

**A hidden contribution to industrialization?
The male occupational structure of London
1817-1871**

*Part of an E.S.R.C. funded project:
Male occupational change and economic growth
in England 1750-1850.*

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Note: this is a preliminary report rather than a fully-fledged paper. Comments would be very welcome (to Leigh Shaw-Taylor: lmws2@cam.ac.uk) but please do not cite or reproduce this material without permission.

While economic historians of medieval and early modern England have placed considerable emphasis on the importance of London, this has not generally been true of historians of the industrial revolution. When London has been discussed it has sometimes been portrayed as a backward economic area characterised by sweated labour and as a drag on the rest of the economy. A number of historians including Leonard Schwarz, Paul Johnson and Ranulph Mitchie have recently begun to re-conceptualise London's role in national economic development in a more positive fashion. Although widely neglected the historiography of London has the edge over the economic historiography of other regions during the industrial revolution in one respect. A marked feature of most regional studies is that the relationship between the region and the nation tends to get relatively little attention whereas this has always been central to the way economic historians have thought about London.

The principal aim of this report is to provide a preliminary overview of the development of London's male occupational structure between 1817 and 1871. I want to begin by considering what was distinctive about the London economy in the mid-nineteenth century. As Leonard Schwarz and others have emphasised, London was the largest manufacturing town in Britain and thus the world during the industrial revolution.

Figure one (reproduced at the end of the report) is a 'concentration map' showing the relative national importance of each of the 576 registration districts to total adult male employment in the secondary sector in 1851. The registration districts in any given colour between them accounted for 10% of adult male employment in the secondary sector in 1851. The numbers on the key next to each colour record the number of registration districts in each decile. The registration districts where employment was most concentrated are those shown in dark purple at the top of the scale. Moving down the scale employment becomes steadily less concentrated. Thus 10 per cent of adult male secondary sector employment nationally was in the six registration districts coloured in the dark purple. At the other end of the scale 226 light yellow registration districts also accounted for 10% of adult male employment. In terms of male secondary sector employment London contained 14 of the 28 most important registration districts.

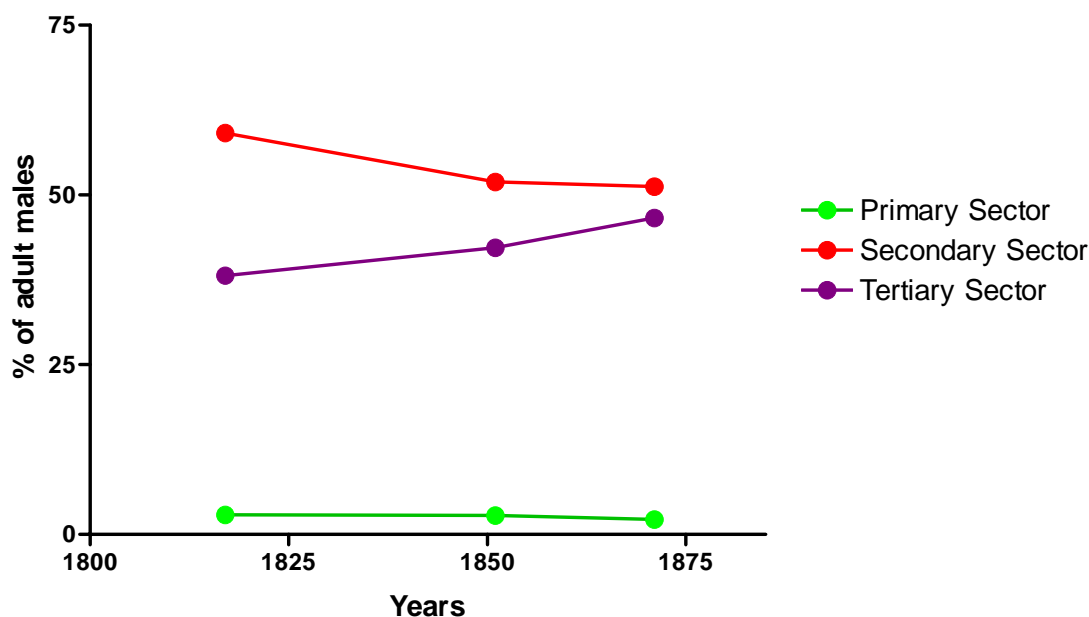
But as both C.H. Lee and Leonard Schwarz have pointed out it was in the tertiary sector that London really stood out. As can be seen in figure two (reproduced at the end of the report) in terms of the tertiary sector London contained 9 of the 12 most important registration districts in the country. The relative importance of the tertiary sector can be better displayed by mapping the sectors with the highest location quotients. This is shown in figure three (reproduced at the end of the report). The location quotient is calculated by taking the proportion of adult males in the sector in a given registration district and dividing that figure by the proportion in the sector nationally. So it measures the local importance of the sector relative to its national importance. The location quotient will be greater than one when the sector is more important locally than nationally. It will be less than one when the sector is less important locally than nationally.

The tertiary orientation of London and of a large area around it stands in clear contrast to the absolute dominance of the secondary sector over the tertiary sector in Lancashire (with the exception of the Liverpool area) and the West Riding. The geographical extent of London's influence on the tertiary sector is even more

pronounced with respect to female employment. This is shown in figure four (reproduced at the end of the report).

There are many other interesting features of this map but they are outside the scope of this report. The rest of this report deals with male occupational change from 1817 to 1871. We have abstracted the occupations of fathers from all 169 London baptism registers for the year 1817. This has generated around 30,000 occupational descriptors. These data can be compared with the London occupational data published in the censuses of 1851 and 1871 to produce trends over time as shown in figure five.

Figure 5: Adult male employment in London's primary, secondary and tertiary sectors 1817-1871

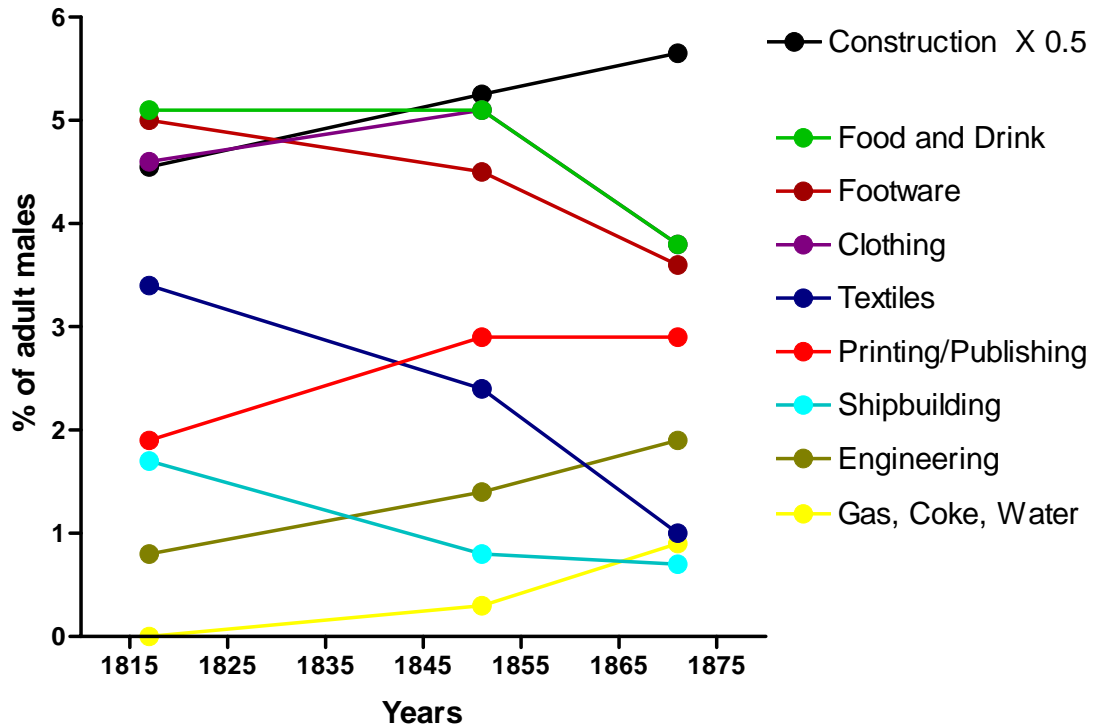


The primary sector, shown in green, remained re-assuringly small.¹ The secondary sector declined marginally in size over the first half of the nineteenth century. The tertiary sector starting from a high base shows strong growth over the whole period. It is possible that Schwarz's view that the growth of the tertiary sector before 1851 was largely over by 1730 needs to be modified. But it will only be possible to be sure about this when we have collected data from an earlier period.

We can turn now to look at the secondary sector in more detail. Some of the major components of the secondary sector are shown in figure six.

¹ In fact a high proportion of this supposed 'primary' employment is accounted for by sawyers employed in and around the docks. The occupational coding scheme needs to be modified to shift sawyers from 'forestry' in the primary sector into the secondary sector.

Figure 6: Adult male employment in London's secondary sector 1817-1871



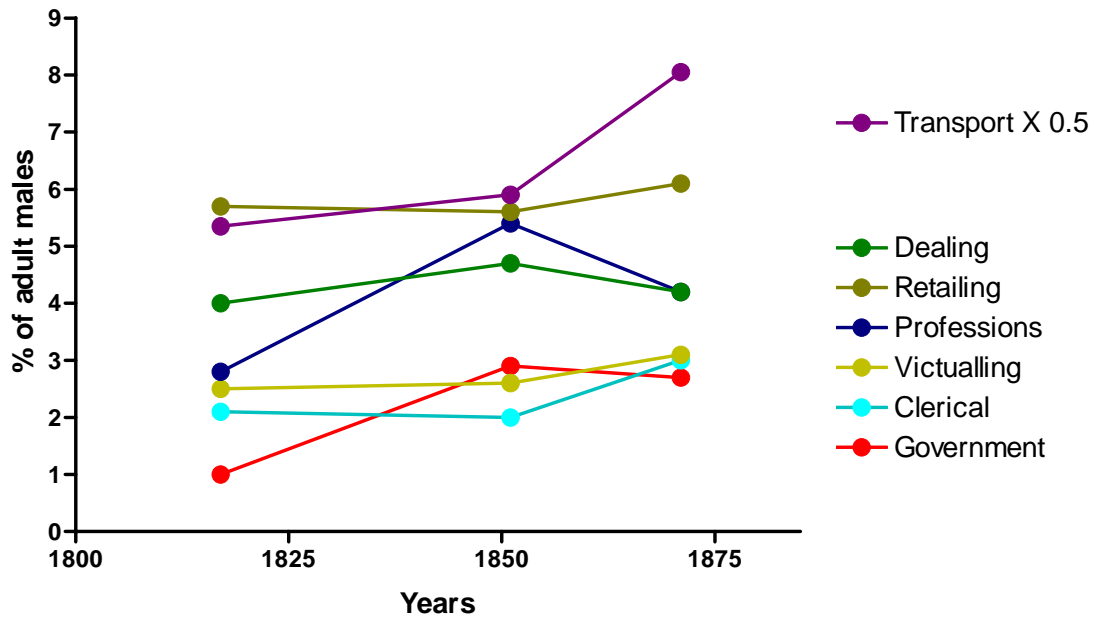
As is well known manufacturing in the capital was extremely diversified and no manufacturing sector accounted for more than 6% of adult male employment. The largest component of the secondary sector was building and construction and it has been plotted in black but at half its actual level so that it can be conveniently displayed alongside the other major components of the secondary sector.

Whilst there was very little overall change in the size of the secondary sector it can be seen that there were significant changes in its composition over time. The construction sector grew steadily, as in the Yorkshire cities.² Foot-ware and food and drink declined somewhat. Shipbuilding declined in relative importance well before the 1860s - which is the date usually suggested for the decline of Thames shipbuilding. The biggest decline was in textiles, probably caused by the relocation of the silk industry relocated outside London. But other industries grew or developed to replace those which declined. Printing and publishing grew by 50%. The size of the engineering and tool-making sector doubled. Gas, coke and water grew from nothing to around one percent of adult male employment.

Moving on to look at the tertiary sector, which is shown in figure seven, we can see that transport was much the biggest sub-sector. It has been graphed at half its true level to fit display all the sub-sectors on the same graph. The transport sector grew from around 11% of total adult male employment in 1817 to around 16% by 1871. Most tertiary sectors showed little change over time. If the growth in government related occupations is real then it represents a 150% growth but it may be an artefact of the way occupations were recorded in 1817.

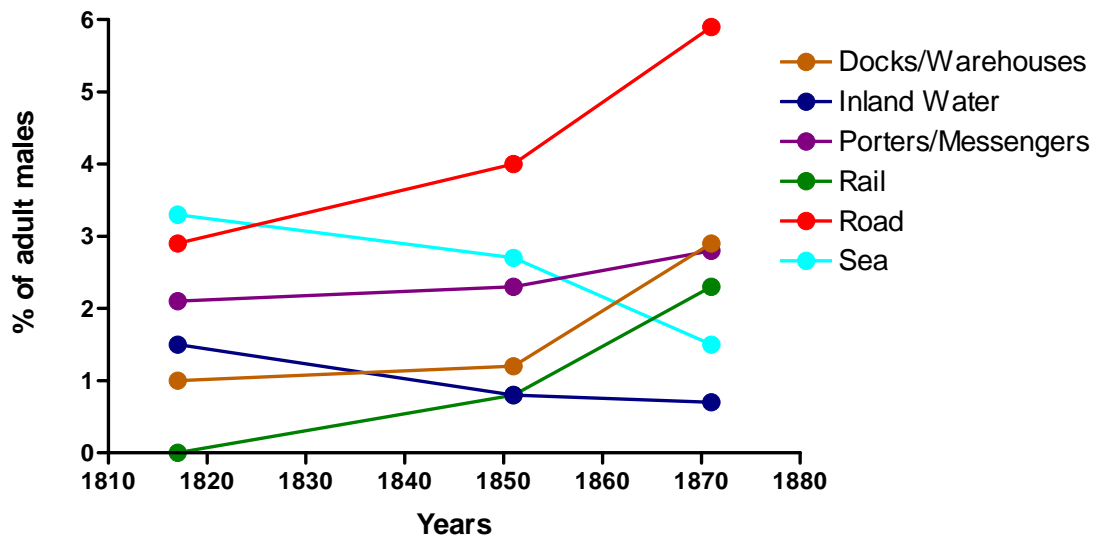
² See the report on the West Riding.

Figure 7: Adult male employment in London's tertiary sector 1817-1871



The professional sector doubled in size between 1817 and 1851 and then declined to 1871. The decline is initially surprising but it may reflect the early stages of residential relocation by the middle and upper middle classes to leafy suburbs beyond the city limits. Since the transport sector was the motor of tertiary growth it will be examined in a little more detail. Figure eight breaks down employment in the transport sector into a number of sub-sectors.

Figure 8: Adult male employment in London's transport sector 1817-1871



Inland water transport, shown in dark blue, was, unsurprisingly, declining across the whole period as it lost ground to the large and rapidly expanding road transport sector, shown in red, and the explosively growing railway sector, shown in green. The decline of maritime occupations is surprising but it might be a function of increasing efficiency associated with the introduction of wet docks and steam shipping.

London was very geographically diverse. Did all parts of the metropolis share in the gradual decline of the secondary sector and the rise in tertiary employment between c. 1817 and 1851? Figure nine (reproduced at the end of the report) shows the percentage growth between c. 1817 and 1851 in the share of adult male employment in the secondary and tertiary sectors in each London registration district. As can be seen the relative decline in the importance of secondary sector employment affected almost all registration districts. Correspondingly the rise in the importance of the tertiary sector was almost universal.

Figure ten (reproduced at the end of the report) shows the percentage of adult males in professional employment in each registration district c. 1817 and in 1851. We do not yet have data on the area immediately outside London proper but it is clear from figure ten that the growth of the professional classes between 1817 and 1851 was accompanied by residential relocation away from the centre especially the East End. Within the Metropolis Hampstead had clearly emerged as the most desirable location for the professional classes by 1851.

Conclusion

In conclusion we can return to the question what contribution did London make to the industrial revolution? Many historians, Fernand Braudel and Martin Daunton amongst them have dismissed the role of London in the industrial revolution. J.L. Hammond described the industrial revolution as a storm that passed over London and broke elsewhere. But do these views fit with the evidence presented here? Consider figure five again. As in the West Riding, the secondary sector was very large very early and experienced no growth and in fact declined slightly.³ But here the tertiary sector was exceptionally large and grew slowly but steadily. In some respects the development of London is reminiscent of the changes in York, the northern capital.⁴ With such relative stability it might appear that London can have made no contribution to shifts in England's occupational structure. But London's share of national population rose by 50% between 1801 and 1871. Thus despite the slight fall in the share of secondary employment within London, it would have contributed to the increase in the secondary sector at the national level. The combination of relative population growth and rapid tertiary expansion would have made an even bigger contribution to the national growth of the tertiary sector in this period. London may have lacked the factories of the textile districts but it most definitely contributed positively to the growth of secondary and tertiary employment at the national level. The view that London played no part in the industrial revolution cannot be sustained.

³ See West Riding report.

⁴ See West Riding report.

Figure 1. England 1851: Spatial concentration of adult male secondary employment

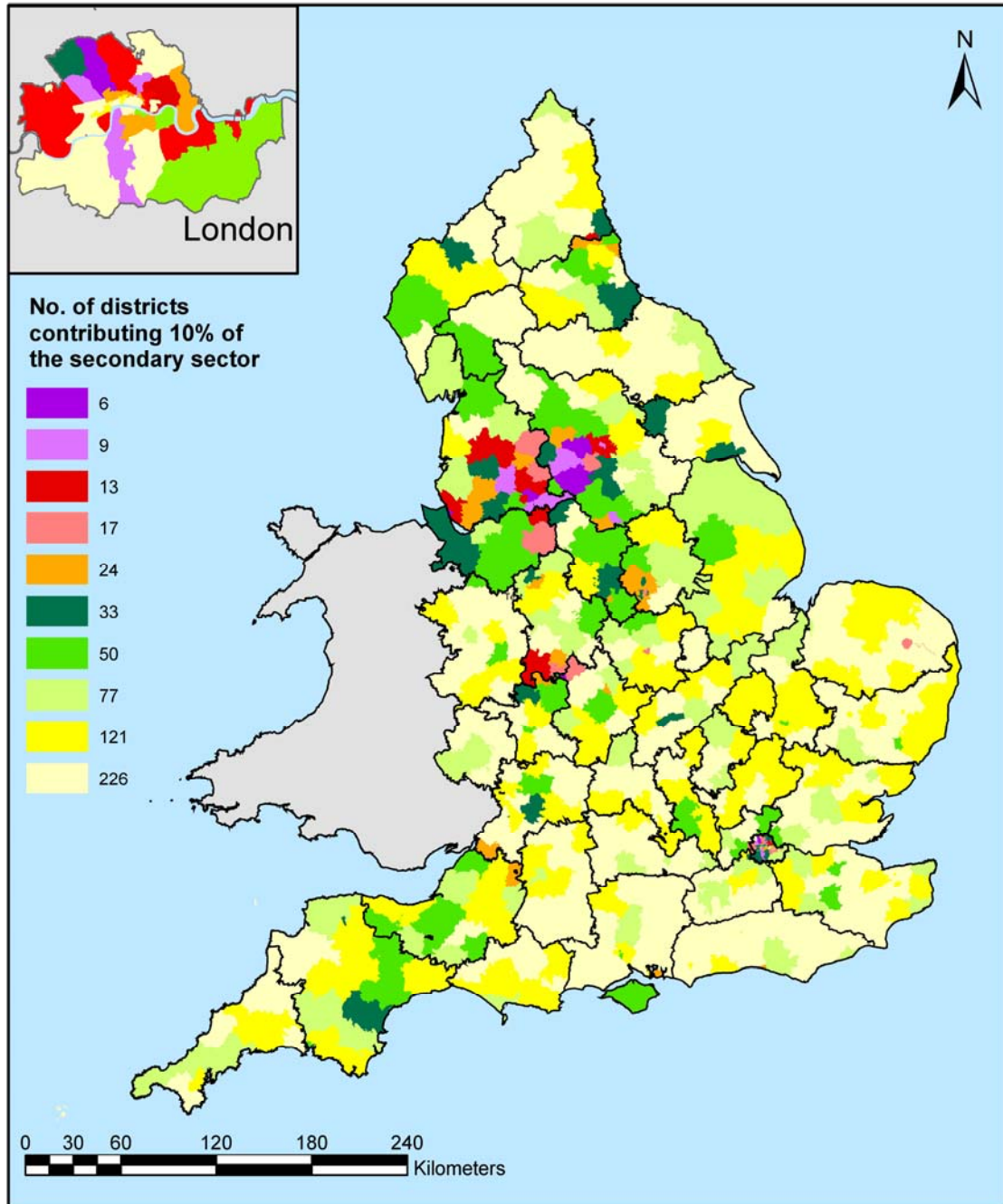
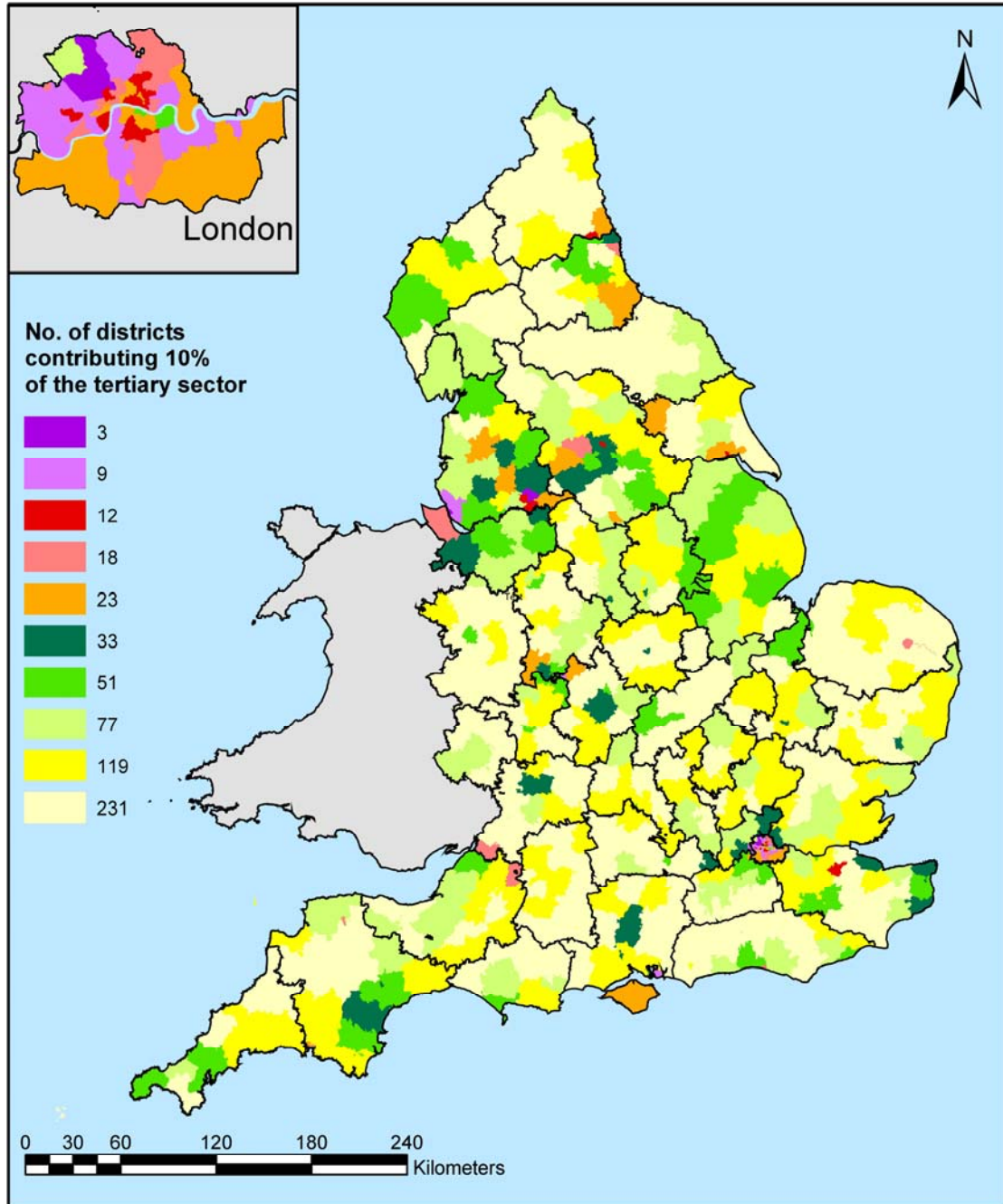


Figure 2. England 1851: Spatial concentration of adult male tertiary employment



Highest sectoral location quotients reported for adult female employment in 1851

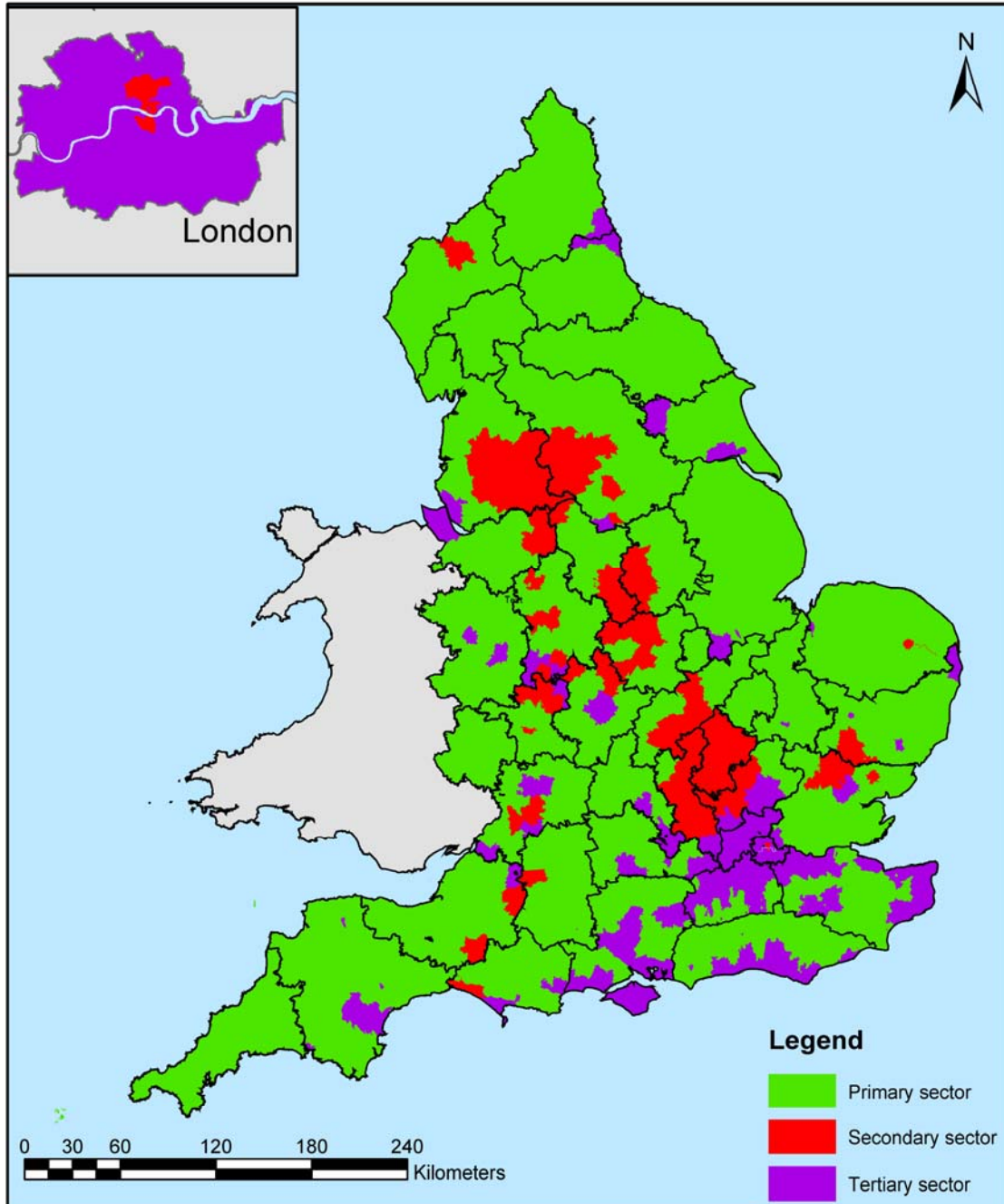


Figure 4. England 1851: Highest sectoral female location quotient

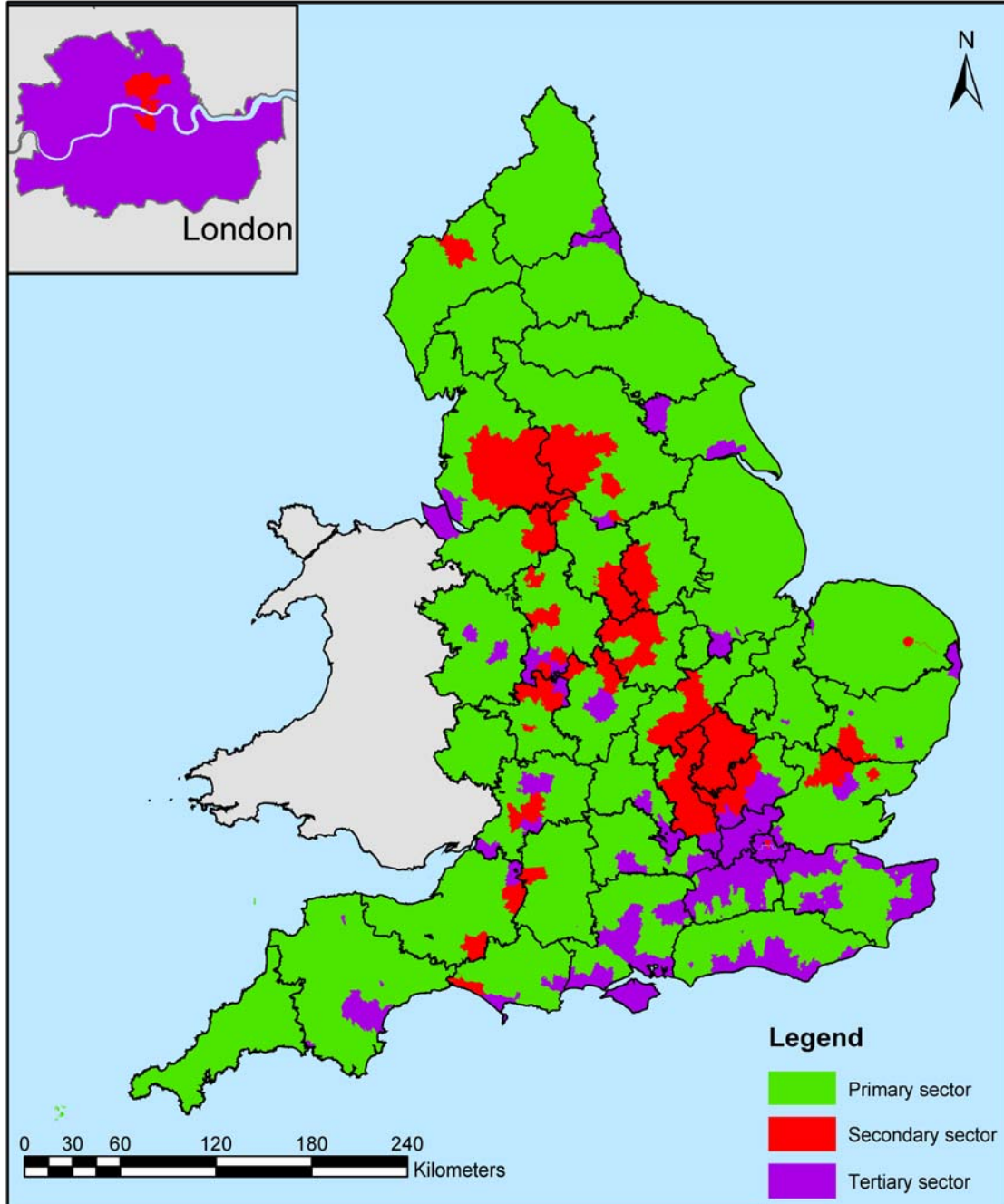


Figure 9. London 1851: Percentage growth in the share of adult male employment in the secondary sector

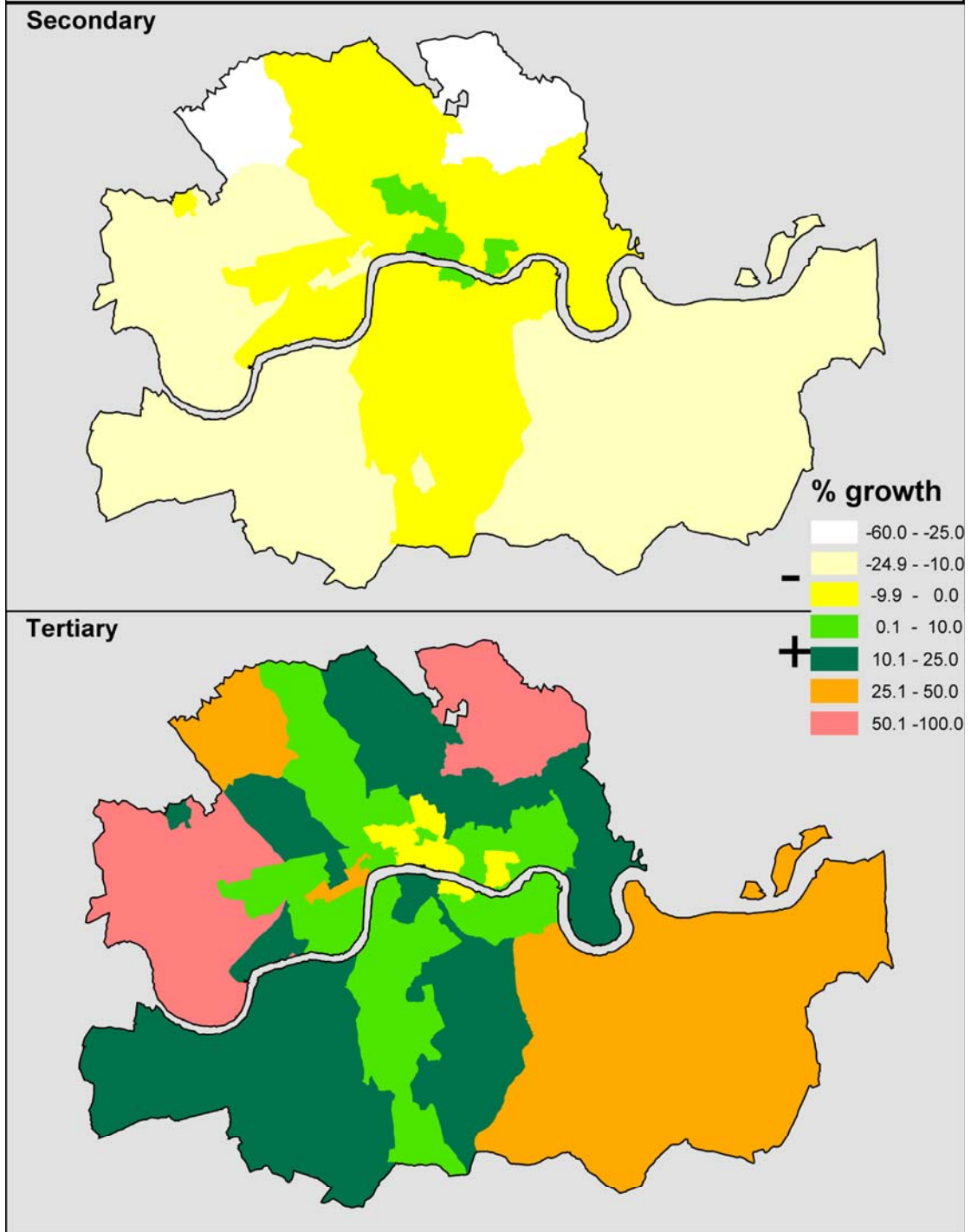
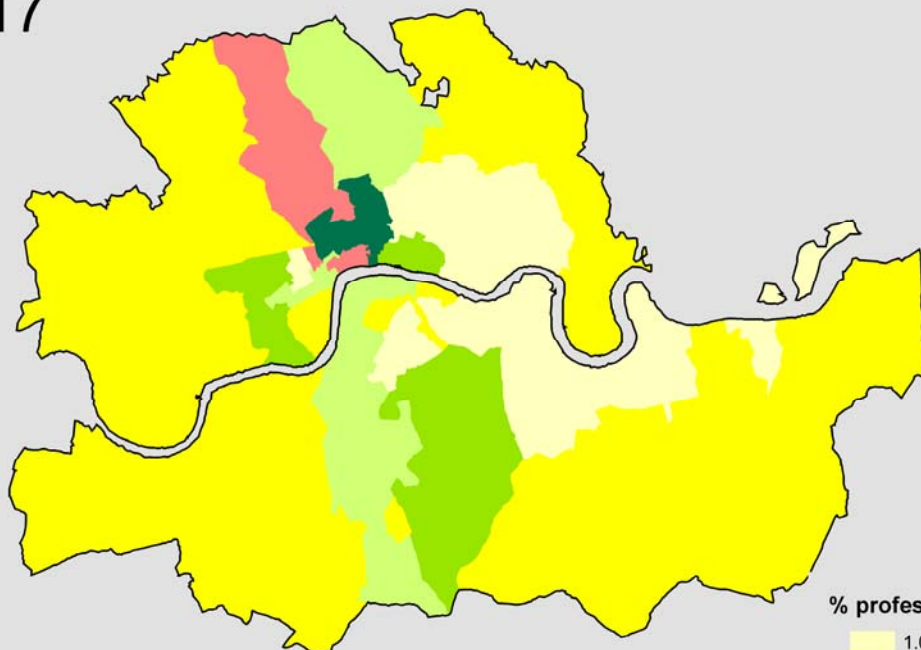


Figure 10. London 1817 and 1851: percentage of adult males in professional employment

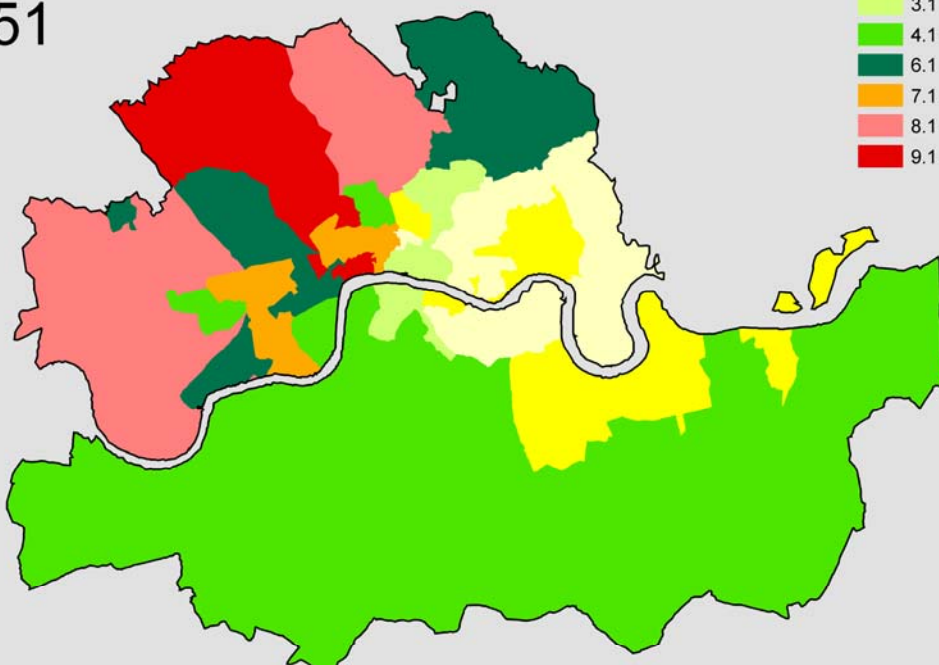
1817



% professionals



1851



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