

EHES WORKING PAPERS IN ECONOMIC HISTORY | NO. 37

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Preindustrial England

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APRIL 2013

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Abstract

In a recent paper Ferrie and Long (2012) argue that historically high levels of social mobility can lead to a culture of non-acceptance of redistribution and welfare provision. We apply this hypothesis to England, where it has been noted that, at least historically speaking, the North and the South of England were culturally very different. King (2000) argues that the North exhibited a ‘harsh culture of making do’ whereas the South exhibited a ‘culture of dependency’. We put these two propositions together and study occupational mobility in North- and South-England using the Cambridge Group data from the years 1550-1850. We find that, in the North, lower poor relief expenditures go hand-in-hand with higher levels of social mobility. In the South, on the other hand, occupational status is heavily determined by the father’s occupation. We also study intergenerational inheritance of pauperism, showing that the probability of becoming a pauper was heavily determined by a family history of pauperism in the South. We add to the literature by providing further evidence for a link between historical social mobility and the development of a welfare state.

JEL codes: J62, N33

Keywords: England, Poor Laws, social mobility, welfare

Acknowledgements:

We would like to thank Nicholas Crafts, Carl-Johan Dalgaard, Marc Klemp, Andreea-Alexandra Maerean, Karl Gunnar Persson, Jacob Weisdorf as well as participants at seminars and conferences for their help and suggestions. Thanks also to the Cambridge Group for allowing us to use the family reconstitution data.

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1. Introduction

Gaskell's famous novel from 1855 presents a stark contrast between the traditional class-ridden South of England and the dynamic industrializing North. But were there differences even before industrialization? This paper explores this question, and in particular looks for the relationship between welfare spending and social mobility.

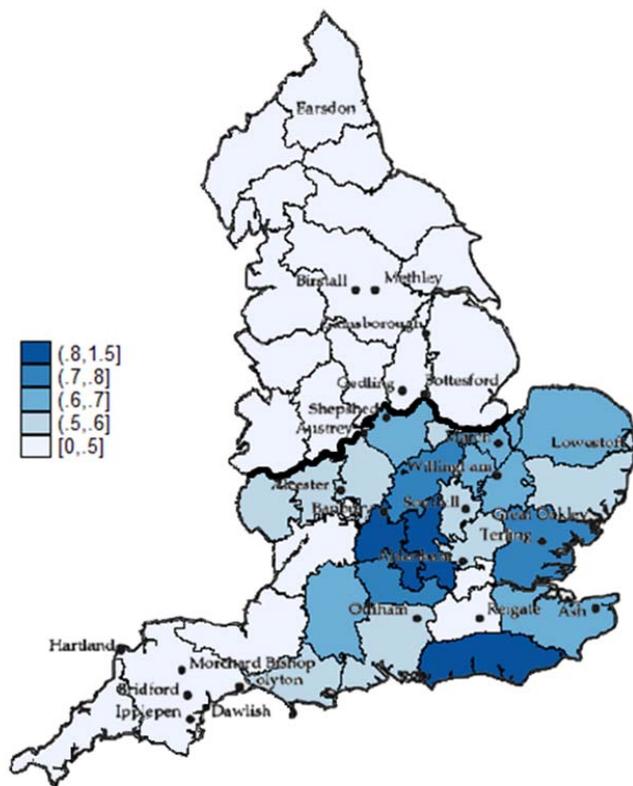
Piketty (1995) developed a model demonstrating that historically high levels of social mobility can lead to the development of a culture in which welfare provision is less accepted: if everybody has the same opportunities, there will be less willingness to pay for those who are not able to care for themselves. Ferrie and Long (2012) examine this hypothesis by comparing historical social mobility in the US and Britain and find evidence for higher levels of social mobility in the US in the nineteenth century. They interpret this as being consistent with the fact that the US has developed much less of a welfare state than Britain over the period examined.

In this paper, we argue that we can back up their claim with evidence from an earlier period, and for just one country, England. We believe that so doing has a number of advantages, most importantly in that we are effectively controlling for country specific differences, such as those we might imagine to give differences in social mobility and/or welfare spending between two different countries, such as the US and the UK. The fact that we are able to do so is largely due to two factors: first, that high quality micro-level family reconstitution data, linking occupations across generations, is available for historical England over a period of centuries, thanks to the labors of the Cambridge Group (see Wrigley et al 1997); second, historical welfare spending, through the so-called 'Poor Laws', was determined locally in historical England, rather than by the central government, thus allowing us to see differences in the generosity of welfare support within the country of England. Moreover, since a large part of the population of the United States is descended from immigrants from the British Isles, we believe that the evidence for the conjecture made by Long and Ferrie would be greatly supported by the finding that the pattern they observe was also true for historical England.

2. Cultural differences and Poor Law spending

Blaug (1964) described the Poor Laws as effectively 'a welfare state in miniature'. They were first institutionalized by law in 1601, but administration was handled at the parish level. Although there is no evidence on the parish level as to when Poor Laws were implemented, as the Webbs (1927) noted, already by 1630 there is evidence for widespread implementation of poor relief. Indeed, Slack (1990) finds that around 1600 most larger towns had poor relief systems in place, mostly located in the southeast of England. By 1660, this was true for around one third of the parishes and by 1700 poor relief was universal. The parishes in the Cambridge Group data, which we discuss below, were rural in character but generally larger than the average parish in England at the time (Wrigley, Davies, Oeppen and Schofield, 1997). They were thus probably not among the first parishes to implement poor relief, but it seems fair to assume that poor rates were in place by 1660.

Thus, although all poor were guaranteed relief, exactly how much was offered and who was eligible was decided by the individual parish. In fact, the levels of relief provided, as well as the number of applications turned down, varied greatly. In particular, there seems to have been marked differences in the generosity of relief between North and South England. The South relieved both more people and gave higher relief per capita, as illustrated in Map 1. Even the famous Poor Law Amendment Act of 1834 (the 'New Poor Law') left this structure basically unchanged (Blaug 1963), with the system only falling into decline during the twentieth century, leading to their total abolition after the Second World War, with the introduction of the modern welfare state.



Map 1: Per capita spending on poor relief by county 1803, population 1801.

Source: Marshall (1834)

As Map 1 shows, Poor Law spending essentially split the country into two, along the thick black line.² This was despite the fact that until the late eighteenth century, the north and northeast were the poorest parts of the country based on wealth (Buckatzsch, 1950 and Schofield, 1965). Based on wages this pattern was reversed by the mid-1790s (Hunt, 1986). Another potential explanation could be based on population density. Higher technological progress could lead to larger families and thus higher population density. Larger families could in turn imply less need for poor relief by the parish since there would be a larger kinship network to fall back on. When

² It should be noted here that including the southwest of England, Devon and Cornwall, which also had low levels of Poor Law spending, in the 'North' makes no difference to our results, since there are few observations from Devon, and none from Cornwall.

mapping population density, however, no pattern similar to the distribution of per capita poor relief spending as shown on Map 1 emerges.

The Poor Law Commissioners themselves expressed the belief that increasing poor relief expenditures during the second half of the eighteenth century were due to abuse of the system and a general disincentive effect of poor relief. This view was shared by economists and critics at the time, such as Malthus (1798) and Ricardo (1821). Revived interest in the poor laws in recent decades led to revisionist analyses (e.g. Blaug 1963 and Boyer 1990), which suggested that differences in poor relief spending were largely due to differences in economic structure. Boyer (1990) argued that relief expenditures were higher in those counties where poverty due to seasonality in agriculture was more prevalent: seasonal lay-offs had to be offset by poor relief in order to keep workers in the countryside. He concluded that relief expenditures were higher in the South due to the reliance on agriculture as opposed to pastoral farming in the North. His analysis is, however, restricted to differences between parishes within the South of England.

More recently, King (2000) has used evidence from the whole country and fails to find evidence for lower levels of poverty in the North. He thus does not believe that these differences can be attributed to different kinds of unemployment because there was rather high poverty in both regions. There is no evidence that the same levels of relief could not be afforded in the North, or that there was no demand. Instead, he argues convincingly that the difference in welfare spending was due to cultural differences between the North and South. He denotes the North as exhibiting a 'harsh culture of making do', whereas the South was 'more relaxed and inclusive' with a 'culture of dependency'. He demonstrates that in general relief was granted later and to fewer people in the North, and they received lower payments than in the South. Also, the process of granting relief was more based on monitoring and in depth investigation in the North. Moreover, there was more focus on giving pensions to the elderly, whereas in the South also younger men in need received relief. In fact, in the North pensions only provided around one third of subsistence level income, whereas in the South the pension was around

subsistence. He thus concludes that there was a deliberate choice to grant lower relief to fewer people – one based on culture.

Putting all this together, we hypothesize that this culture of providing less welfare in the North is rooted in higher historical mobility. Circumstantial evidence already points in favor of this idea: it has been suggested for example that the South exhibited ‘an awareness of rank and a clear recognition of the status which even the lowest position in a strictly hierarchical society conferred’ (Billinge 2012, p. 95). The next section thus focuses on demonstrating that there was a difference in social mobility between the North and the South, as defined in Map 1.

3. Documenting differences in social mobility

3.1 The data

The data underlying our analysis is described fully elsewhere (see Wrigley et al 1997). We use family reconstitution data compiled by the Cambridge Group, collected from 26 parishes across England from around 1550-1850. The usual caveats that apply to family reconstitution data should be kept in mind: for a good discussion of these issues see, for example, Ruggles (1999). Apart from birth, death and marriage dates, the data sometimes includes occupations. These were recorded at life events, mostly at marriage or death but also at births/baptisms or deaths of children. As occupations are mostly recorded for men, we restrict our analysis to intergenerational occupational mobility between fathers and sons. The representativeness of the subsample for which we have occupations is discussed at length by Boberg-Fazlic et al (2011): the occupational structure of the data used is very similar to that given by other studies, as one would expect if they are the result of a random draw from the entire population.

We categorize the recorded occupations into four groups, following Ferrie and Long (2012). These are listed in Table 1 below, together with some examples of the occupations they include. As mentioned earlier, occupations could be recorded at different points in time. For most individuals only one recording is available or the same occupation was recorded several times. If more than one occupation is available, we use the earliest possible recording. It would

certainly be preferable to have occupations recorded at the same point in life for fathers and sons as in Ferrie and Long (2012). On the other hand, our data has the advantage of providing a certain link between fathers and sons.

Table 1: Occupational categories

Occupational categories	Description
White collar	Professional, technical, kindred, managers, officials, proprietors, clerical, sales
Farmer	farm owners, farm managers
Skilled/Semi-skilled	Craftsmen, operatives
Unskilled	service workers, laborers (including farm laborers)

There are a number of obvious concerns about the data, which we address here. Most importantly, we only observe individuals as long as they remain in a certain parish. For the analysis of intergenerational social mobility this implies that we will only be able to link fathers and sons if the son gets married in the same parish as that in which he was born, and we therefore cannot capture those who are geographically mobile. Geographical mobility often occurred because of either good prospects for upward social mobility or a lack of opportunities to find work in the home parish. Whereas we cannot be sure whether those who leave the parish would be upwardly or downwardly mobile, the chances of them being relatively socially mobile are high, and our estimates of social mobility will therefore always present a lower bound. However, as long as there are no systematic differences in geographical mobility rates in North and South England this does not pose a problem for our analysis.

For the present study, it is especially important that there should be no geographical difference in the number of sons leaving the parish before marriage. As Table 2 demonstrates, the percentage of sons getting married in their parish of birth is rather similar for North and South England. Moreover, the percentage of men leaving their birth parish at some point in their life is very similar for North and South. We thus do not see that differing patterns of geographical

mobility can affect our analysis. It could also be that geographical mobility occurred for different reasons in the North and the South. Geographical mobility might differ to the extent that people are pushed out due to lack of employment in one region and pulled into larger cities in the other region. Evidence for the period we are looking at, however, shows that geographical mobility in general was rather local with no obvious regional pattern (see for example Clark 1979).

Table 2: Geographical mobility in North and South England

	men marrying in birth parish (%)	men dying in different parish (%)
North	0.16	0.49
South	0.12	0.45

Another issue with these data is that they only include married men: we can only observe the social mobility of sons born into a marriage and then in turn getting married. We are therefore unable to say anything about the social mobility of illegitimate sons or of sons who do not get married. However, for the period examined marriage was the norm.

3.2 The method

Our analysis of social mobility in England follows that described by Ferrie and Long (2012).³ A simple measure of social mobility is the percentage of off-diagonal entries in the mobility matrix, i.e. all sons that have an occupational category different from their father's. This measure, however, does not take into account the degree of mobility possible in a certain time or place due to the particular occupational structure. This makes the comparison of mobility tables with different occupational structures difficult. In order to compare social mobility at

³ This was made very much easier by the availability of the Stata program for performing the analysis in the appendix of Altham and Ferrie (2007).

different points in time or in different places, the marginal frequencies of one social mobility table are therefore adjusted to be equal to those of the other mobility table, and the proportion of off-diagonal entries are then compared (see Altham and Ferrie 2007). In this way, social mobility occurring because of different occupational structures is filtered out. We can thus answer questions such as whether social mobility was higher in the North even if it had the same occupational structure as the South, and it allows for the comparison of social mobility rates over time.

A rather more sophisticated way of measuring social mobility is to employ the method developed by Altham (1970). The Altham statistic measures the distance of a particular matrix to independence, i.e. to a matrix in which all entries are the same. In terms of social mobility this measures the distance of a particular social mobility table to perfect mobility, as perfect mobility is a situation in which the occupation of the father and the occupation of the son are independent from each other. When comparing two matrices we can also calculate the distance between the two. This has the advantage that we can get a significance level for the difference in mobility across time or place (see Altham and Ferrie 2007 for a more detailed discussion of this methodology). Thus, for two matrices \mathbf{P} and \mathbf{Q} with r rows and s columns, it is possible to calculate how far the association between rows and columns in \mathbf{P} departs from that in \mathbf{Q} using the following statistic:

$$d(\mathbf{P}, \mathbf{Q}) = \left[\sum_{i=1}^r \sum_{j=1}^s \sum_{l=1}^r \sum_{m=1}^s \left| \log \left(\frac{p_{ij} p_{lm} q_{im} q_{lj}}{p_{im} p_{lj} q_{ij} q_{lm}} \right)^2 \right| \right]^{1/2} \quad (1)$$

3.3 The results

We start by considering the level of mobility in England as a whole. Figure 1 illustrates the simple measure of mobility for each period, \mathbf{M}' , i.e. the number of off-diagonal entries for each period, where each matrix is given the same marginal frequency as that of 1850-1880. Also shown are the Altham statistics, $d(X, I)$, giving the distance to perfect mobility in each period. The last two periods are taken from Long and Ferrie (2012). Since their sample includes sons

who are geographically mobile it is not surprising that they find higher mobility rates, but generally there seems to be no clear trend in social mobility over the period 1550-1850.

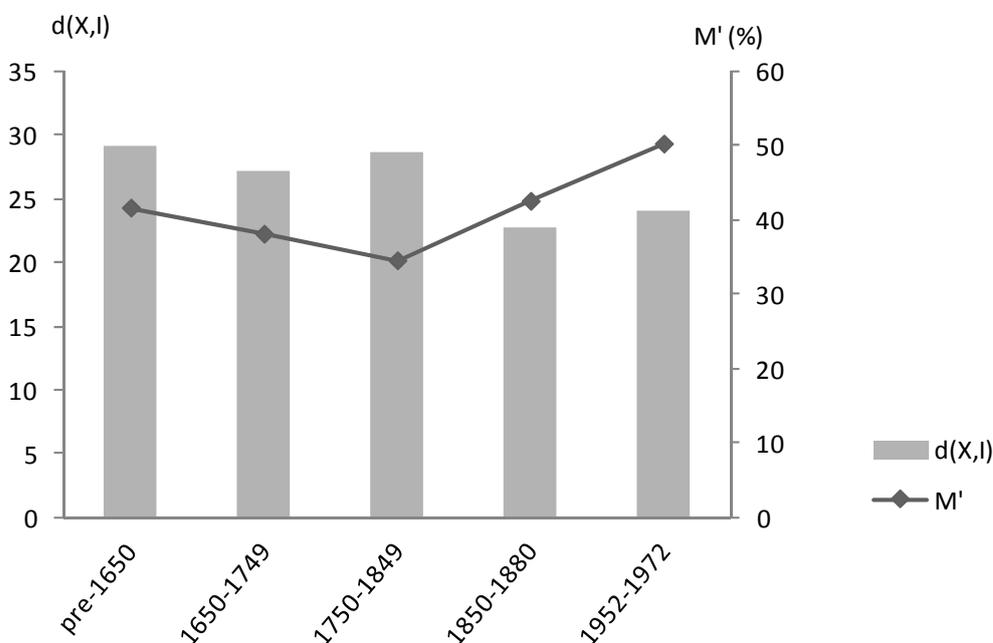


Figure 1: Social mobility in England from the sixteenth to the twentieth centuries

Taken together with the results of Long and Ferrie (2012), who also find little change in mobility in Britain between the nineteenth and twentieth centuries, our results suggest perhaps surprisingly constant mobility over five centuries. Work on social mobility before the nineteenth century is limited, although it is touched on by Boberg-Fazlic et al (2011). Ongoing work by Clark and Cummins (2012), based on an analysis of surnames, does, however, seem to back up our findings. They find little change in mobility rates from medieval England until today, institutional developments such as universal education and suffrage notwithstanding. They thus argue that, given the modest effects of major institutional changes on social mobility, the important determination of persistence is transmission within families.

We then turn to the main question of interest for the present work: was there a difference in social mobility between the North and the South of England? As far as we are aware, no other

studies have considered regional patterns of social mobility. As above, we divide our data into three periods, which relate to the comparison we want to make with the Poor Laws: first, we consider the years before 1650, which was the period when the Poor Laws were being established; second, we consider the period 1650-1749, which was one in which poor relief was established in all parishes; and finally we consider the period 1750-1849, when there was the explosion in expenditures which led to the Poor Law Amendment Act of 1834 and heavy cuts. In relation to this it should be noted that the vast majority of our observations come from before 1834. Also, for most of the following, we exclude the group of 'farmers', who are very few in number (see also Long and Ferrie 2012) – the matrices underlying our subsequent analysis are reported in the appendix. Including farmers often leads to zero entries in the social mobility matrices, which makes the calculation of the Altham statistics impossible (see equation 1). Table 3 provides summary measures of mobility in England, where we compare the North and the South. It should be noted that for the comparison, M in the North (South) should be compared to M' in the South (North), since here the marginal frequencies in M' have been put equal to that of M . $d(N,I)$ gives the Altham statistic for the North, compared to perfect mobility, as does $d(S,I)$ for the South. $d(S,N)$ gives the distance between the matrices for the South and the North.

Although one would mostly be concerned with the absolute mobility occurring in the region, in order to compare mobility in the two regions we adjust the mobility measures of the North to the occupational structure of the South. And the absolute mobility is shown in the first column of Table 3.

Table 3: Summary measures of mobility in North and South England

		with farmers		without farmers				
		M	M'	M	M'	d(N,I)	d(S,I)	d(S,N)
pre-1650	North	40.0	38.8	38.8	37.8	8.9 ***	11.7 ***	4.0 ***
	South	38.1	37.5	34.0	35.8			
1650-1749	North	39.7	41.7	37.8	35.7	11.5 ***	13.6 ***	3.6 ***
	South	32.8	32.3	29.0	30.6			
1750-1849	North	40.4	41.2	38.7	40.4	10.1 ***	15.6 ***	6.7 ***
	South	30.2	30.0	27.3	27.2			

** $p < 0.05$; *** $p < 0.01$

The results in Table 3 demonstrate clearly that, consistent with our hypothesis, social mobility was in fact significantly higher in the North in all periods. Figure 2 illustrates this graphically. Since a taller bar implies that the matrix is further from perfect mobility, this seems to suggest that social mobility was actually decreasing in the South over time, whilst it was relatively constant in the North. The difference is greatest in the final period, perhaps because of the early industrialization helping maintain mobility in the North despite declining total mobility.

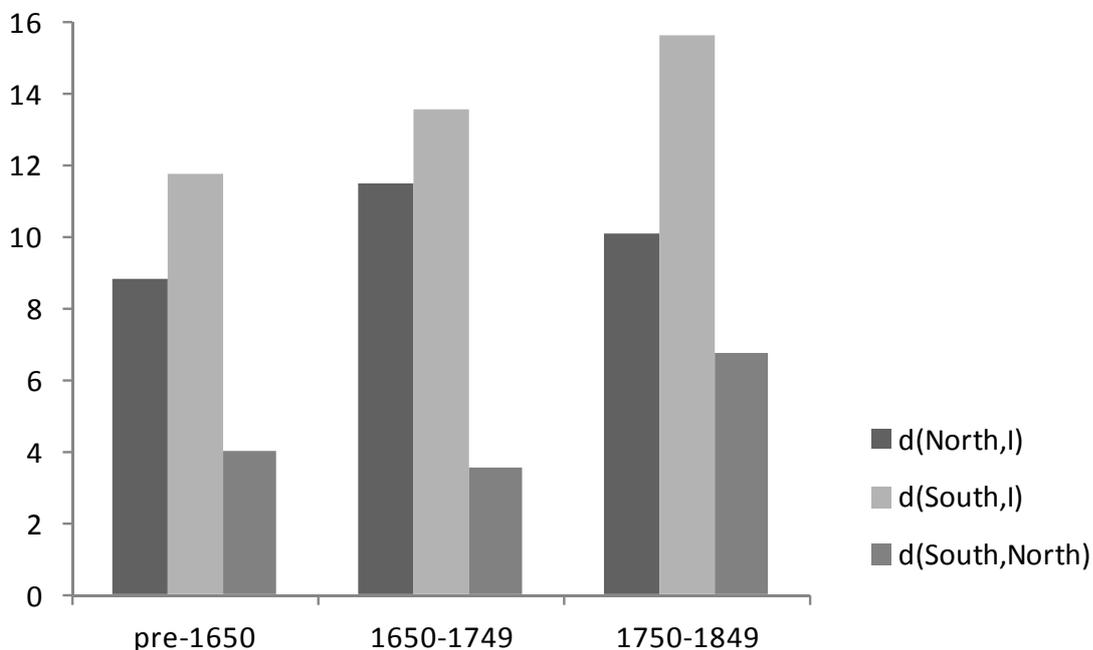


Figure 2: Altham statistics for North and South England, 1550-1849

In fact, if we divide the country into five regions⁴ (this is the most possible which gives us useable social mobility matrices), we find a clear negative correlation (-0.83) between poor relief spending and social mobility, as measured by M' : see Figure 3. The correlation with poor relief per capita is 0.37. So the correlation has the right sign even at a more local basis than the North-South divide, although of course we cannot say anything about significance with just five observations.

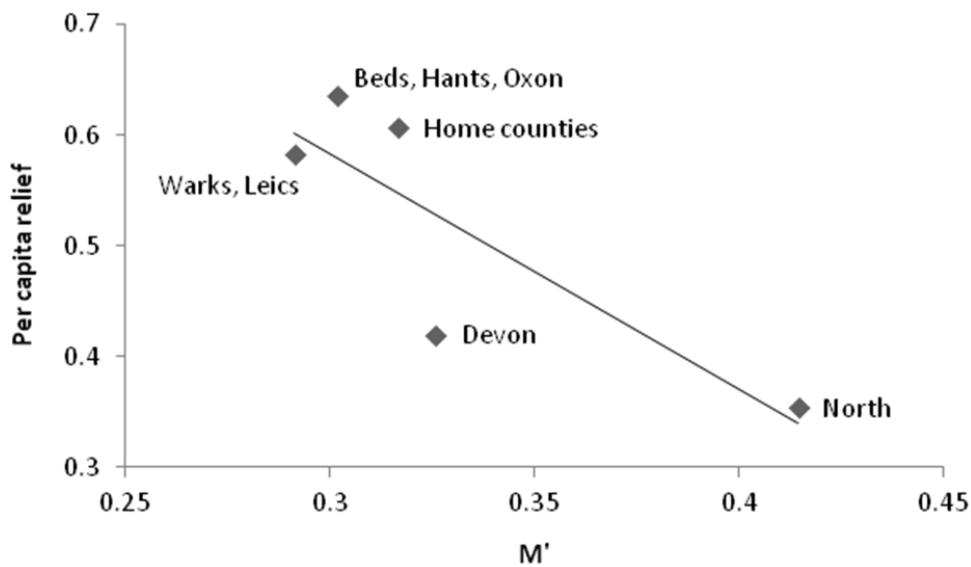


Figure 3: Total mobility and per capita relief by region

The south-eastern counties cluster together with relatively low social mobility and high per capita expenditures on poor relief. The North stands out at the other extreme with relatively high social mobility and low per capita expenditures. Devon seems to be somewhere in between, which is in line with our analysis above. Thus, even on a more disaggregated, regional

⁴ (Northumberland, Yorkshire, West Riding, Lincolnshire, Nottinghamshire); (Warwickshire, Leicestershire); (Devon); (Hampshire, Oxfordshire, Bedfordshire); and (Suffolk, Cambridgeshire, Essex, Hertfordshire, Surrey).

level we find evidence for the hypothesized relation between social mobility and welfare spending.

Following Long and Ferrie (2012), we now proceed to decompose the differences in mobility between the North and the South for each period. This allows us to understand further the reasons for the differences. Table 4 does this for the pre-1650 period.

Table 4: Components of $d(\text{North}, I)$, $d(\text{South}, I)$ and $d(\text{South}, \text{North})$, pre-1650

pre-1650 Contrast	$d^i(\text{North}, I)$	Odds Ratio	$d^i(\text{South}, I)$	Odds Ratio	$d^i(\text{South}, \text{North})$	Pct. Of Total
[(US)/(UW)]/[(WS)/(WW)]	2.99 **	4.47	5.50 ***	15.62	2.50 ***	38.7
[(SS)/(SW)]/[(WS)/(WW)]	2.90 ***	4.26	4.97 ***	12.02	2.07 ***	26.5
[(UU)/(UW)]/[(WU)/(WW)]	5.54 ***	14.30	6.87 ***	41.00	1.33 ***	10.9
[(US)/(UU)]/[(WS)/(WU)]	2.55 **	0.28	1.37	0.50	1.17 ***	8.5
[(SS)/(SU)]/[(WS)/(WU)]	0.32	1.17	1.37	1.98	1.04 ***	6.7
[(SU)/(SW)]/[(WU)/(WW)]	2.58 **	3.63	3.61 ***	6.07	1.03 ***	6.6
[(SS)/(SW)]/[(US)/(UW)]	0.95	0.95	0.52	0.77	0.43 ***	1.1
[(SU)/(SW)]/[(UU)/(UW)]	2.96 ***	0.23	3.26 ***	0.20	0.30 ***	0.6
[(SS)/(SU)]/[(US)/(UU)]	2.87 ***	4.19	2.74 ***	3.93	0.13 ***	0.1

The first two lines in Table 4 are about entering skilled rather than white collar occupations and describe the majority of the difference between mobility in the North and the South. In the South, if you have an unskilled father, you are 16 times more likely to enter a skilled rather than a white collar occupation, than if you have a white collar father. In the North this is only four times more likely: i.e. it is roughly four times more likely in the North. This difference is around 3 to 1 when comparing having a skilled rather than a white collar father. So the difference in total mobility is largely due to there being a greater barrier to moving into white collar occupations in the South.

Table 5: Components of $d(\text{North},I)$, $d(\text{South},I)$ and $d(\text{South},\text{North})$, 1650-1749

1650-1749 Contrast	$d^i(\text{North},I)$	Odds Ratio	$d^i(\text{South},I)$	Odds Ratio	$d^i(\text{South},\text{North})$	Pct. Of Total
$[(US)/(UU)]/[(WS)/(WU)]$	1.63 **	0.44	3.49 ***	0.17	1.87 ***	27.7
$[(SS)/(SU)]/[(US)/(UU)]$	2.59 ***	3.65	4.14 ***	7.94	1.56 ***	19.3
$[(SS)/(SW)]/[(US)/(UW)]$	0.88	0.64	0.63	1.37	1.51 ***	18.1
$[(UU)/(UW)]/[(WU)/(WW)]$	6.96 ***	32.38	8.23 ***	61.09	1.27 ***	12.8
$[(SU)/(SW)]/[(WU)/(WW)]$	3.48 ***	5.70	4.71 ***	10.53	1.23 ***	12.0
$[(SS)/(SW)]/[(WS)/(WW)]$	4.45 ***	9.24	5.36 ***	14.59	0.92 ***	6.7
$[(US)/(UW)]/[(WS)/(WW)]$	5.33 ***	14.37	4.73 ***	10.67	0.60 ***	2.9
$[(SS)/(SU)]/[(WS)/(WU)]$	0.96	1.62	0.65	1.39	0.31 ***	0.8
$[(SU)/(SW)]/[(UU)/(UW)]$	3.47 ***	0.18	3.52 ***	0.17	0.04 ***	0.0

Table 5 repeats the same exercise for the period 1650-1749. In this case, the first two entries are about entering skilled rather than unskilled occupations. In the South, if you have an unskilled father, your chances of having a skilled occupation rather than an unskilled one are negligible. Although they are also very low in the North, they are nevertheless three times greater than in the North, and this accounts for 28 percent of the total difference in mobility. Moreover, the difference in the chances of entering a skilled rather than an unskilled occupation if you have a skilled father rather than an unskilled father are two times greater in the South than in the North. So for sons of unskilled fathers there is a greater barrier to entering skilled occupations in the South.

Table 6: Components of $d(\text{North}, I)$, $d(\text{South}, I)$ and $d(\text{South}, \text{North})$, 1750-1849

1750-1849 Contrast	$d^i(\text{North}, I)$	Odds Ratio	$d^i(\text{South}, I)$	Odds Ratio	$d^i(\text{South}, \text{North})$	Pct. Of Total
[(UU)/(UW)]/[(WU)/(WW)]	5.61 ***	16.50	9.50 ***	115.42	3.89 ***	33.4
[(US)/(UU)]/[(WS)/(WU)]	0.99	0.61	4.59 ***	0.10	3.60 ***	28.6
[(SS)/(SU)]/[(US)/(UU)]	2.24 ***	3.06	4.73 ***	10.64	2.49 ***	13.7
[(SU)/(SW)]/[(WU)/(WW)]	3.70 ***	6.36	5.91 ***	19.18	2.21 ***	10.8
[(SU)/(SW)]/[(UU)/(UW)]	1.91 **	0.39	3.59 ***	0.17	1.68 ***	6.2
[(SS)/(SU)]/[(WS)/(WU)]	1.25	1.87	0.14	1.07	1.11 ***	2.7
[(SS)/(SW)]/[(WS)/(WW)]	4.95 ***	11.89	6.05 ***	20.58	1.10 ***	2.7
[(SS)/(SW)]/[(US)/(UW)]	0.33	1.18	1.14 **	1.77	0.81 ***	1.4
[(US)/(UW)]/[(WS)/(WW)]	4.62 ***	10.08	4.91 ***	11.63	0.29 ***	0.2

Finally, Table 6 shows in the second and third lines that much of difference in social mobility is due to the same reasons as given for the previous period. The novelty, as demonstrated by the first row, is that it is much more likely in the South rather than the North that the son of an unskilled father also has an unskilled rather than a white collar occupation. This accounts for around one third of the difference in mobility between North and South.

To summarize, it seems that much of the difference in mobility between the North and South in every period is due to the relative ease with which the sons of unskilled fathers are able to move into skilled or white collar occupations. This implies lower upward mobility in the South, but we can look in more detail at the extent of upward and downward mobility using the matrices in the appendix. Here, as an example of upward mobility, we focus on the proportions of sons either in skilled or white collar occupations, despite having a father in the unskilled category. We also look at those sons entering unskilled occupations, despite having a father in a white collar or skilled profession. This is an example of downward mobility. We then compare the relative sizes of these statistics to determine whether there is more upward or downward mobility out of and into the unskilled occupations. We could also have looked at movement into and out of the skilled and white collar categories, but we decide to leave this, since the relative ranking of the occupations is less clear here. For example, is it really upward mobility if

the son of a skilled artisan becomes a school teacher? Certainly the amount of education required is not necessarily less. The ranking thus seems clearer between unskilled occupations and the others.

For the period before 1650, in the North 51 percent of all sons of unskilled fathers moved to skilled or white collar occupations before 1650, compared to 61 percent of those in the South. This difference disappears when using the marginal frequencies of the North (both 51 percent). Turning to downward mobility, in the North 19 percent of all sons moved into unskilled labor, compared to 11 percent in the South, but again the difference disappears when using the marginal frequencies of the North (both 19 percent). This does not contradict the findings above, since as shown in Table 4, the difference in mobility between the North and the South is due to differences in entering skilled versus white collar occupations, and not differences in moving into or out of unskilled occupations. There is, however, clearly more upward mobility from than downward mobility to the unskilled occupations for the country as a whole.

Turning to the period 1650-1749, mobility out of unskilled occupations is 54 percent for the North compared to 43 percent for the South, and this changes very little even when using the marginal frequencies for the North (54 versus 42 percent). In terms of downward mobility, 19 percent moved into unskilled occupations in the North compared with 14 percent in the South (15 percent using the marginal frequencies of the North). There is thus more upward mobility than downward, but both upwards and downward mobility were greater in the North, and this has nothing to do with differing occupational structures.

For the final period, 1750-1849, there is a similar pattern: 57 percent versus 27 percent (or 41 percent) upward mobility; and 20 percent versus 21 percent (or 13 percent) for downward mobility. Here the different occupational structures clearly make a large difference, as might be expected considering what we know about the industrialization of the North, but when accounting for this, the differences seem similar to in the previous period: both upward and downward mobility are considerably greater in the North.

4. The social mobility of paupers

Since this is a study of the Poor Laws, it might also be interesting to say something about the social mobility of the poor. Sometimes occupation is recorded as 'pauper' in our data, which is of course not an occupation *per se*, and is therefore not included in our analysis of social mobility. This means, however, that we can look at the intergenerational inheritance of pauperism, i.e. whether sons of paupers were more likely to become paupers themselves. Unfortunately, in the North there are very few observations on father-son pairs being paupers. But we can look at this issue in the South.

Of course, we do not know whether those who are recorded as paupers in our data also received relief. However, poor relief was mostly given to the elderly, the sick (insane) or families with children in distress. Given the data we have, if anybody received relief, it was most likely those recorded as paupers. As only married men are included in the Cambridge data, we would probably mostly observe families in distress or elderly men on relief in the cases where burial occupation is recorded as 'pauper'.

Thus, in order to look at the intergenerational inheritance of being a pauper we run a regression of whether a son has ever been recorded as 'pauper' on whether a father has ever been recorded as 'pauper' in his life. The results are reported in Table 7 below. We also include period dummies to capture possible time effects. Note that this regression is only run for the South. The results show that sons of paupers were in fact 28 times more likely to become paupers than sons of fathers who have never been recorded as paupers. Unfortunately, we cannot compare this to the North, but the rather high persistence of pauperism in the South goes hand-in-hand with the lower social mobility in this region discussed earlier.

Table 7: Intergenerational inheritance of pauperism

	pauper
father_pauper	3.341*** (2.73)
P1650-1749	0.535 (0.93)
P1750-1849	-2.241** (2.00)
P1650-1749*father_pauper	-2.285 (1.41)
P1750-1849*father_pauper	-0.179 (0.10)
Constant	-4.727*** (9.41)
<i>N</i>	2,514

** $p < 0.05$; *** $p < 0.01$

5. Conclusion

We demonstrate that, despite rather constant social mobility for England as a whole, there is plentiful evidence that social mobility, both upwards and downwards, was greater in the North than in the South, although in the earliest period the differences in mobility largely concerned differences in mobility into the white collar occupations in the South. Considering the pattern of welfare spending, this seems yet more evidence for the Piketty/Long and Ferrie hypothesis that high mobility yields lower willingness to provide welfare spending.

What remains to be answered, of course, is exactly why there was this initial difference in social mobility between the North and South of England. Of course, it is well known that there are still considered to be large differences even today. The North enjoyed the benefits and challenges of the industrial revolution, and was greatly hit by the deindustrialization of the country during the twentieth century. Might the attitudes and social mobility of the North have helped foster the industrial revolution? Might these same factors present challenges in the very different

post-industrial Britain of the twenty-first century? Such questions might motivate us to look more into the long run cultural and institutional differences within countries, rather than simply relying on country averages.

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Appendix

Table A1: Mobility tables, intergenerational occupational mobility in Northern England, 100-year periods

		<i>Father's occupation</i>				
<i>Son's occupation</i>	<i>pre-1650</i>	<i>White collar</i>	<i>Farmer</i>	<i>Skilled / Semiskilled</i>	<i>Unskilled</i>	<i>Total</i>
	<i>White collar</i>	11	1	20	4	36
	<i>Farmer</i>	0	1	3	0	4
	<i>Skilled / Semiskilled</i>	16	0	124	26	166
	<i>Unskilled</i>	5	2	33	29	69
<i>Total</i>	32	4	180	59	275	

		<i>Father's occupation</i>				
<i>Son's occupation</i>	<i>1650-1749</i>	<i>White collar</i>	<i>Farmer</i>	<i>Skilled / Semiskilled</i>	<i>Unskilled</i>	<i>Total</i>
	<i>White collar</i>	32	0	36	7	75
	<i>Farmer</i>	3	1	8	3	15
	<i>Skilled / Semiskilled</i>	28	4	291	88	411
	<i>Unskilled</i>	12	3	77	85	177
<i>Total</i>	75	8	412	183	678	

		<i>Father's occupation</i>				
<i>Son's occupation</i>	<i>1750-1849</i>	<i>White collar</i>	<i>Farmer</i>	<i>Skilled / Semiskilled</i>	<i>Unskilled</i>	<i>Total</i>
	<i>White collar</i>	20	8	22	10	60
	<i>Farmer</i>	0	6	0	2	8
	<i>Skilled / Semiskilled</i>	24	8	314	121	467
	<i>Unskilled</i>	12	7	84	99	202
<i>Total</i>	56	29	420	232	737	

Table A2: Mobility tables, intergenerational occupational mobility in Southern England, 100-year periods

		<i>Father's occupation</i>				<i>Total</i>
		<i>White collar</i>	<i>Farmer</i>	<i>Skilled / Semiskilled</i>	<i>Unskilled</i>	
<i>Son's occupation:</i>	<i>pre-1650</i>					
	<i>White collar</i>	32	5	27	4	68
	<i>Farmer</i>	2	46	25	3	76
	<i>Skilled / Semiskilled</i>	21	20	213	41	295
	<i>Unskilled</i>	8	1	41	31	81
	<i>Total</i>	63	72	306	79	520

		<i>Father's occupation</i>				<i>Total</i>
		<i>White collar</i>	<i>Farmer</i>	<i>Skilled / Semiskilled</i>	<i>Unskilled</i>	
<i>Son's occupation:</i>	<i>1650-1749</i>					
	<i>White collar</i>	42	5	37	9	93
	<i>Farmer</i>	4	48	33	3	88
	<i>Skilled / Semiskilled</i>	42	22	540	96	700
	<i>Unskilled</i>	11	14	102	144	271
	<i>Total</i>	99	89	712	252	1,152

		<i>Father's occupation</i>				<i>Total</i>
		<i>White collar</i>	<i>Farmer</i>	<i>Skilled / Semiskilled</i>	<i>Unskilled</i>	
<i>Son's occupation:</i>	<i>1750-1849</i>					
	<i>White collar</i>	48	7	46	23	124
	<i>Farmer</i>	4	89	38	14	145
	<i>Skilled / Semiskilled</i>	40	35	789	223	1,087
	<i>Unskilled</i>	13	30	239	719	1,001
	<i>Total</i>	105	161	1,112	979	2,357

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