

**The occupational structure of the
London parish of Stepney, St.
Dunstan, from 1610 to 1881**

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Contents

	Page
	<i>List of tables</i>
	<i>List of figures</i>
	<i>Acknowledgements</i>
Chapter One:	Introduction 5
Chapter Two:	The PST System and Occupational Structures 8
Chapter Three:	Stepney's Population 1610-1881 11
Chapter Four:	Stepney's Changing Legal Boundaries 13
Chapter Five:	Sources – Baptism Registers and Census Data 17
Chapter Six:	The Stepney Secondary Sector 21
Chapter Seven:	The Stepney Tertiary Sector 35
Chapter Eight:	Conclusion 42
Appendix:	Stepney parish/registration districts 1610-1881 46
	<i>Bibliography</i> 50

<u>List of tables:</u>	Page
Table 3.1: Total number of baptism entries per year	11
Table 3.2: Population figures for Stepney and London, 1610-1881	11
Table 9.1 1610 parish of Stepney	46
Table 9.2 1651 parish of Stepney	46
Table 9.3 1711 Stepney parishes	46
Table 9.4 c. 1817 Stepney parishes	47
Table 9.5 1881 Stepney registration districts	47

List of figures:

Figure 4.1: Stepney c. 1817	15
Figure 4.2: Stepney 1881	16
Figure 6.1: Adult males in each Stepney PST sector, 1610-1810	21
Figure 6.2: Selected adult male occupations in the secondary sector, 1610-1881	22
Figure 6.3: Adult males in the textiles industry, 1610-1881	24
Figure 6.4: Adult males in the clothing and footwear industries, 1610-1881	27
Figure 6.5: Adult males in the boat and ship building industry, 1610-1881	30
Figure 6.6: Adult males in the wood, boat and ship making, and building and construction industries, 1610-1881	32
Figure 7.1: Adult males in the tertiary sector, 1610-1881	36
Figure 7.2: Adult males in the transport industry, 1610-1881	37
Figure 7.3: Selected adult male occupation in the service industries, 1610-1881	40

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I would also like to thank Ros Davies of the Cambridge Group, for coding and databasing the Stepney parish register data that I collected, and Max Satchell of the Cambridge Group, for teaching me how to use Geographical Information System (GIS) software applications for mapping purposes.

Chapter 1

Introduction

The economic development of London has often been noted for its lack of conformity to the wider process of industrialisation that swept Britain towards the later eighteenth century. The process by which London became the economic hub of Britain has been lamented, apparently because it achieved this through excessive consumption and limited productive capacity. London's industries have been regarded as small-scale, and with the exception of the mercantile City, focused on local markets. From this point of view, the metropolis's industrial structure exhibited few of the characteristics that form the standard image of the Industrial Revolution. But, as D. Eversley observed, the eventual city it transformed into became a 'masterpiece of civic success, against which all our modern efforts to improve the [built] environment are now judged'. This narrative derives from the traditional historiographical view that the Industrial Revolution induced a social and economic upheaval from the mid-eighteenth century to the mid-nineteenth century, providing the framework for the development of modern Western economies.

Aside from segmenting the economic activity in London from the rest of the national economy, this view has caused historians, such as Fernand Braudel, to neglect studying great capitals because they were 'unbalanced worlds', consuming more than they produced, so 'their economy was only balanced by outside resources'.¹ This is in contrast to cities like Manchester and Liverpool where factories were abundant and economies of scale were widespread by the nineteenth century. Because London has been taken as one single entity some districts within it that were of similar in size to other cities have not been investigated. This means that its neglect necessarily leaves gaps in historiographical knowledge that will

¹ A. L. Beier, 'Engine of manufacture: the trades of London', in Beier, A. L., and Finley, Roger (eds.), *The Making of the Metropolis London 1500-1700*, London: Longman, 1986, p. 141.

significantly distort any understanding of its economic past and its role within the transformation of the British national economy.

Addressing these issues in relation to London and the wider economy, revisionist historians of the Industrial Revolution argue that the process of industrialisation was more gradual and less of an upheaval than initially thought. It is within this framework of debate that the Cambridge Group for the History of Population and Social Structure (henceforth referred to as ‘the Cambridge Group’) is working to quantify and map the occupational structure of Britain’s economy from 1379 to 1911. Through occupational analysis the Cambridge Group intends to chart the decline of the primary sector, the expansion of the secondary sector, and the ultimate prevalence of the tertiary sector within the British economy.

The definition of each sector in this thesis is based on E.A. Wrigley’s PST coding system,² which classifies the primary sector as agricultural production or the extraction of raw materials, the secondary sector as occupations that produce products from these materials, and the tertiary sector as a division between dealers and sellers, as well as other miscellaneous service industries, and finally the transport industry. In the spirit of the Cambridge Group’s research, the following is a primarily descriptive endeavour, aiming to aid the wider historiographical effort to help historians confidently periodise the process of industrialisation and therefore cogently discuss its causes once Britain’s historic occupational structure has been mapped. London is particularly important within this project as it was the first area to see the tertiary sector outstrip the secondary and primary sectors and remain the most prevalent form of economic activity within the metropolis.

The original research of this thesis is based on fathers’ occupations recorded in baptism registers from 1610, 1651, 1711, 1813-20 (henceforth referred to as c. 1817) and

² Wrigley, E.A., ‘The PST system of classifying occupations’, 2010.
[<http://www.geog.cam.ac.uk/research/projects/occupations/britain19c/papers/paper1.pdf>]

census data from 1881. This data has been used to map the changing occupational structure of the parish of Stepney in East London. By looking at snapshots of the changing occupational structure of Stepney over three centuries, this thesis endeavours to aid historians in reassessing the role of London in the Industrial Revolution. Beier sums up the shift in historiographical focus very helpfully in the following passage, which reflects the *raison d'être* for this thesis:

‘... to associate London’s economy chiefly with merchants and trade in the sixteenth century and seventeenth centuries appears wrong-headed. That impression resulted partly from the fortuitous survival of evidence from this sector, including port books and collections of merchants’ papers, and from the fact that the great merchants dominated the political and social life of early modern London. By comparison much less is known about the shipwrights of Poplar and Limehouse, the feltmakers of Southwark, the weavers and brewers of St. Giles Cripplegate. Yet they and their ilk, of course, accounted for the majority of the city’s workforce in the period.’³

This thesis will therefore attempt to supplement this historiographical effort to understand more of how London’s economy worked before and during the Industrial Revolution, primarily through the use of the PST coding system.

³ Beier, ‘Engine of manufacture: the trades of London’, in Beier and Finlay (eds.), *The Making of the Metropolis London 1500-1700.*, p. 151.

Chapter Two

PST and Occupational Structure

The PST system is a four point coding system of classifying economic activity, dividing occupations according to sector, groups within different sectors, different sections with groups, and various occupations within this section. Through this coding system it enables analysis of the varying weight of the primary, secondary, tertiary, and all other unclassified activity (such as general labourers). The classifications attempt to describe each sector in relation to how it uses the natural resources a population depends on for its livelihood. The primary sector concerns the extraction of natural resources carried out in agriculture. The secondary sector concerns the production of resources into items that can be used as goods or within a service. And the tertiary sector concerns the trading and selling of these goods and services, as well as other miscellaneous groups like haircutters, legal services, transport, restaurants, and innkeepers, among others.

The purpose of the PST system is to provide a structured and reliable method of understanding the rise of the tertiary sector that characterises modern economic growth. Specifically, the rise of real incomes associated with the Industrial Revolution produced demand for goods and services, causing the secondary sector and tertiary sector to expand and accommodate for the demands of an increasingly larger population. In turn, this meant the contraction of the primary sector through a rise in agricultural efficiency. The increasing efficiency in agricultural methods of cultivation meant that fewer individuals had to work in this sector to allow the rest of the population to be fed sufficiently.

In this way the PST system allows historians to chart the shifting shares of labour over time to estimate exactly when the process of industrialisation began. Specifically, this is because the coding system identifies both intra-sectoral (second, third, and fourth point) and inter-sectoral (first point) developments. Intra-sectoral developments could include a rise in

construction industries while the textile industry declines, changing the occupational composition of the secondary sector. Inter-sectoral development could include the decline of the secondary sector as a percentage of all occupational recordings, with the tertiary sector occupations becoming more prevalent overall. For these reasons, two terms should be distinguished before they are used throughout the thesis. Firstly, that an ‘absolute decline’ represents a decline in the number of those working within a particular industry in any given year, based on the rate of population growth (and vice versa for an ‘absolute increase’). Secondly, a falling or rising ‘share of the occupational structure’ represents a change in the percentage a particular industry takes up within all coded entries, which does not necessarily signify a fall in absolute numbers. In addition, it is worth distinguishing from the very beginning between the words ‘sector’ and ‘industry’ (or occupational group). Throughout the thesis references to ‘sectors’ will describe those defined by the PST system as the three way division of an economy’s workforce, whereas references to industries will describe different occupational groups within these sectors.

Importantly, there will be no extensive analysis of Stepney’s primary sector over time. Although the primary sector took up 5.12 per cent of all coded entries in 1610, it never rose above this level again. Other undergraduate dissertations have had to analyse the composition and importance of the primary sector in areas outside the metropolis. Matthew Ward in 2005 found that the primary sector took 28.9 per cent of adult male occupations in Aylesbury as late as the 1838, on page 14 of his thesis. Niraj Modha in 2006 found that the primary sector took up 37.7 per cent of adult male occupations in non-metropolitan Middlesex in c. 1817, on page 38 of his thesis. Lucy Walker in 2009 found that the primary sector took up just over half of all adult male occupations (which was 10 per cent higher than the national average at the time) in Sussex in c. 1817, on page 25 of her thesis. In comparison, Stepney’s primary sector took up 5.12 per cent of the occupational structure in 1610, falling to 1.82 per cent in 1651, rising to

2.14 per cent in 1711, before permanently declining, taking up 1.09 per cent in c. 1817 and 0.61 per cent in 1881. As such, this thesis will only consider the changing composition and importance of occupational groups within the secondary sector and the tertiary sector.

Large amounts of the data used in the thesis are from periods before the 1841 census, the year in which occupations began to be comprehensively recorded. The data from my original research (from the years 1610, 1651, and 1711) into Stepney, St. Dunstan covers 2 classification periods under the Cambridge Group's demographic project. Data collected from the seventeenth century (1610 and 1651) are used to explore the occupational structure of a region in the seventeenth century, which has rarely been done using the PST system. The data from 1711 was chosen for the Marriage Duty Act period (known as 'MDA'), which covers the years from 1695 through to 1714, focussing on the year 1700. The year 1711 was chosen as it appeared to be the most complete year of baptism registrations in the early eighteenth century. As such, it is hoped that the comparison of baptism register data with census data will provide a meaningful picture of how Stepney's occupational structure changed over a period of three centuries. Although the case study focuses on a single parish, the longevity of its occupational analysis should render the findings meaningful within the larger historiographical debate about the pace at which Britain industrialised.

Chapter Three
Stepney's Population 1610-1881

Without estimates for the size of the population in each year data samples were taken from, the information presented in this thesis would lack sufficient context. In Table 3.1, the total number of entries per year has been outlined.

Table 3.1: Total number of baptism entries per year

Year	Total number of entries
1610	332
1651	823
1711	1,488
c. 1817	3,686 ¹
1881	532,465

Table 3.2: Population figures for Stepney and London 1610-1881

Year	Population estimate²	National CBR³	Stepney weighted for national CBR	Adult males⁴	London population⁴	Stepney as a share of London
1610	14,770	31.6	19,089	4,772	200,000	0.10
1651	36,614	28.55	52,375	13,093	400,000	0.13
1711	66,198	36.89	73,287	18,321	600,000	0.12
c. 1817	164,000	40.84	164,000	41,000	1,303,434	0.13
1881	532,465	32.3	673,247	168,312	4,709,960	0.14

¹ The total amount of entries collected this year was actually 29,491 between 1813 and 1820, but in the table above this has been divided by 8 to give a yearly average.

² These estimates have been made based on the crude birth rate for each year and the increase in the number of baptism entries each year (apart from 1881 when data has been taken from the more comprehensive census).

³ Crude birth rate, the figures for which have been taken from Wrigley et al., *English Population History from Family Reconstitution 1580-1837*, p. 614, for 1610 to c. 1817, and for 1881 from Wrigley, *Population and History*, p. 195.

⁴ Assuming they made up roughly 25 per cent of the total population each year.

Based on the figures in Table 3.1, estimates of the population size estimates have been made in Table 3.2. This allows the rough absolute numbers within different occupation groups to be discerned each year. This is done by multiplying the percentage of the occupational structure taken up by a given occupational group (industry) in a given year by the estimated total male workforce that year. This gives an estimate of the total number of individuals with that industry. For example, shipbuilding took up 9.09 per cent of the occupational structure in Stepney in 1610, so the total amount of individuals within this industry was around 430 if the estimated size of the male labour force was around 4,770.

Aside from the estimates of the Stepney's total male labour force each year, Stepney's share of London's population appeared to be growing, from 10 per cent in 1610 to 14 per cent in 1881. This further illuminates Stepney's importance in aiding our understanding of the capital's role within England's process of industrialisation as it took up a significant percentage of the capital's population as early as 1610, a percentage which continued to grow into the nineteenth century.

Chapter Four

Stepney's Changing Legal Boundaries

The transfer of economic resources from primary to secondary and tertiary occupational activities is often said to define the term 'industrialisation', but has not been accounted for in a systematic and comprehensive way by older historiographical narratives. As such, this is a case study attempting to identify precisely when this process began to happen and where, using the parish of Stepney, London. Stepney was the largest parish in London in 1600, and as the population grew twelve other parishes were carved out of it between 1670 and the middle of the nineteenth century.¹

The following explains the legal boundaries that constituted the area of Stepney throughout each year that data was collected for. The original dimensions of the parish from 1610 had been subdivided into separate parishes over the three centuries. These subdivisions have been tracked and accounted for so they do not adversely affect the collected data, by covering the original area in its entirety each year.

Stepney was created in 923, and in 1321 the daughter parish of Whitechapel was created. Whitechapel therefore does not feature exclusively in this thesis's analysis, except for the parish of Wapping. In 1669 Shadwell was created, and in 1694 Wapping was created from Whitechapel. Wapping has been included as it is a riverside hamlet that contributed significantly to the region's economic development, while the other parishes from Whitechapel did not. This has meant that the data from 1711 onwards includes Stepney, Shadwell, and Wapping.²

¹ See the following list for a list of the parishes it divided into:
<http://www.british-history.ac.uk/report.aspx?compid=117406>

² As listed in the following link <http://www.british-history.ac.uk/report.aspx?compid=117406>, St. Mary's Matfelon was removed from Stepney in 1673 (and became a part of Whitechapel), but has not been included in the data samples in this thesis. This is because in the database of parish registers between 1813 and 1820 St. Mary's Matfelon is listed as having parish registers from 1558, which would have necessitated obtaining

By the early eighteenth century further changes had occurred. These included the creation of daughter parishes of Spitalfields and St. George in the East in 1729. In 1730 followed Stratford-le-Bow and Limehouse. Bethnal Green followed in 1740. During the nineteenth century Poplar was created in 1820. Mile End New Town was created as a daughter parish of Bethnal Green in 1866. Mile End Old Town was also created that year, from what had formed the centre of Stepney, and contained St. Dunstan's church. Also in 1866 Ratcliff was created, marking the final division of the original parish of Stepney. With the above in mind, this thesis covers the original parish district of Stepney (as well as Wapping), in its entirety, from 1610 through to 1881.

In the appendix I have outlined in more detail the changes to the territorial definition of Stepney. The many daughter parishes created from it over the period from 1610 to 1881 are noted, to show which parishes of East London were included in each year of occupational analysis. The original territorial dimensions of the parish (virtually all of East London) are accounted for in each year of analysis in this thesis, so the findings presented here are not adversely affected. For the reader's convenience, Figures 3.1 and 3.2 offer GIS-generated maps outlining the changing legal boundaries of Stepney for c. 1817 and 1881.

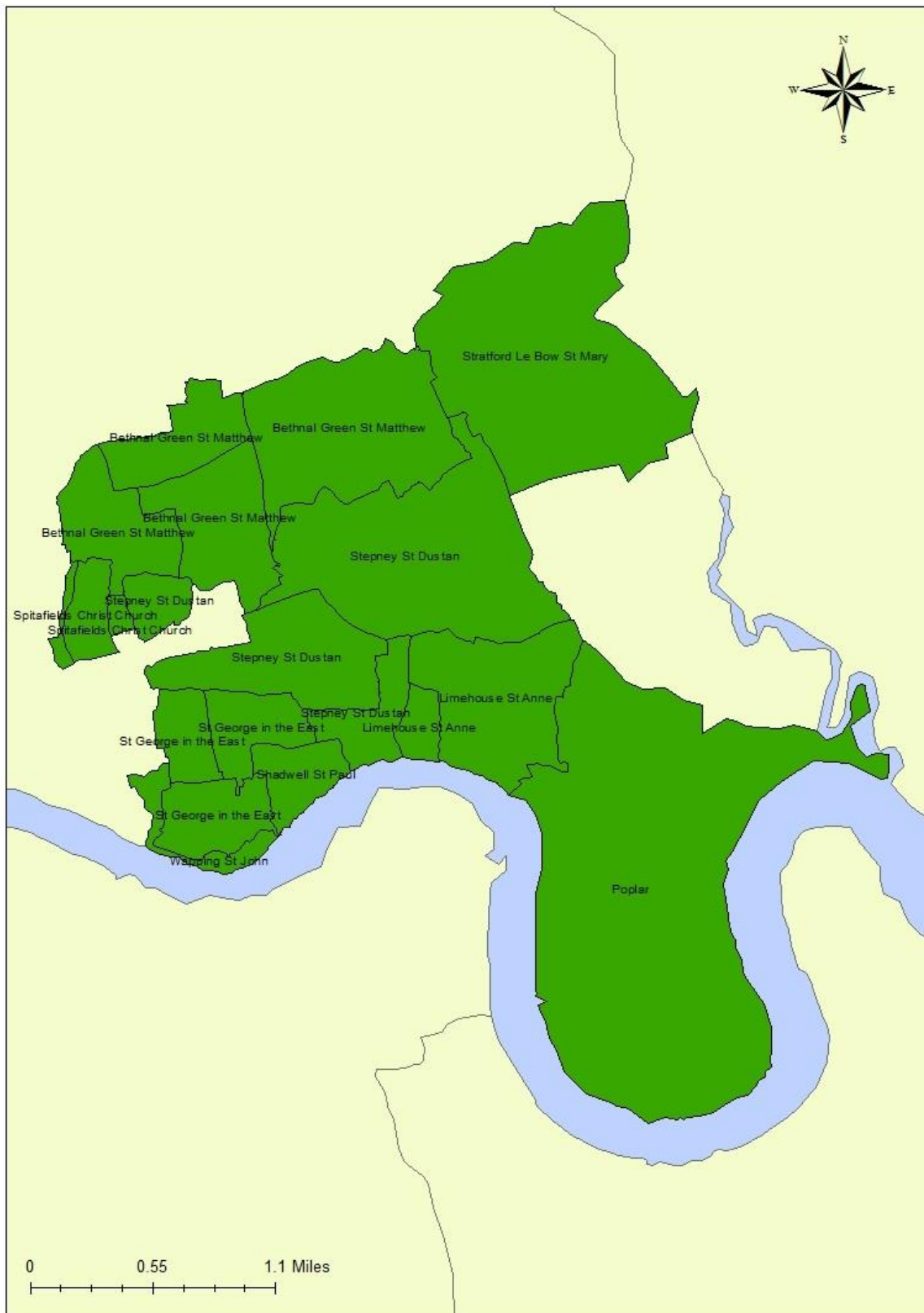
baptism register data from outside Stepney during the seventeenth century and after. In addition, St. Mary's Matfelon is also listed as being part of both the city of London and Middlesex, whereas the rest of parish/registration districts (from 1881) remained only within Middlesex. So to add St. Mary's Matfelon to the data samples would have overcomplicated the analysis.

Figure 4.1: Stepney c. 1817³



³ The area with the caption 'Mile End Old Town' would have included Stepney, St. Dunstan church.

Figure 4.2: Stepney 1881



Chapter Five

Sources – Baptism Registers and Census Data

Data on Stepney's occupational structure were taken from baptism registers for all years except 1881, for which data came from the census records. The data from baptism registers have been taken at roughly fifty year intervals to ensure an even but extensive coverage,¹ across the years 1610, 1651, and 1711, using standard abstraction guidelines.² The data taken from the 1881 census was done with the intention that trends in the occupational structure of the region could be charted to shortly after the end (c. 1850) of the period traditionally known as the Industrial Revolution, while also being at least fifty years after the c. 1817 baptism register data sample.

Parish registers are the main source for male occupations before the advent of detailed census records from 1841. Registers record baptisms, marriages, and burials separately. The rationale behind the use of baptism registers, rather than the use of marriage or burial registers, is explained below.

It should, firstly, be noted that burial registers have significant advantages as sources for classifying an occupational structure. For one, London parishes saw a sustained and unprecedented rise in population size from the seventeenth to the nineteenth century, so recording all those within it was increasingly difficult, especially due to the high levels of immigration. As A. L. Beier emphasises, this makes burial registers a consistent indicator of a

¹ Some data was gathered for 1750 in the intention of providing a consistent but rough 50 year break between samples. Unfortunately, due to the time constraints only data for the parish of St. Dunstan, Stepney was collected, and not the daughter parishes that had been created since 1669. The data from this year has not therefore been included in the occupational analysis as it is not a representative sample. Please see the appendix for more information.

² Since data was taken from single years instead of the more common eight year intervals used by the Cambridge Group, each was picked based on its conformity to the '95% rule' that extractions from less than eight years include 1,000 events, of which 95% were valid because they recorded the occupation of a father. Invalid events include illegitimate baptisms, instances where no occupation is specified, and entries where the occupation is simply unreadable.

region's population size because sooner or later everyone within a parish dies.³ Nevertheless, the value of burial registers are significantly undermined as most deaths (especially in pre-modern cities that had poor sanitation) were of children, who had no occupation and therefore do not provide an abundance of relevant information as baptism registers do. Burial registers also record older men, who shortly before death may have no longer been economically active or may have changed to more sedentary occupations in later years. Baptism registers were likely to record the occupations of men primarily between the ages of about 25 and 50, during which time they may have worked most intensively.

Furthermore, in comparison to marriage registers, baptism registers are more likely to pick up economically active individuals within a population that are in permanent, stable occupations since they had children to provide for. This is because marriage registers are more likely to record younger individuals with less employment security, compared to parents rearing children. For example, the Cambridge Group attributes 60 per cent of population growth from the late seventeenth century to the late nineteenth century to a fall in average age at marriage. Between 1670 and 1837 the male average at the beginning of a marriage fell from roughly 28 to roughly 25, and the female average from 26 to 24.⁴ This is not to say that marriage registers do not provide a rich source for recording occupational data, but it is probably the case that baptism registers are a more reliable source to gather data on lifelong occupations that give a more accurate picture of a region's occupation structure. In addition, to use marriage registers alongside baptism registers, in an effort to bolster the representativeness of the data, would be more likely to lead to double-counting than better data.

³ Beier, 'Engine of manufacture: the trades of London', in Beier and Finlay (eds.), *The Making of the Metropolis London 1500-1700*, p. 144.

⁴ Wrigley, E. A., 'British population during the 'long' eighteenth century', in Roderick Floud and Paul Johnson, *The Cambridge Economic History of Modern Britain*, Cambridge: Cambridge University Press, 2004, p. 74.

Concerning baptism registers, there are still noteworthy limitations. One such limitation is that infant mortality (stillbirth) rates could significantly reduce how much of the actual birth rate baptism registers capture. However, because baptism was a legal requirement, the rate of infant mortality may not seriously compromise the value of baptism registers as a useful source. For example, when the Stamp Act (imposing a 3d. duty on every parish register entry) was repealed in 1794, there were fewer disincentives to register one's offspring. So as sources of insight baptism registers can still be seen as more appropriate than burial registers.

Historians have also long recognised the disapproving cultural views towards bastards, and this is evident from the suspiciously low level of illegitimates registered in the baptism registers and census records.⁵ However, because burial registers do not pick up the most economically active individuals as baptism registers do, and since marriage registers would completely miss the recording of illegitimates, the larger benefits of using baptism registers outweigh this limitation.

In addition, baptism registers did not record female occupations. Cultural prejudice against women working is therefore a factor to account for, but trying to account for the female occupational structure would warrant an entirely separate research project in itself. So to make the census data in 1881, which records female occupations, comparable to the male occupational baptism entries from all previous years, only males over the age of 20 were recorded in that year's occupational analysis.

Another limitation with the data is that baptism registers (as well as burial and marriage registers) offer no disambiguation over the term 'labourer', which was often a casual or seasonal occupation. This appears to be a particularly significant problem with Stepney from 1610 to 1881 as 'labourers' consistently take up a noticeable portion of the

⁵ Only one entry was recorded as illegitimate in 1610, none in 1651, twelve in 1711, no more than 1.19 per cent in c. 1817, and no more than 2.47 per cent in 1881.

occupational structure each year, as they are not being precisely classified but still contribute to the region's economic activity.⁶ Fortunately, these percentages are never take up a proportion that would seriously compromise the integrity of the rest of the data, the highest being 10.01 per cent in 1881. It could even be the case that labourers in a particular year were concentrated in one industry, or alternatively that they were spread across many industries, but in both scenarios there would be no direct way of knowing.

Yet another possible limitation with the data is that the level of unemployment is not registered. However, this need not be a fatal problem as the nature of the PST coding concerns the structure of demand,⁷ which would not include unemployment.

On a more positive note, the census aimed to be more comprehensive than baptism registers; including age groups, sex, and children, as well as occupational groups, but it still only offers a momentary snapshot of occupational structure for a single year. In this way, the data from 1881 is very comparable to the previous years when the baptism records also offered annual snapshots of the occupational structure.

Consequently, the fathers' occupations recorded in the baptism registers of the parish were entered into a database from the microfilm copies in the London Metropolitan Archive for the years 1610, 1651, and 1711. For c.1817 the data was supplied electronically by Leigh Shaw-Taylor, as were the electronic files for the 1881 census. All of these occupations were then coded into the PST system of occupational classification for each year.

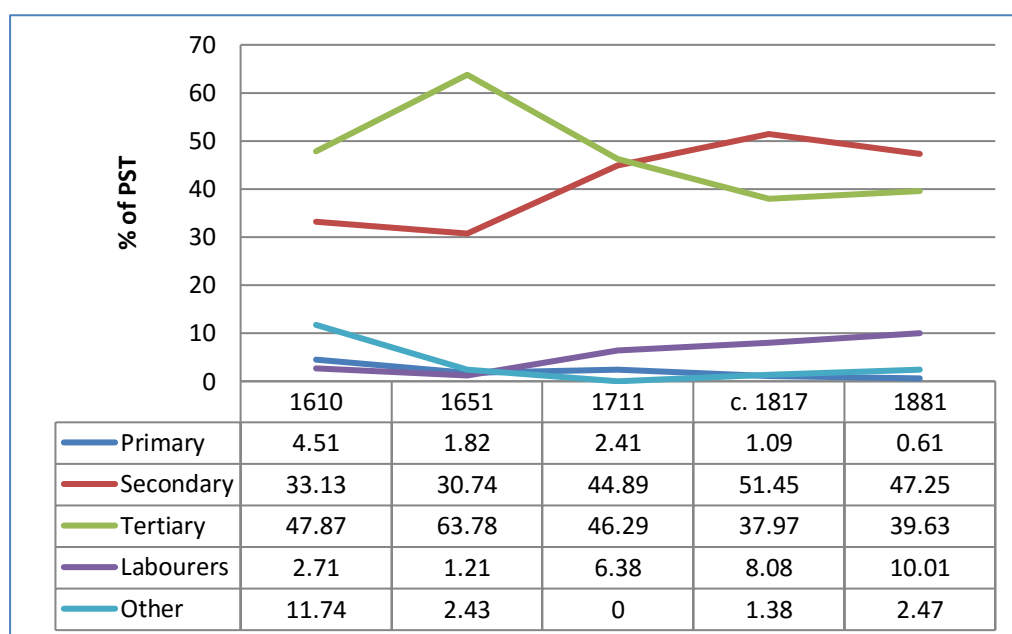
⁶ The 'labourer' category took up the following percentages each year: 1610: 2.71%; 1651: 1.21%; 1711: 6.38%; c. 1817: 8.08%; 1881: 10.01%

⁷ Leigh Shaw-Taylor and E.A. Wrigley, 'The Occupational Structure of England c.1750-1871, a preliminary report', p. 9.

Chapter Six
The Stepney Secondary Sector

The secondary sector in Stepney developed from holding roughly a third of all recorded occupations during the seventeenth century to being the dominant sector by the nineteenth century, as outlined in the graph below.

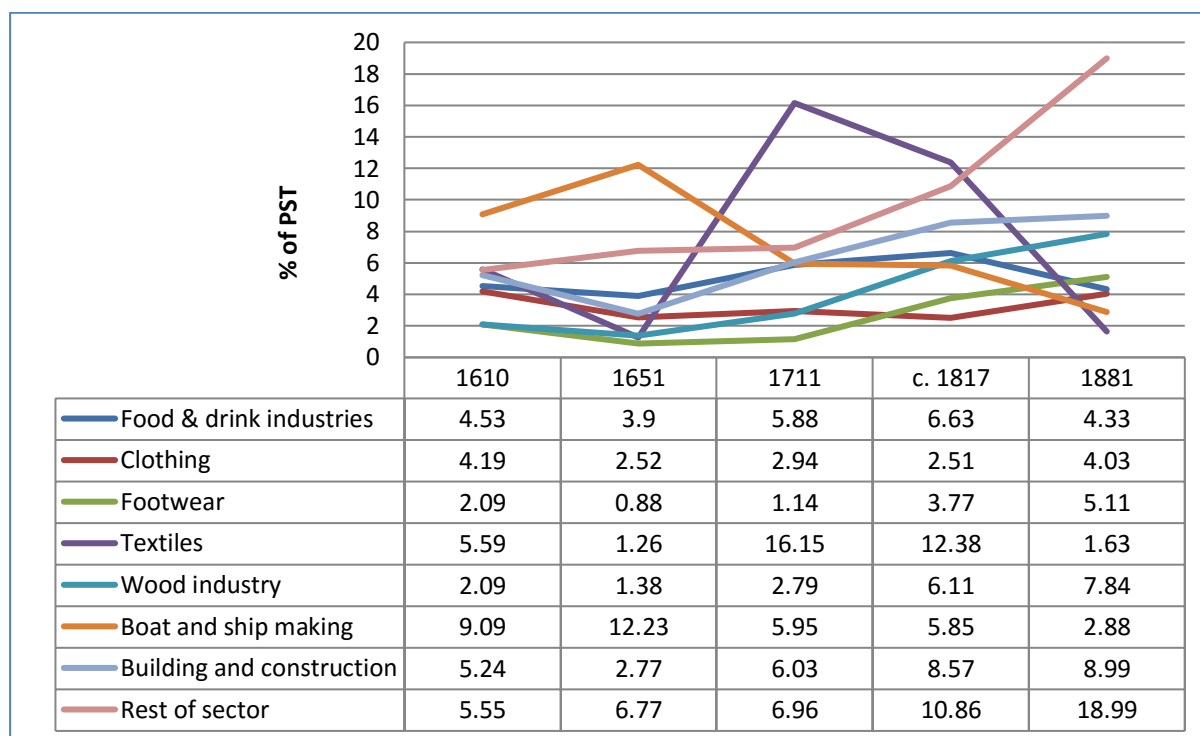
Figure 6.1: Adult males in each Stepney PST sector, 1610-1810



In this chapter key developments within the secondary sector will be considered in relation to its absolute growth over time. Specifically the largest occupational groups within this sector and how they changed over time will be analysed. This will include the decline of shipbuilding and textiles, along with the corresponding rise of garment production (clothing and footwear), construction and building and wood production. The following will be used to reflect upon Shaw-Taylor's question as to whether all parts of the metropolis shared in the

gradual decline of the secondary sector and the rise of the tertiary sector employment from 1817 to 1871.¹

Figure 6.2: Selected adult male occupations in the secondary sector, 1610-1881²



Stepney's food and drink industries included occupations such as butchers, bakers, brewers, and millers, for example. These held a consistently significant place within Stepney's economy over time, holding 4.53 per cent of all recorded occupations in 1610, experiencing fluctuations in its size over time until 1881 when it was 4.33 per cent, as outlined in Figure 6.2 above. However, these industries say little about the important developments within the overall occupational structure as they were most likely sustained by the constant need to accommodate for an increasingly larger population. In addition, their

¹ Shaw-Taylor, Leigh, 'A hidden contribution to industrialisation? The male occupational structure of London c. 1817-1871', p. 6.

² Although the 'Rest of sector' column lists percentages that appear noticeably high and therefore worthy of analysis – such as 1881 (18.99 per cent) – within these percentages are a variety of smaller occupational groups. The groups not within the 'Rest of sector' column have been selected because of their sizes and noticeable growth as a proportion of Stepney's occupational structure.

significance may only be discerned in relation to the service industries that supplied food and drink to consumers within the tertiary sector, which will be explored in the next chapter.

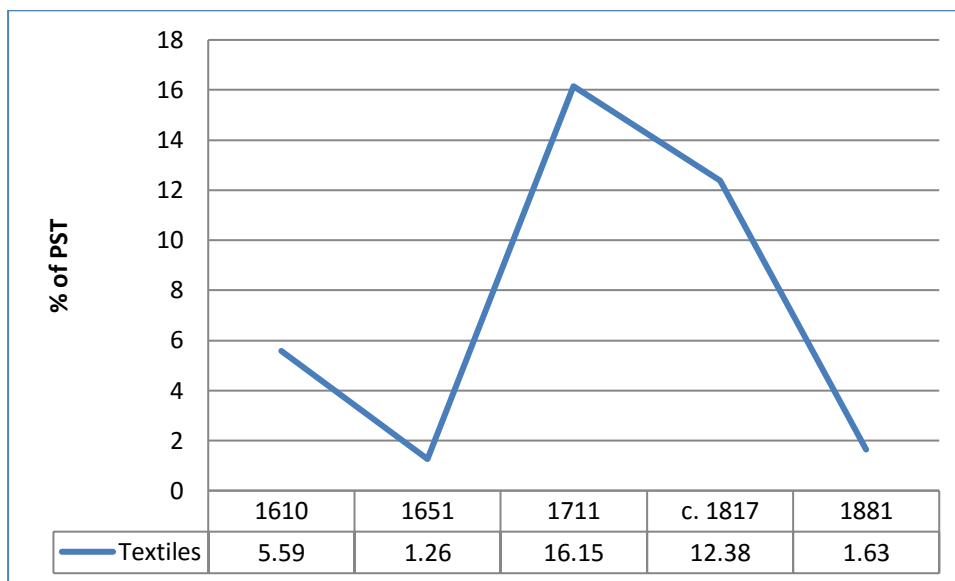
Of particular importance, however, are the garment production industries. Within the garment production industries, textiles is the most important to analyse, particularly as its size and its composition changed significantly over the period. Beier has drawn attention to St. Giles Cripplegate, just outside the walls of the City of London (the centre of the capital), for being a great producer of textiles during the seventeenth century. He notes, in particular, that weavers more than doubled in this parish from 1583 to 1637. In addition, from 1654 to 1693 production ran wild in the parish: 996 weavers were buried there during this period, accounting for 23.3 per cent of production outside the City of London in textiles and clothing between 1540 and 1700.³ Significantly, textiles and clothing also made up a fifth of all occupations in Stepney from 1606 to 1610 according to the East London Group's aggregate analysis.⁴ Other parishes, such as St. Olave Southwark, in Surrey, also concentrated heavily on garment production: feltmakers and weavers were both numerous there.⁵ Noting the broader picture of London's economic development, Beier has pointed out that textile production was expanding most rapidly on the northern, eastern, and southern edges of London. These areas grew nearly eleven fold in population size from 1560 to 1680, while production in central London increased only, at most, two thirds.⁶ So the extra-mural parts of London experienced remarkable expansions of manufacturing, with textile and clothing production featuring prominently.

³ Beier, 'Engine of manufacture: the trades of London', in Beier and Finley (eds.), *The Making of the Metropolis London 1500-1700*, p. 148.

⁴ East London History Group, 'The population of Stepney in the early seventeenth century', *Local Population Studies*, 3 (1969), p. 50.

⁵ Beier, 'Engine of manufacture: the trades of London', in Beier and Finley (eds.), *The Making of the Metropolis London 1500-1700*, p. 148.

⁶ Beier, 'Engine of manufacture: the trades of London', in Beier, and Finley (eds.), *The Making of the Metropolis London 1500-1700*, p. 154.

Figure 6.3: Adult males in the textiles industry, 1610-1881

From the data gathered for this thesis, outlined in Figure 6.3 above, it appears that the textiles industry in Stepney fluctuated in the percentage of the occupational structure it took up each year, declining from 5.59 per cent in 1610 to 1.26 per cent in 1651, before peaking at 16.15 per cent in 1711, and falling to 12.38 per cent in c. 1817 and further still to 1.63 per cent in 1881. More significantly, if the rate of population growth within Stepney is taken into account, the absolute size of the textiles workforce peaks in c. 1817 at 5,076, but declines by 1881, falling to 2,743, which is slightly lower than the size of the workforce two centuries earlier in 1711 (around 2,960). Interestingly, it has been estimated that by the late eighteenth century, London contained around 40,000 weavers, most of them working in their own homes in the Spitalfields and Bethnal Green.⁷ The data collected for Stepney confirms that Bethnal Green and Spitalfields held the majority of its workers in c. 1817. But the peak absolute size of the workforce in this year (5,076) suggests a large decline in the textile industry's

⁷ Ball and Sunderland, *An Economic History of London 1800-1914*, p. 308.

economic prominence within London if the majority of its workers were indeed working in Spitalfields and Bethnal Green.

Given that there was such a drastic decline across the nineteenth century, it is important to note the 1773 Spitalfields Acts, and their impact on the industry, as it can offer some explanation of the relatively low size of the Stepney textiles work force in c. 1817 in comparison to the late eighteenth century. Under these acts wages were fixed at relatively high levels, with each weaver being allowed two apprentices at most, which restricted entry to the trade. In addition, weavers within the capital were banned from engaging in contracts from outside London. When import bans were repealed, the textiles industry crashed in 1820 due to its diminished capacity to compete with foreign markets. For this reason, there was a ban on foreign manufactured silks, which was eventually replaced in 1826 by a customs duty of 25 to 40 per cent. However, with the introduction of steam-powered machines in the provinces outside of London and the repeal of all import duties in 1860 the textiles industry shrunk to negligible levels by the late nineteenth century, with possibly 114 weavers left in Bethnal Green by 1914.⁸

In 1881, the census confirms the decline in the number of weavers following the introduction of steam-powered machines in 1860, and the repeal of all import duties on cloth reducing those still active in weaving to negligible levels, constituting only 1.48 per cent. Within the Stepney textiles industry in 1881, silk was, by far, the most significant group within the industry's occupational composition, counting at 1,276, or 61 per cent of the total industry size. Most of the silk workers during this time were concentrated in the registration district of Bethnal Green, representing 82 per cent of all those working within the Stepney silk industry. Although Spitalfields had historically been the home of silk weavers (especially following the arrival of Huguenots in the seventeenth century), it only represented 3.29 per

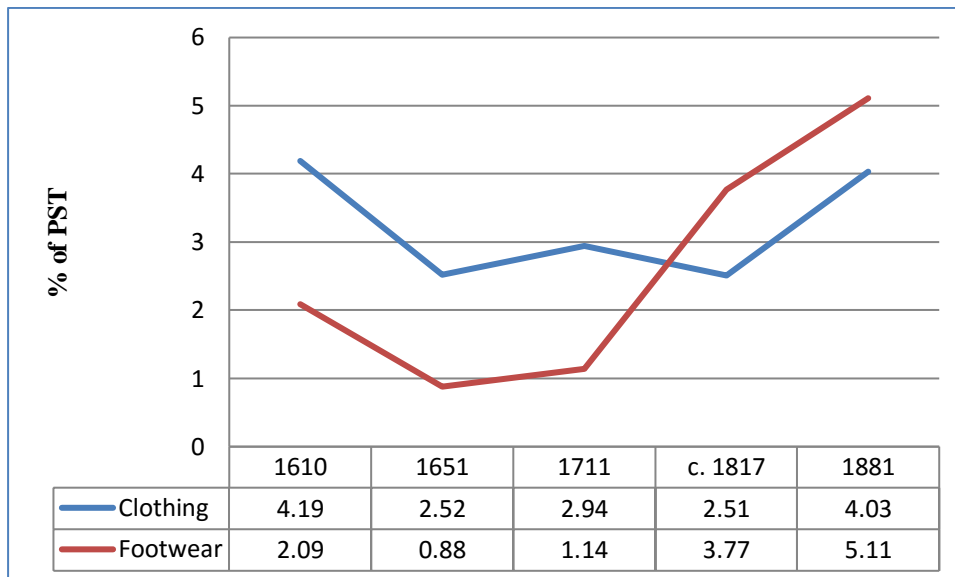
⁸ Ball, and Sunderland, *An Economic History of London 1800-1914*, p. 309.

cent of the Stepney textiles industry in 1881. Wool weavers, however, were the second biggest occupational group within Stepney's textiles industry that year, representing 8.77 per cent of the total.

These findings may help us understand this industry's role in the process of London's and England's industrialisation. Ball and Sunderland have emphasised the importance of consumer-oriented industries in the capital, including, clothing, furniture, drinks, foodstuffs, and printing, in making London distinctive as a manufacturing centre compared to the industrial north.⁹ Earle has noted that weaving was one of the capital's major industries in the eighteenth century with weavers residing in areas such as Shoreditch, Bishopsgate, Spitalfields, and the wider region of Stepney.¹⁰ As such, my findings offer useful snapshots of the Stepney textiles industry's varying weight within the capital over three centuries. As indicated by the findings from 1881, for example, silk weaving moved from Spitalfields east to Bethnal Green. In a wider context, textiles in Stepney declined along with the rest of the capital's industry during the nineteenth century, with those textile workers remaining in Spitalfields and Bethnal Green perhaps constituting a hub of silk weaving within London by the late nineteenth century.

⁹ Ball and Sunderland, *An Economic History of London 1800-1914*, p. 15-16.

¹⁰ Earle, Peter, *A City Full of People: Men and Women of London 1650-1750*, London: Methuen, 1994, p. 15.

Figure 6.4: Adult males in the clothing and footwear industries, 1610-1881

Clothing and footwear were not far behind the place of the textiles industry, and continued to grow while textiles appeared to be in permanent decline within Stepney.

Clothing occupied a larger place than footwear in the data until the nineteenth century, yet declining from 4.19 per cent in 1610 to 2.94 per cent in 1711 (but increasing its labour force's size absolutely due to population growth from around 200 in 1610 to 330 in 1651). Beier, from his perspective of London as an engine of growth in industrialising Britain, has drawn attention to the northern, eastern, and southern edges of the capital having rapidly expanding production centres from as early as the sixteenth century. Beier notes the expansion of garment production, as there were more than 566 tailors in St. Giles Cripplegate from 1654 to 1693, representing 4.10 per cent of all occupations recorded in the parish. St. Olave Southwark also had numerous tailors.¹¹ Beier does not provide a comparison for these figures to east London, but as outlined in Figure 6.4, clothing production in Stepney, accounted for not insignificant proportions of its occupational structure (around 200 in 1610

¹¹ Beier, 'Engine of manufacture: the trades of London', in Beier and Finley (eds.), *The Making of the Metropolis London 1500-1700*, p. 154.

and around 330 in 1651), suggesting that Cripplegate and Southwark were not the only parishes in London with significant numbers working in clothing during the seventeenth century.

By the nineteenth century the number of tailors had grown substantially and spread throughout the metropolis, as Ball and Sunderland note, often working near their clients. By 1861 the East End contained around 34,000 tailors (and tailoresses), with this number growing to around 65,000 by 1901; employment increased most rapidly between 1881 and 1901.¹² In c. 1817 Stepney tailors represented 67 per cent of its own clothing industry (amounting to around 690 tailors). By 1881 the proportion of tailors rose to 70.70 per cent of the clothing industry (amounting to 3,496 tailors). As such, it is sensible to propose that in the second half of the nineteenth century Stepney played a significant role in the growth of the clothing industry within London. The significance of Stepney's clothing industry within the capital during the nineteenth century may actually be understated as the figures referenced from Ball and Sunderland count both tailors and tailoresses, so Stepney's place within this increase could be larger. And given that Ball and Sunderland indicate the employment increased most rapidly after 1881, this could warrant future investigation into how Stepney's clothing industry responded to this period of growth.

In contrast to clothing, the size of the Stepney footwear workforce increased at a faster rate during the nineteenth century from 3.77 per cent in c. 1817 to 5.11 per cent in 1881, with a corresponding increase in the size of the labour force from around 1,545 in c. 1817 to around 8,600 in 1881. Indeed, even when the capital's footwear industry was declining, Stepney's local industry appeared to be resilient against such wider development. This is apparent when one compares the above results to Jacob Field's study of occupations in the Fleet Marriage Registers of the Fleet Prison in Clerkenwell. According to Field,

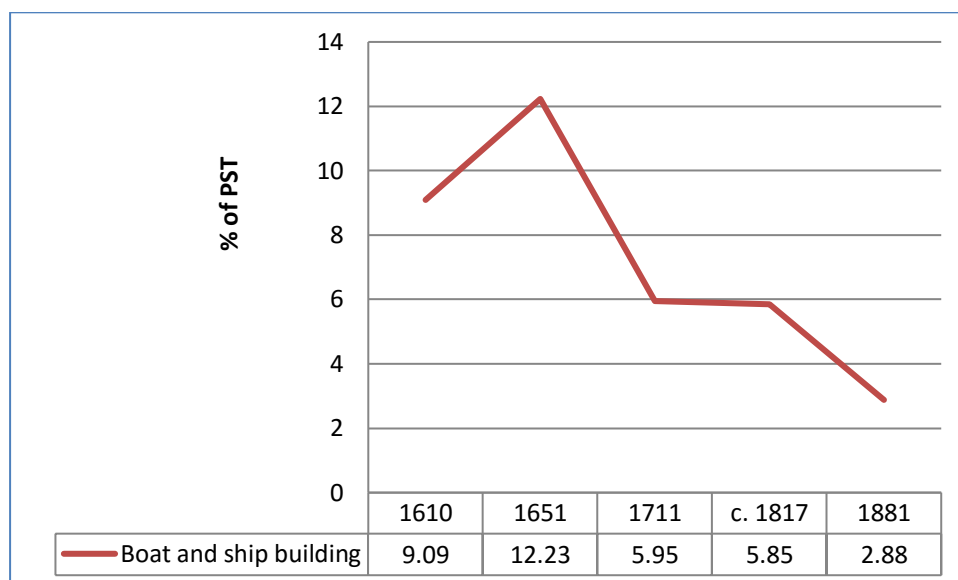
¹² Ball and Sunderland, *An Economic History of London 1800-1914*, p. 306.

footwear manufacture took up around 5 per cent of his occupational data from 1710-12 to 1750-52.¹³ Field claims that footwear manufacture seemed to be slightly declining in its share of London's male labour force during this period. But in Stepney, the footwear industry was growing in absolute size as well as relatively compared to other industries within the parish's occupational structure from 1711 onwards. In addition, the figures for the nineteenth century place Stepney in a unique position within the London economy. This is because the number of workers employed in the capital's shoe industry declined from 43,000 in 1861 to 28,000 in 1911, with one of the largest falls occurring between 1861 and 1871.¹⁴ This suggests that Stepney's footwear industry was employing the remainder of workers following the introduction of the sewing machine in 1859, which greatly increased productivity (in both shoemaking and clothing) and hence reduced the size of the labour force whilst expanding the production of cheaper products. So Stepney appeared to have retained its industry while other districts lost theirs.

Aside from the garment production industries, the second big component of Stepney's secondary sector that showed significant developments was the shipbuilding industry. Figure 6.2 above confirms the traditional association of Stepney with shipbuilding in the seventeenth century, as it took up 9.09 per cent of the occupational structure in 1610 and 12.23 per cent in 1651.

¹³ Field, Jacob, 'The Male Occupational Structure of London, c.1710-52: a new perspective based on the Fleet Marriage Registers', article in preparation, p. 10.

¹⁴ Ball and Sunderland, *An Economic History of London 1800-1914*, p. 309.

Figure 6.5: Adult males in the boat and ship building industry, 1610-1881

As shown in Figure 6.5 above, the size of shipbuilding within Stepney's occupational structure peaked during the seventeenth century but began to decline by 1711, taking up only 5.95 per cent. These findings complement the work of Michael Power. His work on burial registers shows that shipbuilding took up 4 per cent of occupations in 1610, climbing to 12 per cent by 1620, but falling to 9 per cent in 1640, and 3 per cent by 1690.¹⁵ Although his data suggests that shipbuilding as a percentage of the Stepney occupational structure peaked earlier than 1651, it also suggests that shipbuilding peaked in its share of the Stepney workforce during the seventeenth century and began to decline around the start of the eighteenth century.

However, although the shipbuilding industry's share of Stepney's occupational structure appeared to decline after 1651, its absolute size of its labour force almost certainly grew across the three centuries, and was highest in 1881 due to the rate of population growth. In 1651, when the shipbuilding industry's share of Stepney's occupational structure was

¹⁵ Power, Michael, 'The East London working community in the seventeenth century', in Corfield, Penelope, and Keene, Derek (eds.), *Work in Towns 850-1850*, Leicester: Leicester University Press, 1990, p. 106.

12.23 per cent, its workforce must have counted at around 1,600. Due to London's sustained population rise, the workforce's count increased to around 2,400 by c. 1817, rising to around 4,850 by 1881, despite only taking up 2.88 per cent of the occupational structure in that year. To summarise, as Ralph Davis notes, 'in capital and output the [shipbuilding] industry reached a peak in relation to national wealth and national income, before the end of the seventeenth century, which was never exceeded.'¹⁶ What caused this decline in shipbuilding as a percentage of Stepney's occupational structure?

Competition from the north is a major factor to consider. For example, from 1626 to 1637 ports in London constructed 52 ships, Ipswich ports constructed 35, East Anglian ports constructed 48, and all other ports constructed 24.¹⁷ But by the later eighteenth century the northwest and northeast coasts were leaders of the national industry. Between 1790 and 1791 the Northeast coast built 249 ships, the Northwest 116, and London 119 ships, all three representing the highest output rates in the country.¹⁸ These figures show that London's production of ships was increasing absolutely but within a national context becoming less important. As Davis explains, the risks of under-lading or of delays in securing a full lading associated with large ships were being reduced, in each sea trade, towards the point where any single ship's contribution to meeting that demand was insignificant. The trade between England and Russia and Jamaica, which experienced the most rapid growth in the mid-eighteenth century, also saw the most rapid transition to the use of very large ships. The advantages of size in reducing running costs per ton had to be balanced against the increase in the risk of under-utilisation, and the growth of most shipping trades was gradually lowering that risk. So it is likely that with the rise of very large ships during the mid-eighteenth century

¹⁶ Davis, *The Rise of the English Shipping Industry*, p. 390.

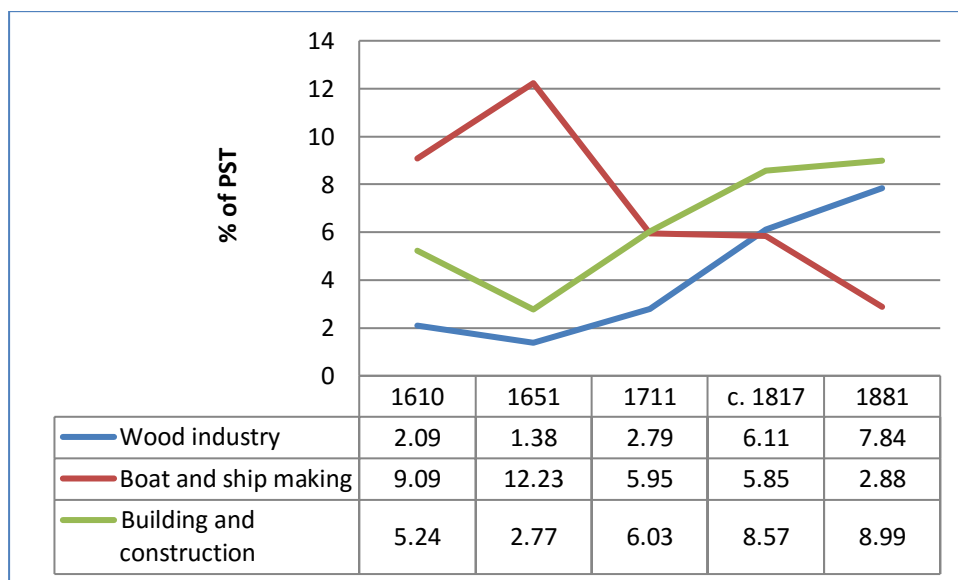
¹⁷ Davis, *The Rise of the English Shipbuilding Industry*, p. 55.

¹⁸ Davis, *The Rise of the English Shipbuilding Industry*, p. 71.

Stepney's ports became less important due to their limited size in relation to more open ports in the north east and north west.¹⁹

What were the consequences of this relative decline in shipbuilding? To some extent, a more diverse secondary sector, as some of the smaller occupational groups during the seventeenth century began to grow in the later years. For example, garment production (specifically clothing and footwear) grew as a percentage of the occupational structure considerably as shown in Figure 6.2. However, the expansion of the wood industry and that of building and construction also feature prominently in Stepney from 1610 to 1881, as outlined in Figure 6.1 above.

Figure 6.6: Adult males in the wood, boat and ship making, and building and construction industries, 1610-1881



Although already cited above, boat and ship making has been included in Figure 6.6 above to show the relative growth of wood industry and construction within Stepney as they

¹⁹ Davis, *The Rise of the English Shipbuilding Industry*, p. 72-3.

took up more occupations. With the accelerating rate of population growth new housing was a necessity, and an increasing proportion of them must have been built by brick following the London fire of 1666. The wood and construction industries were likely to have expanded to meet this demand. As outlined in Figure 6.6, the wood industry expanded from being 2.09 per cent of the occupational structure in 1610 to 7.84 per cent in 1881, while the building and construction industry increased from 5.24 per cent to 8.99 per cent over the same period.

Instead of being used mainly for ship building and barrels, the wood industry appears to have begun producing more furniture; a significant amount of which we can assume went to households. For example, in c. 1817 coopers (who produced barrels for ships) made up 39.82 per cent of the wood industry, but by 1881 they only made up 17.03 per cent. This is interesting as this is maritime supplies. In contrast, bed, chair, and cabinet production took up around 19.84 per cent of the wood industry in c. 1817, yet by 1881 furniture and cabinet production collectively took up 46.79 per cent of the wood industry.

In sum, there were significant intra-sectoral changes within Stepney's secondary sector over the three centuries under investigation, making its occupational composition far more diverse by the nineteenth century. The reasons for this were likely to be related to wider economic developments within London. As textiles declined in its share of Stepney's occupational structure, clothing and footwear increased within Stepney's secondary sector. The decline of ship building within Stepney's occupational structure by the nineteenth century, however, did not mean it lost its importance within London, as from the 1891 census it appears that Poplar and Stepney alone accounted for three quarters of all males employed in London's shipbuilding industry.¹⁹ But within Stepney its reduced size within the local economy was matched by the wood and construction industries growing as percentages of the occupational structure, most likely to construct new buildings and houses to accommodate for

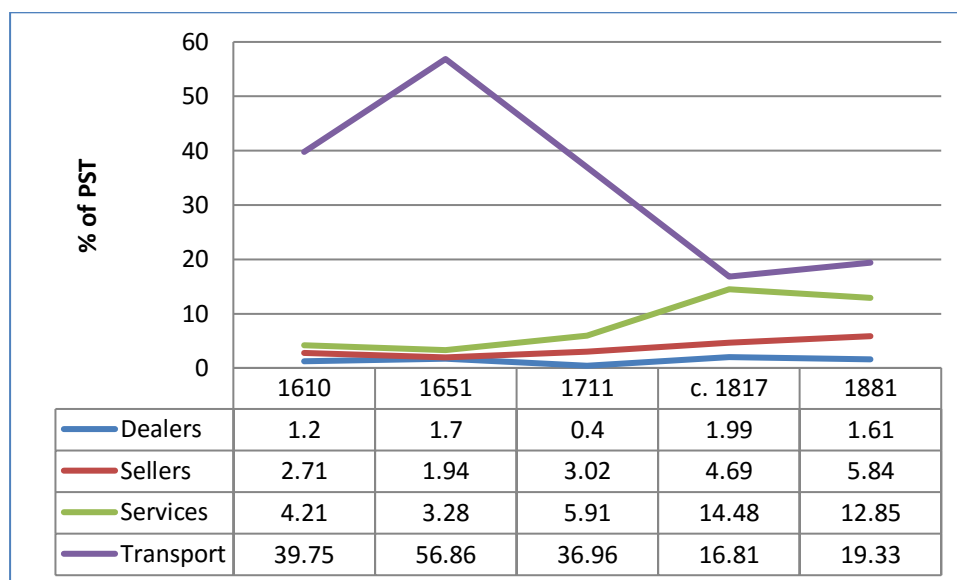
¹⁹ Pollard, S., 'The Decline of Shipbuilding on the Thames', *The Economic History Review* 3 (1950), p. 83, footnote 5.

an ever increasing population. So to return to Shaw-Taylor question as to whether all parts of the metropolis shared in the gradual decline of the secondary sector, it seems that, in particular, the clothing, footwear, construction, and wood industries within Stepney caused the secondary sector to outgrow the tertiary sector by the nineteenth century (shown in Figure 6.1). This general trend in its occupational structure is contrary to that charted for London as a whole, specifically the tertiary sector growing at a pace suggesting it would outgrow the size of the secondary sector by the late nineteenth century.²⁰

²⁰ Shaw-Taylor, Leigh, 'A hidden contribution to industrialisation? The male occupational structure of London c. 1817-1871', p. 3.

Chapter Seven
The Stepney Tertiary Sector

During the seventeenth century, tertiary occupations made up the most significant sector within Stepney's occupational structure, within which transport was the most important. Transport in Stepney included occupations such as mariners and lightermen. The development of the transport industry is particularly important for understanding how the parish of Stepney changed as an economic region over time. This is because there is only so much space on the river bank which may have led to a riverside sprawl or finger extending east along the river. Over time (particular after the seventeenth century) this was followed by an inland extension of settlement with non-riverside trades, predominantly within the secondary sector as this outgrew the tertiary sector overall. Naturally, this will produce some odd effects on the occupational structure of an economically arbitrary unit (a parish). As such, it will be argued in this chapter that the decline of Stepney's transport industries allowed the rise of the service industries (and secondary sector) to make its occupational structure more diverse and possibly even more stable in its employment levels.

Figure 7.1: Adult males in the tertiary sector, 1610-1881

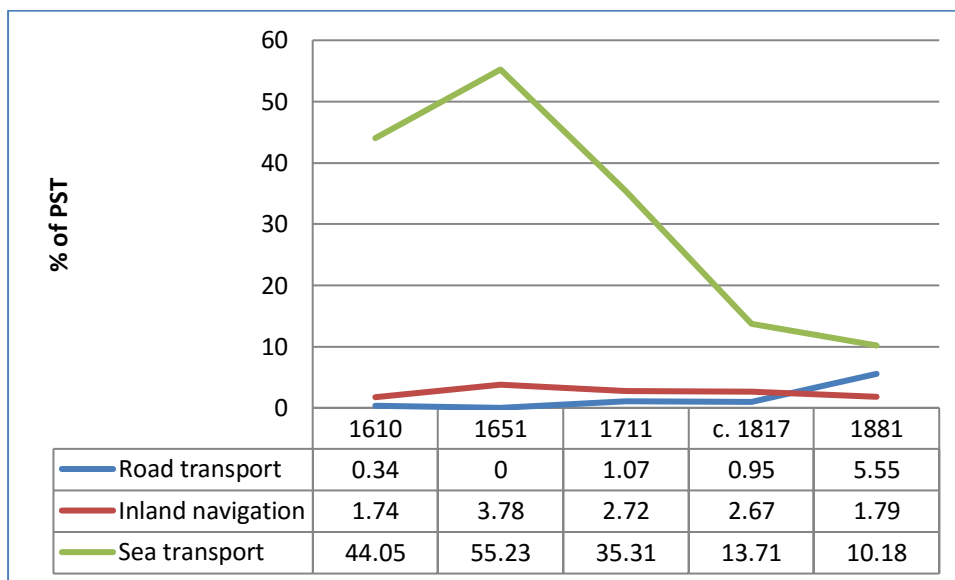
From Figure 7.1 above the data shows that dealers (primarily traders and merchants) and sellers (retailers) were far less important to Stepney's occupational structure than services and transport. Within the occupational group of sellers the most predominant were sellers of food (such as shopkeepers of various kinds), which counted for less than 2 per cent¹ of the occupational structure in all years but 1881, in which it rose to 3.71 per cent, making up most of the sellers industry. As will be explained below, this occupational group will not be analysed extensively as it most likely rose in conjunction, as the food and drink production industries did from the secondary sector, with its parallel occupational group in the service industries (food, drink, and accommodation services). In addition, those working in retail (being, for example, an alehouse keeper or a cook) were often women, which the sources upon which this thesis is based do not account for.

The most significant change in the occupational composition of Stepney's tertiary sector, however, was the transport industry's permanent decline. The riverside hamlets of

¹ In 1610 it took up 1.74 per cent of all coded occupations, falling to 0.63 per cent in 1651, rising to 1 per cent in 1711 and further still to 1.85 per cent by c. 1817.

Limehouse, Poplar, Shadwell, and Wapping contained most of the individuals in the sea transport industry (45 per cent) as early as 1606.² If the population was heavily concentrated along the riverside of Stepney during the seventeenth century, this would give even more reason to investigate the sea transport industry as an important occupational group before it declined as a percentage of the occupational structure. The trajectory of this decline is outlined in Figure 7.2 below.

Figure 7.2: Adult males in the transport industry, 1610-1881



In the graph above road transport and inland navigation grew in their share of the occupational structure, but they were dwarfed by the size of sea transport. Sea transport went from being the dominant occupational group in the Stepney economy, representing 44.05 per cent in 1610 (roughly 2,100 individuals) and 55.23 per cent in 1651 (roughly 7,230 individuals) of recorded occupations, declining to 13.71 per cent in c. 1817 and then 10.18 per cent in 1881. (It should, of course, be noted that after the seventeenth century this decline

² East London History Group, 'The Population of Stepney in the Early Seventeenth Century', p. 40.

could have been reversed in some of the years where data has not been collected. However, because the purpose of this thesis is to identify long term trends, it should be noted that a permanent decline as a percentage of the occupational structure is very evident by c. 1817 and 1881.) And although the sea transport industry declined in its share of Stepney's occupational structure, the absolute size of its workforce increased due to the rate of population growth. In 1711 its workforce must have numbered around 6,470, while a century later in c. 1817 it must have numbered around 5,620. This represents an absolute decline in the workforce's size. However, because London, in particular, had an accelerating rate of population growth, the absolute size of the sea transport workforce in 1881 was around 17,130. So it can be said that within Stepney the sea transport industry peaked as a share of the local economy in 1651 but during its decline as a percentage of all occupations it nevertheless continued to grow in absolute size through to the late nineteenth century.

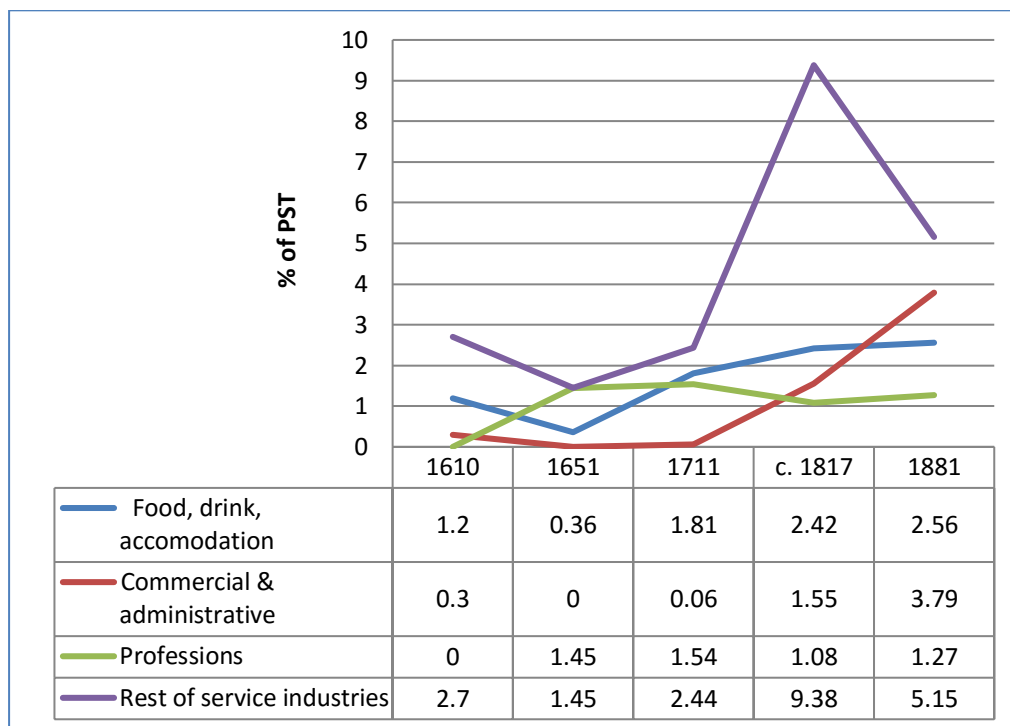
Nevertheless, from the data it appears that the decline of the sea transport industry allowed the emergence of a more diverse set of tertiary occupations, with growing industries in, primarily, services. This is important for a stable occupational structure because, as Hartwell emphasises, there is a tendency for employment in services to be more stable than non-service employment and to decline less than other employment during economic recessions.³ For example, as Power has pointed out, although ordinary maritime workers and captains could be well off, they could face sickness, regular periods of unemployment, and often be at risk of suffering life-threatening accidents at sea. Some idea of the impact this might have had on the area's working community is given by a Protestation Return of 1641, which was a list of signatories pledging loyalty to St. Dunstan's Church as a reformed Christian establishment. This Return notes that 483 out of 1,859 working men of Ratcliff and Limehouse were away at sea, which represented around one quarter of the total maritime

³ Hartwell, R. M., 'The Service Revolution: The Growth of Services in Modern Economy 1700-1914', in Carlo M. Cipolla (ed.), *The Industrial Revolution 1700-1914*, Volume 3, New York: Harvester Press, Barnes & Noble, 1976, p. 393.

working force.⁴ The remaining 1,376 would have been forced to either become labourers or stay unemployed if they were not guaranteed a place on an upcoming voyage. This suggests that during the seventeenth century the major occupational group within Stepney created some instability in the economic community, as mariners oscillated between periods of affluence when coming ashore (given that sailors' wages were reasonable by the standards of this century), and relative poverty while they waited for pay or were going through periods of unemployment. This point, however, should not be overemphasised as it is evident that the high pay of those working in the sea transport industry was clearly enough of an attraction to sustain the industry's absolute growth in the size of its workforce.

Concerning the service industries in Stepney between 1610 and 1881, they included food, drink, and accommodation services, storage, entertainment, media, miscellaneous service industries, domestic service, financial services, commercial and administrative services, professions, professional support, local government support, armed forces, owners of capital, and gentlemen. In Figure 7.3 below is a selection of groups that grew into noteworthy proportions of the Stepney occupational structure.

⁴ Power, Michael, 'The East London working community in the seventeenth century', *Work in Towns 850-1850*, p. 109.

Figure 7.3: Selected male service sector occupations 1610-1881

From Figure 7.3 it appears that all three service groups appear to have been very small parts of Stepney's occupational structure in the seventeenth century. However, in 1711 food, drink, and accommodation as well as the professions showed steady expansion into the nineteenth century, the century in which commercial and administrative services began to expand, becoming the largest single occupational group within the service industry by 1881. In a wider context, as the transport industry lost its dominance within Stepney's occupational structure, the service industries began to take up a larger proportion of Stepney's tertiary sector.

In sum, the decline of shipbuilding as a percentage of the secondary sector, and the corresponding decline of maritime occupations as a percentage of the tertiary sector, had important, permanent consequences for Stepney's occupational structure and its position within the London economy. With the decline of shipbuilding, and the parallel rise of other

groups such as garment production, and the wood and construction industries, Stepney's secondary sector became diverse. It is likely that with the absolute expansion of the maritime labour force there was increasingly less room to house them within the physical confines of the area of Stepney covered in this thesis. So it may well have been the case that the decline in the maritime industry within Stepney's occupational structure reflected a shift in the industry downstream the Thames to the larger docks (such as the Royal Victoria Dock). However, what is certain is that the prevalence of those working within sea transport was no longer the defining feature of Stepney's tertiary sector by the nineteenth century, as the service industries began to increase as a percentage of the occupational structure.

Chapter Eight

Conclusion

The parish of St. Dunstan, Stepney, from the seventeenth century to the late nineteenth century, presents an interesting micro-geography to compare to wider developments in London (and Britain) during its industrialisation. This is chiefly because, in contrast to London as a whole, within Stepney the secondary sector did not decline by the later nineteenth century, but seemed to surpass the size of the tertiary sector as early as c. 1817 (as outlined by Figure 6.1).

As Daunton has commented, historians of industrial London have long needed a series of case studies demonstrating ‘a much greater appreciation of the structure of different industrial districts of London, which may be considered as communities of skills which brought together interdependent workmen with different expertise.’¹ Using the PST system has helpfully allowed an appreciation of intra-sectoral developments within Stepney over the three centuries under investigation.

For the secondary sector, the PST analysis appears to reveal the following. Textiles took up the highest percentage of occupations within the secondary sector by 1711, but experienced a gradual decline towards the end of the nineteenth century as the wider textile industry within the capital shrunk in size. However, clothing and footwear production within Stepney grew in size (both the size of its absolute workforce and its share of the occupational structure), even if, as in the case of footwear, the wider industry within the capital appeared to be declining.

Outside of garment production, shipbuilding was initially the most significant occupational group within the secondary sector. This industry within Stepney appeared to peak in size of the occupational structure during the seventeenth century, before declining

¹ Daunton, M.J. ‘Industry in London: Revisions and Reflections’, *The London Journal* (1998), pp. 1-2.

(though its absolute size grew) by the nineteenth century. In its place the most prominent industries to expand as a percentage of all occupations were wood and construction, which were most likely directed towards the production of households and household furniture.

As such, the secondary sector within Stepney changed quite significantly in its composition over the three centuries under investigation, from being characterised mainly by shipbuilding and textiles before the nineteenth century, before becoming more diverse. This point is particularly evident from Figure 6.2 as the much smaller groups that constituted the rest of the secondary sector grew, from 5.55 per cent of all occupations in 1610 to a massive 18.99 per cent by 1881. These smaller occupational groups included in 1881, for example, printing (1.95 per cent), leather production (1.55 per cent), brick and tile manufacture (0.07 per cent), and public works (0.22 per cent), among others.

Within the tertiary sector, there were also intra-sectoral developments that are noteworthy. Corresponding to the decline of the shipbuilding industry, the sea transport industry declined as a percentage of the occupational structure from over 40 per cent in the seventeenth century to around 10 per cent by 1881. As in the secondary sector, this produced a more diverse tertiary sector. With the rise of the service industries, namely food, drink, and accommodation, the professions, and commercial and administrative services, Stepney's economic community experienced less unemployment, given that mariners in the sea transport industry, many of whom often faced regular periods of unemployment, were no longer the largest cohort of male workers after the seventeenth century.

Due to this changing composition of each sector over the three centuries analysed, Stepney underwent a significant inter-sectoral shift, in which the tertiary sector declined as a share of the occupational structure and was surpassed by the secondary sector by the nineteenth century. This major shift may be explained by Ball and Sunderland's idea of 'path dependency', that whatever develops within an industrial district, for example, did so because

the infrastructure and knowledge existed beforehand to facilitate it.² In this way, the rise of the secondary sector over the tertiary sector within Stepney was not completely surprising given that London was the largest manufacturing centre in Britain since the mid-eighteenth century.³ This suggests that Stepney was mainly distinguished by its shipbuilding and maritime industries during the seventeenth century, but following their decline its economic development was largely the result of an abundance of local manufacturing expertise.

Such commentary should not deter attention away from what remained of Stepney's tertiary sector by the nineteenth century. Indeed, the growth of the service industries suggests that the district already had the commercial infrastructure in place to participate in the eventual rise of services over industrial capitalism during the twentieth century. Indeed, during the nineteenth century, although the tertiary sector had been outstripped in size by the secondary sector, it still showed signs of growth, increasing as a percentage of the occupational from 37.97 per cent in c. 1817 to 39.63 per cent in 1881 (Figure 6.1).

Ultimately, the findings and commentary provided in this thesis should be treated as tentative results. The intention has been to emphasise long-term trends rather than strictly casual explanations within each year data samples were taken from. As the largest parish in London during the seventeenth century, and one of the largest during the eighteenth and nineteenth centuries, Stepney's changing occupational structure has provided further evidence, following the work of Beier, Fisher, and others, of the need for economic and social historians to pay more attention to London and its role in shaping Britain's industrial past. Indeed, as Daunton puts it, the 'challenge now is to integrate industry into a wider picture of the metropolitan economy, and to understand how it functioned as a whole. The task is

² Ball, Michael, and Sunderland, David, *An Economic History of London 1800-1914*, London: Routledge, 2001, p. 29

³ Leigh Shaw-Taylor and E.A. Wrigley, 'The Occupational Structure of England c.1750-1871, a preliminary report', p. 21, Figure 11.

formidable, but the results will have major implications for our understanding of the national economy.⁴

⁴ Daunton, M.J. 'Industry in London: Revisions and Reflections', *The London Journal* (1998), p. 8.

Appendix

Stepney parish/registration districts 1610-1881

The following explains the legal boundaries that constituted the area of Stepney throughout each year that data was collected for. The original dimensions of the parish (virtually all of East London) had been subdivided into separate parishes over the three centuries. These subdivisions have been tracked and accounted for so they do not adversely affect the collected data, by covering the original area in its entirety each year.

Table 9.1 1610 parish of Stepney

Parish	Total number of entries
Stepney	332

Table 9.2 1651 parish of Stepney

Parish	Total number of entries
Stepney	823

Table 9.3 1711 Stepney parishes

Parish	Total number of entries
Stepney	1216
Shadwell	0 ¹
Wapping	272
Total:	1488

¹ For reasons unknown, no occupations were recorded next to the baptism entries in Shadwell this year.

Table 9.4 c. 1817 Stepney parishes

Parish	Total number of entries:
Stepney St. Dunstan	7,722
Bethnal Green	5,715
Limehouse	2,176
Shadwell	1,191
Spitalfields	3,080
Stratford-le-Bow	485
St. George	7,146
Wapping	890
Poplar	1,086
Total:	29,491

Table 9.5 1881 Stepney registration districts

Registration district:	Sub-district:	Registration parish:	Total number of entries
Bethnal Green	Hackney Road	Bethnal Green	29,651
Bethnal Green	Green	Bethnal Green	47,729
Bethnal Green	Church	Bethnal Green	29,978
Bethnal Green	Town	Bethnal Green	19,301
Whitechapel	Spitalfields	Old Artillery Ground	2,514
Whitechapel	Spitalfields	Spitalfields	1,525
Whitechapel	Spitalfields	Spitalfields	18,492
Whitechapel	Mile End New Town	Spitalfields	2,816

Whitechapel	Mile End New Town	Mile End New Town	10,668
Whitechapel	Mile End New Town	Whitechapel	2,002
St George in the East	St. Mary	St George in the East	18,127
St George in the East	St. Paul	St George in the East	20,574
St George in the East	St. John	St George in the East	8,407
Stepney	Shadwell	Wapping	2,226
Stepney	Shadwell	Shadwell	8,170
Stepney	Ratcliffe	Ratcliffe	16,062
Stepney	Limehouse	Limehouse	32,032
Mile End Old Town	Mile End Old Town	Mile End Old Town	37,921
Mile End Old Town	Mile End Old Town	Mile End Old Town	68,039
Poplar	Bow	Bow aka St Mary Stratford-le-Bow	37,091
Poplar	Bromley	Bromley	64,148
Poplar	Poplar	Poplar	54,992
			Total: 532,465

As previously stated entries in the 1881 census for males aged 20 or above have only been noted. This makes the results from 1881 comparable to those of previous years, in which the baptism registers only recorded the occupations of male adults. As such, the numbers below state the proportion of the 1881 census counts that were only males aged 20 or above. Of the half million entries recorded in the 1881 census for Stepney, 140,238 were males aged 20 or above (including those not strictly within the PST coding system such as labourers), while 122,729 appeared to be males aged 20 or above that held occupations within the PST coding system.

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Primary sources in electronic format

The following two databases were kindly provided to me by Leigh Shaw-Taylor of the Cambridge Group:

Parish register database of occupations in London in c. 1817.
Database of 1881 Census in London.

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¹ Some data was gathered for 1750 with the intention of providing a consistent but rough 50 year break between samples. Unfortunately, due to time constraints only data for the parish of St. Dunstan, Stepney was collected, and not the daughter parishes that had been created since 1669. The data from this year has not therefore been included in the occupational analysis as it is not a representative sample. Please see the appendix for more information.

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