

## New representations of wealth distribution in Restoration England

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### Introduction

This paper uses *Hearth Tax Digital* to set out a national analysis of distributions of wealth and poverty in seventeenth century England through analysis of both textual and numerical data in the hearth tax returns. We argue that a north: south divide in population and hearth density was accompanied by an even sharper difference in wealth inequality, and in this respect Restoration England provided a distant mirror of one of the problems facing society in the early twenty-first century.

It has long been argued that the Restoration hearth tax can be used by to measure inequalities in wealth and poverty, but these studies have been typically been undertaken at city, county and parish levels rather than at the national level.<sup>1</sup> But, studies of wealth inequality which seek to compare data from the early modern period with other historical periods tend to opt for national perspectives.<sup>2</sup> Differences in scale are complemented by contrasts in methods: early modern historians often seek to locate their research in archival contexts with close reading of the texts, but many economists and economic historians coming to this theme from modern and contemporary perspectives favour the use of statistical techniques to deal with deficiencies in the data. This paper is intended to bridge this gap through the application of digital humanities: it moves between national and micro and from close mark-up of the hearth tax returns (and assessments) to advanced searches. Part I sets

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<sup>1</sup> It is difficult to summarise the full extent of this work since 1905, but each British Academy & British Record Society hearth tax edition provides historical analyses of wealth and poverty in county/urban frameworks: <https://www.roehampton.ac.uk/research-centres/centre-for-hearth-tax-research/publications/>; cf. Arkell (2003); Spufford (2000) for national surveys.

<sup>2</sup> E.g. Bolt and van Zanden (2014); Milanovic (2018).

out the background on the Restoration hearth tax; part 2 on how *Hearth Tax Digital (HTD)* can be used to search the full richness of the data; and part 3 sets out some initial interpretations on population distribution and its relationship to wealth inequality.

I

The hearth tax was introduced in 1662, and was levied in England and Wales until 1689, when it was abolished in perpetuity, but it continued to be collected in Ireland into the early nineteenth century. The idea came from understanding and misunderstanding of hearth taxes in Holland, and by contemporary standards it was progressive in its commitment to levy the charge in line with household wealth. The idea was that the more hearths that a household had the richer it was, and hence the greater its obligation to pay into the king's purse.<sup>3</sup> The tax was charged at the rate of one shilling per hearth, with two collections each year in September (Michaelmas) and April (Lady Day).

By way of example in 1674 Margaret Hicke or Richard Waston, neither of whom was dignified with a status descriptor, lived in two-hearth property at Harum in North Yorkshire (now the Star Inn). Quaker Farmhouse in Wrampingham in Norfolk with five hearths had been built in 1643 by John Lawrence, a yeoman farmer, who became a captain in Cromwell's army and then became a Quaker, and who was still living there in 1672. Properties like that at Harum would have been occupied by the ordinary sort, whereas houses like Quaker Farmhouse provided homes for families of middling status and the lesser gentry, not only in the south-east and East Anglia but also in northern and midland England. It follows from this, that a parish or indeed a county with relatively large number or percentage of properties with five hearths and more was wealthier than those with fewer properties at this threshold and above.<sup>4</sup> Since the 1990s the insight that distributions of households and numbers of hearths provide

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<sup>3</sup> Petty (1662), pp. 94-5.

<sup>4</sup> For further elaboration of these and other bands, Spufford (2000), pp. 211-17.

understanding of wealth distribution has stood at the core of hearth tax studies.<sup>5</sup>

Elizabeth Parkinson's work has been helped to provide deeper understanding of the administration of the tax, and work by Catherine Ferguson and John Pound has usefully compared lists of those exempt from the tax with those in receipt of poor relief.<sup>6</sup> But, there is possibility that the hearth tax may conceal more than it reveals, and it is worth setting out some of these issues through a short history of the collection process.

The grant of 1662 gave no special privileges on the basis of status; nobility and clergy were not entitled to automatic exemption, and nor was any other social category, though, the cutlers of Hallamshire did eventually secure exemption on the grounds that their hearths were used for industrial purposes.<sup>7</sup> Crucially the occupier rather than the landlord was expected to pay the tax; was this to ensure that landlords did not pass on the tax to tenants, thereby inflating rents, or was it meant to protect landlords' rents ahead of obligations to pay the tax? The destitute and those in receipt of poor relief were not expected to pay, and in addition three criteria removed the ordinary poor from obligations to pay, if they could show one of the following:

1. a household did not pay local rates to support the church and the poor;
2. a dwelling had a rental value of less than 20 shillings;
3. a household had assets that were worth less than £10.

In July 1663 it was decided that the petty constables had to include the names of the non-chargeable in the returns/assessments, but this did not effect until Lady Day 1664, and was soon followed by a second revised act in May 1664, whereby royal Receivers took over the tax from local officials. Fuller powers were granted, whereby once a year a hearth tax collector, accompanied by a petty constable, entered the property in daylight hours to check on the number of hearths. Three other steps were

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<sup>5</sup> Arkell (2003), p. 65: 'there clearly was correlation between hearths, house size, wealth and social standing'; Spufford (2000), pp. 203-4: 'the typicality, or a-typicality, of an individual settlement can be roughly established from an analysis of its tax returns'.

<sup>6</sup> Ferguson (2018), pp. 116-18; Parkinson (2008); Pound (2001); pp. xlvi-xlix.

<sup>7</sup> Hey (1991), pp. 136-9.

taken:

1. if a household had two hearths or more (i.e. three and over) it had to pay, irrespective of criteria above;
2. landlords who let out properties to the ordinary poor had to pay (i.e. closing above loop hole);
3. if inspection found stopped up hearths, occupants had to pay double; and
4. refusal to pay within an hour of demand, gave the collectors the right to seize goods in lieu of payment. Sometimes the type of goods which were seized was recorded, but if there was nothing to take away then it was noted: “no distress” (i.e. nothing to distrain).

From Lady Day 1664 assessments/returns are likely to be much more complete in recording both the chargeable and the exempt, but there was a time-lag in implementation, and assessments used for Kent and Surrey 1664 in *HTD* are likely to underestimate the exempt. After only two years the collection of the tax was transferred to a consortium of tax farmers, who had responsibility for completing the records for the Lady Day 1666 collection. The switch over in the administration means that the Lady Day 1666 returns are likely to have some deficiencies. For example for the London and Middlesex 1666 return most of the return for metropolitan London only listed the chargeable households.<sup>8</sup> In 1669 the collection of the tax was returned to the royal Receivers, but this time under the control of the Hearth Tax Office in London, and even though it was then farmed out again after 1674, the Office continued to oversee collection and record keeping, incidentally providing Gregory King with key data for his table on the social structure of England and Wales. Between the early 1660s and the early 1670s the collection of the hearth tax took the journey from depending upon traditional forms of local government to a semi-professional standard. A further complication that we need to be mindful of is that the exemption certificates were also

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<sup>8</sup> Wareham (2018), pp. 458-61.

used to list the names of the exempt, and it can be useful to compare these records with the lists of the exempt in the returns. States of account and lists of arrears can further enrich understanding of assessments and returns.

## II

In May 2018 the Centre for Hearth Tax Research (University of Roehampton) formed a partnership with Centre for Information Modelling (ZIM, University of Graz), which led to the launch of *Hearth Tax Digital* in July 2018 at the British Academy. The joint Graz-Roehampton team addressed two challenges. Firstly, how to provide users with a national template to access hearth tax records, and, secondly, how to analyze both the standard data on numbers of hearths, households and payment status, and extraneous data on the conditions of the ordinary poor and those who were unable or unwilling to pay the tax. Georg Vogeler designed the XML template using the principles of an “assertive” digital edition,<sup>9</sup> so that users can both scan down the original records (“records” page), and search by personal names, locations, hearth numbers and textual notes on the personal circumstances of households (“advanced search” page). *HTD* provides full and accurate transcriptions of data on over 188,000 households in 3 cities and 7 counties, including data not previously published before (e.g. City of York 1664, 1665 and 1670 assessments). In short, researchers can combine statistical and linguistic analyses, as well as more traditional searches by name and place, moving across county boundaries and collection periods, with the facility to download selected data into Excel sheets for further analysis. Further information on the research process of how *HTD* took shape and some of its other aims, including digital archiving and long-

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<sup>9</sup> Vogeler (2019).

term preservation, can be found in the paper presented for the Digital Humanities in the Nordic Countries conference.<sup>10</sup>

Here we want to focus our attention upon design and usability of *HTD*. The markup used in the transcription shows the essential structure of a hearth tax assessment:

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<h:e>  
  <h:tp>  
    <roleName>Mrs</roleName> Harrison  
  </h:tp>  
  <h:h>8</h:h>  
</h:e>
```

Here the **h:e** element refers to a single entry, **h:tp** to a taxpayer, and **h:h** to the number of hearths. Additionally, further information deriving from the document structure, headlines and notes by the collectors is added to the encoding of the individual entries, for instance whether a group of persons is chargeable (**h:ch**) or not (**h:nc**). The XML tags for the standard data were generated automatically with the help of regular expressions. So in this case we can see the role name of Mrs is given an XML tag and linked to the entry. A second step has been to add tags for the extraneous data on remarks such as “no distress” or empty properties. This has to be done manually, which is time consuming, but it has the great advantage that one becomes aware of historical details which can be easily missed if one just reads through returns. This means that we can undertake searches which look at the relationships between

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<sup>10</sup> DHNC 2020 long paper summary:

[https://www.conftool.net/dhn2020/index.php?page=browseSessions&form\\_session=8&presentations=show](https://www.conftool.net/dhn2020/index.php?page=browseSessions&form_session=8&presentations=show)

rank, wealth and the conditions of households, especially if they were unable or unwilling to pay the tax or had gone away (i.e. “empty” or “vac”).

For extended use, *HTD* converts the data into the W3C Standard “Resource Description Framework”,<sup>11</sup> which allows rich descriptions of complex data without losing the possibility to query the data easily with the help of the SPARQL query language.<sup>12</sup> Users can download this RDF version of the transcripts to explore the data beyond the possibilities of the web interface. The data model applied to the RDF data is described in *HTD*.<sup>13</sup>

One of the biggest challenges in modelling the data was to make out and represent the correct geographical hierarchy (**h:area**) within the transcripts, as the user should be able to navigate through the documents by riding and wapentake, as well as by county and hundred. This information is available in the source only as headlines. The geographic hierarchy is usually only represented by labeling the place names as “hundred”, “wapentake”, “township”, “quarter”, “street” etc., so the decision on the hierarchy had to be made by patterns individual for each document combined with historical knowledge. Thus, it is crucial both to work out the equivalence between different local units of administration in a national context, and, as in the case of Westmorland, to work out how the “collection areas”, used in the hard-copy edition for organizing lists of names and statistics, equate to parishes or townships.<sup>14</sup> Test conversions of the markup into hierarchical lists of geographic headings helped in making this markup consistent, drawing upon the GIS (Geographical Information Systems) expertise of Leif Scheuermann and Mike Shand. This means that we are able

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<sup>11</sup> <https://www.w3.org/RDF/>.

<sup>12</sup> <https://www.w3.org/TR/sparql11-overview/>.

<sup>13</sup> <http://gams.uni-graz.at/archive/objects/context:htx/methods/sdef:Context/get?mode=about>.

The schema for the RDF data itself is permanently stored at <http://gams.uni-graz.at/o:htx.ontology>.

<sup>14</sup> E.g. Phillips (2008).

to draw up national maps in a way which means that we can be certain of the hierarchies as we move across county boundaries, and as we shall see we can use these maps to think further about wealth distribution.

### III

For most of the names in the 188,042 households in *Hearth Tax Digital*, there are no status descriptors, but “goodman” and “goodwife” was used to show a mark of respect towards the heads of household. Moving up the social scale, we can turn to “Mr” and “Mrs”.

*Table 1: Mrs and Mrs: data on households (hhs) and hearths (hs)*

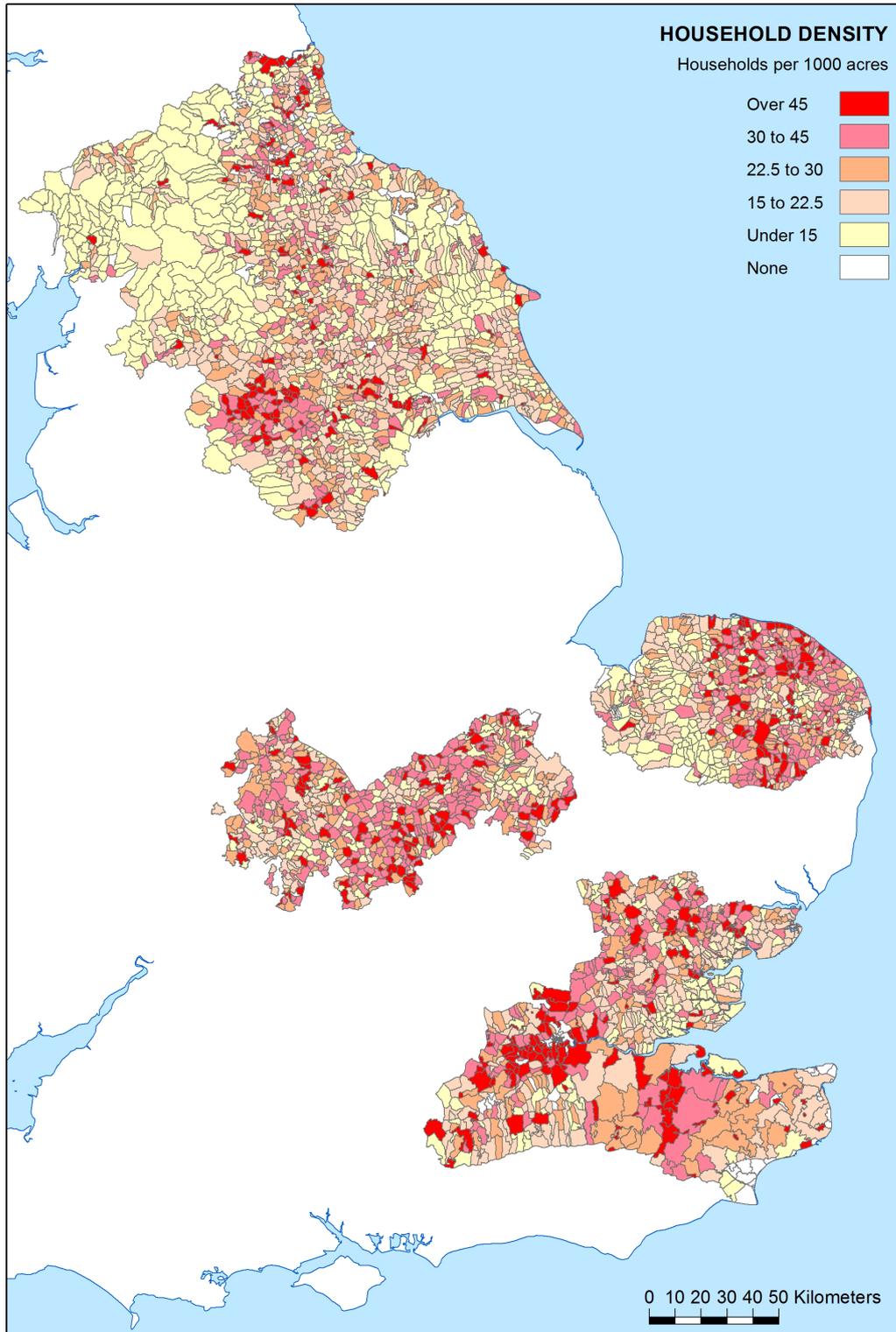
	All hhs	3 + hts	%	1-2 hts	%	6-10 hs	%
Mr	6831	5377	79	1371	20	2234	32
Mrs	1131	832	73	291	25	347	30

Here we are trying to see if the title of "Mrs" had a connection with rank, which renders hits for London, Middlesex, Surrey, Hull, Yorkshire West Riding, Yorkshire East Riding and Westmorland.<sup>15</sup> *HTD* shows that "Mrs" was used across England, and it tended to be reserved for women of middling and high status, broadly in line with the usage of Mr as a status descriptor for heads of household. The same approach could be adopted for other status descriptors, perhaps for example linking references to the clergy to the Clergy of the Church of England database.

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<sup>15</sup> Data for Essex, Huntingdonshire, Norfolk, Warwickshire and Yorkshire North Riding are not available on *HTD* for searching, but are included in the GIS maps.

Figure 1 – Household density per 1000 acres



We can now move onto the GIS dimension. Figure 1 shows household density per 1,000 acres. There will be a tendency for data from County Durham, Kent, London & Middlesex to underestimate the density of households in comparison to other counties because of the differences in the systems of administration. But even with this reckoning, northern England was more thinly populated than southern and midland England. There are some regional variations to this. The newly industrializing towns of the West Riding of Yorkshire, such as Sheffield, Leeds, Wakefield and Doncaster, were beginning to overtake the leading towns of the East and North Ridings.<sup>16</sup> And in County Durham the most densely populated parts in the north of the county at Whickham, Gateshead, Heworth and South Shields were expanding due to industrialization.<sup>17</sup> In East Anglia (Norfolk, Essex and Huntingdonshire data) the fens, brecklands and marshlands were thinly populated in contrast to the high population densities in the textile towns and rich agricultural lands of north-west Essex and eastern Norfolk. But the general pattern moving beyond the mosaics of particular counties is clear enough in terms of a north-south divide.

When we look at hearth densities in figure 2 a similar pattern emerges, but with some interesting variations. Dark blue indicates that per 1,000 acres there were at least 144 hearths, while the bright red indicates that this was between 72 and 144 hearths. For some of the more rural landscapes it can be interesting to focus upon a locality which sits as an island in blue or dark red surrounded by lighter colours showing thinner densities of hearths per 1,000 acres. Oswaldkirk, around 20 miles north of York, stands out as having a far higher density of hearths per thousand acres while having a similar household density to neighbouring areas. William Shiel's explanation noted Oswaldkirk's proximity to York,<sup>18</sup> but this can only provide a partial explanation because other townships listed in the return located closer to York-and also above the Coxwold-

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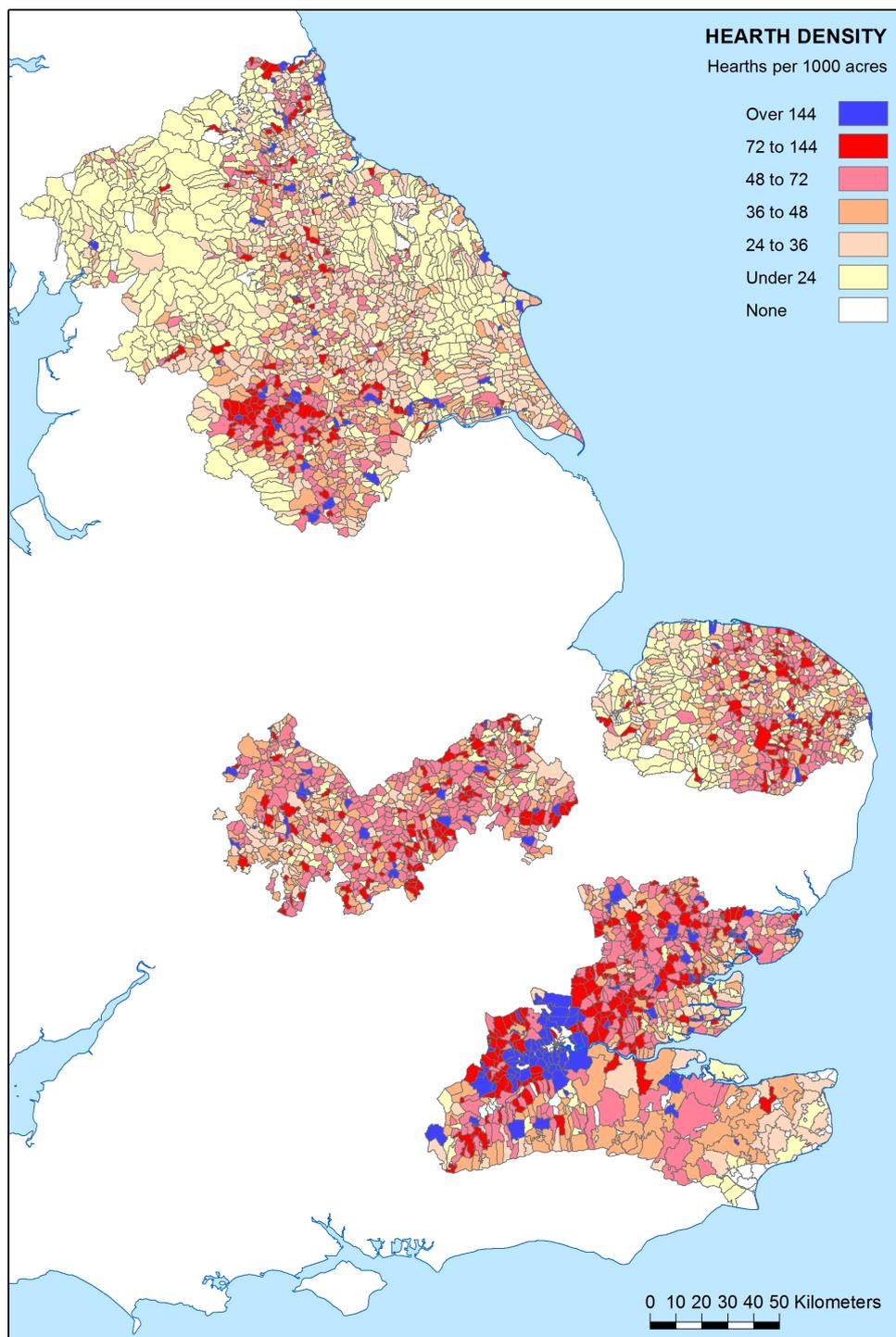
<sup>16</sup> For further discussion, Hey (2007), pp. 31-35.

<sup>17</sup> For further discussion, Green (2006), pp. xxxviii-xlii.

<sup>18</sup> Sheils (2003), p. 115.

Gilling gap- were far poorer than the former. Oswaldkirk was a closed village, with both a gentry house and a rectory, but freeholders may have been able to take advantage of the six changes of ownership of the manor between 1603 and 1674 to enrich themselves and invest in their properties.

Figure 2 – Hearth density per 1000 acres



Two years ago at the Economic History Society Conference, Dr Evelyn Lord made the useful suggestion that one way to use the hearth tax to measure poverty is to focus attention upon the percentage of households with one hearth.<sup>19</sup> Using *HTD*, we can set the parameters to focus attention upon the percentage of households with one hearth in the East Riding of Yorkshire, noting as we move beyond Holderness and the Humber estuary, the domination of households with one hearth.

So far we have looked at GIS maps dealing with single entities, but we can also set the parameters *in HTD* to cover ranges of properties according to hearth numbers.<sup>20</sup> In figure 3 properties with a degree of comfort and more in properties with three hearths and over are presented at the national level, where we can see both the wealth of London and the area around it, together with notable contrasts within regions. This applies independent of variations in the records, as we can note the contrast between the wealth of southern Essex and the poorer conditions in the declining textile towns of the north-west, and between the wealthier parts of Kent and Surrey on the southern side of the Thames estuary and poorer conditions on the Surrey heaths.

## Conclusion

*HTD* enables historians to pose questions on wealth distribution in new ways, in tandem with other questions connected with social, economic and cultural themes, as well as being a resource for family and local historians worldwide. Our theme could be taken further, for instance, by looking at the distribution of exempt households in relation to the percentage of households with three hearths and over; or, following the lead of Aaron Columbus and Lara Thorpe, to ask how the pressures of plague, poverty and taxation coalesced. But, for the present we can say that *Hearth Tax Digital* shows that lying behind the divide in population distributions between north and south, there

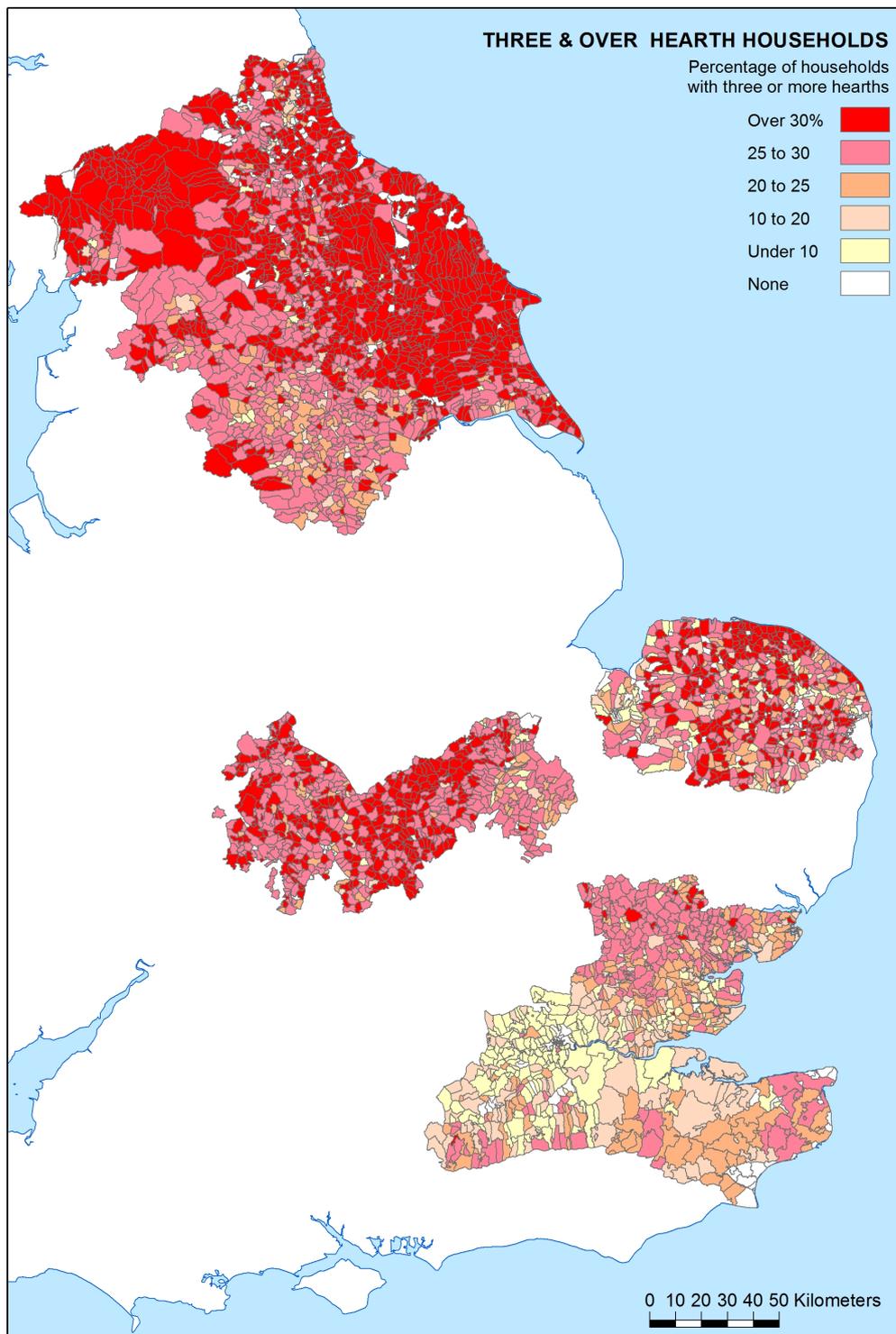
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<sup>19</sup> Lord (2018).

<sup>20</sup> For the benefits of this threshold, see Arkell (2003), pp. 153-5.

was an even greater divergence in wealth inequality. When Mrs Gaskell wrote *North and South*, she reflected on a theme which was nearly two centuries old.

*Table 3 - Percentage of households with 3 three and over hearths*



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*Table II: Hearth Tax returns / assessments and types of administration*

County/City	Date and type of record	Administration system	Type of administration
County Durham	1666 Lady Day assessment	Sub-farmers acting as receivers	Private enterprise acting on behalf of Committee of Exchequer Barons, Chancellor and Treasurer
Essex	1670 Michaelmas Return	Receivers 1669-1674	Hearth Tax Office reporting to Committee of Exchequer Barons, etc
Huntingdonshire	1674 Lady Day assessment	Receivers 1669-1674	Hearth Tax Office reporting to Committee of Exchequer Barons, etc
Kent	1664 Lady Day assessment*	Sheriffs 1662-1664	Local government
London and Middlesex	1666 Lady Day return	Sub-farmers acting as receivers 1666	Private enterprise acting on behalf of Committee of Exchequer Barons, etc
Norfolk (& Norwich)	1672 Michaelmas* (& 1671) assessments	Receivers 1669-1674	Hearth Tax Office reporting to Committee of Exchequer Barons, etc
Northamptonshire	1674 Lady Day assessment	Receivers 1669-1674	Hearth Tax Office reporting to Committee of Exchequer Barons etc
Surrey	1664 Lady Day assessment	Sheriffs 1662-1664	Local government
Warwickshire (& Coventry)	1670 Michaelmas (& 1666 Lady Day) returns	Receivers 1669-1674	Hearth Tax Office reporting to Committee of Exchequer Barons etc
Westmorland	1670 Michaelmas return	Receivers 1669-1674	Hearth Tax Office reporting to Committee of Exchequer Barons etc
Yorkshire East Riding (& Hull)	1672 assessment (& 1673 Lady Day return)	Receivers 1669-1674	Hearth Tax Office reporting to Committee of Exchequer Barons etc
Yorkshire North Riding	1673 Michaelmas assessment	Receivers 1669-1674	Hearth Tax Office reporting to Committee of Exchequer Barons etc
Yorkshire West Riding	1672 (& 1673) Lady Day assessments	Receivers 1669-1674	Hearth Tax Office reporting to the Treasury

Table II is based upon Peter Seaman's powerpoint presentation on the Restoration hearth tax.

\* - information also drawn from exemption certificates linked to assessments

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