## <u>The Changing Importance of London, 1851-1911</u> <u>Using individual-level census data to reconstruct lifetime migration paths</u>

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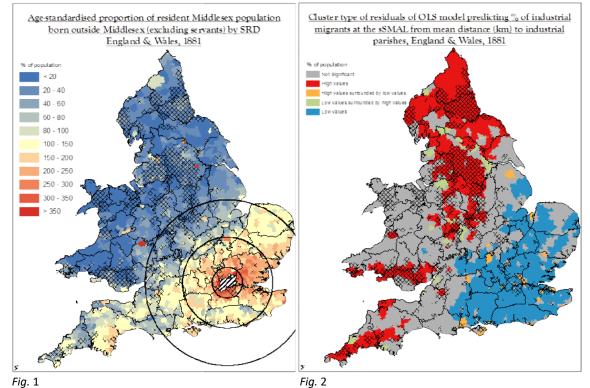
Almost all studies of historical internal migration have looked at migrants as a proportion of the population in which they are resident. This paper will turn the telescope around and will produce the first systematic analyses of migration using individuals' place of birth as reported in the 1851-1911 census enumerators' books (CEBs).<sup>1</sup> Using individuals' recorded place of birth rather than the county of birth as reported in the aggregated census reports, it is possible to analyse the determinants of migration at a far greater degree of spatial resolution. Indeed, by linking individuals' place of birth to a geographical information system (GIS), it becomes possible to analyse how and why migration streams shifted, by relating these changes to the socio-economic context of both individuals' parish of origin and residence. However, in order to maintain focus in a paper that utilises approximately 210 million records, this paper will focus solely on the pattern and determinants of in-migration to London from 1851-1911.

This seems an appropriate starting point for an analysis of migration between 1851 and 1911 given that London has long been an important destination for migrants. Indeed, given that Wrigley's seminal paper on the importance of London between 1650 and 1750 demonstrated that approximately one in six of the adult population of England had been a resident of London at some point in their adult lives, the extent to which London as a centre of migration changed over time is of particular importance.<sup>2</sup> Through an analysis of the changing migration streams into London, it will be possible to better understand the determinants of migration throughout England and Wales more broadly. How did London's migration field change over time as competing destinations drew migrants away from

<sup>&</sup>lt;sup>1</sup> Ravenstein, E. G., 'The laws of migration', *Journal of the Statistical Society*, 48 (1885), 167-227; Ravenstein, E. G., 'The laws of migration', *Journal of the Statistical Society*, 52 (1889), 214-301; Lawton, R., 'Population changes in England and Wales in the later nineteenth century: an analysis of trends by registration districts', *Transactions of the Institute of British Geographers*, 44 (1968), 55-74

<sup>&</sup>lt;sup>2</sup> Wrigley, E. A., 'A simple model of London's importance in changing English society and economy, 1650-1750', *Past & Present*, 37 (1967), 49

London? What occupations were migrants to London engaged in? How did this change over time? It is also possible to use census data to model the determinants of London-bound migration, and identify whether for example, London attracted more migrants than might be predicted from distance and economic opportunities alone. In other words, was London more attractive to some migrants simply because it was the national capital? Using the data to ask these questions, it becomes possible to gauge the 'importance' of London in a far more sensitive way than has hitherto been possible. By asking these questions not just of one census year, but of multiple census years from 1851-1911, it can also be determined whether the importance of London as a destination changed over the period. Analysing how it changed and whether this might have been in principal due to improvements in transport, relative changes in the economic opportunities afforded, or improved information for potential migrants that made London seem less attractive compared to the alternatives.



Source: Schürer, K. and Woollard, M., 1881 Census of Great Britain [computer file], UK Data Archive [distributor], 2003

Figs. 1 and 2 illustrate the sorts of maps that can be produced from this analysis. For example, fig. 1 shows the age-standardised proportion of the population resident in London that were born outside of it in 1881. Essentially it asks that, given the number of people born in each sub-registration district and the population of London, what proportion might we

expect to find resident in London in 1881? This is then age-adjusted with servants excluded, as the factors determining the destinations of servants are very different compared with other migrants. Even though the rings show the range within which 25%, 50% and 75% of migrants were drawn from, the map demonstrates that migrants into London were not evenly distributed within these rings, instead being predominantly from Essex and the south-east. Indeed it is clear that London was not the primary destination for migrants north of the Wash-Severn line in a way that it was for those born south of it. Indeed, even though Berkshire and Northamptonshire are roughly equidistant from London, migrants from Berkshire were nearly twice as likely to migrate to London compared to their Northamptonshire counterparts.

Fig. 2 on the other hand illustrates the type of analysis that can be done. Having produced an OLS model predicting the proportion of migrants when aged at the sSMAL (an adjusted measure of the singulate mean age at leaving home and/or service) travelling to an industrial parish from their mean distance to one, the residuals were mapped. Fig. 2 shows where the residuals were clustered and demonstrates that migrants from the south-east were significantly less likely to migrate to an industrial parish, even once their distance to one was accounted for. This type of analysis can be performed to determine whether migrants to London were more/less likely to come from certain parts of England and Wales, even when factors such as distance, industrial structure and wage differentials for example are accounted Not only would this provide a powerful indication of which migrants were for. disproportionately attracted to London, but also how London's importance changed over time. These sorts of analyses would allow for a better understanding of not only London's importance, but also of the growing importance of other towns and cities in England and Wales, and the effect that this might have had on London's cultural reach over the latter half of the nineteenth century as its migration field shifted. This is arguably just as important as understanding the effects of shifts in the socio-economic context on migration decisions.

By taking a spatial approach, the full richness of this dataset can be unlocked. Through extensive geo-referencing, both individuals' place of birth and place of residence can be linked to a GIS, allowing nineteenth-century patterns of lifetime migration to be seen in greater detail than ever before. Crucially, rather than the characteristics of migrants being analysed relative to their place of residence, they can be analysed relative to their place of origin. Using sophisticated spatial analysis, the determinants of London-bound migration can be modelled, and the residuals mapped and analysed to identify further reasons why London may/may not have been migrants' eventual destination – even once factors such as distance are accounted for – and how this changed over time.