murphy" born in England in the 1911 census, with 26 percent born in Ireland, 67 percent of Kellys born in England, 17 percent in Ireland, and 65 percent of "Ryans" born in England, 25 percent in Ireland, and 63 percent of "O'Neills" born in England, 26 percent in Ireland. A proportion of these will be English women who take their Irish husband's surname upon marriage. Similarly, some Irish women will lose their Irish surname upon marriage. Thus, we interpret the proportion of a surname born in Ireland as a fuzzy indicator of "Irishness" and adopt varying thresholds in assignment.

¹¹ We count those aged 20 and above as adults. We include both men and women.

 ${\it TABLE~1} \\ {\it DISTRIBUTION~OF~1911~ADULT~CENSUS~POPULATION~BY~COUNTRY~OF~BIRTH}$

Country	N	%
England	16,164,030	88.01
Wales	1,145,890	6.24
Scotland	333,534	1.82
Ireland	325,508	1.77
Russia	59,694	0.33
Germany	50,380	0.27
India and Pakistan	39,903	0.22
France	32,582	0.18
United States	25,650	0.14
Isle of Man	24,627	0.13
Australia	16,572	0.09
Italy	15,578	0.08
Poland	15,576	0.08
Canada	12,302	0.07
Austria	10,377	0.06
Switzerland	8,825	0.05
Netherlands	6,908	0.04
South Africa	6,743	0.04
At Sea	5,734	0.03
Sweden	5,207	0.03
Norway	4,687	0.03
Belgium	4,469	0.02
New Zealand	4,102	0.02
Denmark	3,923	0.02
Malta	3,363	0.02

Source: 1911 Census.

recently arrived immigrants does not skew the immigrant surnames to be categorized incorrectly as "English." Table 1 ranks the top 25 countries by number of births listed in 1911. Nearly 90 percent of those enumerated were born in England, 6.2 percent were born in Wales, 1.8 percent in Scotland, and 1.8 percent in Ireland. All other countries each represent far less than 1 percent.

Based on Table 1, we pick 11 countries of birth to attribute an ethnicity to surnames. Note that this method requires us to proxy ethnicity by the relative frequency of surname holders' birth countries. We therefore cannot use this method to categorize Jewish surnames or ethnicities that do match distinct countries in 1911.

The countries we use are England, Wales, Scotland, Ireland, Russia, India (which includes contemporary Pakistan as it was before 1947),

¹² An example of how such a process would occur is to imagine a migrant couple from Ireland, with a unique surname, moving to London in 1900 and having five children. By 1911, 5/7, or 71 percent, of the holders of the name in England would be born in England, even if this is arguably an "Irish" family.

Germany, France, Italy, Poland, and the Netherlands. How can we know whether a given surname corresponds to an origin country? Table 2 presents the matrix of the proportions born in each of the 11 countries for a set of well-known surnames.

As here we do not observe the global distribution of surnames in 1911 but the distribution within England, we cannot simply assign the most frequent country-of-birth to a surname. This would classify many names incorrectly. For example, Brown (Scottish), Cohen (Russian), Murphy (Irish), Durand (French), Van Gelder (Dutch), Becker (German), and Posner (Russian and Polish) would all incorrectly be classified as English. Historical migration patterns here skew a simple rule.

To attribute a surname to an ethnic origin, we therefore cross-reference the complete matrix of surnames by country of birth (as represented by the example surnames in Table 2 with the average proportions of people born in England from Table 1. Then we implement a two-step process to classify each surname. First, we attribute to each an ethnic origin based upon the most frequent country of birth. Where there is a country other than England or Wales that accounts for 20 percent or more of the births of that surname, we update the ethnic origin to that country. For example, Murphy is attributed as "English" in step one, as 62.7 percent of the holders of the Murphy surname in the 1911 census of England and Wales are born in England. But in step two, we update Murphy to "Irish" because 26.3 percent of Murphys are born in Ireland, as 26.3 percent is above the 20 percent threshold. This procedure works to attribute correctly all of the example surnames in Table 2). For robustness, we also construct assignments based on 15 percent and 25 percent thresholds.¹³

Table 3 presents the matrix of the proportions of adults enumerated in the 1911 census of England and Wales by birth country for a set of popular Irish surnames. We took the top 15 Irish surnames as listed at https://forebears.io/ireland/surnames, a website that has aggregated a considerable volume of data on contemporary global surname distributions. Our 20 percent threshold categorizes 12 of these 15 surnames as "Irish" while our 15 percent threshold categorizes 14 of the 15 as "Irish."

This historical method to infer ethnicity can be expected to lose a degree of contemporary "ethnic accuracy" over time. In other words, the

¹³ Upon inspection, it was apparent that this method incorrectly assigned many Welsh surnames as "English" (e.g., Edwards and Hughes). This is because of the very unequal population sizes of the two neighboring countries. Forty-two percent of Hughes and 28 percent of Edwards were born in Wales. We therefore updated a surname to "Welsh" if more than 25 percent of the holders of a surname were born in Wales. As 6.2 percent of the population of England and Wales was born in Wales (Table 1), the 25 percent cutoff here implies that the holders of a "Welsh" surname are at least 400 percent more likely to have been born in Wales than the average English.

Table 2
EXAMPLE SURNAMES FOR ATTRIBUTING ETHNICITY FROM THE 1911 CENSUS

					OO	Country of Birth	rth					
Surname	z	England	Wales	Scotland	Ireland	Russia	Germany	India	France	Italy	Poland	Netherlands
Churchill		688.	.045	.004	.013	000.	000.	.003	.001	000.	000.	000.
Davies	118,823	.356	.601	.005	.003	000	000	.001	000	000	000	000
MacDonald		.632	.022	.237	.045	000	.001	.012	.001	000	000	000
Murphy		.627	.049	.018	.263	000	000	.005	000.	000	000	000
Cohen		.412	.004	.004	900	.382	.022	000	.001	000	.100	900°
Becker		.527	.012	.012	.014	.056	.256	.005	.012	000	.007	.002
Singh		.022	000	000	000	000	000	.971	000	000	000.	000
Durand		.539	.007	.007	.007	000	000	.059	.263	000	000	000
Ferrari		.316	.017	000	000	000	000	000	000.	385	000	000
Posner		.386	000	000	.007	.307	.036	.007	000.	000	.214	000
Van Gelder		<i>L</i> 99.	000	000	000	.021	000	000	000	000.	000	.208

TABLE 3
IRISH SURNAMES FROM THE 1911 CENSUS

						,	Country of Differ	m				
Surname	z	England	Wales	Scotland	Ireland	Russia	Germany	India	France	Italy	Poland	Netherlands
Murphy	12,436	.627	.049	.018	.263	000.	000.	.005	000	000	000.	000.
Kelly	16,388	.667	.025	.037	.174	.001	000	.004	.001	000	000	000
Byrne	3,637	.604	.015	.016	.329	000.	000	900	000	.001	000	000
Walsh	11,053	.742	.028	.028	.167	.001	000	.003	000	000	000	000
Ryan	6,055	.646	.046	.014	.248	000	000	900:	000	000	000	000
O'Brien	5,793	.569	920.	.014	.295	000	000	800	.001	000	000	000
O'Connor	2,833	.590	.034	.016	.315	000	.001	.005	.001	000	000	000
O'Sullivan	646	.303	.084	.005	.573	000	000	.014	000	000	000	000
Doyle	4,188	.640	.034	.021	.273	000	.001	.004	000	000	000	000
O'Neill	3,016	.631	.043	.025	.261	000.	.001	.005	.001	000	000	000
Lynch	3,957	899.	.043	.019	.228	000	.001	.005	.001	.001	000	000
McCarthy	5,324	.622	.109	.011	.213	000.	000	.004	.001	000	000	000.
Brennan	2,346	.652	.021	.015	.277	000	.001	.004	000	000	000	000.
Dunne	910	.502	.012	.010	.436	000	.001	.010	000	000	000	000
Murray	12,050	.725	.025	.108	960.	000.	.001	.007	.001	000.	000	000

Source: Calculated from the 1911 census for the Top 15 Irish Surnames listed at forebears io.

informational content of surnames in relation to ethnic origin is likely to be less in 2000 than it is in 1900. Through inter-marriage, surnames that we assign as "Irish" in 1911 are likely to have an increasing English ancestry, as those who we assign as "English" will have more Irish ancestry over time. But this is precisely what we want to observe. If assimilation is rapid and complete, we should see full convergence in socioeconomic outcomes. To complement our historical "Irish" analysis, we also examine the status of the "Irish" using a modern assignment of ethnicity, Onomap, in the Online Appendix.

Our approach has another limitation. Since we rely on distinctively "Irish" surnames, we necessarily exclude the minority of Irish people with "non-Irish" surnames. They would have accounted for perhaps one-fifth of emigration from Ireland to England and would most likely have fared better than the majority. Our results, then, refer to the four-fifths or so of Irish of Gaelic/Catholic background.

Wealth Calculations

We first analyze the relative wealth of the Irish using three measures: (1) the probate rate, (2) average wealth, and (3) the representation of a group in the top 1 percent of wealth-holders. ¹⁴ For these calculations, we combine the PPR wealth data with the death data, thus constructing an individual-level dataset of all deaths, and all wealth at death estimates, 1858 to 1992. From 1996 to 2018, we observe all deaths by ethnicity, and the number of probates, by ethnicity. So for this most recent period, we can calculate a probate rate by ethnicity.

The number of adults who die with no wealth, or wealth below the probate threshold, is calculated for ethnicity e as $N_{np}^e = N_{20}^e - N_p^e$, where N_{np} is the number not probated, N_p is the number probated (from the PPR Calendars), and N_{20} is the number of adult deaths where age at death is greater, or equal, to 20 years, as is reported in the death registers. For every non-probated adult death (N_{np}^e) , we generate one observation that is appended to the PPR database. As these individuals were not probated, we assign them an inferred wealth, that is below the probate threshold. This is calculated from the PPR data, which includes some observations of wealth that are below the threshold. We average those values, by year, and assign

¹⁴ We do not analyze median wealth, as the median wealth of adults dying in England is actually below the probate threshold, a point underlined in Cummins (2021). Cummins (2024) presents estimates for these three measures for all sizable ethnicities dying in England and Wales, 1858–2018.

¹⁵ As age at death is only recorded in the death registers from 1866. Therefore to calculate N_{20} for each ethnicity we calculated $\frac{N_{20}}{N}$ for all deaths 1866–76, then used this ratio to infer N_{20}^e for ethnicity e by calculating $N_{20}^e = N * \frac{N_{20}^{1866-76}}{N^{1866-76}}$.

to the non-probated an inferred wealth equal to half of that average. This follows the standard method used by HM Revenue and Customs (Turner 2010, pp. 628–9).

The probate rate (pr) is then simply calculated as the simple mean of a probated categorical dummy (D_p) :

$$pr^e = \frac{N_p^e}{N_{20}^e} = \overline{D}_p^e \tag{1}$$

We can calculate the probate rate by ethnicity and year from 1858 to 1992, and from 1996 to 2018. As we only observe the number of deaths by ethnicity until 2007, we use the 2006 value of N_{20}^e for every year 2007 to 2018. We justify this based upon the flat trend in the national number of deaths as reported by Office for National Statistics (2021a). It must be recognized that this may be wrong for a specific ethnicity. But in the absence of observed data, it is a reasonable approximation.

Average wealth (\overline{w}^e) , 1858–1992, is calculated as

$$\overline{w}^{e} = \frac{\sum w_{p}^{e} + \sum w_{np}^{e}}{N_{20}^{e}},$$
(2)

where w_p and w_{np} represent probated and non-probated wealth. Due to the construction of the synthetic individual-level dataset, it is straightforward to calculate average wealth grouped by ethnicity and year.

Finally, representation within the top 1 percent is calculated as the mean of a dummy variable for having wealth above or equal to the 99th percentile, calculated across all adult deaths, for a given year.

The final sample size for the synthetic PPR-death register data is 71,668,665 for 1858–1992, and 12,486,026, for whether an individual is probated for 1996 to 2018.

Linked Wealth-Death Sample

A concern with the interpretation of average wealth differences by ethnicity is that we could be comparing populations with different demographics. For example, the Irish dying in England could be an unrepresentative subset of all Irish living in England. A richer, healthier majority may live in England, but later return home to Ireland and die there rich and old. Thus, we would like to control for age at death as a check against this in our analysis.

¹⁶ The PPR Calendars record wealth held in England and Wales for decedents. Thus, some rich Irish residing in Ireland with assets in England will be reported. This will result in a marginal upward bias in our estimates of the wealth of the Irish in England.

LINKED DATA CHARAC	TERISTICS, UNIQUE ADULT I	DEATHS TO TTK CALENDAR
	All Adult Deaths	Unique Adult Deaths
N adult deaths	52,115,209	22,274,610
N linked to probate		3,758,636
Age	65.72	65.75
SD	17.07	17.33
Female dummy	0.50	0.54
SD	0.50	0.50
Birth year	1,872.60	1,876.50
SD	33.01	32.58
Death year	1,938.32	1,942.64
SD	35.57	34.53
Real wealth		21,463.35
SD		333,161.55

TABLE 4
LINKED DATA CHARACTERISTICS, UNIQUE ADULT DEATHS TO PPR CALENDAR

Notes: Real Wealth is in £2015. Deaths 1866-1992.

Source: Vital Register Index, 1866-1992.

The PPR Calendar data do not report age at death. But the death registers do, from 1866 to 2007. There are nearly 75 million deaths in England and Wales over this period. While many of these death records have "common" names, in that the first-forename and surname combination appears more than once in a year, ¹⁷ a large number of these records are "unique." About half, 38 million records, correspond to a first-forename and surname combination that is the only occurrence in a given year. As we want to maximize accuracy, we use only these "unique" names to link the two databases.

The records were linked where there was an exact concordance of first-forename, surname, and year of death between the PPR Calendar data and the Death registers. Examples of these links are Mary Crutch (d. 2004), Rollings Watson (d. 1990), Selina Broadhurst (d. 1885), Emily Brand (d. 1937), and Cedric Fielding (d. 1931). As stated previously, we only attempt to link unambiguous matches where a decedent was one of these unique individuals who died in a given year. In other words, any person who held a name that did not uniquely identify a death in a year was dropped from the attempted link.

Table 4 reports some details of this process. Of the 52 million adult deaths (deaths of people 20 and above), 22 million are "unique," as defined earlier. We are able to find 6 million of these adult deaths via linking on name and death year. For those not linked, 18 million, we can infer wealth.¹⁸

¹⁷ For example, there are 285 "Elizabeth Jones" dying in 1905.

¹⁸ Note that our "unique" sample is more heavily female (54 percent versus 50 percent compared with all adult deaths). This is because there is a greater variety of female forenames.

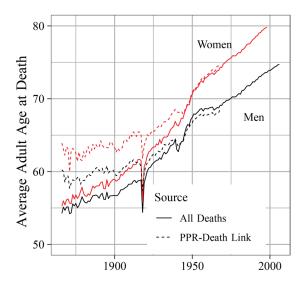


FIGURE 3
AGE AT DEATH OVER TIME, ALL DEATHS, AND LINKED PROBATE-DEATHS

Source: PPR Wealth Data.

Figure 3 reports the average age at death for the linked PPR-Death data, and that for the general population, by gender. Before 1945, probated men and women were significantly older than the general population. This probably reflects the well-known social status gradient in mortality. After 1950, females are exactly representative of females in the general population. However, from 1950 to about 1975, linked men are younger. We speculate that this unexpected pattern is a result of younger men being either richer than older men in this period (and thus more likely to make probate), or having a greater tendency to arrange probate, or both.

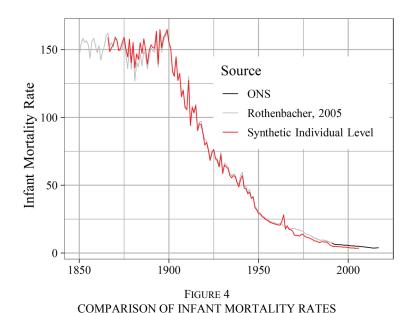
Infant Mortality

Infant mortality rates, by ethnicity *e*, are calculated for 1866 to 2007 from the birth and death registers.

$$m^e = \frac{\sum d_0^e}{\sum b^e} \tag{3}$$

Where d_0 are deaths where the integer age is zero (and thus less than one year old), and b are the number of births, by year.

To analyze the determinants of infant mortality in more depth, we constructed a "synthetic" individual-level dataset based upon a cross-tabulation of the death and birth registers. First, we extracted all the death



Sources: Synthetic individual-level data from 100 percent transcriptions of deaths and births, 1866–2007, Rothenbacher (2005); Office for National Statistics (2019).

register data, by individual, on infant deaths. By comparing the counts of this individual-level data with the counts of births, we calculate how many births survived their first year of life, by ethnicity, district, and year. We then appended to this infant death data a new observation for every survivor with a dummy coded as zero where a birth survives, and as one where the newborn dies in their first year of life. This results in a "synthetic" individual-level database, not dependent on linking names, that we analyze in a standard regression framework. Figure 4 compares the resulting individual-level estimate of the infant mortality rate from the synthetic data with that from official sources and Rothenbacher (2005). The individual rates from the synthetic data correspond closely to existing estimates.

RESULTS

Wealth

Figure 5 presents the pattern of wealth for the major ethnic groups of England and Wales, 1858 to 2018.²⁰ Wealth is normalized so that

¹⁹ We assume that infant deaths are registered in the same district as their birth.

²⁰ The data and replication files for all of these results are available (see Cummins and Ó Gráda (2024) as listed in the references to this paper).

the wealth of those with English names is set to one. The Scottish are probated at a higher rate, are richer on average, and have 50 percent greater representation among the top 1 percent of wealth holders. This advantage has declined over time. By 1960, proportions probated, and by 1990, wealth, were both approximately equal to those of the English. However, the top 1 percent Scottish "effect" is ever-present, 1858 to 1992. Throughout, the Welsh and the English have almost exactly the same probate rate. The Welsh are always poorer, however, and have a lower probability of being in the top 1 percent. But Welsh average wealth, by around 1990, is close to that of the English. Thus there is evidence of the convergence of wealth between ethnic groups in England and Wales, and a striking reversal of the status of non-British or Irish ethnicities.

The Irish in England did not share in this convergence, at least until very recently. Throughout, they had lower probate rates, lower average wealth, and lower probabilities of being in the top 1 percent. The Irish "effect" was persistent throughout. The disadvantage was not constant over time, however. Between 1858 to 1990 the proportion of Irish probated was always at least 20 percent lower than the English, but it rose sharply between the 1860s and the 1920s and then stagnated for half a century before rising again in the 1970s and 1980s. Average wealth for the Irish fluctuated less. The ratio rose between the 1870s and the Great War, but stuck thereafter at about 75 percent that of the English, while the relative Irish probability of being in the top 1 percent rose up to the early 1920s and declined thereafter to about one-third c. 1980.

We therefore can periodize the speed of Irish-in-England wealth convergence into three distinct phases. The first, 1860–1900, is a period of consistent year-upon-year convergence. After 1900, and excluding some oscillations associated with WWI, and a significant rise in the probate rate 1920–30, there is no change in the relative wealth status of the Irish to the English all the way to 1980. After 1980, we see significant but not complete convergence.

Figure 6 compares the wealth distributions of the British and Irish. The two prominent peaks in all plots are a result of the attribution of inferred wealth to those who die with wealth below the probate threshold. As can be seen from Panel (a), which compares the English and Irish, the share of top wealth holders amongst the Irish is lower. The Irish underrepresentation in the top 1 percent, as reported in Figure 5d, is apparent at every moment of the wealth distribution. This is not the case for the Welsh and the Scottish.

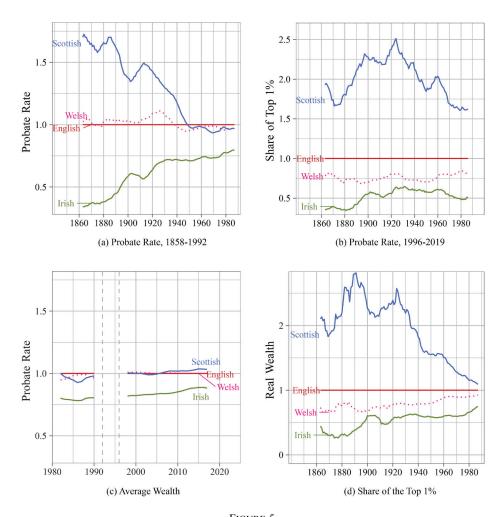


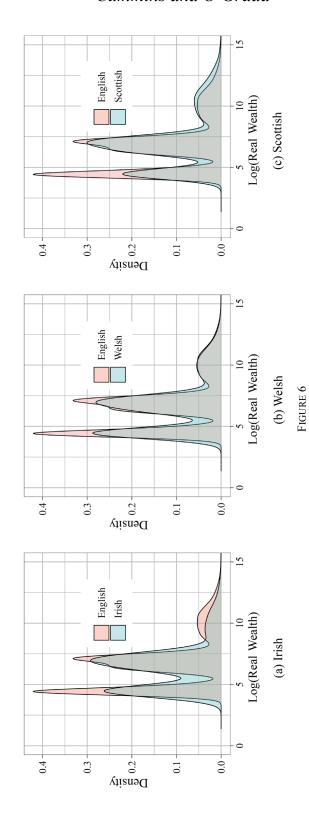
FIGURE 5 THE WEALTH OF THE IRISH AND BRITISH, 1858–2018

Notes: English surnames are set to one in all figures.

Source: PPR Wealth Data.

WEALTH CONTROLLING FOR AGE AT DEATH AND PLACE OF DEATH

Might the wealth patterns reported have been the product of the more successful among the Irish spending their working lives in England and then returning home? While there has always been return migration, neither the representativeness nor the motivations of the returnees are known. However, there is a presumption that the paucity of welfare networks for the elderly in Ireland in the past made it less likely for the very poor to return (Malcolm 2006, pp. 107–9). Moreover, the numbers



Source: PPR Wealth Data.

THE DISTRIBUTION OF WEALTH, BRITISH AND IRISH

of elderly returnees were usually modest: between 1946 and 1991, total net migration of those aged 65 and over averaged 1,400, while in 1991 the total number who had returned from England and Wales at some point when aged 65 or above was 6,265 (Malcolm 2006, pp. 38–40). These would have been very small proportions of the Irish population in England, first generation and other, at any one time.

The following exercise adds further perspective. Suppose the more successful Irish spend their working lives in England and then return home. This would lead us to observe lower wealth (and lower age at death, as will be shown later), because the older and richer Irish were not in England, but in Ireland, when they died. The Irish who died in England could be a younger population with mechanically lower wealth because of life-course effects. To assess this, we use the linked PPR-Death data, as described in the methodology section previously, to estimate wealth controlling for age at death.

Another confounder is the locational choice of Irish migrants. The Irish wealth effect evidenced earlier could simply reflect the urban character of Irish life in England during the period. Of course locational choice is endogenous to wealth, but we can ask how much of the Irish wealth effect is attributable to locational sorting by including controls for place of death.

Table 5 reports the results of the regression

$$log(w_i) = D_i^F + Age_i + Age_i^2 + \Sigma D^E + \Sigma D^R, \qquad (4)$$

where w_i is real wealth, both observed in the PPR Calendars, or inferred; D represents a dummy variable for one of f, female; e, ethnic group; and R, one of the over 1,000 registration districts of death in operation over the sample period.

Since wealth and age at death are endogenous, we do not assign causality to these correlations. More modestly, the test is whether controlling for age at death attenuates the "Irish" effect. If it does, then that would be consistent with the Irish simply being a younger "at risk" population, as measured by English wealth and death registers, with the richer, older Irish returning to die in Ireland. If the effect is still there, controlling for age, then that is consistent with a genuine "Irish" negative wealth effect.

Table 5 reveals that the Irish "effect" is only very modestly reduced by the inclusion of age at death controls.²¹ Further, in all sample periods, the Irish coefficient is statistically indistinguishable where age controls are

²¹ Note that this contrasts with the effect of place on infant mortality, as reported in Table 6.

			ln(Real	Wealth)		
	1866-	-1899	`	0–49	1950-	-1992
	(1)	(2)	(3)	(4)	(5)	(6)
Female	40***	41***	29***	30***	12***	13***
	(.002)	(.002)	(.001)	(.001)	(.001)	(.001)
Welsh	.04***	.02**	.14***	.13***	.01***	.03***
	(.01)	(.01)	(.004)	(.004)	(.003)	(.003)
Scottish	.09***	.08***	.05***	.04***	09***	09***
	(.01)	(.01)	(.005)	(.005)	(.003)	(.003)
Irish	43***	39***	43***	38***	25***	22***
	(.01)	(.01)	(.004)	(.004)	(.002)	(.002)
Other	08***	08***	20***	17***	11***	12***
	(.01)	(.01)	(.01)	(.01)	(.003)	(.003)
Age at death quadratic?	•	•	•	•	•	•
District fixed effects?		•		•		•
Observations	3,155,344	3,155,344	7,716,522	7,716,522	10,430,698	10,430,698
R2	.02	.03	.02	.05	.005	.02

TABLE 5
WEALTH AND ETHNICITY, LINKED DATA: DEATHS LINKED TO PPR,
CONTROLLING FOR AGE AT DEATH AND DISTRICT OF DEATH

Notes: *p<0.05; **p<0.01; ***p<0.001. OLS, English is the omitted Group. *Source*: Linked PPR Wealth - Vital Register Index Data, 1866–1992.

used, or not. See the Online Appendix section that decomposes the Irish wealth effect.²²

The Irish wealth penalty is not a result of older Irish leaving England. Nor is it just a result of locational choice.

Infant Mortality

Infant mortality rates are a sensitive indicator of a population's material living standards and health (Huck 1995; Baird, Friedman, and Schady 2011). Figure 7 presents the pattern of infant mortality for the British and Irish ethnic groups of England and Wales, 1866 to 2007. As with wealth, infant mortality is normalized so that of the English is set to one, by year.

English, Welsh, and Scottish ethnicities have broadly similar infant mortality rates from 1866 to 2007. The Irish register infant mortality rates 20 to 25 percent higher than the English 1866 to about 1950. Thereafter, rates slowly converged by about 1990.

Infant mortality rates were much higher in urban areas during the nineteenth century (Woods 2000). Was the higher infant mortality rate of the Irish a product of migration into urban slums?

²² Online Appendix Tables 10 and 11 examine the probability of being probated, controlling for age at death and county of death. Online Appendix Table 12 examines probated real wealth, controlling for age at death and county of death.

			Died as an Ir	nfant*1000		
	1866	-1899	190	0–49	1950-	-2007
	(1)	(2)	(3)	(4)	(5)	(6)
Scottish	-13.54*** (0.71)	-20.62*** (0.71)	-3.93*** (0.42)	-7.39*** (0.42)	-0.18 (0.13)	-0.42** (0.13)
Other	-12.65*** (0.93)	-28.12*** (0.95)	-15.01*** (0.48)	-22.61*** (0.50)	2.08*** (0.11)	1.21*** (0.12)
Irish	30.70*** (0.50)	13.63*** (0.51)	19.37*** (0.29)	9.52*** (0.30)	0.98*** (0.09)	-0.12 (0.09)
Welsh	-11.47*** (0.24)	-4.90*** (0.29)	3.10*** (0.16)	0.58** (0.18)	0.50*** (0.07)	0.36*** (0.07)
District fixed effects? Quadratic time trend? Observations	28,685,192	28,685,192	38,237,313	38,237,313	39,317,853	39,317,853
R2	0.0002	0.01	0.01	0.02	0.005	0.01

TABLE 6
INFANT MORTALITY AND ETHNICITY, CONTROLLING FOR PLACE

Notes: *p<0.05; **p<0.01; ***p<0.001. Linear Probability Model (OLS), English is the omitted Group. *Source*: Synthetic Infant Mortality Data from Vital Registers. 1866–2007.

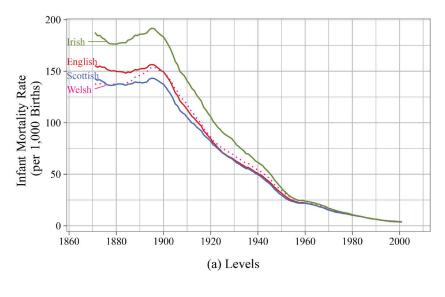
To examine this, we combined the birth and death data into a synthetic individual-level dataset as described in the methodology section. We then ran a linear probability model of infant death (D^{ID}) on the set of ethnic (E) and registration (R) district dummies (D) as

$$D^{ID} * 1000 = \Sigma D^E + \Sigma D^R D, \qquad (5)$$

(note that we multiply the infant death dummy (D^{ID}) by 1000 for ease of interpretation). Table 6 shows that about 50 percent of the Irish infant mortality effect is due to sorting between registration districts. Of course, there could be further sorting within these districts that we do not observe. Given the degree of attenuation, once district fixed effects are included, we suspect that the majority of this Irish mortality penalty could be due to geography.

REGIONAL DIFFERENCES

The Irish in England have been significantly poorer at death, and until recently faced higher mortality for their infants than the English. The Irish were disproportionally urban, but as we have shown, this does not explain all of the disadvantages. The possibility remains that there are different levels and trends in Irish assimilation between the different



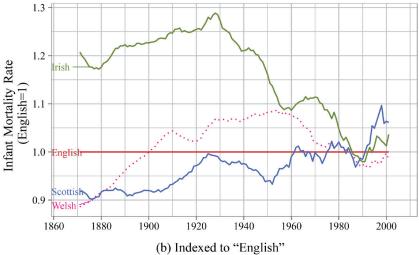


FIGURE 7 THE INFANT MORTALITY RATE, MAJOR ETHNICITIES, 1866–2007

Source: Vital Registers of Births and Deaths, 1837–2007.

regions of England. In order to examine this, here we split England into its historic North and South divisions. For the South, we separate out London.²³

Figure 8 reports the trend of wealth for the British and Irish ethnicities 1860 to 1992, by region. It is evident that the majority of Irish

²³ The North is comprised of the counties of Cheshire, Cumberland, Durham, Lancashire, Northumberland, Westmorland, and Yorkshire.

underperformance is attributable to the Irish experience in the North. In the South (excluding London), the Irish were richer at death than the English, 1860 to 1940. After 1940, the Irish fell behind the English, but the scale of the wealth gap, at around 10 percent, is small relative to that observed in the North. In London, the Irish are always poorer than the English (apart from a brief period around 1920). But again, this wealth gap is small (less than 10 percent) relative to that of the North.

In the North, the Irish had 25 percent of the wealth of the English in the nineteenth century. This rose to about 70 percent by 1992. The scale of this wealth gap dwarfs that of the South and that of London.²⁴ It is also worth noticing here that the Scottish over-performance is not present in the North.

Figure 8 reveals that the overall Irish-in-England wealth "effect" is driven in the main by a specific geographic penalty. It is not a simple interaction, however. It is not that the North was poorer, and that this mechanically drives the observation of an Irish wealth penalty. For example, if the Irish disproportionally migrate to the poorer North, this could drive the appearance of a wealth penalty overall. The birth records reveal that the Irish did disproportionally migrate to the North, as reported in Figure 9. Before 1950, over 50 percent of Irish births were in the North, compared to about 25 percent for the English. The Irish were more likely to be found in London and had about half the likelihood of being found in the South (excluding London). The Irish were twice as likely to be found in the poorer North than the native English. Thus the North-South divide is an important element in the economic history of the Irish in England.

However, as revealed in Figure 8, the Irish were far poorer relative to the English in the North than they were in the South, or in London. The specific social, economic, and cultural conditions of the North resulted in Irish migrants being much poorer than the English. Thus, the underperformance of the Irish in England is a result not only of disproportionate migration to the poorer North but even more so of an underperformance driven by the specific experience of the Irish in the North.

DISCUSSION

This paper has identified a large and persistent, though also timevarying, Irish penalty in wealth and in infant survival in England over the past century and a half. Why were these outcomes so severe for the nineteenth- and twentieth-century Irish? What explains why some periods were better for convergence than others? Why, during much of

²⁴ The infant mortality rates, reported in Online Appendix Figure 19, do not display the regional patterns of the wealth figures. Here we speculate that the urban penalty faced by migrants to both the North and South masks the status effect picked up by the wealth data.

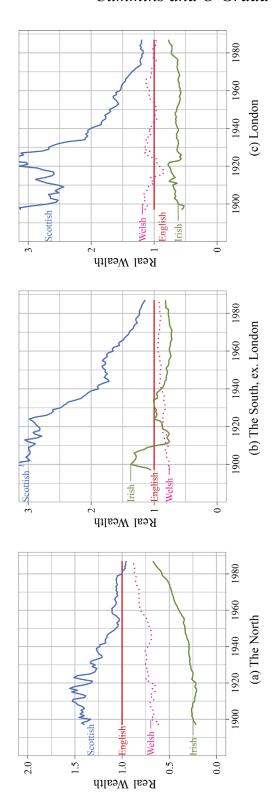
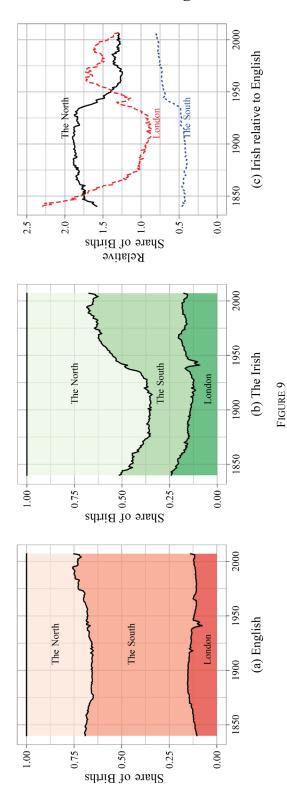


FIGURE 8
REGIONAL DIFFERENCES IN THE RELATIVE WEALTH OF THE IRISH

Notes: The English baseline is established by region. Ethnic classification is based upon the 1911 census. See Figure 9 and Online Appendix Figure 20 for the breakdown of the share of births by ethnic origin of surname. Source: PPR Wealth Data.



THE REGIONAL DISTRIBUTION OF BIRTHS, THE ENGLISH AND THE IRISH COMPARED

Source: Vital Registers, 1837-2007.

the twentieth century, did the gap in infant mortality rates decline while that in probate wealth did not? Our main objective in this paper has been to discover and describe outcomes rather than to explain them. We conclude with an informal discussion of some possible explanations, but leave a formal analysis of their causes for another day.

First, as infant mortality is measured contemporaneously and wealth is measured at death, it could be that the incomplete convergence of Irish wealth relative to English by 2018 and the convergence of infant mortality by the 1980s are telling the same story but with a lag on wealth. This remains to be seen, but very recent data (from the 2021 census (Office for National Statistics 2023)) on the self-declared health, educational status, and occupational profile of those of Irish ethnicity broadly corroborates.²⁵

Second, could the Irish simply have been sending their wealth home? This seems less likely. Although emigrant remittances, mainly from the United States, were an important feature of Irish life for a century or more after the Great Famine, hard data on them are lacking. Official data on Irish emigrant remittances are available for 1940 and 1970, when they were considered important enough to be recorded in the national accounts as income. These data are necessarily approximations, but it is reckoned that annual remittances from the United Kingdom to the Republic of Ireland averaged £5.7 million during that period. That implies that such remittances added about 1.5 percent to Irish GDP in mid-century and 0.5 percent in the 1960s. The contribution per Irish-born resident of the United Kingdom averaged £10–£12 over this period. It may be supposed that as the number of Irish-born declined, the average sum remitted per head rose as incomes rose. However, the Irish born were a minority of all those with Irish surnames in England throughout. Thus, remittances can only potentially explain a small proportion of the Irish wealth gap.²⁶

Third, there is the issue of selection, a key factor in the broader literature on the economics of migration. Over two centuries ago, in a much-cited passage, Adam Smith wrote of migration from Ireland to England:

"The chairmen, porters, and coal-heavers in London, and those unfortunate women who live by prostitution, the strongest men and the most beautiful women perhaps in the British dominion, are said to be, the greater part of them, from the lowest rank of people in Ireland" (Smith 1776, p. 161).

²⁵ Once differences in age distributions are controlled for the health status of the Irish and the British, they are almost identical, while the proportion of Irish with third-level or higher qualifications is higher at all ages. See Office for National Statistics (2023).

²⁶ For estimates of remittances from the United States to the United Kingdom, see Schrier (1958, pp. 167–8); Central Statistics Office (Dublin), Statistical Abstract, various years; Office for National Statistics (2013).

If migration from Ireland was indeed negatively selected, in that those who moved to England were disproportionally poorer in physical and human capital than those who remained, the patterns that we have described might reveal perhaps not so much an "Irish" effect as a "poor" effect. Certainly, Irish immigrants to England continued to be overwhelmingly working-class long after Adam Smith's time; in 1911, nearly four-fifths of Irish-born male workers were unskilled laborers, and 86 percent of females were in "domestic service" (Glynn 1981, p. 58). Moreover, in 1911 the censuses also suggest that the percentages with skilled occupations such as blacksmith, grocer, butcher, plumber, and carpenter—though not baker or tailor—were higher among the Irish who stayed at home than those who left, implying adverse selection.²⁷ Such a straightforward descriptive exercise for earlier censuses would probably lend more empirical ballast to Smith's observation from an earlier era.²⁸

There was selection too among emigrants to England relative to those who made their way to America; the more affluent made their way to America, while successive cohorts of the less affluent joined an English working class that was not upwardly mobile either. And this may help explain why those who arrived in the United States were less predominantly working class and why they were more upwardly mobile than their compatriots in England and their descendants (Collins and Zimran 2019; Anbinder, Ó Gráda, and Wegge 2019, 2022).

However, the fact that the Irish found themselves in lower-status occupations, poorer at death, and facing higher infant mortality rates for their children is not proof of negative selection.

There also remains the possibility of anti-Irish discrimination in the labor market, in health services, and in the generally unwelcoming, if not outright hostile, social landscape (see, e.g., Winder 2004). A recent study of the treatment of Irish defendants tried in London's Old Bailey finds that during the nineteenth century they were more harshly treated by juries than others in terms of likelihood of conviction and sentencing (Bindler et al. 2023). In the case of coal mining, studied by MacRaild (2010), one might have assumed that the Irish would have achieved parity of status eventually, but that was not so, at least before 1880; they were

²⁷ Personal communication from John Fitzgerald, Trinity College Dublin.

²⁸ The Irish censuses of 1901 and 1911 can also be used to estimate return migration rates for England. English-born children, linked to Irish-born parents, cross-tabulated with the numbers of Irish-born in the English censuses, can be used to calculate such rates. These returnees could also be compared to the general population, as Fernihough and Gráda (2024) do for American returnees in the 1911 census of Ireland. Finally, there is the option of using the socio-economic ranking of surnames in terms of occupational categories and location (as in Connor 2020) as a means of proxying selection. But surname rankings may vary over time, while accessible data survive only for 1901 and 1911, so we simply note this possibility here.

still underrepresented relative to their share in the labor force in 1881 and to be found disproportionately in the lower-paid, menial categories of work. That can hardly have been because they were happy to be so. Within Britain, the Irish have long been the "other" ethnic group. Writing in 1870, at a time when his links to the Irish community in England were closest, Karl Marx declared:²⁹

[...] in all the big industrial centres in England there is profound antagonism between the Irish proletariat and the English proletariat. The average English worker hates the Irish worker as a competitor who lowers wages and the standard of life. He feels national and religious antipathy for him. He regards him somewhat like the poor whites of the Southern States of North America regard their black slaves.

During the nineteenth and twentieth centuries, crude anti-Irish stereotyping was widespread, flaring up in periods of increasing Anglo-Irish tensions such as the 1860s, the 1880s, and during the Troubles of the 1970s and 1980s (Ó Tuathaigh 1981, pp. 162-3; De Nie 2004). Not for nothing does one well-known survey of Irish migration to Britain between 1750 and 1922 end with a chapter on "A Culture of Anti-Irishness," and a study of Irish migration in the interwar period that followed is entitled "Almost a Class of Helots in an Alien Land" (MacRaild 2010; Delaney 1999). But the stereotyping of the Irish made them seem more homogeneous than they really were. In Liverpool, and arguably in Glasgow too, it probably played a role in entrenching "a protective and defensive ... ethnic affiliation" that persisted for many decades (Belchem 1999, p. 129). And yet, despite the penchant of many for living in Irish neighborhoods, most of the immigrants married out from early on, and the declining use of Irish forenames in the nineteenth century suggests a degree of assimilation (Smith and MacRaild 2009).

In sum, this Irish status effect could reflect selection, discrimination, and slow assimilation, or some mix of the three. By comparing the Irish in England to the poor English, we can explore this further. In a world where status and wealth persist across many generations, as claimed by Clark and Cummins (2015) for England over the sample period of this paper, the Irish "penalty" could simply reflect the typical persistence of any identified poor group's status. To address this, we identify a set of poor and rich sub-groups of English and track their relative wealth over time. Starting with all "rare" English surnames, defined as having between 3 and 200 holders dying 1866–1900, we calculate average wealth for every

²⁹ As cited in Marx and Engels (Marx and Engels 1971, p. 254), "confidential communication," 28 March 1870.

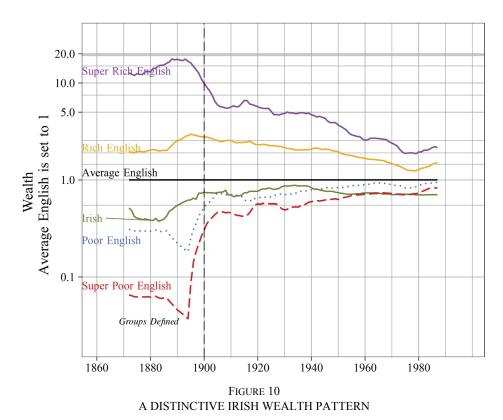
surname by combining the sum of probated wealth with the number of non-probated (whom we assume die with £1). We then compare these surname averages with the average for all English surnames over the same period. This gives us a snapshot of who was rich and who was poor, 1866–1900. We then define "Super Rich" surnames as those that have wealth three times that of the average, "Rich" as above average, "Poor" have wealth 10–20 percent of average, and "Super Poor" have wealth 10 percent of the average or less.

Figure 10 reports average wealth for these surnames during the period they were defined (1866–1900) and from 1900 to 1992. Notice that the regression to the mean is faster in the period immediately preceding when the groups were defined. This is because some rare surnames will randomly have high wealth, and some will randomly have low wealth. To measure social mobility, we thus need to examine the wealth trajectories post-1900. (See Clark et al. (2014) and Clark and Cummins (2015) for more detail on this idea.)

Figure 10 compares the Irish to this set of English wealth groups. It shows that between 1858 and 1992, the Irish only very modestly regressed toward English mean wealth, but at a much slower rate than any of the English wealth groups. In fact, between 1920 and 1992, there was really no movement in the relative wealth of the Irish. Social mobility was not occurring for the Irish in England for most of the twentieth century.

We cannot identify why the Irish persist as an underclass in England, poorer than even the English Victorian-defined "super poor" in 1992. If this were a result of labor market discrimination against the Irish, then we would need to also explain why the Scots, and also why almost all other ethnicities over the sample period, do not experience this (Cummins 2024). Or were the Irish special in this respect?

We conclude with a final reflection on the nature of the selectivity of migration from Ireland. As noted earlier, the evidence presented here and in the wider literature is consistent with migration from Ireland to England for most of the period under review being negatively selected. Perhaps the relentless addition of young, poorly educated immigrants for much of the twentieth century to the stock of Irish in England helps to explain the persistence of Irish non-convergence, as in Figure 10. By the same token, the scale of negatively selected migration from Ireland over most of the twentieth century, by increasing human capital per capita in the sending economy, may have played some part in Ireland's rapid economic growth toward the end of the century. A population consistently pruned of the bottom quartile of its human capital distribution may find itself better primed for economic growth once the right macro



Notes: "Irish" and "English" are defined for a surname based on the distribution of holders' locations of birth in the 1911 census. Taking rare English surnames who have between 3 and 200 holders dying 1866–1900, we calculate average wealth by combining the sum of probated wealth with the number of non-probated, whom we assume die with £1. We then average wealth over each surname and compare it with the average for all English surnames. "Super Rich" surnames are those that have wealth three times that of the average; "Rich" are above average; "Poor" have wealth 10–20 percent of average; and "Super Poor" have wealth 10 percent of the average or less. The figure shows that the Irish do not regress toward the mean 1920–92, and their wealth does not track that of the English "Super Poor."

Sources: 100 percent Death Register and Probate Calendar transcriptions.

conditions are satisfied. The surprisingly rapid convergence of Irish and English living standards in the 1990s and 2000s may therefore be related to the issues discussed in this paper.

In recent decades, the profile of Irish immigrants to England has changed, and data in the 2021 census of England and Wales reflect this (Office for National Statistics 2023). While the self-reported health of the middle-aged and elderly among the ethnic Irish (self-declared, but presumably mostly Irish-born) continues to lag behind that of the English, the proportion of Irish with third-level education considerably exceeds the proportion of English, particularly at younger ages. This suggests that in decades to come the economic wellbeing of Irish in England, as

reflected in probate data, may fully converge to, or surpass, that of the English.

CONCLUSION

Using surnames from the universe of probate and vital registers, this paper has documented the lower wealth and higher infant mortality of the Irish, 1866 to 2018. The Irish did worse at both the end and the start of life. The Irish were poorer not because the older and richer among them returned to Ireland; controlling for age makes no difference. However, the sorting of the Irish into areas with higher infant mortality rates does explain some of that inequity. The Irish wealth penalty is in the main driven by the experience of those who migrated and stayed in the North of England. Now that these previously invisible inequities have been revealed, future research can perhaps identify the forces that have kept the Irish as an underclass in England for so long.

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