

**The measurement of economic and labour market conditions in the late Victorian and Edwardian periods and the use of data from the Co-operative Movement of Great Britain**

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## Abstract

The overall aim of the thesis is to extract from a hitherto under-used data set a wide range of statistics that enable the calculation of annual average earnings for a geographically and occupationally diverse group of workers. The period covered is 1896 to 1913 and essentially attempts to draw economic and welfare inferences from spatial and time series analysis by occupational sector and between geographical location. The extent of the data may be exemplified by noting that the number of workers represented is 52,977 in 1896 and 178,674 in 1913. The thesis is divided into three sections as follows:

1. The introductory part discusses in general terms the measurement of economic and labour market conditions in the period, the relative importance of this issue, and difficulties that exist due to lack of representative data. The second part attempts to justify the use of data for annual average earnings of co-operative society workers as giving some representation of market wages. This is covered by two chapters, one qualitative and one quantitative
2. The first part of this section draws upon statistics from productive societies in the Movement. The data is arranged by sector and comparisons are made with existing work by Bowley, Wood and Feinstein. Additional data is drawn from the Labour Gazette in the period and the results seem to suggest that, when actual earnings rather than wage rates are used, annual and periodic levels of income show greater variance. The possibility that these variances may be an indication of underlying economic and labour market conditions is discussed in detail. The second part of this section uses data from the largest section of the Movement, the distributive side. A database (Access) has been created and statistics on annual average earnings entered for all 1,167 distributive societies in 1906 (62,465 workers). A total of 890 have been mapped onto an outline of Great Britain. This data is also presented at metropolitan and regional levels of analysis for comparative purposes.
3. The final part of the thesis attempts to draw upon the preceding chapters to suggest that variance in annual average earnings may contribute to the debate concerning conditions within Britain for the period. Relative distress within the diverse economy that existed in the period has been an area of quite considerable discussion and authors have used a number of proxy measures – for example poor law returns, data for the recovery of small debts, marriage rates and trade union unemployment returns – to measure these variations. This section will investigate the possibility that one or more of these proxies may be indicative of relative conditions (by comparison with annual average wages) when tested at local levels.

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## Introduction

This thesis makes use of a rich and hitherto unexplored dataset on the earnings of employees in the Co-operative movement in the UK to shed new light on labour market conditions and how they varied across space and time in the late 19th and early 20th centuries. The motivation<sup>1</sup> for writing the thesis was founded on the notion that too many assumptions have, out of apparent necessity, been made about the British economy and labour markets from the time of industrialisation to World War One and even beyond. Statistics from one industry, or at most a small group of related occupations, have been used as a reference point for aggregation and inference about what may have been happening outside of these relatively narrow groups of workers and their industries. Even a superficial examination of sources used in the construction of indices and time series for such indicators as average national income and unemployment shows that trade union unemployment returns and wage rates are the predominant (or exclusive) sources and an aim of this study is to show that these almost certainly do not sufficiently represent the diversity and dynamism that existed in at least one part of the period. An additional aim is to investigate spatial variations in the relative levels of the incomes of workers. This issue is related to living standards, but rather than emphasise aggregate trends it highlights differences between localities and regions. To put this into a rather basic but summary statement, one question that may be asked is: to what extent would the life of an average worker in, say, London be affected by a cotton famine in the Lancashire mills or a decline in export-oriented trades? Would he or she be aware of or be unduly affected by such apparently disastrous events and if the answer is no, then this implied but unmeasured stability for the majority of workers and

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<sup>1</sup> Many thanks to Professor Paul Johnson whose help, guidance, patience and supervision enabled the completion of this work. Also to other staff members of the Economic History Department at the LSE, and the ESRC who funded my time as a post-graduate student.

industries has to be factored into any national aggregation.

The wider notion - that regions rather than nations are the most relevant areas for economic investigation from the time of industrialisation<sup>2</sup> is, of course, not new but the lack of relevant data appears to stifle, in the main, such research. However, the possibility that statistics may exist which could measure or at least proxy for local and regional variations was highlighted in work by Johnson<sup>3</sup> and the implication within the paper - that further local studies may allow for progress in the nature of regional deviations from the national pattern - was the starting point for this thesis. Alongside this, the work by Lee<sup>4</sup> and the notion that local employment structures may have a relationship with regional and local variations in economic and labour market conditions, suggested that an approach that measured annual average income using local sources may be the most relevant indicator of variance and the one that is uninfluenced by 'national' measures.

The availability of such data is clearly the key factor in the relative success of the mission. During the course of a search for relevant statistics a data set was found that may not only fulfill, but exceed the original intentions. This data set can be extracted on an annual basis from the Annual Co-operative Congress Reports<sup>5</sup> and these provide, from 1895, and continuously to

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<sup>2</sup> For example, see P. Hudson, *The Industrial Revolution* ((Edward Arnold, 1992)

<sup>3</sup> P. Johnson, 'Small Debts and Economic Distress in England and Wales, 1857 - 1913', *Economic History Review* XLV1, 1993, pp 65 - 87

<sup>4</sup> C. H. Lee, 'Regional Growth and Structural Change in Victorian Britain', *Economic History Review*, 2nd Series 33, 1981, pp 438 - 452,  
C. H. Lee, *British Regional Employment Statistics, 1841-1971* (Cambridge University Press 1979)

<sup>5</sup> *Annual Co-operative Congress Reports*, (Co-operative union limited, published annually from 1868)

World War Two and beyond, statistics for wages paid and numbers of workers in each society, both productive and retail. In the reports each society is grouped by district and region, and national totals are provided for Great Britain and Ireland. Totals for the Co-operative Wholesale society are listed separately as well as within the totals for one region (the North West) and each productive society is sectorally listed and annual totals given for each sector. The total numbers of workers represented is 52,977 in 1895 and 352,675 in 1939. From 1895 to 1905 inclusive, numbers of workers are divided into distributive and productive sections but the wage total is one figure representing distributive earnings (for local societies). From 1906 to 1935 inclusive, the wage totals in the distributive and productive occupations in local societies are given separately and, from 1936, there are three sections for both wage totals and workers, with the further sub-division of those in transport. The use of these data may give an opportunity to not only analyse spatial and periodic variations and fluctuations in annual average earnings (and therefore in the experiences of working people in the period for which they are available), but also allow for a review of some indices and series of sectoral and national levels of income and under-employment. Furthermore, they may have the potential to be used in local and regional studies that take account of different structures of employment to build a picture of that part of the economy that is not dominated by large-scale and export-oriented industry. Ancillary to this, the data provide an opportunity to measure the extent of labour market convergence or divergence within the British economy and the effects this may have had on factors such as levels of migration. Within these points, a potentially key element in the statistics is that they may give some indication of those parts of the economy (service sector and internally traded domestic manufacture) that have been difficult to measure but which as a whole employed the majority of the working population and accounted for the largest proportion of the national wealth. For example, a scrutiny of the occupational classifications and numbers of workers from

the census returns for 1901<sup>6</sup> suggests that 51 per cent of the employed workforce were in primarily service occupations and this figure does not include service sector workers within productive classifications (for example administration etc. in engineering).

The implications of such a study may be relatively wide-ranging. For example, if this was the formative stage of our modern economy and society, then regional variations in such factors as voting behaviour, attitudes to welfare and immigration as well as trade union membership may be explained, to an extent at least, by employment opportunities and the nature of the local economy. If this is the case, the consequences of such variations in attitude would not end in 1914 but may be traceable through the interwar and postwar periods to the present day. In another sense, the availability of more representative unemployment and wage returns in the inter-war period allows for the possibility of testing inferences derived from co-operative society earnings against those derived from more traditional indicators at local, sectoral and regional as well as national levels.

The present understanding, therefore, of regional and national diversity as well as the measurement of such a factor - particularly for the service and even for the non-export manufacturing sector - is sparse. As will be seen in the following two chapters, this is a potential problem that has been recognised by historians and economists from that era to the present day. A few small examples of the extent to which the potential for diversity within the national economy existed and, indeed, of variance in alternative employment opportunities for working

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<sup>6</sup> C. H. Lee, *British Regional Employment Statistics*

people can be made, again from the census data provided by Lee.<sup>7</sup> These show that over half a million textile workers were employed in Lancashire - 39 per cent of the national total and over 25 per cent of the whole employed workforce in that county for 1901. London, with a similar number of total workers at that date as Lancashire (2,119,284 and 2,087,474 respectively) had only 2.9 per cent of its employed workforce in textiles but nearly half a million, 22 per cent in miscellaneous services compared with Lancashire's 11 per cent in this category. Nearly 8 per cent of workers in Lancashire were employed in agriculture and mining but, in London the figure was less than 1 per cent. Apart from the cataloguing of some local and nationally agreed wage rates, mainly in productive industries, and trade union unemployment returns in similar occupations, there is no existing quantification of the sectoral and regional diversity implicit in the figures for occupational structures exemplified above. This study is an attempt to address these issues by the use of a data set that has consistency and continuity over time and is furthermore geographically and sectorally diverse.

In one sense, the study could be seen as addressing a primarily economic function in that it will attempt to analyse spatial, sectoral and even national levels of earnings and, inasmuch as these give an indication of underlying labour market conditions, this is indeed the case. On the other hand, the issue may also be seen as one of welfare - namely the extent to which this measured spatial and time-bounded income level and variance would clearly have affected the lives of workers (and of course their families) studied. The two issues are inevitably linked and so the term relative economic and labour market conditions is used as a reference to the dual measures implied. This obvious linking of potential or proxy measures of relative economic activity is, of

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<sup>7</sup> *Idem.*, tables

course, not a new concept. For example, trade union unemployment returns are used not only as a measure of relative labour market conditions but also to weight, as noted above, various economic indicators in the period being studied. Another proposed proxy measure - poor law provision - may be seen as a primarily welfare-based indicator but, by extension, has also been suggested (see chapters 1 and 2) as a measure of underlying labour market conditions which are, of course, linked to economic fluctuations. One reason, perhaps, why the two issues - economic and welfare - may at times be seen as separate issues is due to the aims of the researcher. For example, a social investigator who considers drinking habits as part of a study of the social consequences of development or industrialisation or even urbanisation is not primarily concerned with economic fluctuations but the implicit 'link' discussed still exists. In this present study, however, the one (welfare) is seen as a not always stated implication that can be drawn from discussions concerning sectoral, spatial and national measurement of underlying economic and labour market conditions. Indeed, it can be argued that the means that will be used to measure these factors - actual earnings - is the closest that is possible to an indication of the relative distress or well-being of the workers and their families. As will be shown, the new data set is not only relevant to the issues highlighted because it is a focal point for both economic and labour market conditions but also because other statistics that are used or have been proposed for use lack the appropriate sensitivity and/or accuracy to the issues discussed at all or some relevant levels of analysis.

The preceding suggestions are, of course, easy to make, but difficult to confirm. It is therefore necessary to use a relatively large proportion of the first part of the thesis in contextualising the data set that it is proposed to use. This contextualisation must have two approaches. These will take the form of an investigation and discussion of the movement within which the workers that

are represented were employed and, following this, a mainly comparative study with currently available data and research concerning levels of income, both spatially and sectorally, and their fluctuations over time. However, it is also necessary to introduce the areas of study in which the research will take place as well as the core from which wider research may be expanded. This will not only offer some justification of the methodology and statistics that are to be used, but will also attempt to show the current need for such an undertaking.

The thesis is organised into three parts and within these, there are two distinctive methods of presenting the data. The first of these two methodological approaches is as series over time and culminates in chapter 6 at national and sectoral levels, then resumes at local levels in chapters 8 to 11. The other method, a spatial analysis, is presented in chapter 7.

The first part begins (chapters 1 and 2) by introducing the area of research and examines existing works at a national and sub-national level. The second section of part 1 (chapters 3 and 4) introduces the data that is extracted from co-operative congress reports and the movement that these data represent. Qualitative evidence from the reports is presented (chapter 3) which demonstrates that co-operators, regardless of ideology, had to function within the rigours of economic logic to survive. Detailed quantitative evidence (chapter 4) is then used from the congress reports to demonstrate how annual earnings data can be extracted at various levels of analysis.

The first chapter of part 2 (chapter 5) uses the co-operative data at various sectoral levels and makes comparison with existing works. This highlights the fact where actual earnings are used (as opposed to wage rates), greater fluctuations occur. The wage census data for 1906 is used in

an assessment of the potential accuracy of the data. Chapter 6 explores the notion that variations in annual average income may give an indication of underlying labour market conditions and uses trade union unemployment returns as a comparator. Chapter 7, as previously noted, explores regional and town - level differences in income for one year (1906) and compares the co-operative data with existing work. A map is produced which gives an indication of town - level differences for the the whole of Great Britain for that year.

Part 3 uses the Co-operative data to make comparisons with existing work and existing data in four local - level investigations of relative labour market conditions. The aim is twofold - firstly to assess other investigations and other potential proxy measures at a local level against co-operative earnings, and secondly to discuss the potential of any other proxy which may give an indication of relative conditions in earlier periods, when co-operative data were not available.

**Part 1 - Some background to the research project, the Co-operative Movement of Great Britain, and a contextualisation of the data that represents the populations being studied**

**Chapter 1 - The measurement of economic and labour market conditions at a national level in Victorian and Edwardian Britain**

**Chapter 2 - The measurement of economic and labour market conditions at a sub-national level in Victorian and Edwardian Britain**

**Chapter 3 - The Co-operative Movement of Great Britain  
'United we stand'**

**Chapter 4 - Annual average wages within Britain, 1896 - 1913:  
evidence from the Annual Congress Reports of the Co-operative Movement of Great Britain**

## 1 - The measurement of economic and labour market conditions at a national level in Victorian and Edwardian Britain

This and the following chapter will review some of the research and data that has been used in the measurement of labour market conditions in the Victorian and Edwardian periods. Their purpose is to demonstrate that existing work is based upon limited and unrepresentative evidence. This chapter identifies problems in the use of national estimates of trade union unemployment, pauperism, and various other socio-economic indicators; chapter 2 examines the same issues at a sub-national level.

Trade union returns supplied to the Board of Trade are the most commonly used statistic for discussions concerning unemployment, certainly in the period up to 1911 and, at least in part, until the introduction of a more comprehensive insurance scheme in 1920. These are often accompanied by notes of caution relating to the fact that they have a bias towards skilled occupations and, within this, industries more liable to fluctuations predominate unduly.<sup>8</sup> This well known problem can be expanded by reference to several points - for instance, union membership in 1895 is calculated as being 9.9 per cent of its potential<sup>9</sup> and the members included in the Board of Trade returns are less than a third of all trade unionists in the country.<sup>10</sup> It has been estimated that the Board of Trade returns relate to

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<sup>8</sup> W. H. Beveridge, *Unemployment, a problem of industry* (Longmans, Green & co., 1909) p 20

<sup>9</sup> G. S. Bain & R. Price, *Profiles of union growth, a comparative statistical portrait of eight countries* (Basil Blackwell, Oxford, 1980) p 37

<sup>10</sup> W. H. Beveridge, *Unemployment, a problem*, p 18

just 3.4 per cent of the male workforce in 1895<sup>11</sup> and, furthermore, are biased by sector and region. Union membership depended to a large extent on occupation, and industries with a high density of membership were located in areas and regions whose local structure, by their very nature, were by no means representative of the national economy. This point can be exemplified with a breakdown of union membership in selected counties for 1893-4:

Table 1.1 - Trade unionists per 100 of population, selected counties, 1893-4<sup>12</sup>

<u>County</u>	<u>Trade unionists per 100 of population</u>
Cheshire	4.52
Derbyshire	6.82
Hampshire	0.96
Kent	1.69
Lancashire	8.63
London	3.52
Northumberland	11.23
Rutland	0.00
North Wales	1.96

(source: S. & B. Webb, see footnote 9)

It is worth drawing attention, as Hunt<sup>13</sup> for instance does, to the variations in union membership between the county with the highest rate of trade union membership (Northumberland) and that with the lowest (Rutland). However, although it may seem

<sup>11</sup> P. Johnson, *Small Debts*, p 65

<sup>12</sup> S. Webb & B. Webb, *The History of trade unionism* - revised edition 1920 (Augustus Kelley, Clifton 1973) pp 741 - 743

<sup>13</sup> E. H. Hunt, *Regional wage variations in Britain, 1850 - 1914* (Clarendon Press, Oxford, 1973)

likely that the disparity is because one is essentially an agricultural county and the other industrial, the comparison requires deeper consideration. Although Rutland did, indeed, have 31.8 per cent of its workforce in agriculture, forestry and fishing in 1891<sup>14</sup> and the figure for Northumberland was 9.5 per cent, this was in the former case the largest single group of occupations and, in the latter, the second largest. Northumberland had 24.3 per cent in total in the four categories of mining and quarrying, metal manufacture, mechanical engineering and textiles whereas Rutland had a total of 3.7 per cent in those classifications. However, the diversity of occupations in both counties is clear - for instance Rutland with 6.9 and 23.5 per cent respectively in clothing and footwear and miscellaneous services and Northumberland 6.1 and 15.9 per cent for the same categories. The point is that even in the county with the highest trade union density, the figure that may be presented as representing unemployment in that region is only sampling from a minority of occupations. As these occupations tended to be in export industries, furthermore, it is not surprising that unemployment is often shown to fluctuate with the trade cycle for this period as both are biased towards one part of the economy (exports) and ignore to a large extent occupations and industries that not only employed the majority of working people but also accounted for the larger part of national income. This may be further emphasised by reference to the fact that unemployment returns for unions representing coal-mining, engineering, shipbuilding, metal trades and textiles had a total proportional contribution of 68 per cent towards the returns for 1894.<sup>15</sup>

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<sup>14</sup> C. H. Lee, *British regional employment statistics*

<sup>15</sup> W. H. Beveridge, *Unemployment, a problem*, p 20

These points will be discussed in more detail in later chapters but it is also worth considering briefly the effectiveness of trade union returns in measuring unemployment at a more micro-level, in a largely non-agricultural and urban entity. A previous study<sup>16</sup> of the town of Dover shows that the available trade union returns for the town from the period 1860 - 1912 are the monthly branch statistics for the Amalgamated Society of Carpenters and Joiners (ASCI) and the Amalgamated Society of Engineers (ASE). These represented, in 1911, 0.8 per cent of the male workforce, with ASE membership varying between 12 and 60 in the period, and the number of male unemployed fluctuating from 0 to 3. The ASCJ returns show membership varying between 61 and 109 in the same period (1860 - 1912) but, until 1902, indicate a zero figure for any members on donation benefit. These are the only figures for unemployment and/or short-time working in a town with a total working population of 19,126<sup>17</sup> in 1911 and where only 320 (1.7 per cent) were engaged in agricultural occupations. The town had a relatively large urbanised workforce with, for instance, 1521 (8.0 per cent) in construction, 1839 (9.6 per cent) in food, tobacco, drink and lodgings and 1131 (5.9 per cent) general and factory labourers. Its working class credentials can be further exemplified by the fact that 587 (3.7 per cent) worked on the railways, 534 (2.8 per cent) on road conveyance and there were 317 (1.7 per cent) dock labourers. Apart from port - related occupations, it would probably be true to say that local employment opportunities in this town lay in small-scale manufacture and service

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<sup>16</sup> P. Searles, *Economic distress in the second half of the nineteenth century, a local study* (Unpublished Msc Report, 1997) pp 28 - 30 (Statistics used are from the Great Britain Historical Database, labour market database, trade union statistics 1851 - 1918, deposited by H. R. Southall, D. Gilbert & I. Gregory)

<sup>17</sup> P. Searles, Economic distress, p 12 (Statistics are from data obtained from the Great Britain Historical Database, census statistics of employment, town level statistics for 1911 males and females, from material deposited by C. H. Lee)

industries. It is the absence of large industrial employers and export - dominated output that set Dover and probably the majority of urban areas apart not only from inclusion in the trade union unemployment returns but also, perhaps, from the same cyclical swings that affected those untypical industrial towns in both timing and intensity.

The difficulty that lies in using trade union returns to measure unemployment before the First World War is, as previously noted, not a new area of debate. Garside<sup>18</sup> presents and discusses the problem and points out that a corrected series - which gave a constant weight to two of the groups in the original data, namely 'engineering, shipbuilding and metal trades' and 'all other trades' in place of a changing weight fluctuating from three - quarters to two - fifths - had the effect of reducing the level of unemployment in some years of depression. However, the correction has little effect from 1881 and, indeed, these Board of Trade - adjusted figures are clearly not able to correct any of the main problems and, as Garside suggests<sup>19</sup>, there is no reason to suppose that this arbitrary system of averaging represents a more correct estimate of unemployment than the unadjusted figures.

Another limitation in the use of trade union unemployment data is that they do not take into account other ways of responding to reduced labour demand, such as reducing hours of work, or increasing compulsory 'holiday' stoppages. The measurement of unemployment is unable to reflect these other factors and, even if accurate, would therefore give only a limited representation of the state of the labour market.. This may

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<sup>18</sup> W. R. Garside, *The Measurement of Unemployment, methods and sources in Great Britain 1850 - 1979* (Basil Blackwell, Oxford, 1980) pp 9 - 28

<sup>19</sup> *Idem.*, p 21

be particularly true if some industries - for example mining and quarrying - tended to reduce the hours worked of the many rather than make unemployed the few. Interestingly, Bowley<sup>20</sup> highlighted this potential anomaly and pointed out that, for 'many reasons,' the returns of trade unionists reported as out of work did not produce a safe or universal measurement of the state of the labour market. Within his discussion, furthermore, he noted that if a statistic is based only on the number unemployed, it reflects unequally the movements in industries where the one method (of spreading work) or the other (of dismissing hands) is prevalent and that it cannot escape from the confusion between these methods.<sup>21</sup> The implications of these points is important and effectively leaves no quantification of unemployment in those industries where the paternalistic approach by employers predominated and, indeed, led Bowley to attempt measurement by adjectives (from written reports on sectoral conditions, ie 'fair,' 'poor,' 'very good' etc.).<sup>22</sup> However, if sufficient data were available for periodic fluctuations in average wages in those industries or, indeed, for representative groups of workers therein, there may be a clear measure of not only relative unemployment but also short-time working.

Beveridge<sup>23</sup> discussed the problems associated with trade union returns and suggested that 'as a measure of the volume of unemployment, they must be disregarded or used only with careful limitation to specific trades.' Furthermore, the 'magnificent generalisations

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<sup>20</sup> A. L. Bowley, 'The measurement of unemployment: an experiment', *Journal of the Royal Statistical Society*, LXXV, 1913, pp 795-798

<sup>21</sup> *Idem.*, p 796

<sup>22</sup> *Idem.*, p 798

<sup>23</sup> W. H. Beveridge, *Unemployment, a problem*, pp 20 - 23

reached by applying the trade union unemployed percentage directly to the whole industrial population are out of court. When 5 per cent of the 650,000 trade unionists are out of work, it does not in the least follow that there are 5 per cent of the 11,000,000 manual workers, say 550,000, in the same case.' This is, perhaps, a realistic analysis of the returns and Garside's most optimistic interpretation<sup>24</sup> - that 'at most, however, the trade union returns remain an index of the variations of employment generally' is, indeed, at the upper limit of their potential and one which a sub-national evaluation may question.

A recent evaluation of trade union returns, and the construction of new estimates of British unemployment<sup>25</sup> emphasises the point that 'many contemporaries and historians have noted that the index has serious shortcomings that limit its usefulness as a measure of unemployment at any point in time.'<sup>26</sup> Also, that 'it was based on a relatively small, non-random sample of industrial workers, and it excluded those in sectors of the economy that were not unionised or in which unions did not offer employment benefits.'<sup>27</sup>

In attempting to overcome some of the problems highlighted with regard to the unrepresentativeness of union statistics, Boyer and Hutton<sup>28</sup> give greater and consistency and weighting to the returns. This is done by dividing the industrial workforce into 13

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<sup>24</sup> W. R. Garside, *The Measurement*, p 23

<sup>25</sup> G.R. Boyer and T.J. Hatton, New Estimates of British Unemployment, 1870 - 1913, *Journal of Economic History*, 62 No. 3, 2002.

<sup>26</sup> *Idem*, p 641

<sup>27</sup> *Idem*, p 641

<sup>28</sup> *Idem*, pp 646 - 648

broad sectors and using trade union data in 9 of them. However, the fact remains that although some inconsistencies are eliminated by using a smaller number of unions returns and numbers of workers, 55.7 per cent of the final estimates for total unemployment for 1912 are based on 22 unions representing 524000 workers.<sup>29</sup> Total numbers employed from the census returns of 1911 suggests a figure of 10,221,711<sup>30</sup> in those sectors.

For other sectors, a number of series are used to ‘infer’<sup>31</sup> unemployment rates. For example, in mining and quarrying, the Returns of the Inspectors of Mines on the number of wage earners ‘ordinarily employed,’ with a starting value of 3.4 per cent in 1860.<sup>32</sup> For transport, proxies are developed for ‘two of the three main transport sectors, namely railways and docks.’<sup>33</sup> The proxy for railways is the aggregate mileage of passenger trains and freight trains. For dock workers, an assumption is made that short - run fluctuations in dock and wharf employment were directly proportional to total tonnage entered and cleared; also that the ‘average ratio of annual mean to maximum weekly employment on the London dock and wharves (excluding Tilbury) reported in the London Gazette for 1908 - 13 is 86.7 per cent, which suggests an average unemployment rate of 13.3 per cent as compared with 14.0 per cent for the same years in our calculation.’<sup>34</sup>

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<sup>29</sup> *Idem* p 648

<sup>30</sup> C. H. Lee, *British regional employment statistics*

<sup>31</sup> G.R. Boyer and T.J. Hatton, *New Estimates*, p 648

<sup>32</sup> *Idem* p 650

<sup>33</sup> *Idem* p 651

<sup>34</sup> *Idem* p 652

For general unskilled labourers, time series data for male able-bodied indoor paupers is used.<sup>35</sup> The use of such data is discussed further in this chapter and, indeed, in other parts of the thesis, so it is inappropriate to expand further at this point. Generally, for want of availability of data, the use of different series to construct a general index has limitations. Furthermore, the extent to which workers used the dynamism of a diverse economy to change employment - for example dockers in London - is probably undervalued.

Perhaps the most immediately obvious alternative measure of fluctuations in relative economic distress would be of pauperism via poor law returns. Thomas, for instance,<sup>36</sup> suggested that the connection between the business cycle and pauperism is an obvious one - 'with each depression, the army of paupers is swelled.' However, the relationship may be less direct than at first sight for several reasons. Firstly, a distinction must be drawn between outdoor and indoor relief not only because they served different purposes but also because numbers varied spatially and regionally between districts where application and local discretion had a part to play. Secondly, although numbers remained at a high level relative to trade union unemployment returns, the majority were not able-bodied. For example, of the 4.88 per cent of the population that were in receipt of relief on the 1st of July 1868, 78.8 per cent were women or children under 16 and, of the adult males, 79.5

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<sup>35</sup> *Idem* p 653

<sup>36</sup> D. S. Thomas, *Some Social Aspects of the Business Cycle* (BLPES 156938, 1929) p 119. This appears to be an unpublished summary of works by the author - for instance, 'The influence of the business cycle on certain social conditions,' *American Statistical Association*, 1922 and 'Changes in marriage seasons,' *Economica*, Feb 1924

per cent were either 'lunatics' or not able-bodied.<sup>37</sup> This left a maximum of 0.65 per cent of all employed males on relief. Thirdly, recourse to the poor law would - especially for skilled workers - be a matter of last resort<sup>38</sup> and the extent of the lag involved in measuring from the onset of distress/unemployment to relief may have varied and depended upon the length of time it took to exhaust the potential to, for instance, borrow from relatives and friends. The extent of this potential would vary and be a function not only of the relative severity of downturns but also of improvements in overall living standards over time. The question is whether this and the other potential disadvantages allow for the use of poor law statistics at a national level. Thomas,<sup>39</sup> for example, found optimum correlation coefficients between the business cycle and indoor pauperism that show a differential lag of zero to two years in sub-periods between 1857 and 1913, with the maximum coefficient from a two year lag in the periods 1857-74 and 1875-94 (-.54 and -.63 respectively) but for 1895-1913, the maximum is reached with 'synchronous items' (-.61).

The differences in lag times emphasise the problem of policy variations and interpretation from the 1870's. There was a large decrease in absolute numbers on outdoor relief in the last decades of the nineteenth century which presents problems in a local as well as national analysis. Nevertheless, Mackinnon<sup>40</sup> suggests a number of reasons why the more

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<sup>37</sup> H. R. Southall, Poor Law statistics and the geography of economic distress, in J. Foreman-Peck (ed.) - *New perspectives on the late Victorian economy* (Cambridge University Press, 1991) p 183

<sup>38</sup> *Idem.*, p 182

<sup>39</sup> D. S. Thomas, *Some social aspects*, pp 119 - 123

<sup>40</sup> M. Mackinnon, 'Poor Law Policy, Unemployment and Pauperism', *Explorations in Economic History* 23, 1986, pp 299 -336

stable indoor pauperism data may still be a sensitive indicator of labour market conditions. For instance, she points out that in many cases paupers were, or could have been, dependent on wage-earning relatives. Unemployment, or even short-time working, could have led to an application for relief from an aged parent. Furthermore, the incidence of sickness and recourse to indoor relief generally was related in some instances to cyclical downturns in economic distress.<sup>41</sup> The detail of her research is of a regional nature and will be discussed at greater length later in the next chapter. However, when viewed from a national perspective, these attributes of the poor law data do appear to present some obstacles to analysis. For example, Williams<sup>42</sup> suggests that the policy changes from the 1870's produce a relatively constant level of indoor pauperism, but that this increases consistently on an annual basis from 1901 and it is worth comparing indoor pauperism with trade union unemployment returns at the national level:

Table 1.2 - Comparison of indoor poor relief and trade union unemployment returns, 1860 - 1910

	<u>Indoor relief</u> <u>rates per 1,000</u> <u>population</u>	<u>Trade union</u> <u>unemployment</u> <u>returns</u>	<u>Indoor relief</u> <u>rates per 1,000</u> <u>population</u>	<u>Trade union</u> <u>unemployment</u> <u>returns</u>
1860	5.1	1.9	1886	6.1
1861	5.4	5.2	1887	6.0
1862	5.9	8.4	1888	6.1
1863	6.0	6.0	1889	6.0
1864	5.9	2.7	1890	5.8
1865	5.7	2.1	1891	5.7
1866	5.6	3.3	1892	5.6
1867	5.7	7.4	1893	5.7
1868	6.2	7.9	1894	6.1
1869	6.4	6.7	1895	6.1
1870	6.4	3.9	1896	6.1
1871	6.2	1.6	1897	6.0
1872	5.8	0.9	1898	6.0
1873	5.5	1.2	1899	6.1

<sup>41</sup> *Idem.*, p 301

<sup>42</sup> K. Williams, *From pauperism to poverty* (Routledge & Kegan Paul, 1981) pp 160 - 191

1874	5.4	1.7	1900	5.9	2.5
1875	5.5	2.4	1901	5.8	3.3
1876	5.2	3.7	1902	6.5	4.0
1877	5.4	4.7	1903	6.7	4.7
1878	5.6	6.8	1904	6.9	6.0
1879	5.9	11.4	1905	7.1	5.0
1880	6.3	5.5	1906	7.3	3.6
1881	6.3	3.5	1907	7.3	3.7
1882	6.2	2.3	1908	7.4	7.8
1883	6.1	2.6	1909	7.6	7.7
1884	6.0	8.1	1910	7.8	4.7
1885	6.0	9.3			

(Source: K. Williams, see footnote 30, pp 159 - 161 & pp 187 - 188)

In one sense, an analysis of Table 1.2 has limited potential because it is not meant to imply that either trade union unemployment returns or indoor relief rates are an accurate measure of economic and labour market conditions or, indeed, unemployment at a national level. On the other hand, it emphasises some of the points of discussion. For instance, in twenty nine of the forty nine annual changes measured, poor law indoor returns show an opposite trend to trade union unemployment, but with a one year lag on pauperism, there are thirty two years where the fluctuation is at least in the same direction. Within this, the sixteen years between 1880 and 1895 show eleven years of disparate fluctuations with no lag and nine years with a one year lag. These may be coincidences within the figures or a reflection of policy impinging upon the trends - but demonstrate, anyway, the limitations within such a measurement. The relatively flat rate, furthermore, of poor law indoor returns, could be an indication that fluctuations in labour demand and economic distress in the aggregate were not at all as severe as in the export industries and, indeed, it is possible that the rest of the economy was able to compensate for those severities. However this is speculation because there are, in effect, limited means of determining the underlying relationship between unemployment and pauperism by using national-level

statistics in such a diverse economy as existed in Victorian and Edwardian England.

Variations in the rates of marriage have received attention both in the late nineteenth century and more recently as an indication of the social consequences of fluctuations in economic activity. The relationship between marriage rates and economic and labour market conditions at a national level, however, raises several questions that require discussion. These revolve, in a general sense, around consistency of behaviour over a long period and between all strata of occupations and skill levels as well as relative numbers of people of a marriageable age at a given time. Ogle<sup>43</sup> drew attention to some of these factors and suggested that fluctuations from year to year are a fair measure of material prosperity as opposed to the differences presented by the rate at longer intervals. He points out that the rate of marriage per thousand head of population decreased by 3.3 per cent between 1866 and 1888 and suggested that, if this trend was corrected, the curves of the marriage rate and exports 'tally in the most remarkable degree with each other.'<sup>44</sup> A more convincing correction of the marriage rate was made by Glass,<sup>45</sup> who pointed out that from 1851 onwards never less than 90 per cent of males married between the ages of 20 and 44 years.<sup>46</sup> He constructed two corrected rates - the number of marriages per 1000 unmarried males aged 15 years and over (the male population being standardised for the age group

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<sup>43</sup> W. Ogle, 'On Marriage-Rates and Marriage-Ages, with special reference to the growth of population', *Journal of the Royal Statistical Society*, L111, 1890 p 253

<sup>44</sup> *Idem.*, p 265

<sup>45</sup> D. V. Glass, 'Marriage frequency and economic fluctuations in England and Wales, 1851 - 1934', in L. Hogben (ed.) - *Political Arithmetic, a symposium of population studies* (George Allen & Unwin Ltd, 1938), pp 251 - 282

<sup>46</sup> *Idem.*, p 255

20 - 44 years on the base of 1900) and the number of married males aged 20 - 44 years per 1000 unmarried males aged 20 - 44 years. A comparison with the crude rate, however, shows that despite some greater oscillations in the corrected series, the peaks and depressions are the same. A comparison, furthermore, with an index of real wages, shows little difference in correlation between the refined and crude rates.<sup>47</sup> Interestingly, within the whole period 1856 - 1932, the highest correlations with the index of real wages is in the sub-period 1856-73 (0.870 and 0.857 for refined and crude rates respectively) and the lowest between 1890 - 1907 (0.603 and 0.658). The fact that the refined measure varied only slightly with the crude rate may have little significance or could suggest an inflexibility at such an all-embracing level. The difference in the measures could, however have importance at a sub-national level. The significant difference between the coefficients in the adjacent sub-periods could be an indication of a change in relative willingness to defer due to economic conditions, which would weaken the measure as a consistent proxy, or may be caused by the relative accuracy of the index of real wages in each sub-period. Interestingly, this index is described as representing the changes in net real wages for unemployed and employed workers.<sup>48</sup> A comparison with a more recent index<sup>49</sup>, which is described as being of actual earnings, and one that is discussed in more detail in chapters 5 and 6, shows an increase of income of 41 per cent between 1880 and 1913 (1911 = 100) whereas the index used by Glass shows an increase of 27 per cent.

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<sup>47</sup> *Idem.*, pp 266 - 267

<sup>48</sup> *Idem.*, p 264. The index is credited by Glass to Dr. Jurgen Kuczynski

<sup>49</sup> C. H. Feinstein, New estimates of average earnings in the United Kingdom, 1880 - 1913, *Economic History Review* XLIII, 4, 1990, pp 595-632

However, if Feinstein's index is converted into one that indicates real wages by applying his index<sup>50</sup> of the cost of living in the same period, the increase in real wages would be 39 per cent. The two indices are synchronous in 21 of the 34 years where comparison was possible.

Southall and Gilbert, in what is in the main a regional analysis, suggest that at the national level, the marriage rate was closely connected to economic life, and particularly to the business cycle.<sup>51</sup> Furthermore, they argue that the 'strength of the relationship, especially when examined for particular localities or groups of people, is remarkable' and that 'without support from another source the trade union unemployment rates appear unrepresentative and likely to exaggerate overall unemployment. Statistics of marriage provide just such independent support.'<sup>52</sup> It is not entirely clear as to which measure of the business cycle is being used - perhaps that proposed by Thomas<sup>53</sup> - and it will be relevant at a later point in this chapter to analyse the various measures of real wages and trade and business cycles against which proxies are assessed at a national level.

The relationship between marriage rates and economic conditions would, of course, be inverse, and the extent to which a lag may occur from the onset of harder times and the

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<sup>50</sup> C. H. Feinstein, A new look at the cost of living 1870-1914, in J. Foreman-Peck (ed.) - *New perspectives on the late Victorian economy* (Cambridge University Press, 1991), pp 151-179

<sup>51</sup> H. R. Southall & D. Gilbert, 'A Good Time to Wed?: Marriage and economic distress in England and Wales, 1839 - 1914,' *Economic History Review* XLIX, 1996 p 41

<sup>52</sup> *Idem.*, p 54

<sup>53</sup> D. S. Thomas, *Some Social Aspects*, pp 1 - 20

decision to delay is suggested by Thomas<sup>54</sup> as varying between the sub-periods but within a year throughout the period (1854-1913) as a whole. The same would appear to be the case in a comparison between variations in marriage rates per 1000 of population and trade union unemployment returns - in thirty seven of forty nine measured annual changes, the two series move synchronously with, however, only five variations between 1860 and 1889, but with four in each decade 1890 - 1900 and 1900 - 1910. This could have a number of potential interpretations. It may be argued that the decision to defer marriage, upon which the theoretical approach to the relationship between marriage rates and conditions is based (that workers wishing to marry - and their respective families - would tend to defer in 'bad' times due to potential pressures on savings, income, and the financial burdens associated with starting a family), was more pronounced amongst skilled workers in industrial towns, where opportunities for alternative employment were limited when there was a slump in exports and, in this scenario, variations in marriage rates could be seen as a diluted mirror of trade union unemployment returns. The variations between sub-periods may have been influenced by changes in the habits of these skilled workers, for instance as their relative status diminished or, indeed, by the agricultural depression - as suggested by Ogle.<sup>55</sup> On the other hand, the accumulation of deferment over a number of relatively bad years may have increased the extent and time of subsequently more marriages - which would distort the amplitude and accurate measurement of a following upswing. The relative differences between sub-periods concurs with the findings of

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<sup>54</sup> *Idem.*, pp 1 - 20

<sup>55</sup> W. Ogle, On Marriage-Rates and Marriage-Ages, with special reference to the growth of population, *Journal of the Royal Statistical Society*, L111, 1890 p 263

Glass,<sup>56</sup> see above, who found that the lowest correlation with a measure of real wages occurred in the sub-period 1890 - 1907. Interestingly, the index used in this comparison<sup>57</sup> represents the changes in net real wages for unemployed and employed workers over time, which suggests that it could be biased towards trade union unemployment returns and, of course, as has been noted, bears little resemblance to a more recent index of earnings.

It has long been a part of the culture of British working people to incur debt that may be repaid either in full on pay day, for instance to local traders, or incurred against the purchase of luxury or even necessary items such as clothing. These debts are normally repaid by the weekly collection of repayments from the debtors home. This culture has been encouraged and extended on the one hand by local traders and on the other by companies that specialise in the lending of money or supply of goods. Data from records of the number of cases for recovery of small debts begun each year in the county courts of England and Wales can be used, according to Johnson,<sup>58</sup> to draw inferences about national and local fluctuations in the economic circumstances of working class households. The potential advantages in using this data set includes the facts that the incidence of indebtedness was relatively evenly spread over the whole country, more than a million cases were processed each year by the 1890's, and the whole workforce is potentially represented.

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<sup>56</sup> D. V. Glass, Marriage frequency, pp 266 - 7

<sup>57</sup> *Idem.*, p 264.

<sup>58</sup> P. Johnson, Small Debts, p 65

The incentive to pay is based partly on mutual trust and also a degree of patience on the part of the creditor. For the vast majority of debtors, furthermore, the incentives to pay the debt rather than allow proceedings to commence, were quite strong. These incentives included the prospect of losing a day's pay when attending court (the vast majority of cases were for less than £20<sup>59</sup>), the expenses of travelling,<sup>60</sup> and the payment of court fees as well as costs that could be claimed by the creditor. Against this background, and with a less than two per cent chance of a favourable judgement,<sup>61</sup> as well as a strict timetable for repayment from the court, and a subsequent threat of imprisonment for contempt, most would certainly have avoided the court action if possible. These factors lead Johnson to suggest that the variance in the scale of default was directly related to fluctuations in the financial capacity of working class households, which was itself a function of labour market conditions.<sup>62</sup>

The study by Johnson, cited above, applied the small debt data in the main at a local and regional level and will therefore be discussed in greater detail in the next chapter. Nevertheless, there are a number of points that may be made about the use of data for the recovery for small debts at a national level and in a general sense. Perhaps the most obvious one concerns the relative patience of the creditor, which may have been extended when there was a clear cause for a general inability to pay, for instance in a mining

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<sup>59</sup> P. Johnson, *Small debts*, p 68

<sup>60</sup> G. R. Rubin, 'Law, poverty and imprisonment for debt, 1869 - 1914', in G. R. Rubin & D. Sugarman (eds.) - *Law, economy and society, 1750 - 1914: essays in the history of English law* (Professional books Ltd., Abingdon, 1984), p 259

<sup>61</sup> P. Johnson., *Small debts*, p 70

<sup>62</sup> *Idem.*, p 71

community during a strike, or when a town dominated by one type of employment was affected by a downturn in that industry. However, in areas that were not dependent on one type of employment, the creditor did not run the risk of general unpopularity by taking large numbers of customers to court at the same time. In this sense, it is possible that this data may have an opposite bias to trade union unemployment returns and marriage rates in that it may not be sensitive to relative conditions in areas dominated by export industries. Similarly, there would clearly be a lag effect which could vary over time and be partly dependent on the relative severity of a downturn, as this factor extended or shortened the patience of the creditor. Another potential source of distortion is the extent to which some judges were predisposed to adjudicate in favour of defendants, especially if they thought that a claim may be 'morally questionable.'<sup>63</sup> They sought to 'impose rigorous conditions and set in train searching enquiries before satisfying themselves whether a debt due to a tallyman was enforceable.'<sup>64</sup> The rejection by some, for instance, of hear-say evidence, may have made the tallymen in these districts relatively less predisposed to take court action and made them particularly selective of cases when the number of debtors (during a downturn) was high. The aggregate number of cases that failed (less than 2 per cent) may therefore hide local variations, or even distort the overall fluctuations, and only a detailed sub-national evaluation would be able to show how relevant this and other potential anomalies are. It is also worth considering the extent to which not only middle class attitudes towards small debt may have varied over such a long

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<sup>63</sup> G. R. Rubin, 'The County Courts and the Tally Trade, 1846 - 1914', in G. R. Rubin & D. Sugarman (eds.) - *Law, economy and society, 1750 - 1914: essays in the history of English law* (Professional books Ltd., Abingdon, 1984), p 324

<sup>64</sup> *Idem.*, p 328

period but also those of the potential debtors. The differences between localities with varying types of occupational structure and opportunities for employment would, it should be emphasised, form a key element in analysis of this data set but, again, at a national level, these become points of mere speculation. The use of statistics for small debts, however, perhaps has more potential than the assertion by Southall and Gilbert - that they are merely a 'record of mistakes'<sup>65</sup> by shopkeepers - would imply.

There are a number of other potential indicators of economic and labour market conditions/ distress that have received relatively less attention than those previously discussed. Thomas, for instance, stated that the birth rate shows a distinct tendency to reflect fluctuations in the business cycle, with low but significant correlation coefficients (+.29 and +.30) for a lag of two and three years respectively in the overall period 1854 - 1913. However, within sub-periods the coefficient varied from no significance for 1854 - 74 to +.64 and +.42 for 1895 - 1913 for lags of three and two years respectively.<sup>66</sup> Interestingly, she noted that the illegitimate birth rate on the whole had a closer correlation with the business cycle than the birth rate overall and discusses the correlation between birth and illegitimate birth rates and marriage frequency. On the whole, it is clear that any connection between birth rates generally and the business cycle is less direct than marriage rates in this period and it would, therefore, be illogical to consider these at a national level as an alternative to marriages.

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<sup>65</sup> H. R. Southall & D. Gilbert, *A Good Time to Wed?*, p 54

<sup>66</sup> D. S. Thomas, *Some social aspects*, pp 92 - 97

The connection that infant mortality and death rates generally may have with relative economic well-being has been an area of discussion. However, there are a number of specific reasons why they should be discounted, at a national level at least. These include the obvious point that factors exogenous to annual fluctuations in the relative economic conditions of working people - for instance improving living standards over time, epidemics, medical advances, sanitary improvements etc.- would impinge on the statistics. Farr,<sup>67</sup> in a detailed discussion on death rates, pointed out that high birth rates imply an age distribution which is exceedingly favourable to the death rates and this is perhaps one of the factors that contributes to some correlation between increased mortality and prosperity and that this remained practically constant through the period considered<sup>68</sup> and exemplifies some of the potential pitfalls in examining this at a national level.

The influences which favour matrimony, according to Beveridge, also favour drinking.<sup>69</sup> As an indication of the general fortunes of the working population, furthermore, variations in the annual consumption levels of beer and spirits has important implications. It has not, however, received serious consideration as a proxy measure for economic distress and this is perhaps due to the potential criticism that such a study may receive. For instance, its consistency changes over time, as habits and overall living standards fluctuate (consumption peaked in the Edwardian period and declined between the Wars).

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<sup>67</sup> N. A. Humphreys (ed.), *Vital Statistics, a memorial volume of selections from the reports and writings of W. Farr* (E. Stanford, 1885) pp 111 - 112

<sup>68</sup> D. S. Thomas, Some social aspects, p 107

<sup>69</sup> W. H. Beveridge, Unemployment, a problem, p 46

Nevertheless, correlations with the business cycle are significant, particularly for spirits,<sup>70</sup> and this indication may warrant some further research, along with prosecutions for drunkenness. Similarly, consideration may be given to criminality - Beveridge suggested a distinct correlation between the number of larcenies and the volume of foreign trade<sup>71</sup> each year. Bonger, in a comprehensive international analysis, concluded that 'economic and social conditions are important factors in the etiology of degeneracy, which is in its turn a cause of crime.'<sup>72</sup> It is unlikely, however, that this measure could be as representative of the whole working population as, for instance, the data for small debts.

In a general sense, the preceding discussion concerns measures that have been studied as social consequences of cyclical trends in economic activity but not proposed as sensitive indicators of unemployment and short-time working in the Victorian and Edwardian periods and, at this point, it is necessary to return to those that have so that the discussion on the relative merits of analysis at a national level may continue. The extent to which these potential proxy measures may reflect economic well-being is sometimes assessed by comparison with aggregate economic indicators. These may range from indices of real wages, for instance as used by Glass,<sup>73</sup> to exports (used by Ogle<sup>74</sup>) or, indeed, to a

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<sup>70</sup> D. S. Thomas, *Some social aspects*, p 129

<sup>71</sup> W. H. Beveridge, *Unemployment, a problem*, p 47

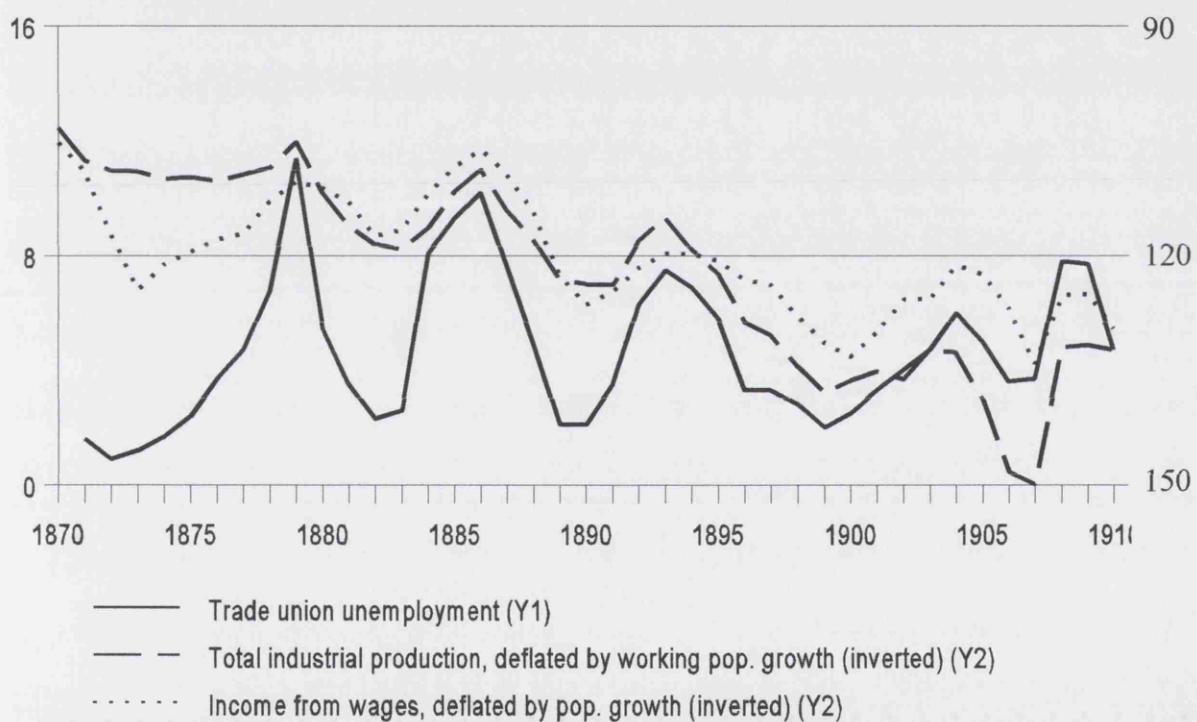
<sup>72</sup> W. A. Bonger, *Criminality and Economic Conditions* (Little, Brown & co, Boston 1916) p 669

<sup>73</sup> D. V. Glass, *Marriage frequency*, p 264

<sup>74</sup> W. Ogle, *On Marriage Rates*, p 255

combination of sources, as used by Thomas<sup>75</sup> to indicate fluctuations in the 'business cycle.' However, it may be argued that these apparently independent variables are either measuring just one part of economic activity (for example, exports and industrial/extractive industries) or are biased by the inclusion of unrepresentative trade union unemployment returns. This may be exemplified by comparing two common aggregate indicators with trade union unemployment returns. The measures are taken from Feinstein<sup>76</sup> and the tables used are listed:

Figure 1.1 - Comparison of trade union unemployment with economic indicators



Sources: Feinstein, see footnote 61, tables 21, 51 & 57 and Parliamentary Papers

<sup>75</sup> D. S. Thomas, *Some social aspects*, pp 19-20

<sup>76</sup> C. H. Feinstein, *National Income, Expenditure and Output of the United Kingdom, 1855 - 1965* (Cambridge University Press, 1972)

In a sense, figure 1.1 encapsulates not only some of the problems previously discussed, but also the potential attraction that measures at a national level may have in being proposed as indicators of fluctuations in economic and labour market conditions. The general trends clearly have similar patterns but the key question is the extent to which each has either a bias towards one part of the economy and/or is weighted by statistics that use trade union unemployment returns. The sources for the tables are, in some instances, unclear but estimates of the wages bill for the period 1880-1914 are taken from Bowley.<sup>77</sup> This table, of the national wage bill 1880-1936, is obtained by the product of three indices - for wages per head in each year, employment and number of earners. This is then applied to the estimates of wages for 1911 and figures in £ millions extrapolated for the annual national wage bills. However, the second index - employment - is obtained by subtracting the trade union percentage unemployment from 100 in the years before 1914. The product of the three columns, divided by 10,000, yields the index number of the National Wage Bill, with 100 as the number for 1914. These are applied to the estimates of wages in 1911 and a National Wage Bill obtained<sup>78</sup>. The point is that with a weighting from trade union unemployment returns there is little surprise in the result and, with this statistic entering the calculations for GDP and GNP, as well as other indicators, this affects the fluctuations in those series.

There are, of course, many examples that may be used to show the extent to which indices

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<sup>77</sup> A. L. Bowley, *Wages and income in the United Kingdom since 1860* (Cambridge University Press, 1937), pp 75-76

<sup>78</sup> A. L. Bowley, *Wages and income in the United Kingdom since 1860* (Cambridge University Press, 1937), pp 75-77

of economic indicators have a weighting from the same or similar data (trade union unemployment returns). It is not relevant at this point to enter a long discussion concerning these but perhaps the point can best be further exemplified by referring to one famous piece of research - the study by Phillips of the relationship between unemployment and wage inflation. Phillips<sup>79</sup> divided his period of study into three sub-periods. The first, 1861 - 1913, uses an index by Phelps Brown and Hopkins, which is noted for a part of the period as being based on Woods' earlier index<sup>80</sup> and, 'from 1880 we have also Bowley's index of wage rates' ...and 'Bowley's index for the remainder of the period up to 1913 gives results which are broadly similar' (to that produced by Brown and Hopkins/Wood). However, the footnote reference to Bowley's work is for wages and is the same index (of the national wage bill) whose construction is described above,<sup>81</sup> with the strong weighting described from trade union unemployment returns. Phillips makes his comparisons and produces his curve but there is, clearly, some evidence that, for this period at least, it was a self-fulfilling prophecy. Ironically, that there is an association between money wages and underlying labour market conditions is a notion that this present study very much investigates. However, one clear pre-requisite for such a study is that each measure must be independent of the other(s).

The construction of wage indices and the sources used will feature very strongly in some chapters of the thesis and will be discussed at length within the context of those parts of

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<sup>79</sup> A. W. Phillips, 'The relation between unemployment and the rate of change of money wage rates in the United Kingdom, 1861 - 1957,' *Economica* 4/58, 1959, pp 283 - 299

<sup>80</sup> *Idem.*, pp 285-91

<sup>81</sup> Bowley, *Wages since 1860*, table V11, p 30

the work. However, it is relevant at this point to note that most published wage indices are derived from data on wage values (rather than earnings). The wage rate data are sometimes corrected to the wage censuses of 1886 and 1906, but exhibit small fluctuations in the interim years (unless they are weighted by trade union unemployment returns - see above). One example is in an index of average earnings<sup>82</sup> that shows a continuous growth of income in every year from 1893 to 1913, even through periods of 'depression,' for example 1903/4 and 1908/9. This suggests the possibility that wage rates are not the most accurate basis for levels of actual incomes (assuming that these may have varied with underlying economic and labour market conditions). An investigation of these factors will, as noted, be central to this study.

In a general sense, therefore, it may be concluded that in the absence of accurate unemployment statistics, analysis of labour market conditions in the Victorian and Edwardian periods are inadequate. For the social investigator, some of the suggested indicators of relative economic fluctuations such as small debts or marriage rates may have a relevance, but to generalise and aggregate the assumptions onto all areas would surely be a mis-interpretation. The endurance of trade union returns as a measure of unemployment is in lieu of any acceptable alternative rather than as a generally accepted indicator. Wage rates, furthermore, may not be sensitive to annual and sub-period to sub-period variations of income. For these and various other reasons, some economic historians have turned their attention to analysis at a regional and local level in an attempt either to demonstrate that a proxy measure could reflect conditions or, more generally, to assess divergence from the presumed national picture. It is therefore relevant to discuss

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<sup>82</sup> Feinstein, 'New estimates of average earnings,' p 612

this research within a general assessment of employment structures and opportunities sub-nationally.

## 2 - The measurement of economic and labour market conditions at a sub-national level in Victorian and Edwardian Britain

Studies of local economic and labour market conditions in the second half of the nineteenth century are not only relatively few in number but are confined, in the main, to areas and regions that had a higher than average concentration of industrial and extractive occupations. The extent to which this relative concentration may affect an understanding of not only the localities investigated but also the presumed national picture requires discussion. Within this, the methodologies and sources used to construct local indices will be assessed as well as conclusions concerning the applicability of various proxy measures and the extent to which they may have influenced the assessments. The nature of local structures of employment and their applicability to such studies will also require attention.

It could be argued that in one sense a more integrated and national economy and labour market evolved within the period but, conversely, the point can be made that changes in the world economy and the emergence of competitor nations behind tariff barriers from the 1870's may be seen as having enhanced the regional differences between those dependent on a small number of mainly export-oriented industries and those where service and local manufacture predominated. Hunt<sup>1</sup> suggests a narrowing of wage differentials towards the end of the nineteenth century - due to the rapidly expanding tertiary sector and the ending of the long

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<sup>1</sup> E. H. Hunt, Industrialisation and Regional Inequality: Wages in Britain, 1760 - 1914, *Journal of Economic History*, Vol XLV1, No 4, 1986, pp 935 - 936

industrial eclipse of southern England.<sup>2</sup> This and further influential work by the same author<sup>3</sup> concerning spatial income variance will be a reference point in a future chapter and, to avoid repetition, will not be expanded upon now. Lee points out that the slowness of British economic growth is emphasised when seen in contrast to growth in other major industrial nations and, within the British economy, the principal growth type was dominated by counties in the south-east of England.<sup>4</sup> He identifies three types of growth area within Britain and one of non-growth (agriculture). Of these, it is the 'metropolitan' region, spilling over into adjacent counties (who adopt a similar pattern of development, mainly in the service sector), which has the highest growth levels.<sup>5</sup> He goes to the extent of suggesting that this London-centred region became the world's first large-scale economy.<sup>6</sup> The other two types of region where growth occurred were textile oriented and metal and mine-working. Employment between 1851 and 1911 increased by almost a million jobs in mining, by almost 1.5 million in textiles and clothing together and by about a million in metal manufacturing and engineering. Within the service industries, however, transport increased by almost 1.5 million jobs alone while the miscellaneous service classification exceeds this figure.<sup>7</sup> The context of Lee's analysis also draws attention to the fact that the 'metropolitan' region has been accorded less attention than those typified by textiles or

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<sup>2</sup> *Idem.*, p 959

<sup>3</sup> E. H. Hunt, *Regional wage variations in Britain, 1850 - 1914* (Clarendon Press, Oxford, 1973)

<sup>4</sup> C. H. Lee, *The British Economy Since 1700: A Macroeconomic perspective* (Cambridge University Press 1986), p 6

<sup>5</sup> C. H. Lee, Regional Growth and Structural Change in Victorian Britain, *Economic History Review*, 2nd Series 33, 1981

<sup>6</sup> *Idem.*, p 443

<sup>7</sup> *Idem.*, p 444

metal manufacture and mining but, on the other hand, the growth of employment in the metropolitan region was strongly linked to the growth of service industries and to consumer and market-oriented manufacturing trades. In a similar sense, Johnson<sup>8</sup> investigates the economy of London specifically and notes that on the whole it was able to operate close to the rigours of economic theory, with 'enormous opportunity for flexible responses on the part of workers' and that Londoners seemed to carry the self-centredness of their working lives into social relationships. Their trade union and friendly society membership as well as voting behaviour and other activities were all well below the national average - and these different attitudes were, he argues, a reflection of a more dynamic and flexible economy.<sup>9</sup>

The regional structures, then, of the Victorian and Edwardian economy would clearly have implications for a study that attempts to measure economic and labour market conditions with any degree of accuracy. One major problem that has limited research in this area is the lack of data - Lee for instance used census and population data to highlight the differences between regions but an extension of the analysis would appear to be constrained for want of material, particularly at a local level. On the other hand, a relative lack of sources for one region-type cannot be a justification for its exclusion from the analysis, otherwise a distorted picture may emerge. A structure within which local manufacture and service provision dominated would clearly be less affected by events such as a cotton famine or the imposition of a particularly severe tariff on steel imports by a major destination country, but how can this be measured relatively? The general point regarding regional structures of employment is important and

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<sup>8</sup> P. Johnson, Economic Development and Industrial Dynamism in Victorian London, *London Journal* 21,10, 1996, pp 27 - 36

<sup>9</sup> *Idem.*, p 36

intended as an attempt to contextualise the general prepondency to focus research into non-metropolitan regions. With these points in mind, this chapter continues by reviewing studies of living standards and real wages that have been carried out at a local level.

Hopkins<sup>10</sup> investigates relative living standards for a number of worker groups in Stourbridge, most thoroughly glassmakers, in the period 1840 - 1914. He notes on the one hand a relative lack of attention to the fortunes of working people in these decades and, on the other, the generally accepted views - namely that, after the 1840s, real wages recovered and the skilled worker maintained the differential between his wage and that of the unskilled - at least until the 1880s.<sup>11</sup> In very general terms, the town is described as having particularly prospered in the sixty years to 1861, and then declined somewhat - especially in the 1880's. It was well known in the nineteenth century for iron, firebrick and extractive industries as well as glassmaking. Hopkins notes that it is difficult to assess fluctuations in trade on the basis of qualitative evidence alone and that it is unwise to rely on one source devoted to the economic activity of a single industry.<sup>12</sup> Nevertheless, Hopkins does use some of these methods to draw attention to 'good' and 'bad' periods. Perhaps the most relevant quantitative evidence is from movements in actual money earnings of glassmakers, which is obtained from the records of a number of firms in the area - in each case from the actual wages of the best paid workman - and there is a continuous series from 1885 - 1914.<sup>13</sup> For other occupations, namely puddlers and miners, the figures are wage

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<sup>10</sup> E. Hopkins, 'Small Town Aristocrats of Labour and their Standard of Living, 1840 - 1914', *Economic History Review*, 2nd Series, XXVII, 1975, pp 222-242

<sup>11</sup> *Idem.*, p 222

<sup>12</sup> *Idem.*, p 223

<sup>13</sup> *Idem.*, p 242

rates and take no account of unemployment or short-time working on the grounds that it is not possible to assess the average number of days of employment lost in any one industry and, furthermore, it is suggested that rates in themselves reflect, in a general way, the ebb and flow of local prosperity and unemployment.<sup>14</sup>

The context in which this study may be useful to the task in hand requires discussion. The aim was to assess relative living standards for workers at a local level and concludes that real wages in the period 1860 - 1900 did not reach the levels enjoyed by workers in the 'national' picture, due mainly to the decline of the iron industry and mining in the Black Country generally. This has some relevance in assessing relative economic and labour market conditions and it is not, therefore, a criticism to suggest that parts of the study are not applicable. However, it seems intuitive to believe that a series of movements in wages actually paid to a group of workers may be an important indicator of labour market conditions in the town - more accurate (and sensitive), surely, than wage rates. These indicators will be compared in a future chapter and may be useful in representing employment conditions in a region with this type of industrial structure. Indeed, it is worth emphasising that actual earnings are the central theme of the thesis and are used as a separate issue (as opposed to wage rates, union returns etc.) to say something new about economic and labour market conditions at national and sub-national levels in the period.

A more widely-based investigation into living standards in the Black Country, by Barnsby, emphasises the point that returns made by certain trade unions from 1851 are unsatisfactory and

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<sup>14</sup> *Idem.*, p 229

misleading (in assessing living standards).<sup>15</sup> This is because on the one hand unemployment rose above 10 per cent in only three years between 1851 and 1900 but, on the other, contemporary evidence shows that destitution was endemic there through most of the nineteenth century.<sup>16</sup> The discrepancy occurs, he suggests, because the index takes no account of short-time working as the majority of occupations in that area tended to share work when there was a downturn rather than lay men off. Another possibility, of course, is that destitution only affected the lower paid occupational groups, most of whom were not skilled union members. Interestingly, Barnsby suggests that within Black Country wages in the nineteenth century, two characteristics stand out: the wide fluctuations in earnings caused by short-time working rather than unemployment and the stability of wage-rates for many sections of workers over long periods.<sup>17</sup> Nevertheless, the main source for wage data used in this study is of wage-rates - primarily for miners - and these must therefore encapsulate some of the previously mentioned potential discrepancies. The standard of living index that Barnsby produces,<sup>18</sup> furthermore, includes a column of figures that are effectively derived from qualitative evidence and this in turn is partly constituted from the monthly reports of the Amalgamated Society of Engineers (ASE). If, as previously discussed, qualitative evidence should be used with caution, then its use as part of a formula that estimates the average number of days per week worked in each year may be seen as somewhat haphazard. Furthermore, the use of ASE monthly reports suggests that, for the purpose of this present study,

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<sup>15</sup> G. J. Barnsby, 'The Standard of Living in the Black Country during the Nineteenth Century,' *Economic History Review*, 2nd Series XXXIV, 1971, pp 220-221

<sup>16</sup> *Idem.*, p 221

<sup>17</sup> *Idem.*, p 223

<sup>18</sup> *Idem.*, p 238

that part of the index would have a bias towards trade union unemployment returns. Overall, the study portrays a particularly pessimistic picture towards living standards in the Black Country but some of the series within the index may be useful in a comparative analysis with data from local co-operative societies.

Studies of the period 1870 - 1914 owe, according to Hall,<sup>19</sup> a considerable debt to the pioneering work of Bowley<sup>20</sup> and Wood,<sup>21</sup> whose collection of indices for wages and real wages form the basis for most general accounts of living standards in those years.<sup>22</sup> However, most of the income data used has been notional rates of wages rather than take-home pay and with this in mind, Hall states his intention as being to 'examine the real earnings of an entire social class in as exhaustive a manner as evidence will allow.'<sup>23</sup> He chooses Teeside, a single region in the North-east of England whose economy in the period was dominated by heavy industry. The author graphically shows a comparison between wages and earnings in six trades - puddling, blast-furnacing, steel-working, engineering, shipbuilding and construction - and this seems to show some divergent trends. He also uses local price data together with the figures for earnings

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<sup>19</sup> A. A. Hall, *Wages, Earnings and Real Earnings in Teeside: A re-assessment of the ameliorist interpretation of living standards in Britain, 1870 - 1914*, *International Review of Social History*, XXVI, 1981, pp 202-219

<sup>20</sup> A. L. Bowley, *Wages in the United Kingdom in the nineteenth century* (Cambridge University Press, 1900) and A. L. Bowley - *Wages and income in the United Kingdom since 1860* (Cambridge University Press, 1937)

<sup>21</sup> G. H. Wood, *Real Wages and the Standard of Comfort since 1850*, *Journal of the Royal Statistical Society*, LXXII, 1909

<sup>22</sup> Hall, 'Wages, Earnings', p 202

<sup>23</sup> *Idem.*, p 203

to produce graphs for each of the above industries for real earnings in Teeside in the period.<sup>24</sup>

For the purposes of this present study, the ideas and proposals within the analysis by Hall appear at first sight to have some potential. However, the methods used to calculate earnings as a separate issue from wage rates is unsatisfactory. Effectively, wage rates from various 19th century returns are weighted by several measures to produce the series of 'earnings.' In the case of blast-furnacers, the wage-rate data was weighted by an index derived from annual statistics of blast-furnaces in use.<sup>25</sup> For engineers, the rates are weighted by ASE unemployment returns and for the local construction industry, rates are weighted by the national series for unemployment, derived from national trade union unemployment figures. In a sense, therefore, the methodology and, indeed, results do not match the aspirations expressed in the introduction. Effectively, much of the data is not local-level and not necessarily reflective of living standards in Teeside and cannot therefore be gainfully used to assess local labour market conditions.

Pollard<sup>26</sup> investigates earnings in the Sheffield trades from a number of local as well as national sources in the period 1851 - 1914 and discusses not only the difficulties in obtaining a meaningful series of average earnings but also the concept of using this material as an approach to the opportunities of workmen as a class.<sup>27</sup> He uses an index number approach on the grounds that the enquiry is concerned with year-by-year changes only, rather than concrete standards at a given time. The enquiry is concentrated into two classifications - the 'light' and 'heavy' trades

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<sup>24</sup> *Idem.*, p 216

<sup>25</sup> *Idem.*, p 207

<sup>26</sup> S. Pollard, 'Wages and earnings in the Sheffield Trades, 1851-1914', *Yorkshire Bulletin of Economic & Social Research*, February 1954. pp 49 - 64

<sup>27</sup> *Idem.*, p 50

of the town. The former includes the main engineering trades and the latter such occupations as the file trade, wire drawing and railway springs. The thrust of the study is to not only plot the course of earnings in the two divisions but also the relative divergence in incomes over time. He discusses demand changes that may have caused this divergence and the relative effects on workers in each industry. Interestingly, the benefit of a local study is highlighted<sup>28</sup> by the point that a comparison between Sheffield and national earnings shows the latter to have risen much more rapidly to 1890, with Sheffield industries 'hit badly' by the 'great depression' and the relinquishing of monopolies (presumably to tariff-protected foreign competitors). These points are, of course, relevant within the discussion on regional differences and emphasise the need to study not only employment structures but also the extent to which export-dependent trades may dominate the traditional calculation of unemployment. However, there are some limitations to this analysis when used as a means of providing statistics against which to compare other series of actual earnings. For example, the total earnings of the employed members of a trade have been divided amongst all members employed, part-employed and unemployed<sup>29</sup>. This would have the effect of making the index fluctuate with unemployment returns and bias the sample towards that indicator. On the other hand, a table of actual average weekly earnings in a cutlery firm is produced for the period 1901 - 1914<sup>30</sup> and this may be useful in a comparison with similar data from the local co-operative societies. Another study by the same author<sup>31</sup> extends the local analysis towards an investigation of real wages in the town by including a study of

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<sup>28</sup> *Idem.*, p 59

<sup>29</sup> *Idem.*, p 49

<sup>30</sup> *Idem.*, p 59

<sup>31</sup> S. Pollard, 'Real Earnings in Sheffield, 1851 - 1914', *Yorkshire Bulletin of Economic and Social Research*, 1X, 1957, pp 54 - 62

prices from a number of sources. However, the main series of real earnings uses the unemployment-weighted index of actual wages and would therefore have limited relevance to this present study as the intention is to avoid trade union unemployment - based data.

Southall attempts a regional analysis of unemployment amongst skilled engineers in Britain, using the branch returns of the ASE.<sup>32</sup> Despite the obvious and previously discussed problems that lie in assuming a national rate of unemployment from these returns, he supports their accuracy by quoting the first Commissioner for Labour at the Board of Trade who, in 1895, pronounced that the figures 'represent changes in employment as a whole'.<sup>33</sup> The article goes on to introduce the notion that various depressions that appear in the Victorian period can be seen as being determined by the relative position of staple industries - for instance, those of 1858, 1862 and 1868 by the fortunes of textiles whereas for those of 1879, 1886, 1894, 1904 and 1909, shipbuilding and heavy engineering were more important.<sup>34</sup> It is clear that there are limited potential conclusions to be drawn from the data for ASE members and a logical area of discussion would be the extent to which the depressions - 'caused' by one or more of the 'staples' - affected other parts of the country. However, the point is made that the statistics would appear to show that, contrary to conventional belief, there was not a fundamental change in regional unemployment patterns between the Edwardian period and the interwar era.<sup>35</sup> This theme is continued in an investigation of the regional economic structure of Britain in the

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<sup>32</sup> H. R. Southall, 'Regional unemployment patterns among skilled engineers in Britain, 1851 - 1914', *Journal of Historical Geography*, 12, 3, 1986, pp 268 - 286

<sup>33</sup> *Idem.*, p 272

<sup>34</sup> *Idem.*, p 284

<sup>35</sup> *Idem.*, p 284

Victorian and Edwardian periods<sup>36</sup>, the subject matter of which can best be summed up by the statement that the possibility remains 'that the novelty of the regional problem of the 1920's and 1930's was a consequence simply of the introduction of comprehensive unemployment statistics, following the extension of the national insurance scheme in the 1920's.'<sup>37</sup> Curiously, Southall draws attention to the theoretical and definitional issues involved in the calculation of an unemployment rate and its use as a measure of economic well-being.<sup>38</sup> These are, he notes, particularly problematic for Victorian Britain, where the organisation of employment for many workers was so informal that unemployment could have little meaning and even for some organised groups, for instance miners, short-time working was the normal response to depressed demand and the casual sector formed a secondary labour market. Nevertheless, the article uses trade union unemployment returns, mainly from the ASE, to emphasise the contention that unemployment was high in some industrial areas, contrary to popular belief, before World War One as well as after. The discussion extends to the point of suggesting that greater emphasis should be given to regional employment structures<sup>39</sup> and the distinction between the growth and location of industries of 'stable' employment and those who were at the mercy of exports and investment. A contemporary quotation is cited, Llewellyn Smith to a select committee, who noted in 1893 a 'rough division between what I may call the stable industries such as railway service, domestic service and certain branches of agriculture, in which there is little difference in employment from year to year, and the fluctuating industries such as shipbuilding,

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<sup>36</sup> H. R. Southall, 'The Origins of the Depressed Areas: Unemployment, growth and regional economic structure in Britain before 1914', *Economic History Review*, 2nd series, XL1, 2, 1988, pp 236 - 257

<sup>37</sup> *Idem.*, p 243

<sup>38</sup> *Idem.*, p 236

<sup>39</sup> *Idem.*, p 252

engineering, the building trades, mining and dock labour.<sup>40</sup> These points surely suggest that an assessment of relative unemployment and short-time working at a regional or lesser level can only be accurately undertaken if 'stable' as well as 'cyclical' industries are proportionately represented. Southall uses ASE unemployment returns for a regional investigation but their limitations, as well as the points made above, are emphasised when it becomes necessary for the author not only to exclude earlier years due to limited membership outside a few areas but also whole counties on the grounds that they had total membership of less than one hundred (unless they could be combined into larger units).<sup>41</sup>

Mackinnon<sup>42</sup> discusses the broad differences between various measures of economic distress and notes that 'trade cycles in Southern England were not dominated by trends in Northern export-oriented industries.'<sup>43</sup> She points out that although the number of indoor inmates in any category is much smaller than the number of trade-unionists covered by those returns, indoor pauperism series have the advantage that their coverage is far more geographically dispersed. Interestingly, in calling for a return to the use of indoor pauperism as an indicator of the trade cycle, she suggests that this is simply a recommendation to return to a neglected tradition - commonplace in the early 20th century.<sup>44</sup> In a comprehensive econometric analysis, she attempts to proxy labour market conditions by choosing a large number of variables - for instance production of

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<sup>40</sup> *Idem.*, p 254

<sup>41</sup> *Idem.*, p 255

<sup>42</sup> M. Mackinnon, 'Poor Law Policy, Unemployment and Pauperism', *Explorations in Economic History* 23, 1986, pp 299 - 336

<sup>43</sup> *Idem.*, p 330

<sup>44</sup> *Idem.*, p 331

coal and iron ore output, raw cotton consumption, and house building estimates as well as national estimates of industrial production.<sup>45</sup> With these potential indicators, as well as trade union unemployment and small debt data, she estimates 40 sets of equations with lagged values for policy variables and current and lagged values for economic conditions and for able and not able-bodied males and females for the 10 census divisions of England.<sup>46</sup> The results suggest that the available measures of economic activity are closely related to the level of able-bodied male indoor pauperism, but with the strength of relationship between the two greater in the northern than the southern divisions. Within this, trade union unemployment is suggested as affecting pauperism in the south to a considerably smaller extent than in the north.<sup>47</sup> The point is well made that the output series for iron, coal and cotton - which appear to have a relationship to some variance of the poor law series in Yorkshire, the Northern and North-western divisions - have no southern counterpart and the substitute used for southern agricultural areas - grain and animal product prices - 'rarely enter pauperism equations significantly.' Because of this, the author suggests that trade union unemployment, the nationwide house-building index and the nationwide county court plaints for debt series are the best indicators of economic conditions and that pauperism was sensitive to the trade cycle. Another aspect of the analysis of male able-bodied pauperism is that although rates remained far higher in London than in the north, similar forces were at work in both regions - with irregular demand for unskilled labour and job opportunities contracting over time.<sup>48</sup> On the other hand, it is proposed that conditions in the south most regularly show improvement over time, despite concern about an agricultural

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<sup>45</sup> *Idem.*, p 314

<sup>46</sup> *Idem.*, p 315

<sup>47</sup> *Idem.*, p 320

<sup>48</sup> *Idem.*, p 332

depression. With these broad conclusions, Mackinnon suggests that the implications of pauperism statistics for standards of living are pessimistic relative to estimated gains in real wages, particularly given the persistent upward trend in pauperism after 1900, and the point is made that from 1860 to 1910, some groups did much worse than others.<sup>49</sup> There are, perhaps, a number of areas in this research where the potential for statistics of pauperism to accurately reflect labour market conditions at the levels of analysis suggested may be legitimately questioned. For example, it is possible that the stronger relationship of pauperism to the 'trade cycle' in the north of England is so because there is no southern equivalent to iron, coal and cotton. It is also not certain that the sectorally specific output series can reflect overall labour market conditions in those areas for which they are used. Furthermore, the extent to which variations in policy over time and place may have impinged upon the results remains a potential problem as does the possibility that these changes affected numbers on relief regardless of relative changes in living standards. Nevertheless, the potential of pauperism returns as an indicator of labour market conditions is demonstrated and it may be relevant to consider them in a later analysis.

Marriage statistics give, according to Southall and Gilbert,<sup>50</sup> a unique insight into the operation of the economy and, especially, the impact of economic distress at the local level. They use crude marriage rates on the grounds that the Registrar's series for ages at marriage are unreliable

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<sup>49</sup> *Idem.*, p 334

<sup>50</sup> H. R. Southall & D. Gilbert, 'A Good Time to Wed?: Marriage and economic distress in England and Wales, 1839 - 1914', *Economic History Review* XLIX, 1996, pp 35 - 57

as a large proportion of partners did not state their ages (although Glass<sup>51</sup> was able to define a refined rate in his national-level analysis). They compare marriage rates in a number of counties - for instance Lancashire, London and Norfolk and discuss the impacts of various recessions on these areas as measured by the crude marriage rate and trade union unemployment returns. They also examine fluctuations in a number of towns in Lancashire and Durham.<sup>52</sup> Interestingly, the concluding remarks in the article note that the 'strength of the relationship (between marriage rates and the trade cycle), especially when examined for particular localities or groups of people, is remarkable'...and they provide the necessary independent support (to trade union unemployment rates),... 'where direct comparisons are possible, they moved in close sympathy with the trade union unemployment rate for the same locality - they reflect the strength of the linkage between different sectors of the economy.'<sup>53</sup> However, in the local-level analysis it is stated that the 'relatively small impact of the 1868-9 recession in Lancashire is notable, given that trade union statistics suggest very severe unemployment there.' Also, the 'relationship with the trade cycle is again complex'... 'the 1850's are confused and the cotton famine of the early 1860's is clear only in Wigan; Liverpool was evidently affected by the late 1860's recession, but thereafter the impact of recessions seems much smaller.'<sup>54</sup> Perhaps these remarks contradict, to an extent at least, the conclusions and could be highlighting the difficulties that lie in attempting to compare different, partial, indicators of local-level economic activity. Another alternative conclusion that could be drawn is that the complexities of the Victorian labour market, even in

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<sup>51</sup> D. V. Glass, 'Marriage frequency and economic fluctuations in England and Wales, 1851 - 1934', in L. Hogben (ed.) - *Political Arithmetic, a symposium of population studies* (George Allen & Unwin Ltd, 1938), pp 251-282

<sup>52</sup> Southall & Gilbert, 'A good time', pp 42 - 45

<sup>53</sup> *Idem.*, p 54

<sup>54</sup> *Idem.*, pp 42 - 43

areas where export industries dominated, can be demonstrated by the divergences in the comparison of various proxy measures of economic activity when examined at a local level.

Another type of local-level investigation is undertaken by analysing the registers of St. Peter's, the parish church for Bolton for the period 1838 - 1850.<sup>55</sup> Southall and Gilbert draw our attention to the potential impact of the severe depression of the early 1840's, and to the observations of a contemporary observer (Henry Ashworth - who was a local industrialist, mill owner and anti-corn law protagonist). It is worth discussing whether the choice of Bolton in this period is useful. On the one hand, a severe depression can be unarguably identified but, on the other, it would be most surprising if marriage rates amongst skilled workers were not affected. An analysis in an untypical period and in an untypical town may not prove any general point about the relative accuracy of a proxy measure. Nevertheless, comparisons are made and a negative correlation appears to exist with persons relieved by the Poor Protection Society and, furthermore, proportionately more engineers married between 1842 and 1845. The main conclusions seem to be that persons at the lower end of society probably married without much regard to present or prospective conditions, more engineers married after a severe recession in Bolton and births to engineers also, unsurprisingly, increased.<sup>56</sup> A further local-level comparison is presented and suggests that marriage rates and unemployment returns were almost always more strongly related to each other than either was to data for small debts. However, with the exception of London, the fourteen comparisons are all for northern towns because of their substantial union

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<sup>55</sup> *Idem.*, pp 47 - 50

<sup>56</sup> *Idem.*, p 48

membership.<sup>57</sup> This factor, as well as the point that no time-lag is used for the small debt data, limits the usefulness of the exercise and could be viewed as an indication of the restricted potential for trade union unemployment returns to be applied anywhere other than in the towns selected. It is surely the case that fluctuations in marriage rates may be an accurate indicator of economic conditions at a local level for some occupational groups but it remains questionable as to whether they are able to proxy relative conditions consistently and regardless of local structures of employment.

Johnson<sup>58</sup> emphasises the point that engineering and iron unions were 'driving' the trade union unemployment returns and, in an analysis of the period 1883-6, suggests that whereas the totals of plaints for the recovery of small debts fell marginally, there were increases in a number court circuits. When looked at in detail and compared with the distribution and concentration of ASE members, these confirm that iron and engineering suffered a sharp depression in the mid 1880's but, on the other hand, economic conditions in many other parts were 'reasonably buoyant.' Furthermore, a low level of debt default in the south is not indicative of working-class living standards being higher than in the north, but rather of income being more stable.<sup>59</sup> Interestingly, he further notes that the value of income stability and the cost of income variance have yet to be properly integrated into estimates of working-class living standards in Victorian Britain.

The possibility of testing the association between small debts and the working-class economy

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<sup>57</sup> *Idem.*, footnote p 52

<sup>58</sup> P. Johnson, 'Small Debts and Economic Distress in England and Wales, 1857 - 1913', *Economic History Review* XLV1, 1993, pp 65 - 87

<sup>59</sup> *Idem.*, p 78

cannot be fully achieved at a county level because there are no independent measures for comparison.<sup>60</sup> The link may, however, be shown by reference to some local studies and for this reason, Johnson compares small debt data - firstly with the qualitative indicators that are summarised into 'good' and 'bad' years by Hopkins.<sup>61</sup> It is worth re-emphasising, as Hopkins does, the 'inherent unreliability' in the sources but, nevertheless, the low and high points in debt default do broadly correspond to the relevant years indicated.<sup>62</sup> Debt data for the period 1868 - 1913 is compared with the index of economic activity produced by Barnsby<sup>63</sup> as well as the fluctuations for Teeside by Hall.<sup>64</sup> With the exception of one or two anomalies, these indices confirm that variations in small debts per 100 people generally reflected those in economic activity at the local levels. The research may perhaps be seen as confirming the relative weaknesses in making broad assumptions about trade union unemployment returns and as emphasising the point that 'the timing of labour market cycles varied considerably across the country, both between counties and between individual towns, which suggests that the Victorian and Edwardian labour market was characterised by a high degree of spatial and occupational segregation.'<sup>65</sup>

A previous attempt to focus research at a local level and construct a new index of relative

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<sup>60</sup> *Idem.*, p 81

<sup>61</sup> E. Hopkins, 'Small town', p 223

<sup>62</sup> P. Johnson, 'Small debts', p 82

<sup>63</sup> G. Barnsby, 'The standard', pp 234 - 235

<sup>64</sup> A. A. Hall, 'Wages, earnings', p 216

<sup>65</sup> P. Johnson, 'Small debts', p 85

economic distress that is not affected by national wage and price indices may be considered.<sup>66</sup>

The chosen town was Dover, not only because it was outside of the traditional areas of research but also because it had an urban identity that was representative, to an extent at least, of a 'stable' occupational structure. The methodology involved the production of series for local retail and wholesale food prices and the average total weekly amounts paid in wages by one firm as well as the average amounts paid to one employee over the period. The series were not complete for the whole period under investigation and the main index was constructed for 1888 to 1906. Qualitative evidence was cited (but not used to influence the index) - for example, the Report on distress from want of employment in 1885 received replies from a number of counties, including Kent, and noted that 'from country and seaside towns like Dover, where employment has up to now been exceedingly plentiful..., I hear that there has been no considerable number of applications for relief, and such distress as exists is met by charitable institution.'<sup>67</sup> The index was compared with local-level statistics for trade union unemployment returns, marriage rates, indoor and outdoor relief and data for small debts. Trade union returns were numerically so low (and returned details of claimants for only four of the relevant years) that they had no effective relevance for Dover. Of the other potential proxies, small debt data - lagged by two years - showed the closest correlation and noteworthy highlighted the locally bad years of 1897 and 1898. The relative paucity of data used in the construction of the index may leave question marks about accuracy but, on the other hand, the statistics were purely local and emphasised not only a divergence from the 'national' picture but also relative stability in employment opportunities. It is possible that small debt data is a potential proxy measure of labour market

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<sup>66</sup> P. Searles, *Economic distress in the second half of the nineteenth century: a local study* (unpublished Msc Report, LSE 1997)

<sup>67</sup> *Idem.*, p 18

conditions, or of working-class purchasing power, for a town with this profile and confirmatory evidence for the index as well as further research in areas with such an occupational structure is required.

It is clear that a general consensus can be seen as emerging from an analysis of work in this area of research. Trade union unemployment statistics do not represent employment opportunities as a whole. The 'stable' part of the economy has not been adequately represented in assumptions about unemployment and short-time working and existing local-level studies have limited applicability. Apart from the fact that they in the main concentrate on 'cyclical' occupations, their construction often contains exogenous factors or, indeed, are weighted by trade union unemployment returns, even in the building of an index of real earnings. On the other hand, all studies that make comparisons of areas and regions highlight major differences and these differences are usually ascribed to varying economic structures and the employment potential that lie within these structures. None of the potential proxy measures appears to be equally applicable across all regions and this must be either because the variables used against which to test them have a bias to one part of the economy or, indeed, the proxies have a greater degree of accuracy in some areas and occupations than others.

With these points in mind, it is reasonable and potentially most accurate to assume that movements in annual average earnings (uninfluenced by unemployment) will indicate levels of relative distress/well-being as well as spatial variance in income/experience. This will encapsulate the possibility not only that work was shared in depressed times but also the logical assumption that those in work were affected by relative peaks and troughs in employment opportunities - ie take-home pay - and therefore avoids the mistake of placing over-emphasis on

either wage rates or estimates of numbers in work. Take-home pay, furthermore, would probably be the chosen assessment of their conditions by the subjects of such a study if they could be asked.. The extent to which qualitative evidence may be used is also worth discussing. It cannot be used to weight or influence an index but may be relevant in supporting quantitative evidence. Otherwise, we may place too much emphasis on such factors as local newspaper reports - it is possible, for instance, that such reports were more likely in areas dominated by one industry and could perhaps be motivated by a biased observer. It is noteworthy that so much was apparently made in local newspapers in some of the localities researched but, in Dover, no mention of employment conditions appeared for the whole period investigated. As previously noted, the statistics that form the basis for the rest of the work are extracted from the Co-operative Movement of Great Britain and the next chapter must therefore be a starting point for an analysis of these by discussing the movement and the extent to which those within it had to operate in a commercial and therefore competitive and representative environment. These introductory chapters have dwelt long on the use of potential proxy measures of relative economic and labour market conditions. This is partly because one aim of the research project is to investigate local and regional variances in the experiences of working people and, also, to emphasise that the use of trade union unemployment returns is on the one hand inaccurate for measuring what may have been happening in the whole economy and on the other continues to be used in lieu of any credible alternative. Because this use extends to the weighting of a number of important indices in the period before 1914 and the squaring of a statistical circle by comparing series that are based in the same source, it has been necessary to begin the study by reference to this unsuitable measure and the potential alternatives before moving towards a discussion of the data set in which the thesis is predominantly based. The next chapter therefore uses qualitative, and chapter 4 quantitative evidence, to demonstrate that the Co-operative Movement had to compete

to survive.

### **3. The Co-operative Movement of Great Britain**

**‘United we stand’**

The intention of this chapter is not just to re-state the aims, ideals and aspirations of the co-operative movement but, rather, to also show that despite the utopian ambitions that undoubtedly permeated the movement, an economic logic had to prevail within and between the societies as well as with non-co-operative businesses in order for them to remain in existence. Within this, the specific aim with regards to the research project in hand is to find evidence that wages varied in a general sense with the wider prevailing economic conditions at various geographical levels of analysis and that the most common practice was to retain workers in a downturn and vary the return for their labour by a reduction in hours and/or in their rate of pay.

There is a sense in which it could be argued that the extent to which wages within the movement varied and, indeed, to which the paternalistic approach with regards to laying or not laying off, prevailed will be demonstrated by a quantitative analysis of the statistics described in the introduction. This is acknowledged and will be the subject of the next and subsequent chapters. However, it also the case that the Movement is rich in a wide range of publications, varying from papers and delegate comments at the annual congresses, through published pamphlets, to enormous volumes full of idealism. These give an opportunity to contextualise the vision and compare it with the reality of what was really happening. Conference delegates and other contributors were often managers or officials actually working in the real world of Victorian and Edwardian Britain and their comments and papers sometimes brought an element of realism that the Fabianist leadership perhaps did not fully understand or wish to acknowledge. On the other hand, perhaps these factors were understood but the undoubtedly

success of the Movement in the period of study, as evidenced by expansion of members, profits, turnover and numbers of employees meant that the necessity to compete to succeed was implicitly acknowledged and the re-statement of ideals an attempt to curtail the perceived excesses of capitalism. For instance, Beatrice Potter proclaimed in 1891 that 'the devices of the credit and tally system, the dodges and deceptions of leading articles and second prices, of adulterated or fraudulent goods, together with the more modern and statesman-like policy of great trusts and capitalist combinations, boldly dictating prices - all these monstrous or pigmy forms of industrial tyranny have been effectually checkmated within the area of its influence by the democratic form of Co-operation'<sup>1</sup> and yet a paper read to congress in 1889 had pointed out that although the abolition of the credit system had long been an article of faith, 'yet now we wake to the fact that we are no better than our neighbours', and that 'things are not what they seem.'<sup>2</sup> Furthermore, and despite these laments and proclaimed destruction (of the credit system), the number, notes Gray,<sup>3</sup> of societies (56 per cent) giving credit in 1886<sup>4</sup> had risen to 82 per cent by 1911.<sup>5</sup> This and other examples will show that qualitative evidence needs to be

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<sup>1</sup> B. Potter, *The Co-operative Movement in Great Britain* (Swan Sonnenschein & co., 1891) pp 205-6

<sup>2</sup> W. Swallow, *The credit system, 'spero mellora'* (Paper read to the 21st Annual Co-operative Congress, Ipswich, 1889)

<sup>3</sup> Gray, J. C., 1854-1912 - Son of a Baptist minister, Assistant Secretary of the Co-operative Union in 1883 and General Secretary in 1891. Wrote many pamphlets and articles and a handbook on the Industrial and Provident Societies Act of 1893 (Bibliographical source: A. Bonner, *British Co-operation, the history, principles, and organisation of the British Co-operative Movement* (Co-operative Union Ltd., Manchester, 1961))

<sup>4</sup> J. C. Gray, *The system of credit as practised by co-operative societies* (pamphlet published by the co-operative union press, Manchester, 1893) held at the BLPES, pamphlet no. 198730

<sup>5</sup> P. Johnson, *Saving and Spending, the Working-class Economy in Britain 1870-1939* (Clarendon Press, Oxford, 1985) p 133

compared with more representative quantitative data about how co-operative societies behaved in practice. As will be shown below, this quantitative evidence demonstrates that co-operative societies could not exist in a vacuum and had to adjust to market forces because they were affected by periodic variations in economic activity. Another relevant area of discussion from this chapter that uses a qualitative approach will be the extent to which evidence from the Co-operative Movement shows how different local types and structures of employments and the opportunities that they created for people affected attitudes to work and the method of approach in gaining the best return in exchange for their labour. In other words, the extent to which regional and local variations existed in the society as well as economy of the period under review.

There is a long history of co-operation in Great Britain and the reference point for the aims and ambitions of the Movement as well as for a continuous line of development is the foundation of a store in Rochdale in 1844 by twenty eight working men.<sup>6</sup> They ‘successfully grafted certain portions of Robert Owen’s Co-operative ideal on a vigorous democratic stock’<sup>7</sup> and set out a number objectives and rules. These included the sale of goods at prevailing local prices, profits to be distributed in proportion to goods purchased by members, no credit, each member one vote regardless of share holding, equal voting rights for women, frequent meetings, and properly kept accounts. Furthermore, that as soon as practical, ‘this society shall proceed to arrange the powers of production, distribution, education, and government; or in other words, to establish a self-supporting home colony of united interests, or assist other societies in establishing such

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<sup>6</sup> J. Bailey, *The British Co-operative Movement* (Hutchinson University Library, 1955) pp 18-19

<sup>7</sup> B. Potter, *The Co-operative Movement*, p 59

colonies.<sup>8</sup> Fundamentally, the 'pioneers' were followers of Robert Owen whose ideal was to set up a form of local common ownership and produce for its own consumption and for exchange with other 'colonies'.<sup>9</sup> From these foundations, three distinct type of co-operative emerged - retail, productive and wholesale societies. Interestingly, some retail and wholesale societies also undertook production as they developed and expanded. For example, retail societies production increased in value from £4,293,000 in 1900 to £15,705,000 in 1914 and their activities included baking, tailoring, dressmaking, furniture-making, bootmaking and repairs and farming.<sup>10</sup> The Co-operative Wholesale Society, supported by funds from the CWS Bank, entered production in 1873 against a background of some opposition (by those who believed the funds would have been better channelled to the productive societies)<sup>11</sup> although it is probably the case that, as the CWS expanded, there was an economic logic to some vertical integration of its activities. A context to the relative activity of each part of the Movement in productive activities may be given by pointing out that, in 1913, there were 24,969 productive employees in the distributive societies, 24,078 in the wholesale societies and 10,442 in productive societies (England and Wales, Scotland and Ireland included).<sup>12</sup>

This leads to some discussion concerning the structure of the ownership and control of various types of society. In outline, retail societies returned profits on an 'open membership' principle

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<sup>8</sup> J. Bailey, *The British*, p 20

<sup>9</sup> G. D. F. H. Cole, *The British Co-operative Movement in a socialist society, a report written for the Fabian Society* (George Allen & Unwin Ltd., 1951), p 29

<sup>10</sup> A. Bonner, *British Co-operation, the history, principles, and organisation of the British Co-operative Movement* (Co-operative Union Ltd., Manchester, 1961), pp 102-3

<sup>11</sup> *Idem*, p 106

<sup>12</sup> Returns made to the 44th Annual Co-operative Congress, 1913

inasmuch as the amount of dividend was in direct relationship to the amount spent in the store rather than being based upon the number of shares a member may own. Wholesale societies operated loosely on a similar principle except that the 'members' were retail societies that purchased from the society and their 'dividend' was also related to amounts spent. Productive societies, however, could not operate in these ways and, indeed, from the co-operative leadership's point of view, it was a weakness that it could not 'in the nature of the case, deal with the problem of open membership in quite the same democratic way.'<sup>13</sup> Ownership and control of productive societies varied and Potter investigated this area<sup>14</sup> and sub-divided them into four distinct groups as follows: Class I - associations of workers formed on the Christian Socialist model, selecting the committee of management from among their own numbers, and employing members only. Class II - associations of workers of like character, but which have bound themselves over to, or had imposed upon them, an irremovable governor or committee men. Class III - associations of workers governing themselves, but employing outside labour - practically small masters. Class IV - societies in which outside shareholders and stores supply the bulk of capital, but in which the workers are encouraged or obliged to take shares, although they are disqualified from acting on the committee of management.<sup>15</sup> The first class contained eight societies, four of whom were insignificant, with annual sales below £1000 in 1890. The eight societies in total had 440 working members in 1890 and although Potter describes these as the only associations of the 'true Brotherhood,'<sup>16</sup> she did acknowledge that five of the eight

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<sup>13</sup> G. D. H. Cole, *A century of co-operation* (Co-operative Union Ltd., Manchester, 1944) p 65

<sup>14</sup> B. Potter, *The Co-operative Movement*, pp137-148

<sup>15</sup> *Idem.*, p 139

<sup>16</sup> *Idem*

gave work out to the homes of members and that it is therefore difficult to ascertain whether even these were 'small masters.'<sup>17</sup> In Class 11 she found four societies, with a total number of employees in 1896 of 523 and one of which had ceased to trade by that year (Scotch Tweed Society) and another that no longer existed by 1901 (Brixton Builders).<sup>18</sup> Of the remaining two, one was run by an effective owner and irremovable manager, who even had established the right to appoint his successor by will (Mr Thompson, presumably of the society named in the relevant section of the returns<sup>19</sup> as 'Thompson, Wm. and sons Ltd.' - a curious name, perhaps, for a co-operative society). Class 111, lamented Potter,<sup>20</sup> was the most numerous in 1890, with twenty one societies (almost half of the total number of producer associations). For the most part, she pointed out, 'they are associations of small masters extracting profit out of the labour of non-members,...and associations of this class show, unfortunately, comparative vitality; their average age is seven years and four months, their aggregate sales are £124,054; and they employ 1,240 workers, of whom only 330 are members.'<sup>21</sup> Class 1V contained thirteen societies and in these, employees were usually expected, sometimes obliged, to become shareholders. However, in no instance were employees on the committee of management and the balance of power was in the hands of non-workers. Some had the democratic store as the principle shareholder, others were owned and governed by individual capitalists.<sup>22</sup>

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<sup>17</sup> *Idem.*, p 140

<sup>18</sup> Returns in the 29th & 34th Annual Co-operative Congress Reports

<sup>19</sup> Annual Co-operative Congress Reports

<sup>20</sup> B. Potter, *The Co-operative Movement*, p 142

<sup>21</sup> *Idem.*, p 144

<sup>22</sup> B. Potter, *The Co-operative Movement*, p 144

It is clear from this review of Potter's investigation that productive societies, to varying degrees, had by 1890 moved a considerable distance from the ideals of the Rochdale Pioneers and their rules and objectives. Even by this time the most successful (and numerous) were effectively operating as small private limited companies, run by a professional share holding manager and/or a share holding committee. Most employees had no pecuniary interest other than their wages or, at most, had a small (even nominal) membership that carried no effective say in the business. Furthermore, this review was undertaken in 1890 and a scrutiny of statistics from the Congress Reports in the period 1895 - 1914 shows that, of the twelve<sup>23</sup> societies in Potter's classes 1 & 11, only seven were still operating in 1910 and of these, at least one (Thompson, Wm. & sons Ltd.) suggests a family business that was formed as a co-operative for convenience only. It would appear that the Movement, according to Greenwood,<sup>24</sup> one of whose fundamental ideals was that labourers, who were 'first slaves, then serfs and now hirelings' did not, after all 'emancipate themselves from the yoke of hire.' They did not after all become free producers, and 'masters of the totality of the production which they create.'<sup>25</sup> These obvious and wide gulfs between ideals and practice requires further investigation.

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<sup>23</sup> *Idem.*, appendix 11

<sup>24</sup> Greenwood, Abraham, 1824-1911, son of a small blanket manufacturer, secretary of the Rochdale Chartist Association at age 18, joined Rochdale Pioneers in 1846, manager and chairman of the Rochdale Corn Mill Society, original promoter of the Wholesale Society, of which he was the first President. A well known figure in the Movement and member of the Central Board, his daughter became one of the founder members of the Women's Co-operative Guild (bibliographical source: A. Bonner - *British Co-operation, the history, principles, and organisation of the British Co-operative Movement* (Co-operative Union Ltd., Manchester, 1961))

<sup>25</sup> A. Greenwood, *The fundamental principles of co-operation* (Co-operative printing society, Manchester - BLPES pamphlet collection no. 198735) p 7

Presenting a paper to the Annual Congress at Bristol in 1893,<sup>26</sup> W. Maxwell<sup>27</sup> described apathy and indifference as a characteristic of many of the employees of the Movement: 'smart and efficient, anxious and courteous in their ordinary duties many of them are but in the social improvement of the people by co-operation - the power and influence of which is continually before them - they show little interest or care.' He further suggested that the 'yearning of many of our storemen for the open market is clear and arises largely from the want of the co-operative ideal and possibly in some cases an over - estimate of their own abilities.' These quotations suggest that, from the point of view of the employees, the Movement was not seen as being any different from other firms and certainly little sense of loyalty or idealistic ambition existed. If societies were generally viewed in this way by the people who worked for them, then this is surely because there was no particular advantage or self-interest in remaining there. The extent to which this is evidenced by variance of wages in these concerns commensurate with other employees in the same locality will be discussed later in this as well as in other chapters. However, the commercialisation of co-operatives generally in this period and the lengths to which they had to compete to survive will be a useful background and explanatory point for the evidence on wages. Co-operators had to compete with small shopkeepers and could not, without endangering their competitive power, go far in the improvement of wages and working

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<sup>26</sup> W. Maxwell, *The relation of employees to the co-operative movement. The mode to adopt to create a greater interest by the employees of the movement in its work and its advancement* (Paper read to the 25th Annual Co-operative Congress, Bristol, 1893)

<sup>27</sup> Maxwell, Sir William, 1841-1922 - Began work at 10 years of age and attended evening classes. Was influenced by G.J. Holyoake and Lloyd Jones. Had imagination, enterprise and was a fine speaker and propagandist. He sought to persuade the Movement towards political representation in Parliament and to fuse forces with trade unions and the Labour Party. Chairman of the Scottish Wholesale Society, he was elected to the Central committee in 1902. (Bibliographical source: A. Bonner, *British Co-operation, the history, principles, and organisation of the British Co-operative Movement* (Co-operative Union Ltd., Manchester, 1961)

conditions for their employees.<sup>28</sup> This summarises the basic need to survive and without which the societies would fail. Difficulty in obtaining custom is an experience 'not confined to co-operative traders - it is shown in common with most of the ordinary competitive business houses which are commenced daily around us. In catering for the open market, or indeed for that matter for the co-operative market, co-operative producers are forced to compete against private traders.'<sup>29</sup> Even a society which by any yardstick - certainly compared to other productive societies - came closest to the rules and objectives of the 'Rochdale pioneers' had to compete to survive. This society - The Hebden Bridge Fustian Manufacturing Society - was described by Potter in 1891 a 'brilliant example'<sup>30</sup> of a productive co-operative and it is fortunate that an illuminating history of it exists, written by one of the founding members and later manager of the business.<sup>31</sup> Greenwood describes in detail how the society was formed, the determination of the original members to succeed, and the problems associated with these factors. Interestingly, he describes attending a meeting at which Vansittart Neale<sup>32</sup> and other Christian Socialist leaders spoke and notes that 'these men are charged with dealing mainly in sentiment, yet there will

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<sup>28</sup> J. Bailey, *The British Co-operative Movement* (Hutchinson University Library, 1955), p 134

<sup>29</sup> W. G. Harrison, *How best to consolidate and improve the position of productive societies* (Paper read to the 23rd Annual Co-operative Congress, Lincoln, 1891)

<sup>30</sup> B. Potter - *The Co-operative Movement in Great Britain* (Swan Sonnenschein & co., 1891), p 144

<sup>31</sup> J. Greenwood - *The story of the formation of the Hebden Bridge Fustian Manufacturing Society Ltd.* (pamphlet published by the Central Co-operative Board, Manchester, 1893) held at the BLPES, pamphlet no. 198728

<sup>32</sup> Neale, Edward Vansittart, 1810-1892 - Continuous and long-serving activist. Wrote 19 pamphlets on co-operation. Memorial in the crypt of St. Paul's and a scholarship for co-operators son's at Oriel College. (Bibliographical source: A. Bonner, *British Co-operation* (Co-operative Union Ltd., Manchester, 1961)

always be a debt of gratitude to them for the grand work they have done.<sup>33</sup> In a more practical sense, Greenwood identifies the obtaining of trade in the early times as an uphill struggle, the difficulty not being lessened by them being co-operators, and that their first customers were all local non co-operative businesses. Another problem encountered by the year 1872 (the society was formed in 1868) was profit-making. Greenwood pointed out that by this time, investors were being paid twelve and a half per cent each year on capital loaned to the society and 'the spirit of little capitalists was insatiable, and even co-operators - so called - hastened to get rich in this fashion.'<sup>34</sup> This point can be expanded by noting that there was a rule of membership for employees and members, as shareholders, could obtain up to 100 shares. Employees were 'pestered and tempted' to sell their one or two shares so that the purchaser could obtain the full quota<sup>35</sup> and this suggests that even this 'model' society, to an extent at least, was in part operating on a joint-stock basis. Potter summed this potential problem (for co-operators) by noting that 'in an association of producers, whether they are capitalists buying labour or labourers buying capital, or an Industrial Partnership, shares will rise and fall according to profits realised...hence we watch gambling in the shares of the Hebden Bridge Fustian Society, as well as in the Oldham Limiteds.'<sup>36</sup> In a similar sense, concerning not only profit taking but also employee loyalty to the society as well as worker turnover, Greenwood states that by 1873 (5 years after formation), 32 of the original 60 members had sold out.<sup>37</sup> However, this firm prospered and a comparison can be briefly drawn with another that succeeded and one that

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<sup>33</sup> J. Greenwood, *The story*, p 14

<sup>34</sup> *Idem.*, p 16

<sup>35</sup> *Idem.*, p 19

<sup>36</sup> B. Potter, *The Co-operative Movement*, pp 206-7

<sup>37</sup> J. Greenwood, *The story*, p 15

failed. According to Jones,<sup>38</sup> Mr Harrison, the manager and one of the originators of the Walsall Padlock Society, wrote in 1888 that 'the competition is unnecessary, yet even at busy times it is continued; and the only result is repeated reduction in wages.'<sup>39</sup> Commenting on the end of the Bag Supply Association (Suffolk) in 1889, and total losses of £600 during its existence, the Co-operator News commented that ... 'the causes of the loss are attributed, by the officials, to the want of regular work, coupled with the system of fixed weekly wages, it being stated that the eight shareholding members insisted upon being paid their weekly wage, even when there was no work to do.'<sup>40</sup>

Competition with other businesses was, of course, implicitly and explicitly acknowledged and accepted by the Movement - it was the driving force that made co-operators trade and expand on a commercial footing. This obvious acceptance, however, did not always extend to competition between societies in the minds of many co-operators and 'overlapping' - the term used to describe this - was a much discussed and consistent theme at the Annual Congresses. These writings and observations may give some indication of the lengths to which societies were prepared to go in order to prosper. In a general discussion concerning competition and wages,

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<sup>38</sup> Jones, Ben, 1848-1947 - Began work at age of nine as an errand boy, but rose to the position of book-keeper in the firm. Appointed in 1868 as assistant and later became accountant of the Co-operative Wholesale Society. Meanwhile studied at mechanics institutes and at Owen's College and, in 1871, was put in charge of the C.W.S. London branch. Did a great deal of propaganda work and was a member of the Central Board from 1875. Contested three parliamentary elections as a Labour candidate (Bibliographical source: A. Bonner, *British Co-operation, the history, principles, and organisation of the British Co-operative Movement* (Co-operative Union Ltd., Manchester, 1961))

<sup>39</sup> B. Jones, *Co-operative production Volumes 1 & 11* (Clarendon Press, Oxford 1894), p 481

<sup>40</sup> *Idem.*, p 693

Bailey points out that co-operatives had to compete with small shopkeepers and could not, without endangering their competitive power, go far in the improvement of wages and working conditions. 'There was always the fear that increased wages would raise working expenses and reduce dividends on purchases. If that took place in one society, the neighbouring society which did not increase wages might have a competitive advantage.'<sup>41</sup> A report by the secretary of the North-East Lancashire District Association of the Movement in 1891 noted that 'overlapping in that area was on the increase and that the evils arising from it had frequently occupied the attention of the above association.' The problem of overlapping was discussed at length at the Congress in Bristol in 1893 and in particular by means of a paper<sup>42</sup> which interestingly suggested that overlapping fostered an unhealthy desire for large dividends with its 'ever increasing tendency to make store prices somewhat out of touch with those around them' - which may be interpreted as a warning that competition between societies (with reference to dividends) could affect their competitive position with regards to other businesses. Beckett further contextualised the problem by describing how the retail stores are sometimes perplexed, if not bewildered, by the 'rival co-operative wares which respective exhibitors offer them for sale and the not very edifying spectacle they present as they each seek custom for one and the same commodity at one and the same counter.....in pops, for example, the boot and shoe traveller of the Wholesale Society on this side of the Tweed; that he sings, as is his duty, to the praise of the Wheatsheaf brand...but no sooner has he taken his departure than the representative of another Leicester co-operative boot and shoe making establishment arrives upon the scene; he it is who has got the

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<sup>41</sup> J. Bailey, *The British Co-operative Movement* (Hutchinson University Library, 1955), p 134

<sup>42</sup> C. J. Beckett, *Overlapping: its varieties and dangers* (Paper read to the 25th Annual Co-operative Congress, Bristol, 1893)

genuine article, for are not co-operators told they should wear only boots and shoes of the reliable Eagle brand?... and to make the diversion still more complete, up turns the Kettering representative amongst a host of others may be, and puts in his own little modest claim to an order, for are not all the best boots and shoes made in their famous county?.... then there is 'Nutritional Cocoa', the co-operative production on the one hand and the Wholesalers Cocoa on the other... and so the merry round goes on.<sup>43</sup> With further regards to the retail societies, Beckett pointed to an unhealthy rivalry between the 'big brother' (the larger societies) and the lesser one, who has got quite as much as he can manage to do, and do it well, 'to fight the foes without, without having to turn his attention to the larger foe within... and poaching often becomes a retaliatory process.' The problem clearly did not recede as the Movement expanded. Thirteen years later, at the Congress of 1906 in Birmingham, James Johnston of the Manchester and Salford Equitable Society<sup>44</sup> pointed out that 'it is no uncommon experience to find half a dozen travellers waiting, at one time, to see the manager of a large distributive society, to solicit orders for the society they represent' and 'we have recently suffered in Manchester from another form of overlapping, viz. the delivery of goods by other societies' vans (small mobile shops) in the area of adjoining societies...these vans travel four or five miles from the central premises of the society to which they belong right across the area of adjoining societies, and with their 3s dividend seriously affect the trade of the society that only pays 2s to 2s 3d.'

The competitive nature of distributive (retail) societies as well as those in production and wholesaling was, however, not necessarily inconsistent with their aims and objectives as they

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<sup>43</sup> *Idem*.

<sup>44</sup> J. Johnston, *Overlapping: Its evils and remedies* (Paper read to the 38th Annual Co-operative Congress, Birmingham, 1906)

had evolved. Holyoake<sup>45</sup> pointed out in 1875 that 'where the interest of the purchaser is not recognised in the store, there is no co-operation, and the assumption of the name is misleading.'<sup>46</sup> Indeed, the fundamental difference between the objectives of a co-operative retailing society and a 'capitalist' enterprise is that profit in the former is divided by the amount spent to the purchaser and capital investment receives a fixed return whereas in the latter, profit is divided amongst investing shareholders. It can therefore be argued that competing both with co-operative as well as non co-operative rivals became a duty of each society in order to make the best return to the members (customers). In this period of relatively little welfare provision and fluctuating fortunes, a key part of everyday life for working people, and one which went against one of the core principles of co-operative objectives and ideals (see above, p 60), was the ability to obtain credit from retailers. The extent to which this key principle was ignored or side-stepped in order to compete and retain custom by the co-operatives should therefore provide some illumination on the realities of co-operation in the period.

The Co-operative Retail Societies, according to Johnson,<sup>47</sup> were major providers of credit to

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<sup>45</sup> Holyoake, George Jacob, Co-operator and Secularist - born Birmingham, second of thirteen children, joined Birmingham Reform League 1831. Had a lifelong and active association with the Co-operative Movement and wrote a number of lengthy books on co-operation. His great age and contacts with the earlier figures of the Movement made him a revered figure in his later years. On his death, the Movement levied itself 3d per member to provide a memorial, this taking the form of a site and building to serve as the headquarters of the Co-operative Union in Manchester - Holyoake House. (Bibliographical source: A. Bonner - *British Co-operation* (Co-operative Union Ltd., Holyoake House, Manchester, 1961))

<sup>46</sup> G. J. Holyoake, *The history of co-operation* (T. Fisher Unwin, 1906), Vol , first published 1875

<sup>47</sup> P. Johnson, *Saving and Spending, the Working-class Economy in Britain 1870-1939* (Clarendon Press, Oxford, 1985), p 126

working-class customers although the extension of this function was 'constantly denied, criticised or under-emphasised' by activists and propagandists who felt it to be incompatible with their ideals and with respectable behaviour. The drawing of attention to the fact that co-operative societies - in the majority - obviously broke one of the key rules of the Movement (see page 61 above) is, of course, somewhat indirectly related to the question of whether wages in the Movement varied with prevailing economic conditions and earnings in other concerns. However, it may not be as nebulous as it could seem when viewed as an indication of how economic logic and self-interest had to prevail for survival. If most societies were unwilling to uphold even this key rule in the interests of commercial success, then the lowering of wages in a downturn - which did not break any rules and, indeed, was the most generally practised form of adjustment in this period (as opposed to laying off, which has become more popular as this century has progressed and the state has undertaken universal recompense for unemployment) - would clearly have caused less concern.

The extent to which credit was an integral part of the culture of working people in the Victorian and Edwardian period has been discussed in chapter 1, as well as the potential for statistics from small debt proceedings to proxy for underlying labour market conditions, as suggested by Johnson.<sup>48</sup> However, some of the points made can be re-emphasised within the context of the co-operative movement by quoting contemporary writings. Swallow<sup>49</sup> noted that societies pleaded (in mitigation for supplying credit) that 'it is the custom of the locality and we must do as others

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<sup>48</sup> P. Johnson, *Small Debts and Economic Distress in England and Wales, 1857 - 1913*, *Economic History Review* XLV1, 1993, pp 65 - 87

<sup>49</sup> W. Swallow, *The credit system, 'spero mellora'* (Paper read to the 21st Annual Co-operative Congress, Ipswich, 1889), p 15

do, or we will lose trade and members'... 'in time of sickness or out of work, the members cannot tide over the bad time without assistance from the store.' In response to a circular issued by the Central Co-operative Board, 300 credit-giving societies replied and, of these, 91 gave 'sickness, distress, temporary want of employment or bad trade in their districts' as the reason for giving credit and 124 because receipt of wages were at too great intervals. The causes for concern amongst co-operative idealists is clear and the conscience of the Movement was obviously troubled by the credit trade. However, the denials of some and attempts to justify it by others are best contextualised by a brief analysis of some statistics. In 1886, there were 1,228 retail societies and 698 - 57% - gave credit.<sup>50</sup> In 1913, there were 1,398 retail societies and 1,212 - 87% - gave credit.<sup>51</sup> In 1895, furthermore, a total of £899,497 was owing to societies for goods - 1.7% of a total turnover of £52,512,126<sup>52</sup> and in 1913 the figure was £2,890,161 - 2.2% of the total turnover for the Movement in that year - of £130,103,894. It is quite likely furthermore, as noted by Johnson,<sup>53</sup> that many storemen and, indeed, societies gave credit unofficially and so the statistics are the minimum amount admitted in the accounts. If commercial self-interest in this case prevailed against all of the instincts of co-operators, then the discussion can now turn to the responses of the societies as employers to fluctuations in the economic conditions of the period.

One potentially clear distinction between workers in co-operative societies and the majority in other concerns was the payment of a bonus on wages. The statistics show that this was normally

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<sup>50</sup> J. C. Gray, *The system of credit as practised by co-operative societies* (pamphlet published by the co-operative union press, Manchester, 1893) held at the BLPES, pamphlet no. 198730, p 8

<sup>51</sup> *45th Annual Co-operative Congress Report, 1914*

<sup>52</sup> *27th Annual Congress Report, 1896*

<sup>53</sup> P. Johnson, *Saving and spending*, p 136

based on the amount of profit made by the society and would vary accordingly. However, the popularity of this method of reward diminished throughout the period in question and, indeed, the Wholesale Society abandoned it as early as 1886,<sup>54</sup> and by 1910 only 191 out of 1,430 retail societies were still paying it.<sup>55</sup> Interestingly, Cole discussed wages sectorally and pointed out that throughout the distributive trades, both within and without of the Movement, earnings were low, hours long and conditions mostly bad. Moreover, these varied widely from place to place and there was little or no trade union organisation amongst distributive workers. The majority of co-operative employees engaged in production, furthermore, - especially in the Wholesale Societies - were not craftsmen but were less skilled workers for whom no trade union existed.<sup>56</sup> Against this background, the reduction and general elimination of the bonus system may be seen as further evidence of co-operators having to compete and therefore being unable to over-reward labour.

Although there was clearly some suspicion between trade union and co-operative leaders, the gradually increasing involvement of unions and their recognition by the movement was perhaps a reflection of the tide of change in labour relations that was happening in the wider economy and society of this period (1895-1914). Beatrice Potter was probably reflecting this when she wrote that 'it has been impossible for the co-operative employer struggling in the midst of a competitive system to raise the wages of manual workers to the level of effective citizenship. It is in this endeavour that co-operators need the constant and, I fear sometimes unwelcomed,

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<sup>54</sup> J. Bailey, *The British.*, p 134

<sup>55</sup> G. D. H. Cole, *A century*, p 331

<sup>56</sup> *Idem.*, pp 336-7

assistance of the Trade Unions.<sup>57</sup> A paper presented to congress in 1893<sup>58</sup> urged co-operators to recognise trade union rates of wages, as well as their hours and conditions, and that 'co-operators should not follow an idol of false cheapness in their dealings for the sake of dividends.' Tutt further identified and criticised an 'underlying spirit of suspicion, between some trade unions and the Movement.' However, although there was increasing unionisation of workers in the period before World War One, these activities within the Movement became more organised and co-ordinated in the interwar era - as evidenced for example by the recognition and provision for district wage boards in 1922<sup>59</sup> - again probably no more than reflecting that which was happening outside of the movement.

This leads to a discussion on the reported conditions for labour within the Movement and its attitude to these conditions. The Co-operative leadership, as we have seen, were anxious to emphasise the positive aspects of the Movement with regards to labour. For example, Jones<sup>60</sup> noted in 1892 that 'co-operators were the first shop-keepers to grant a half-holiday' and they work their employees less than is usual: 60-61 hours per week in London, 57 in Glasgow and 56 in Oldham, were the averages stated by a witness to the Select Committee on the Shop Hours Bill. However, in the same year, a paper was presented to Congress<sup>61</sup> pointing out that in many

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<sup>57</sup> B. Potter, *The Co-operative Movement*, pp 215-6

<sup>58</sup> R. H. Tutt, *The position co-operators ought to take with regards to the social and industrial problems of the present time* (Paper read to the 25th Annual Co-operative Congress, Bristol, 1893)

<sup>59</sup> J. Bailey, *The British*, p 136

<sup>60</sup> B. Jones, *Co-operative Production*, Vol 1, p 7

<sup>61</sup> T. Mann, *Hours and Conditions of Labour*, (pamphlet, Co-operative union press, 1892, held at BLPES pamphlet collection, no. 198693)

stores the assistants, carmen and horsekeepers were working 'excessive hours' and that the managers gave as a reason for not closing early that 'it would mean a loss of trade and consequent diminution of profits.' The underlying (and perhaps obvious) point that can be made from these statements and, indeed, of the whole chapter, is that co-operators wanted to do what they considered to be the right things but for so long as they were operating as a minority in the markets that they were in, they could not influence change and if things were radically altered, they would go out of business due to being non-competitive. The aim, perhaps, was to ultimately obtain a monopolistic or, at least, oligopolistic position in the market place and then be more radical. This was, of course, never achieved and Potter, for instance, wrote that 'I freely admit that so long as the Co-operative Movement forms a state within a state and the Co-operative System is surrounded by an individualistic and competitive society, it is impossible to assert dogmatically that democratic control would be an effective alternative to individual profit-making.'<sup>62</sup> It was therefore only at the outer margins that being or not being a co-operative mattered in so far as the business was run and the economic attitudes of the time prevailed. A further example in this area may be quoted - Mann lamented the practice of overtime, which was widespread in the Movement (and reflected an adjustment of wages, dependent on prevailing economic conditions) 'not because workers cannot be obtained, but because employer and employee are content to adopt this baneful method of doing extra work, which invariably means depriving some other worker of the chance of any work, and thus intensifying competition of the worst kind.'<sup>63</sup>

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<sup>62</sup> B. Potter, *The Co-operative Movement*, *Op. cit.*, p 209

<sup>63</sup> T. Mann, *Hours and conditions*

The fact that the Movement expanded considerably during the period in question, alongside the desires of co-operators to ameliorate as much as possible the conditions for workers, could be used as reference points to suggest that employment and therefore wages and variance of income were untypical of Victorian and Edwardian Britain. We have already seen, however, that most employees were probably not only indifferent to the ideals and aspirations, but also moved into and out of co-operative employment and that their self interest extended to short-term gain by the selling of their small number of shares to outsiders. Alongside this, we have also seen that co-operative societies were prepared (or were compelled) to compete in all areas and, for most, this included breaking one of the core principles of the Movement in giving credit. It is also the case that these factors, to an extent at least, can be justified by the pragmatic notion of retail societies having a duty to give best value to their members (customers). The relationship that existed between co-operators as employers and their employees is an area that focuses the wider points concerning competition and the relative position of the Movement in the labour markets. Inasmuch as most co-operative workers (retail and wholesale occupations) were employed in sectors that had little trade union organisation in this period, it would be expected that any dispute would be local in nature and, depending on the reason for it, an important signal that co-operatives were main-stream employers.

A survey of co-operative literature suggests that most strikes within the Movement concerned wages - 'the bakers struck work on some question of wages...the dispute drags on for some considerable time.'<sup>64</sup> In 1892, the Committee of the Wholesale Society 'persisted in their

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<sup>64</sup> R. Murray J.P, *Stirling Co-operative Society, a historical sketch of its fifty years of progress, 1880 - 1930* (Scottish Co-operative Wholesale Society, Glasgow, 1930), p 38

intention to employ females on the machine, the brush-makers went out on strike, contending that one of themselves should be put on the new machine and paid trade wages.<sup>65</sup> Commenting on mill co-operators in Oldham, the Co-operator News noted that 'on several occasions the mills were worked short-time, and in 1878, after a strike, a reduction of 10% in wages was effected.'<sup>66</sup> A strike in 1890 by workers at the Eccles Manufacturing Society was due to an 'alleged difficulty in earning sufficient money under the foreman tackler,'<sup>67</sup> and a strike by quarrymen of the Holy Park Quarry in 1889 resulted in some of the men getting half a penny and some a farthing an hour more in wages.<sup>68</sup> Directors of the Metropolitan Printing Company in London had 'determined to pay their piece compositors six pence per thousand all round, instead of by scale, and their establishment hands 28 shillings per week instead of 36 shillings, overtime in both cases not to commence until 10.30 pm instead of 7 pm.'<sup>69</sup> The compositors struck and the company declined a meeting, saying that they were 'established on co-operative principles.' Jones gives numbers of examples of strikes by workers in collieries that had co-operative involvement - for example at Briggs Colliery in 1874, the arbitration following a strike 'resulted in a reduction of wages'<sup>70</sup> and at the Eccleshill Colliery in 1876 there was a fourteen week strike against a reduction in wages.<sup>71</sup>

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<sup>65</sup> B. Jones, *Co-operative Production*, Vol I, p 246

<sup>66</sup> *Idem.*, p 297

<sup>67</sup> *Idem.*, p 332

<sup>68</sup> *Idem.*, Vol 11, p 570

<sup>69</sup> *Idem.*, pp 580-1

<sup>70</sup> *Idem.*, p 498

<sup>71</sup> *Idem.*, p 528

It is clear from a review of the literature that the majority of discontent amongst co-operative workers was manifested in production and, more specifically, in trades that were vulnerable to fluctuations. This is surely not just because they were better organised - the point may be made that this better organisation is itself a sign that workers felt more vulnerable in these employments - but also because service and production for the domestic economy were far more stable sectors. However, the willingness of co-operators generally to vary wages according to conditions and therefore to prefer the practice of retaining workers when possible can be further exemplified by reference to contemporary sources. In the course of a discussion at the Congress in 1886, A. Greenwood commented that 'capital could be made more productive by enlisting the goodwill of the workmen, who would have to agree about a minimum of wages to be paid, and in bad times would perhaps have to come down to that minimum.' At the same congress, J. C. Gray presented a paper on co-operative production and noted that 'we hear on all sides of stagnation of trade and reductions in wages.'<sup>72</sup> The following year, at the Congress held in Carlisle, a paper on competition was read and it pointed out that 'depression of trade, with its attendant evils - lowering of wages, irregularity, or want of employment - stare many hundreds of co-operators as well as non-co-operators in the face. If there is no corresponding fall in the price of food, poverty must pinch them sorely.'<sup>73</sup> At the Congress held in Lincoln four years later, and in a more general sense on the relationship between co-operation and trade unions, a Mr Arnold (manager of the Woolwich Co-operative), wrote with regards to the Wholesale Society, that labour 'brought into close relationship with what it has helped to produce, and

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<sup>72</sup> J. C. Gray, *Co-operative Production, 'adjust the balances'* (Paper read to the 18th Annual Co-operative Congress, Plymouth, 1886)

<sup>73</sup> T. Ritchie, *Competition and its results* (Paper read to the 19th Annual Co-operative Congress, Carlisle, 1887)

having become associated employers of labour, occupy in a sense precisely the same position towards the workers as the ordinary employer did, paying such wages to his workmen as the union demanded, except in rare and exceptional cases where, by his skill and industry, the workman obtained a higher rate...but supposing a loss is experienced due to locally bad markets or bad management and it was determined to curtail the cost of production by a reduction of wages...would the union allow its members to work below the ordinary rate of pay of the district?<sup>74</sup> These comments suggest that the author saw a potential conflict of interest between the instincts of co-operators (to reduce wages if necessary to remain competitive and retain workers) and the rigidity of union agreed rates of pay. Interestingly, another contemporary commentator went so far as to suggest that, for want of capital, the productive societies were disadvantaged when trade was bad, not always having sufficient reserves to cover losses in such times.<sup>75</sup> These comments are, of course, relevant to the discussion but were made in rather general terms by delegates to Congress and by the leadership of the Movement. An analysis of how individual societies responded to variations in economic conditions is therefore relevant.

Histories of local societies were obviously not written either with a view to providing future researchers with evidence that they responded to prevailing conditions in a generally competitive manner nor, specifically, that they reduced the wages of employees in a downturn so as to continue to prosper and as an alternative to laying them off. However, a few of these histories - one in particular - does trace the course of local and national difficulties and the following of

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<sup>74</sup> J. Arnold, *The best means of bringing co-operation and trade unions into closer union* (Paper read to the 23rd Annual Co-operative Congress, Lincoln, 1891)

<sup>75</sup> A. Forster M.P., *Conspiracy of grocers against public education, the suppressed chapters on co-operation in 'the laws of everyday life'* (pamphlet published by the co-operative union press, Manchester, 1893) held at the BLPES, pamphlet no. 198684

this can be augmented by some use of the statistics that will be the basis of future chapters.

Kinning Park Co-operative Society Ltd. in Glasgow was founded in 1871 and the author of its jubilee history traces its progress against the background of what was occurring locally and nationally, both within and without of the Movement.<sup>76</sup> Whilst emphasising the onward progress of the Society throughout the period, Dollar suggested that in 1895 and 1896, economic condition locally were good, 1897 was 'not a period of working class prosperity' and there were industrial strikes and lockouts in engineering. Prospects in the latter part of 1898 and through 1899 were 'fair, and the society was 'checked' in 1901 before improving in 1902. Trade depression became 'marked' in 1903, distress 'rampant' in 1904 and the 'crisis continued in 1905.' 1906 receives no comments on conditions although, interestingly, a resolution was passed by 490 votes to 7 to 'sever the connection with the Labour Representation Committee, which is purely a socialist body.' There were signs of 'recurring depression' in 1907 (many members emigrated to Canada or other parts of Britain for want of work), unemployment locally became 'acute' in 1908 and the 'slump' generally covered a period from 1907 to 1911. It should be emphasised that this pessimistic account of local conditions is a setting to the pronounced continuous expansion and elevation of the society. However, it can be assumed from these comments that, within the period 1896-1914 inclusive, the notably 'bad' years or periods were 1897, 1903-5 and 1907-11. An analysis of the statistical returns from congress<sup>77</sup> reports for this society shows that the average annual wage<sup>78</sup> was £41.91 in 1896, £42.91 in 1897 and rose to £46.91 in 1898. The average wage in 1902 was £53.92, then declined to an average of £42.45

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<sup>76</sup> P. J. Dollar, *History of the Kinning Park Co-operative Society Ltd.* (Kinning Park Co-operative Society Ltd., 1923)

<sup>77</sup> *Annual Co-operative Congress reports*

<sup>78</sup> The method of calculation is explained in detail in chapter 4

in 1903-5 (low point £30.88 in 1904). It improved to £50.77 in 1906, then declined again to an average of £49.11 in 1907-11 and averaged £52.53 in 1912-14. These figures surely point towards a concern that had to vary wages in order to prosper. Although this society alone cannot be held as representative of all societies, the noteworthy features that it shares with the Movement generally is a constant expansion of employees in the period (numbers of workers rose from 388 in 1895 to 955 in 1914) and a reduction of annual average wages in identifiably 'bad' times. Another example may be made, albeit not so detailed as the Kinning Park History allowed., whereby a history of the Liverpool Co-operative Society Ltd. suggests that one of the most notable incidents in its history<sup>79</sup> occurred during distress in Ireland in 1913 - at a time when there were strikes in the docks on both sides of the Irish Sea and the CWS provided 50,000 parcels of food, which was a 'heartening spectacle for the starving men and women' (in Ireland). The qualitative and quantitative evidence from both within and outside of the Movement suggests that 1913 was a generally good year for working people (for example, even trade union general unemployment returns at 2.1%<sup>80</sup>). Annual average wages<sup>81</sup> for workers in the Liverpool Society were £58.63 in 1911, £61.02 in 1912, £61.51 in 1913 and £66.01 in 1914. For the whole of Ireland they were £59.23 in 1911, £58.68 in 1912, £54.97 in 1913 and £60.94 in 1914. The point, perhaps, is that the locally bad year of 1913 is shown in annual average wages for Ireland even when this was untypical of other parts of the nation and the evidence from the statistics - supporting the qualitative narrative - is worth highlighting.

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<sup>79</sup> W. H. Brown, *A century of Liverpool Co-operation* (Liverpool Co-operative Society Ltd., 1950)

<sup>80</sup> *Parliamentary Papers*

<sup>81</sup> *Annual Co-operative Congress reports*

Regional variation in income will, of course, feature as a major theme in the thesis and as a reference point for future chapters. The main analysis of this theme will be by thorough statistical presentation and, initially, by comparison with other work on the subject. Nevertheless, some aspects of this area may be helpfully introduced by briefly highlighting some recent and contemporary writings that highlight the differences in a more qualitative manner. Johnson points out that the accumulation of evidence by contemporary social investigators of endemic poverty in Victorian London 'has turned attention away from equally compelling evidence of London's economic attractions. Throughout the nineteenth century real wages in London were higher than the rest of southern England.'<sup>82</sup> Once in the London labour market, workers had much less need to combine to protect themselves from economic shocks because the 'diversity and dynamism of the economy gave enormous opportunity for flexible responses on the part of workers.'<sup>83</sup> In a similar sense, a contemporary conference delegate pointed out that 'the intensity of the competition in London is known only to those who work and live there'... and 'how different a workman's life in London is'<sup>84</sup> Discussions within the Movement concerning regional variations seemed inevitably to be magnetised into noting how different London was to manufacturing towns, where co-operation was founded. However, an interesting paper that was presented to Congress<sup>85</sup> in 1899 highlighted the relative differences between moderately-sized manufacturing towns in the North West District (Lancashire, Yorkshire and

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<sup>82</sup> P. Johnson, Economic Development and Industrial Dynamism in Victorian London, *London Journal* 21,10, 1996. p 36

<sup>83</sup> *Idem.*, p 36

<sup>84</sup> T. Mann, *The duties of co-operators in regard to the hours and conditions of Labour* (Paper read to the 24th Annual Co-operative Congress, Rochdale, 1892)

<sup>85</sup> E. O. Greening, *How to make co-operation succeed in large centres of population* (Paper read to the 31st Annual Co-operative Congress, Liverpool, 1899)

Cheshire), commercial cities and towns with a population of over 100,000 and commercial seaports of 50,000 plus inhabitants. Greening pointed out that the populations of the commercial towns and cities had grown by 36% in the ten years 1881-91, by 22% in the commercial seaports and by 10% in London. Within a discussion that included the statistic that over 63% of rural parishes had shown a decrease in people and houses between 1871 and 1891, and of the 'flocking of people to our great towns and cities,' Greening focused attention on London as an example of the attitudinal differences that varying employment experiences and opportunities in the commercial centres had given, as compared to the traditional manufacturing towns.

An important distinction made by Greening is between inner and outer London, with a relatively more stable population in the latter. He described living in a northern suburb and joining the local society, which was three years old and had nominally 500 members. However, his enquiries showed that nearly 50% of these had moved to other parts of the capital and that this is explicable by the fact that 'the London artisan is constantly making such changes.' An election of a co-operative committee at a London meeting would 'astonish some of our northern co-operators' - in trying to replace a committeeman, 'anxious committeemen look around amongst the members and can find few that they know well enough to nominate. Someone at last makes a chance shot, and names someone else. No. The member suggested is found to be occupied almost every evening, but thinks so-and-so would make a good committeeman. 'So-and-so' is equally unavailable. Very sorry, but he didn't expect his present job to last more than two or three weeks, and then he may have to go to a different district.'<sup>86</sup> It is worth noting that Greening's proposed solution to the problem (for co-operators) that such attitudes created was

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<sup>86</sup> *Idem.*

to give employees in these towns and cities a stake in their local society - 'I suggest that in great commercial seaports like London and Liverpool, such a substantial share of the profits be reserved for the employee of the store as it will cause them to regard it as their own, just as they would regard it if they were partners in a private business...these profits should not be paid out to the employees to be spent or invested elsewhere, but should be allotted to each in transferable shares, with the usual arrangements for realisation when an employee leaves the society...the object is to make the employees feel that they have something to lose as well as gain..<sup>87</sup>

The highlighting of these differences in attitude amongst workers in cities and commercial centres, alongside their rapidly expanding populations in the period, is suggested by Greening as being a challenge to co-operation. He notes, for example, the exceptional competition in great cities, which makes success more difficult to obtain but, on the other hand, his work also surely crystallises fundamental regional and local differences and the fact that co-operators found difficulties and therefore had to adapt (for example by offering lesser dividends and, indeed, higher wages - there is no evidence that the 'stakeholder' proposal was ever adopted) suggests that these variations will be shown in the statistics. This may offer an opportunity, therefore, to represent the under-quantified but perhaps most significant sectors and regions of Victorian and Edwardian Britain and enable an analysis that does not, for example, make assumptions from statistics (trade union unemployment returns) that are heavily weighted toward the manufacturing towns in the areas described.

In a sense, this chapter has tried to add weight to a proposal that, in its broadest terms, seems

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<sup>87</sup> *Idem.*, p 139

obvious - that co-operative societies had to compete to survive. The success of the Movement in this and other periods suggests that the economic environment in which societies prospered was accepted and embraced by them. Evidence from Congress Reports, from managers, officials and even the leadership, points towards a Movement that implicitly accepted only minor (if any) variations of conditions for employees and, indeed, for generally trading, producing and competing. If the ultimate goal was to expand to such a dominant position in the markets that would enable the principles of the 'pioneers' to be re-introduced, then this was never achieved. Contemporary sources have suggested that, if anything, the Movement mirrored the Victorian and Edwardian economy and that this reflection had distinct local and regional variations. The most common practice in most sectors of the wider economy was to vary wages according to conditions and the evidence suggests that this was also the most common practice within the Movement. Trade union membership on a large scale was restricted to relatively few sectors in the wider economy and this was also reflected in the Movement. A tension existed in the wider economy between the instinct of employers to vary wages and trade unions who wanted to agree a rigid rate and this tension also seems to have existed between trade unionists and co-operators. The move towards wages boards for some sectors in the interwar period in the wider economy was reflected by their establishment within the Movement in the 1920's. The pragmatism of the societies that survived and prospered, most of whom were even prepared to break one of the golden rules concerning credit, has been demonstrated in the predominately qualitative analysis of this chapter. This leads to a review of the statistics and, specifically, a search for points of comparison on actual levels of wages and their regional and local divergences.

#### **4. Annual average wages within Britain, 1895 - 1914: evidence from the Annual Congress Reports of the Co-operative Movement of Great Britain**

This section extends the analysis from chapter 2 to a presentation of some of the statistical evidence contained in the Annual Congress Reports of the Movement and its comparison with existing research and evidence from other sources. One preliminary point that may be made is that these data have a greater potential for indicating levels of income and their variance at both sectoral and geographical levels than those which have been used before. Much of the existing evidence comprises of, or is based in, wage rates and, for the want of other data, uses these to make broad assumptions concerning what may have been happening in the labour markets and economy of the period under discussion. Nevertheless, there are points for comparison with the co-operative society data and the investigation of these is a necessary step before taking the study further. The starting point for this must be with a brief description of the data and the methodology used in calculating annual average wages from them.

Co-operative Congresses were held annually in Great Britain and the movement which they represented was an association of co-operatives which varied from single shops to those which had grown to have numerous branches and departments. The Annual Co-operative Congress Reports<sup>1</sup> provide (as previously noted), from 1895, and continuously to World War Two and beyond, statistics for wages paid and numbers of workers in each society, both productive and retail. In the reports each society is grouped by district and region and national totals are provided for Great Britain and Ireland. Totals for the Co-operative Wholesale society are listed

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<sup>1</sup> *Annual Co-operative Congress Reports*, for example Nos 28 (1896) to 47 (1915) (Co-operative Union Limited, published annually)

separately as well as within the totals for one region (the North West) and each productive society is sectorally listed and annual totals given for each sector. The total numbers of workers represented is 52,977 in 1895 and 352,675 in 1939. From 1895 to 1905 inclusive, numbers of workers are divided into distributive and productive sections but the wage total is one figure representing distributive workers earnings only. From 1906 to 1935 inclusive, the wage totals in the distributive and productive societies are given separately and, from 1936, there are three sections for both wage totals and workers, with the further sub-division of those in transport.

The methodology used in calculating annual average wages is relatively simple but tries to take the potentially most accurate figure from the available data. The statistic for total numbers of workers is stated as being for 31st of December in each year listed and the wages are the totals paid in the whole year. In calculating the annual average wage, therefore, we have a numerator that is a total for the whole year but a divisor that represents one point in time and may be particularly affected by non-annual events. The calculation is therefore made with a divisor that is the mean of the year end figure of the previous year and the figure for the current year. This should be more representative of an annual mean of the number of workers in employment for use with the wage totals for the year. Whilst there is no indication of gender mix for workers in the societies, most concerns listed the average number of hours worked per worker from 1895 - 1901 inclusive and these figures suggest a primarily full-time workforce.

Table 4.1 lists regional and total annual average wages for co-operatives in Great Britain and Ireland for 1906 and 1913. An indication of relative numbers is given by the totals of workers represented at each level:

Table 4.1 - Annual average wages at regional and total levels for the Co-operative Movement in Great Britain and Ireland, 1906/1913 (£'s)

year	region	annual ave wages			Total no workers		
		Dist.	Prod.	All	Dist.	Prod.	All
1906	Ireland	51.20	59.33	51.27	203	72	275
	Midland	54.99	50.62	52.92	5697	5122	10819
	Northern	58.37	55.70	57.71	8100	2544	10644
	North West	57.57	58.09	57.75	21659	22489	44148
	Scottish	50.36	56.62	52.24	16102	12849	28951
	Southern	62.53	64.68	63.01	7373	1960	9333
	South West	53.23	51.09	52.75	1735	538	2273
	Western	59.69	52.87	58.36	1596	376	1972
	All Regions	<b>55.72</b>	<b>55.46</b>	<b>55.63</b>	<b>62465</b>	<b>45950</b>	<b>108415</b>

year	region	annual ave wages			Total no workers		
		Dist.	Prod.	All	Dist.	Prod.	All
1913	Ireland	56.72	46.15	54.97	559	112	671
	Midland	57.99	56.38	57.25	8387	6996	15383
	Northern	61.20	60.50	61.04	9820	2971	12791
	North West	60.27	64.26	61.52	30406	29805	60211
	Scottish	52.68	58.66	55.38	19156	15810	34966
	Southern	62.34	77.43	65.47	10934	2856	13790
	South West	55.46	70.08	58.69	2382	703	3085
	Western	62.85	67.51	63.65	2706	551	3257
	All Regions	<b>58.56</b>	<b>61.58</b>	<b>59.60</b>	<b>84350</b>	<b>59804</b>	<b>144154</b>

(Source: Annual Co-operative Congress Reports)

One relevant factor within a discussion concerning representativeness of data is actual numbers. However, no direct comparison with census data is possible. Lee,<sup>2</sup> for example, classifies distributive trades and includes art dealers, rag-gatherers, dealers, proprietors, general shopkeepers, pawnbrokers, hawkers, street sellers, newsboys etc., as well as workers. Nevertheless, it is worth pointing out that this wide category had a total number for Great Britain of 1,675,261 in 1911. It is clear that comparisons with existing estimates of actual wages paid

<sup>2</sup> C. H. Lee, *British regional employment statistics*

would be a necessary step towards establishing the extent to which the co-op data gives an indication not only of sectoral levels of earnings but also of spatial income variance. Unfortunately, as previously noted, not only are comparable works relatively scarce and less comprehensive than the potential within the above data, but in most cases use wage rates as the basis for estimation. Nevertheless, some broad as well as specific comparisons may be made and perhaps the most general is with the work of social investigators within the period. These are particularly broad because the nature of the investigations were not to analyse levels of wages in isolation but, rather, to examine working people and often to categorise them into socio-economic groups. These groupings clearly straddled some occupational groups - for instance, Rowntree<sup>3</sup> listed four categories of working people in York for 1899 - A,B,C &D. A scrutiny of his work suggests that general labourers were mainly within groups B and C. The weekly income for group B male adult workers was 16s 8d and, for group C, 22s 5d. These equate to an annual average income of £43.29 and £58.28 respectively, assuming full employment for 52 weeks of each year. The annual average income for workers at the York Co-operative Society in 1898 was £45.99 (the year previous to 1899 was used because, for the years up to and including 1898, there were distributive employees only in the society and this eliminates any of the previously mentioned possibilities of the double counting of workers). Booth, in his survey of London<sup>4</sup> for 1889, categorised wages in five shilling bands and found that over 45% of workers were in the range of 25 - 35 shillings per week (33,896 out of 75,076) and, furthermore, that of the whole sample, 45.5% were below 30 shillings and 54.5% above that figure for weekly wages.<sup>5</sup> A

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<sup>3</sup> B. S. Rowntree, *Poverty, a study of town life* (first published 1901, new edition Howard Fertig Inc., USA, 1971)

<sup>4</sup> C. Booth (ed.), *Life and labour of the people in London* (Macmillan and Co., 1897)

<sup>5</sup> *Idem.*, Vol IX, p 371

weekly wage of 30 shillings equates to £78.00 for 52 weeks and annual average wages for distributive workers in the North Metropolitan district (London) for 1906 was £83.34. Another investigation into the poor of London, carried out between 1909 and 1913,<sup>6</sup> may give further limited points for comparison. Unfortunately for the present purposes, the focus of this research by the Fabian Women's Group was on family poverty, and it categorised earnings for individual families by 'allowances to wife' in Lambeth rather than by actual earnings. So we find, for example, one plumber's mate in the district giving his wife 24 shillings per week and another 18 shillings and one printer's labourer giving 28 shillings and another 21 shillings and nine pence.<sup>7</sup> It is impossible to understand from this whether workers in the same occupational category earned approximately the same amount and therefore had wide variances in relative generosity towards the family or, indeed, whether one may have earned more due to seniority or ability. Nevertheless, the earnings of the former printer's labourer equate to an annual average wage of £72.8 for 52 weeks and the latter to £55.55. Workers at the London Printers Co-operative received an annual average wage of £65.79 for the same period. The comparisons thus far, as noted, are somewhat general but, nevertheless, form an introductory setting against established works on poverty in the period. This leads to further comparisons with research into levels of income in this era.

Estimates of actual earnings, calculated by the use of wage rates and with allowance made for unemployment, may therefore be discussed. Bowley<sup>8</sup> suggested that the weekly wage for a

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<sup>6</sup> M. Pember Reeves, *Round about a pound a week* (Virago press, 1979)

<sup>7</sup> *Idem.*, pp 42-43

<sup>8</sup> A. L. Bowley, *Wages in the United Kingdom in the nineteenth century* (Cambridge University Press, 1900), p 91

labourer in the Scottish building trades (Glasgow and Edinburgh) was 29s per week in 1897, whereas the nearest comparable figure from the co-op data is £69.60 average per worker at the Condorrat quarry in 1899. Given that the weekly rate for the city labourers equates to £75.40 per year with no allowance for trade holidays and of the variance between regions in Scotland, the figures are within nine per cent of each other. This is a rather broad comparison but, with a two year gap in the measures and with Condorrat being approximately 12 miles to the North East of Glasgow, a sense of association in building wages from the two sources may be seen. A more macro comparison may be made with Bowley's<sup>9</sup> analysis of the wage census of 1906 from which he calculated the average annual male earnings. The figure is adjusted by 3.8% for unemployment, 3.2% for sickness, 3% for annuation and 3% to allow for casual workers. From this, the figure calculated is £57.40. The average annual actual earnings from the co-operative societies in the same year is £55.63. This is not to suggest that annual average wages from the diverse range of occupations embraced by the co-operative movement are representative of anything more than that which they measure, but the closeness of the comparison is nevertheless worth noting. Feinstein<sup>10</sup> calculates average weekly earnings from a number of sources and produces an index (1911 = 100) rising from 94.6 in 1906 to 105.5 in 1913. If the reference year is changed to 1906, this shows an index rising to 111.5 in 1913. If the co-operative society data (see table 4.1) are turned into an index with the same reference year, this shows an increase to 107 in 1913. However, if productive society annual average wages (see table 4) are turned into an index - again with the same reference year, 1906 - this shows an increase to 111.1 in 1913. A further and more detailed comparison with Feinstein's work is in the next part of the thesis

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<sup>9</sup> A. L. Bowley, *Wages and income in the United Kingdom since 1860* (Cambridge University Press, 1937), p 52

<sup>10</sup> Feinstein, 'New estimates', p 612

but the possibility appears to exist that the estimates, based in wage rates, may give too much weighting to productive occupations.

In a more localised sense, Pollard<sup>11</sup> investigated actual earnings in a number of trades in Sheffield and listed average weekly earnings for a cutlery firm.<sup>12</sup> The annual average income for the spring knife department for the years 1901 - 14 inclusive was £20.58. Figures from the relevant district of the co-operative societies shows that the annual average earnings for the Sheffield Cutlery Co-operative and Federated Cutlers in the same period was £20.88. The standard deviation of annual average wages in the period for the former firm is 2.258 and that for the latter 2.264. Barnsby<sup>13</sup> discusses living standards in the Black Country and used a methodology generally unconnected to real earnings in his estimates. Nevertheless, he suggested that general labourers in the region received not more than 2s 6d per day by the end of the century (15s per six day week)<sup>14</sup>. Workers at the Dudley Co-operative received an average of 15s 7d per week in 1901. A more relevant study, of the town of Stourbridge,<sup>15</sup> suggested that 16s was a common wage for a labourer at the end of the century in this region.<sup>16</sup> Another investigation into local wages and their variations, using a series of actual amounts paid to one worker at the

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<sup>11</sup> S. Pollard, Wages and earnings in the Sheffield Trades, 1851 - 1914, *Yorkshire Bulletin of Economic & Social Research*, February 1954, pp 49 - 64

<sup>12</sup> *Idem.*, p 59

<sup>13</sup> G. J. Barnsby, The Standard of Living in the Black Country during the 19th Century, *Economic History Review*, 2nd Series XXXIV, 1971, pp 220-239

<sup>14</sup> *Idem.*, p 224

<sup>15</sup> E. Hopkins, Small Town Aristocrats of Labour and their Standard of Living, 1840 - 1914, *Economic History Review*, 2nd Series, XXVII, 1975, pp 222-242

<sup>16</sup> *Idem.*, p 232

Mannering and Buckland flour mills in Dover,<sup>17</sup> may be compared with the actual average annual earnings at a mill 10-15 miles away, at the Alfred Joint Stock co-operative in Ashford (Kent). The former mill worker enjoyed an annual average of £82.78 between 1898 and 1906, whereas those in the latter received £72.20 in the same period. The comparison may be somewhat indirect as the worker in Dover may have had some seniority compared to the average for his colleagues but, nevertheless, the relatively high levels of wages compared to any measure of national average are clear. The standard deviations for the period are 1.936 for the Dover worker and 2.328 for the workers in Ashford.

In a more general sense concerning geographical wage disparity, Hunt<sup>18</sup> summarises wage rates on an index basis for carpenters and labourers in 1906 (where GB = 100)- summarised in table 4.2 below with annual average co-operative earnings by region:

Table 4.2 - Comparison of regional wage rate variations with actual annual average co-operative earnings

<u>Region</u>	<u>Wage rates carpenters &amp; labourers 1906 (GB = 100)</u>		<u>Annual average co-operative earnings by region, 1906 (GB = 100)</u>
	<u>Carpenters</u>	<u>Labourers</u>	
London & Home Counties	109	114	113
Midlands	109	116	95
Cumberland, Westmorland, Northumberland & Durham	103	102	104
Lancs., Cheshire & W. Riding	107	106	104
South, Central & Northern Scotland	97.67	96	92
South West	87	84	95
West (S. Wales)	104	98	105

(sources: Hunt, see footnote, & Annual co-operative Congress Reports)

<sup>17</sup> P. Searles, unpublished Msc report, 1996

<sup>18</sup> E. H. Hunt, *Regional wage variations in Britain, 1850 - 1914* (Clarendon Press, Oxford, 1973), p 70

On this measure, carpenters in London and the Home Counties are suggested as being at 109 and labourers 114. Table 4.2 shows a UK average wage from the co-op data of £55.63 in 1906, with the southern section (broadly comparable with Hunt's London and the Home Counties) at £63.01. On an index where GB = 100, this represents 113. The midlands region is shown at 109 and 116 respectively for the occupational wage rates listed by Hunt, where the co-op data for its whole range of occupations in 1906 is 95. Hunt's regions 9 and 10 show an average of 102.5, where the comparable co-op region - northern section - is 104 and, for the North West, the figures are 106.5 and 104 respectively. The average index for the wage rates in the Scottish regions is 97, those of actual average earnings for the co-op data is 92. The South west average wage rate index for carpenters and their labourers shows 86, and the co-op data 95. South Wales, as measured by wage rates for averages of carpenters and labourers, is 101 and the co-op annual average earnings is 105. The obvious difference between wage rates in the Midlands and annual average income from the co-op societies requires discussion. Evidence from studies of component parts of the Midlands region<sup>19</sup> suggest<sup>20</sup> an area of relatively low living standards and depressed industrial wages in the period. The co-operative data represents the annual income of 10,819 workers in 234 geographically diverse societies for the Midlands section in 1906. The wage rates for carpenters and labourers is the average of those listed for Birmingham, Leicester and Nottingham.<sup>21</sup> Interestingly, these apparent deviations between a regional trend by different measures would be explicable if the towns used to represent the regions by building workers' wage rates were untypical of their geographical region. Co-operative workers in Leicester

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<sup>19</sup> Barnsby, 'The Standard'

<sup>20</sup> Hopkins, 'Small town'.

<sup>21</sup> E. H. Hunt, *Regional wage*, p 67

enjoyed an annual average wage of £66.53 in 1906, those in Birmingham £62.66 and in Nottingham £51.95 - when the regional average (see table 4.1) was £52.92. This suggests that wages for co-operative workers in some large Midland towns were significantly higher than in the region as a whole. A further, and more specific, reference point for wages in the building trades may be suggested. Although the 1906 Board of Trade Enquiries into the Earnings and Hours of Labour will form the comparative basis for a substantial section in the latter part of this chapter, a brief scrutiny of the Report that dealt with building trades<sup>22</sup> shows that the annual average wage for a representative sample of all workers in this sector for the North and West Midlands Region in 1906 was £66.83. However, towns with a population of over 100,000 in that region showed an annual average of £74.68 for the same year but towns with a population of under 100,000 in 1906 showed an annual average of £63.39. It is worth emphasising that not only were these an average for all workers in that trade but also - significantly - that the returns were based on actual earnings (not extrapolated wage rates). This suggests, perhaps, that even with existing evidence there are grounds for a further refinement of spatial income variance and this will be the substance of a chapter in part 2 of the thesis.

Further geographical comparisons with wage rates may be made by direct reference to statistics in Parliamentary Papers. This allows for comparison of wage rates in 27 of the major towns and cities of Britain in 1913<sup>23</sup> and avoids the potential problem of boundary definition. Table 4.3 lists the highest eight towns and cities as measured by the hourly wage rate listed for bricklayer and

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<sup>22</sup> *Board of Trade Enquiry into the earnings and hours of labour of workpeople of the United Kingdom - 111, Building and Woodworking Trades in 1906* (Parliamentary Paper lxxxiv (1), Cd. 5086, 1910)

<sup>23</sup> *PP LXXX (1914)*

plasterers labourers in 1913 out of the 27 where direct comparison was possible and the highest eight towns and cities of those 27 from the annual average earnings from the co-op data:

Table 4.3 - Comparison of highest eight towns & cities, GB, by hourly wage rate for bricklayer and plasterer labourers and annual average earnings, co-op societies, 1913

<u>Town</u>	<u>Bricklayer labourer (hrly rate)</u>	<u>Plasterer labourer (hrly rate)</u>	<u>Town</u>	<u>Average weekly wage (Co-op societies)</u>
London	7.5p	7.5	London	£1.41
Nottingham	7p	7.5p	Oldham	£1.32
Birmingham )	7p	7p	Leicester	£1.25
Hull )	7p	7p	Blackburn	£1.21
Leeds )	7p	7p	Reading	£1.21
Leicester )	7p	7p	Walsall	£1.19
Oldham )	7p	7p	Nottingham	£1.17
Middlesborough	6.5p	7p	Leeds	£1.18

(sources: Parliamentary Papers & Annual Co-op reports)

It is, again, clear that the cataloguing of wage rates in a regional analysis can be no more than a rough guide to geographical variations in income and this can be further exemplified by the fact that, in the measure used in table 4.3, the next ten locations would all have returned a wage rate of 6.5p for labourers in both categories. It is highly unlikely that income would not have varied for workers in places as far apart as, for instance, Bradford and Bristol or Wolverhampton and Portsmouth. Nevertheless, it is noteworthy that the same locations appear in five of the eight observations listed in the table.

One obvious potential criticism of the preceding discussion is that, whilst the co-operative data is sensitive to variations in spatial levels of income and, indeed, appears to have some association with general earnings, the comparisons in every case are not like with like in the sense that they are not always sector-specific. The point may be made that the most widely used

source for geographical wage variations<sup>24</sup> makes assumptions about such divergences by using a small range of occupations but, nevertheless, that these are still representative because of an underlying assumption that they were not untypical of the wider economy. However, the potential of the co-operative data, and the diverse and sensitive levels of analysis that they may enable, requires that they can be seen to represent more than that which a regional cataloguing of wage rates allows. With this in mind, it is fortunate that some detailed and sector-specific data exists from Board of Trade Enquiries for the year 1906<sup>25</sup> and these are the basis for comparisons in the following section of the chapter. The returns are not wage rates, or estimates based therein, but are actual wages received either in one representative week of 1906 or, indeed, are calculated from total wages and numbers of employees for the whole year of the participating companies.

It is clear from a scrutiny of the Board of Trade Reports that there were considerable geographical variations of wages within sectors as well as widely divergent levels of remuneration, dependent upon gender and age and this latter point is emphasised by a subdivision of the returns into four gender and age-based categories. It is therefore important in the following comparisons to find, where possible, close geographical similarities and to consider the extent to which inferences about representative levels of average wages may be drawn. The

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<sup>24</sup> E. Hunt, *Regional Wage*

<sup>25</sup> *Board of Trade Enquiry into the earnings and hours of labour of workpeople of the United Kingdom - I, Textile trades in 1906* (Parliamentary Paper lxxx, Cd. 4545, 1909), *II, Clothing trades* (Parliamentary Paper lxxx, Cd. 4844, 1909), *III, Building and Woodworking Trades in 1906* (Parliamentary Paper lxxxiv (1), Cd. 5086, 1910), *V1, Metal, Engineering and Shipbuilding Trades in 1906* (Parliamentary Paper lxxxviii (1), C. 5814, 1911), *VII, Paper, Printing, etc., Trades; Pottery, Brick, Glass and Chemical Trades; Food, Drink and Tobacco Trades; and miscellaneous Trades in 1906* (Parliamentary Paper cviii, Cd. 6556, 1912-13)

Report, for example, for the Textile Trades, covered 512,598 people out of an industry estimated total of 1,171,216, which equates to 43.8%.<sup>26</sup> Representativeness by gender and age is discussed in the Reports and care taken for this factor to be shown. Thus, for example, in the wages returns, 11% of the total are lads and boys and 13.3% girls, whereas the Census of Population Returns for 1901 show figures of 10.3 and 14.1% respectively for these categories. The average weekly wage in a representative week for the four categories of worker were: 28s 1d for men, 15s 5d for women, 10s 5d for lads and boys and 8s 11d for girls, with an overall average of 17s 6d. This suggests that sector-specific comparisons will also indirectly test the age and gender representativeness of the co-op data because, it is clear, any widely untypical 'balance' would show widely divergent annual average wage returns. For example, 212,807 workpeople out of an estimated total for the sector of 523,030 - 40.7% - are covered in the cotton industry. Within these, the Burnley District covered 21,080 people and 8488 (40.3%) were men aged 20 and over, 8096 (38.4%) were women aged 18 and over, 2393 (11.4%) were lads and boys under 20 and 2103 (10%) were girls under 18 years of age. The men received an average earning of 29s 5d (last pay week in September), women 23s 6d, boys and lads 12s 11d and girls 13s 2d. The average wage for all cotton workers in Burnley is shown in the Board of Trade Returns for 1906 to have been 23s 10d (the average for the whole of Lancashire and Cheshire was 19s 9d and for the United Kingdom 19s 7d). The relevant section of the Co-operative Congress Reports shows two productive societies - Burnley Self-Help Manufacturing and Nelson Self-Help Manufacturing (both within the district of Burnley) and the annual average wages were £59.53, which equates to an average weekly wage of 22s 11d. The annual average wages from the Board of Trade Returns equate to £59.58 (based on a 50 week working year, annual holidays are noted

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<sup>26</sup> *Board of Trade Enquiry into the earnings and hours of labour of workpeople of the United kingdom - 1, Textile trades in 1906* (Parliamentary Paper lxxx,Cd. 4545, 1909)

as ranging from 6 - 16 days per annum in this sector).

The Co-operative returns show three hosiery manufacturing societies in the period - Kirkby-in-Ashfield Manufacturing, Wigston Magna Hosiery and Leicester (C.W.S.). The Board of Trade Enquiry enables two points of comparison - one general and one specific. Average weekly wages are shown to have been 15s 11d for all workpeople in the Hosiery Industry of the UK in 1906 (20,672 people, 50.2% of the total employed in that sector for 1904). This equates to an annual average wage of £41.38 and the comparative figure for the three co-operative societies noted above was £43.37. The average wage for the district of Leicester in the Board of Trade Returns shows a weekly wage of 17s for 1906, which equates to an annual average of £44.20 and the comparable figure for workers in the Leicester (C.W.S.) Hosiery Manufacturing Society for the same year was £44.0.

The Returns for the sectors in the Enquiry<sup>27</sup> categorised as 'Boot, shoe and clog-making (bespoke)' and 'Boot and shoe (ready made)' enables a reasonably wide point for comparison inasmuch as there are 20 productive and 3 productive wholesale societies in the co-op returns in the category of 'Boots and shoes' and these represented 4,604 workers in 1906 (the Board of Trade Returns covered 41,508 workpeople in 1906, 33.4% of the whole industry). The annual average wages for the co-operative societies was £52.29 and, for the two sectors in the Board of Trade Returns, £52.95. A specific comparison is possible in the district that represented, in each case, the largest number of workers - Leicester. In this district, the Board of Trade Returns

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<sup>27</sup> *Board of Trade Enquiry into the earnings and hours of labour of workpeople of the United kingdom - 11, Clothing trades in 1906* (Parliamentary Paper lxxx, Cd. 4844, 1909)

show an annual average wage of £54.83 for all workpeople whereas the comparable figure from the co-op returns is £55.71, reflecting the incomes of 2472 workers. This comparison is probably as wide as one could reasonably go in making sector-specific comparisons in the sense that there is no indication of which co-operative societies produced bespoke shoes and which ready-made. A rather more focused comparison lies, perhaps, in corset manufacturing. The Board of Trade Returns suggest that this was a relatively low paid occupation but this may conceal more than it reveals and is, perhaps a good point at which to emphasise the representativeness of the potential within the co-operative statistics concerning gender, age mix and type of occupation as well as annual average wages. Of the 4,270 working people included in the Board of Trade returns for this industry, 777 were paid by time and 3,493 were piece workers. Of the 777 time workers, 27.2% were men, 15.7% were lads and boys, 33.3% were women and 23.8% were girls. However, of the 3,493 piece workers, only 3.3% were men, 0.5% were lads and boys and 16.6% girls whereas 79.6% were women.<sup>28</sup> All men in all districts received an average weekly wage of 28s 11d, which equates to an annual average wage of £54.17. All workpeople, on the other hand, received an overall average of 12s 5d per week, which equates to an annual average wage of £33.28. There are two corset manufacturing societies in the co-operative returns, within a five mile radius of each other, namely Kettering Corset Manufacturers and Desborough (C.W.S.). The annual average wages for workers in these societies for 1906 was £33.25. This again suggests that, within fairly wide potential parameters that included a high proportion of piece to time workers, as well an age and gender mix that included a high proportion of women, the respective figures are remarkably similar.

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<sup>28</sup> *Idem., lvi*

Another sector from the Board of Trade Returns that suggests relatively low overall average earnings was in tailoring and ready made clothing. Of the 24,363 working people covered by the returns for the tailoring trades, 8,454 (34.7%) were time and 15,910 (65.3%) were piece workers. Amongst men, approximately one tenth were foremen averaging 44s 10d per week, one third were cutters averaging 31s 8d and one fifth pressers who averaged 27s on time and 30s 8d on piece work. Average earnings were 31s 11d per week for men, 12s 11d for women, 9s 9d for lads and boys and 6s 6d for girls. The overall average weekly wage was 15s 2d for all workers (excluding Ireland), which equates to an annual average wage of £39.43. The relevant returns from the co-operative statistics shows six societies in the potentially same sectors (five societies are listed under 'ready made clothing' and one under 'tailoring') and the annual average wage for workers in these societies for 1906 was £40.01. There are, again, potentially slightly different sectoral definitions between the respective data inasmuch as the Board of Trade Returns included bespoke tailoring but, nevertheless, the closeness of the levels of wages reflected from each source is notable. Perhaps one fairly specific comparison can be made from this sector - there is one society (C.W.S.) that is specifically listed as 'tailoring' and was located at Pelaw, near Washington (Tyne and Wear). It had 273 employees in 1906 and these received an annual average income of £39.04. The nearest region to Pelaw that is categorised in the Board of Trade Returns is Scotland, which shows an average weekly wage of 14s 10d for 1906, which equates to an annual average wage of £38.57.

The Third Report into the Earnings and Hours of Labour is for the Building and Woodworking Trades.<sup>29</sup> The focus of the detailed statistical analysis in this report is, as previously noted, on

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<sup>29</sup> *Board of Trade Enquiry into the earnings and hours of labour of workpeople of the United kingdom - 111, Building and Woodworking Trades in 1906* (Parliamentary Paper

a comparative basis of towns within large geographical regions and the statistics are sub-divided into three categories - all towns, large towns (population over 100,000) and small towns (populations below 100,000). An investigation, using the co-operative data, of geographical income variance (and of any association that may exist between levels of income and location/population) will be the basis of a chapter in the next part of the Thesis but it is worth drawing attention to the contemporary division of statistics along similar lines. Another point worth mentioning is the relatively unstable nature of this industry, as reflected not only in the wide fluctuations of trade union unemployment returns for the Amalgamated Society of Carpenters and Joiners (ASCJ) but also in the number of co-operative productive societies that were started and apparently failed in the period under investigation. This may be exemplified by noting that only one (Oxford Builders) is reported for every year from 1895 - 1913 inclusive. Eight productive societies reported returns on wages and numbers of employees in both 1905 and 1906 and, representing 339 workers in the latter, showed an annual average income of £74.38 for that year. The Board of Trade Returns show an average weekly wage for all building workers of 28s 6d in 1906, which equates to an annual average of £74.10. The Returns for the Building Trades contained in the Board of Trade Enquiry registered the actual income of 118,552 workers out of an industry estimated total of 1,123,418 for the whole of the United Kingdom. Although this sector was reported as exclusively male, there were fairly wide variances in types of trade as well as 14% who were lads and boys under the age of 20. Of the men, 19.3% were bricklayers and their labourers, 11% masons and their labourers, 17.2% carpenters and joiners and 15.1% painters, decorators and their labourers. A regional comparison is partly enabled as the Board of Trade Returns for all building workers is listed regionally and

these may be compared with those for co-operative societies located within those regions. Thus, the figure for all workpeople in the Returns for London is £95.77 and, for the two productive societies - Co-operative Builders (Brixton) and General Builders (London) the figure is £101.55. For the North and West Midland Counties, the Board of Trade figure is £71.06 and the Lincoln Land and Building Society returned an annual average wage of £72.39. Another sector that is included in this part of the Board of Trade Returns, and that enables some limited comparisons, is cabinet-making. The annual average wage for all workpeople included in the Returns is £64.38 and, from the co-operative data (5 societies, 386 workers), the figure is £67.55.

The Sixth Report investigated earnings and hours in the Metal, Engineering and Shipbuilding Trades. It is not possible to make an overall comparison from this wide-ranging industry because there are few sectors and workers in the co-operative societies that are comparable with the 26 sectors under the general heading in the Board of Trade Returns. Out of the 26 sub-sectors, only 4 have potentially similar co-operative societies and even these may be comparing a wide subsector with a more specialised co-operative society. The possible comparisons are Needles, Locks, Tinplate and Nails. The first of these is categorised by the Board of Trade as Needle, Fish hooks and Fishing Tackle and shows an annual average wage of £44.63. The Alcester Needle Makers Co-operative Productive Society show an annual average wage of £43.42 for the same year. Locks, Watches, Keys etc. returned an annual average wage of £47.81 and The Walsall Locks, Cart and Gear Productive Society £47.99. Tinplate returned £81.81 and the Midland Sheet Metal Workers (Birmingham) and Northern Iron & Tinplate (Birtley) productive societies £68.02. Nails, Screws, Nuts etc. from the Board of Trade Returns showed £46.11 and the Bromsgrove Nail Forgers Productive Society £18.04. Unfortunately, a localised comparison in these sectors - which may have answered some questions, particularly concerning the differences

shown in Nails, Screws, Nuts etc. and Tinplate - was not possible. These differences could be due to an untypical gender mix - women in tinplate for example averaged £37.61 per annum and in Nails, Screws, Nuts etc. £28.48 - but it is more likely that regional differences and/or comparisons that are too non-specific to be viable make such an analysis rather nebulous. It is noteworthy, for example, that a localised study of Stourbridge<sup>30</sup> - less than ten miles from Bromsgrove - suggested that nailers in 1894 were earning no more than 4s to 5s per week (5 shillings equates to an annual average of £13.0). Although this was for twelve years earlier, earnings are estimated to have increased by 14.5% between the two dates<sup>31</sup> and suggests an even more pessimistic level of earnings than the co-operative society data for nailers in this specific region.

The Eighth Report by the Board of Trade, into the Earnings and Hours of Labour - Paper, Printing etc. Trades; Pottery, Brick and Chemical Trades; Food, Drink and Tobacco Trades and Miscellaneous Trades - provides a range of reference points for comparison with the Co-operative Society statistics. The annual average earnings per head for the Board of Trade Returns in the printing Industry for 1906 were £65.5 and, for 16 productive societies representing 364 workers, the corresponding figure for the same year was £66.08. No regional statistics are available for localised comparison. Annual average earnings in the Soap and Candle Industry is listed as £53.0 for 1906 in the Board of Trade Returns. The comparable productive societies are at Irlam (C.W.S.) and Grangemouth (C.W.S.); these employed a total of 772 workers in 1906, returning an annual average wage of £56.51. Unfortunately, whereas Baking is listed

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<sup>30</sup> Hopkins - 'Small Town', p 231

<sup>31</sup> Feinstein - 'New estimates', pp 595-632

separately in the Co-operative returns, the Board of Trade preferred a more general sector headed 'Baking and Confectionary.' There are 17 baking co-operatives listed in the statistics and one (at Crampsall, C.W.S.) for biscuits and sweets. The comparison is therefore not direct but nevertheless, the figures for 1906 are £58.5 and £64.32 respectively for the Board of Trade Returns and the Co-operative statistics.

One obvious potential criticism that could be made of the overall comparisons between sectoral returns from the Board of Trade Enquiries and the co-operative productive and wholesale society statistics concerns selection bias. However, out of a total number of co-operative productive and wholesale society workforce of 24,364 in 1906, 13,766 workpeople have been included in the preceding discussion and, indeed, data for all workers in all societies that enabled points for comparison - even in a number of instances where the sectors were inconclusively comparable - have been used. A summary for this section of the chapter is set out below:

Table 4.4 - Sectoral and regional comparisons of data from the Board of Trade Returns and Productive and Wholesale Co-operative Societies

<u>Sector</u>	<u>Region/locality</u>	<u>Annual average Wages, Board of Trade Returns (£)</u>	<u>Annual average wages, co-operative societies (£)</u>	<u>Number of societies</u>
Cotton	Burnley	59.58	59.53	2
Hosiery Manufacturing	UK	41.38	43.37	3
Hosiery Manufacturing	Leicester	44.20	44.0	1
Boots & Shoes	UK	52.95	52.29	23
Boots & Shoes	Leicester	54.83	55.71	3
Corset Manufacture	UK	32.28	33.25	2
Tailoring & Ready-made Clothing	UK	39.43	40.01	6
Tailoring	Scotland/Tyne & Wear	38.57	39.04	1
Building	UK	74.10	74.38	8
Building	London	95.77	101.55	2
Building	North & West Midlands	69.70	72.39	1
Cabinet Making	UK	64.38	67.55	5
Needles	UK	44.63	43.42	1
Locks, Watches	UK	47.81	47.99	1
Printing	UK	65.83	66.08	16
Soap & Candles	UK	53.30	56.51	2
Baking <sup>32</sup>	UK	58.50	64.32	17
Tinplate/Sheet Metal <sup>33</sup>	UK	81.81	68.02	2

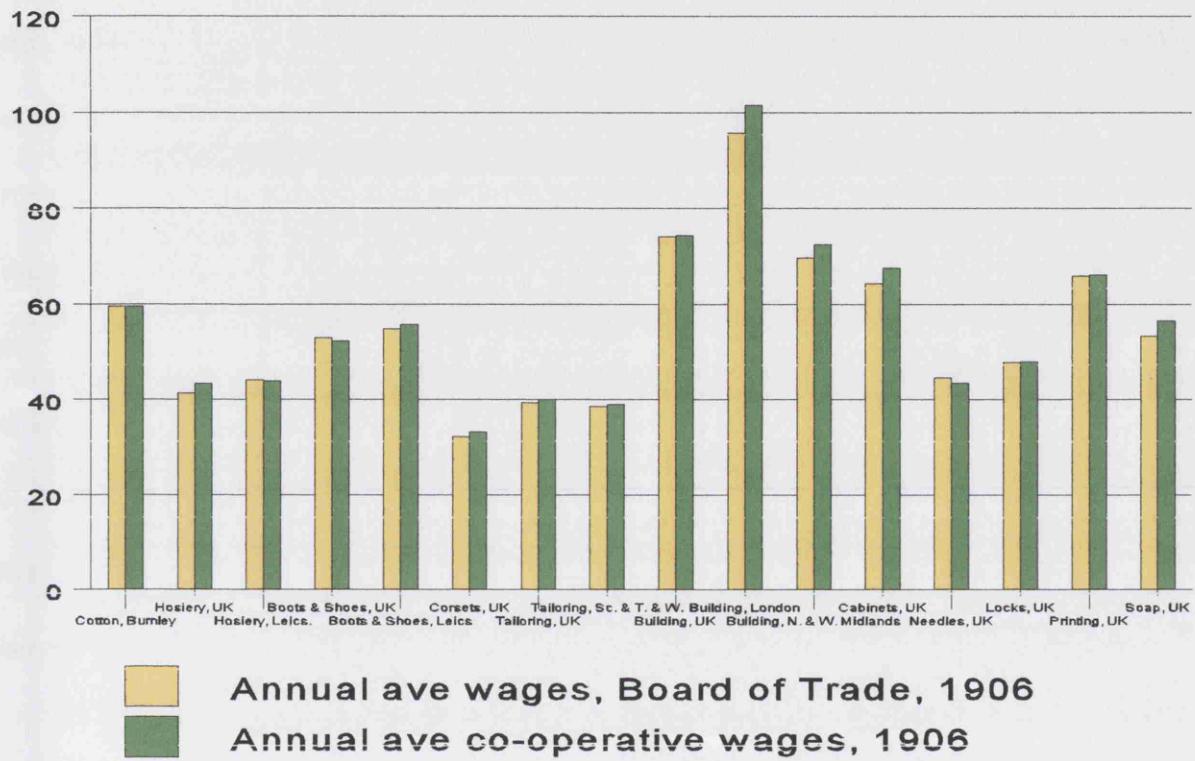
(Sources: Board of Trade Returns, Co-operative Congress reports)

<sup>32</sup> This category does not allow direct comparison - see text.

<sup>33</sup> *Idem*

These data can be graphically presented:

Figure 4.1 - Annual average wages, Board of Trade and Co-operative Productive Societies, 1906, £'s



Sources: see Table 4.4

This Chapter set out to draw statistics from a wide range of sources for comparison with the co-operative data. General levels of income extracted from work by social investigators suggests that the co-operative wages were fairly typical for general labourers and other workpeople in the towns and cities where the investigations took place. More specific estimates at both micro and macro, general and sectoral, levels seemed to have an association with data from the relevant sections of the co-operative data. Although the cataloguing of regional wage variations by the

use of wage rates from one occupational group is obviously limited, there were in some cases similar variations shown by the co-operative data and, where the two sources disagreed, evidence from the co-operative data showed greater sensitivity and was, indeed, supported by a more comprehensive<sup>34</sup> source and, significantly, one that was not based in wage rates. Wage rates were shown to be able to indicate no more than very general levels of income (see table 6). Sector and geographically specific comparisons were enabled for one year (1906) due to the availability of a very rich and comprehensive source of data using actual income - the Board of Trade returns - and, by any measure, the co-operative society data compared favourably with this, even to the extent of suggesting a comparable age and gender mix as in the wider workforce. This chapter, alongside the previous one, gives a fairly conclusive indication that the co-operative societies had to be competitive to survive and a key part of this was not only the payment of market wages and employment of lower-paid categories (women, boys and girls) but also of varying remuneration to reflect conditions both locally and sectorally.

In general conclusion to part 1 of the thesis, it is first and foremost apparent that too much has been made of trade union unemployment returns. These returns have been used to not only indicate aggregate levels of unemployment in the period before World War One but also to weight various indicators in time series of income and levels of economic activity generally. This is clearly in lieu of any other comparable or superior source of data but the search for alternative statistics, discussed at length in the first chapter, gives a further indication of their unsatisfactory nature. The use of a new dataset that is geographically as, if not more, diverse

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<sup>34</sup> *Board of Trade Enquiry into the earnings and hours of labour of workpeople of the United kingdom - 111, Building and Woodworking Trades in 1906* (Parliamentary Paper lxxxiv (1), Cd. 5086, 1910)

than any other that has been previously used and which - crucially - is independent of influence by trade union unemployment returns, and focuses directly on actual wages paid, may support a view of the Victorian and Edwardian eras that gives emphasis to dynamism and diversity rather than stagnation and instability. This dataset, however, has to be seen to be credible and even though logic suggests that co-operative societies had to be reflective of the wider economy, this had to be established to the widest extent possible. It was therefore necessary to devote a fairly large proportion of space within the thesis to discussing this and it is hoped that this has been achieved. An underlying assumption, therefore, for the remainder of this work will be that the co-operative society statistics for annual average wages are reflective of the wider economy in sectors and localities within which they were situated.

## **Part 2 - The use of data from the Co-operative Movement of Great Britain as an indicator of underlying economic and labour market conditions**

**Chapter 5 - Sectoral annual average earnings in Great Britain, 1895 - 1913**

**Chapter 6 - Underlying labour market conditions within Great Britain, 1895 - 1913**

**Chapter 7 - Spatial income variance within Great Britain, 1906**

## 5. Sectoral annual average earnings in Great Britain, 1895 - 1913

Section 1 of the thesis, then, established the validity of earnings data from the Co-operative Movement of Great Britain as an accurate reflector of income at sectoral levels when compared with similar statistics. It was established furthermore that, despite any idealism within the Movement, economic logic had to prevail, and this logic included the levels of annual earnings. This section will review existing estimates of sectoral income levels within the period, the methods by which they were constructed, and make comparisons with new indices. These will be based in the data for annual average earnings from the Co-operative Movement of Great Britain. Further comparison will be made with the statistical sources used in the construction of existing estimates, particularly where these coincide with data that has been used in part 1 of this thesis as sectoral or local points of reference with the co-operative data.<sup>1</sup> Notwithstanding these comparisons, it is perhaps worth emphasising that the discussion in the previous chapter suggested that, where the Co-operative data was for the same or similar sectors and/or localities, they showed comparable levels of income with the 1906 Wage Census. Furthermore, that these similarities existed despite the obvious differences in sample sizes and that an implication could be drawn on relative gender mix. The Board of Trade Returns roughly reflected this factor and, with a wide variance of earnings between the four age and gender groups, levels of income would not have shown such similarity unless gender mixes were generally comparable. The methodology that is used to calculate annual average wages is explained in chapter 4 and is

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<sup>1</sup> For example, the *Board of Trade Enquiries into the hours of labour of workpeople of the United Kingdom* (Parliamentary Papers lxxx, Cd. 4545; lxxx, Cd. 4844; lxxxiv (1), Cd. 5086, 1909-10)

employed here as well as in all such calculations in the thesis.

The potential significance of such an analysis is quite wide - ranging. For example, if new estimates show some significant divergence from existing research, then implications about the timing and extent of structural shifts of income or points of relative stagnation of earnings may require some revision in the sectors under review and, by extension, of the whole economy. Even if the indices show long-term similarities with existing research and therefore broadly support beliefs on living standards over the whole period, the actual sub-period to sub-period and year to year variations have extremely important implications, especially when data such as these are used to support work concerning short-term relative decline or prosperity. Indeed, an extension of an approach that places emphasis on annual and sub-period variations of income and labour market conditions, both sectorally and locally, will be presented in the second chapter of this section. This present chapter, however, continues with a review of existing work on the subject and, as noted, the methodologies and sources used - followed by a presentation of the existing indices and comparisons made with the data extracted from co-operative movement statistics. Assumptions will not be made about sectors for which the co-operative data does not give indications. Interestingly, this sector-specific approach - alongside an actual calculation for average earnings - makes the methodology somewhat different to existing research. For example, structural shifts are not built into an equation because this is not an attempt to dissect the whole economy into sectors but rather makes a calculation for each sector. On the other hand, it may be anticipated that such shifts will be reflected in relative wage variance between sectors in the medium to long term - and the co-operative society statistics may be sensitive to this.

The most authoritative works, certainly for the most part of this century, on levels of income in the Victorian and Edwardian periods, were conducted by Bowley and, at a later date, by

Wood, both separately and in collaboration.<sup>2</sup> Interestingly, Bowley discussed the problems associated with the construction of meaningful series for wages<sup>3</sup> and pointed out that no complete and comprehensive statistics exist for the United Kingdom. The compilation of earnings over time, noted Bowley, therefore employs a methodology that estimates earnings for a normal week and considers what allowances should be made for broken time, overtime, unemployment, holidays and sickness over a whole year.<sup>4</sup> This suggests that the estimates, in the main, are based very much in wage rates - hourly, weekly, or by piece, and it is extremely difficult to assess the weighting that should be applied to these factors. The problem is compounded where other statistics of questionable representativeness - for example trade union unemployment returns - are employed to adjust and make allowance for such factors as short-time working. One underlying argument in this and further chapters is that a calculation of actual average earnings per employee will *de facto* take account of these elements that are so difficult to accurately estimate and, indeed, provide a yardstick against which to test such calculations

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<sup>2</sup> For example, a long line of works on the subject by Bowley, beginning with: A. L. Bowley, Changes in Average Wages in the United Kingdom between 1860 and 1891, *Journal of the Royal Statistical Society*, LV111, 1895, and by Wood: G. H. Wood, Real Wages and the Standard of Comfort since 1850, *Journal of the Royal Statistical Society*, LXXII, 1909

<sup>3</sup> A. L. Bowley, Wages, Nominal and Real, Changes in the United Kingdom since 1850, from H. Higgs (Ed.), *Palgrave's Dictionary of Political Economy - Vol 3* (Macmillan, 1926), p 798

<sup>4</sup> *Idem.*

(which may help in estimating sectors for which little or no co-operative data exists). It is clear that any economy with some normative market-based flexibility will vary wages even when they are set in trade union-agreed or statutory rates and it likely that the extent of this variance will be an indication of underlying economic and labour market conditions. For example, even if wage rates are strictly adhered to in a heavily unionised industry, employers will of necessity either shorten hours in a downturn or lay people off. If the former is the case, then this will obviously be reflected in annual average wages and, even in the latter, most or all employers would shorten hours first before resorting to laying-off. The alternative implication, in a period of relatively little welfare provision, is that employers would use some means of selecting employees and their families for relative destitution whilst leaving the wages of all others entirely unaffected.

Bowley gave his 'final estimates' of the course of average wages for a normal week of all wage-earners in the United Kingdom as well as index numbers for separate industries - namely agriculture, coal, building, engineering and shipbuilding, cotton, wool and printing for the years 1880 to 1914 inclusive.<sup>5</sup> Bowley noted that the principal check on its accuracy is from the Reports of the Wage Censuses of 1886 and 1906. Interestingly, Feinstein<sup>6</sup> suggests that Bowley 'explicitly declined to describe in detail the basis on which this crucial index was constructed,' but did note that the preliminary material used in the indices could be found in his other (listed)

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<sup>5</sup> A. L. Bowley, *Wages and income in the United Kingdom since 1860* (Cambridge University Press, 1937), pp 6 - 8

<sup>6</sup> C. H. Feinstein, New estimates of average earnings in the United Kingdom, 1880 - 1913, *Economic History Review* XLIII, 4, 1990, pp 595-632

books and articles.<sup>7</sup> These show that the industries listed by Bowley were based in a wide range of sources, including extensive use of Board of Trade Reports, distress and other labour-related committees as well as the Wage Censuses and a host of other material. For example, Bowley lists a continuous series of summer and winter wages (presumably extrapolated wage rates) paid to carpenters and masons in Edinburgh and Glasgow for the years 1863 to 1897 (with the exception of Edinburgh masons before 1891) and a series for bricklayers, carpenters, painters, plumbers and masons in London for 1877 to 1897 (with some 'gaps' for painters and masons).<sup>8</sup> For the cotton industry, the index is based in estimates from various sources (including the wage censuses) in a number of years relating to the industry in the Manchester district. With specific regards to this industry, Bowley noted that it is 'difficult and important for the student, because of the mass of apparently inconsistent data existing, the varieties of methods applicable to the problem of averaging, and the countless illustrations afforded of the nature of wage statistics.'<sup>9</sup> With regards to the iron trades, Bowley noted numbers of problems relating to not only the data but also the rapid evolution of the industry. Again, sources are varied and appear to be extrapolated in the main from Parliamentary Papers and specifically Reports of the Depression of Trade Commissions and the Wage Censuses. Estimates for various trades are shown for some years between 1795 and 1898 by Bowley<sup>10</sup>

Wood attempted to revise some of the estimates made by Bowley with the use of a 'much larger

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<sup>7</sup> A. L. Bowley, *Wages and income since 1860*, pp 4 - 5

<sup>8</sup> A. L. Bowley, *Wages in the United Kingdom in the nineteenth century* (Cambridge University Press, 1900), pp 89 - 95

<sup>9</sup> A. L. Bowley, *Wages in the nineteenth century*, p 115

<sup>10</sup> A. L. Bowley, *Wages in the nineteenth century*, pp 121 - 3

mass of material' and he reviewed several large industries in more detail.<sup>11</sup> Wood stated that, for the furnishing trades, his material broke 'fresh ground' but does not expand upon this statement (perhaps it was in the sense that this was the first index for that sector). For the cotton industry, Wood made an exhaustive study<sup>12</sup> of piece rates for various occupations and cotton-producing districts from numerous sources and produced a series showing the course of average wages for cotton operatives from 1806 to 1906. However, although the final index is continuous, the actual observations from the various districts are not even and vary from several in one year to an eight year gap.<sup>13</sup> This index is used by Bowley in his index numbers for separate industries between 1880 and 1914 and will provide a point for sectoral comparison in the second part of this chapter.<sup>14</sup> It clearly has relevance to the issue of relative accuracy to highlight some of the sources used by these and other authoritative authors within the discussion but the interests of space and other relevant areas of discussion precludes a full presentation in this chapter.

The leading work of recent years concerning estimates of income has been published by Feinstein.<sup>15</sup> Building on the work of Bowley and Wood, Feinstein gives comprehensive estimates

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<sup>11</sup> G. H. Wood, *Real Wages and the Standard of Comfort since 1850*, *Journal of the Royal Statistical Society*, LXXII, 1909, p 91

<sup>12</sup> G. H. Wood, *The History of Wages in the Cotton Trade during the past Hundred Years* (Sherratt & Hughes 1910)

<sup>13</sup> For example, the series for Bury, Bacup, Rochdale and district for the years 1833 - 1906 lists four observations for some of the trades for 1836, then one for 1839, then four for 1841, then two for 1871, one for 1881, four for 1886, one for 1905 and three for 1906 (the years in between are omitted) - see G. H. Wood, *The History of Wages in Cotton*, pp 86 - 88

<sup>14</sup> A. L. Bowley, *Wages and income since 1860*, p 8

<sup>15</sup> C. H. Feinstein, *National Income, Expenditure and Output of the United Kingdom, 1855 - 1965* (Cambridge University Press, 1972) and, more recently, C. H. Feinstein, *New estimates of average earnings in the United Kingdom, 1880 - 1913*, *Economic*

for the years 1855 to 1965 for a wide range of economic indicators.<sup>16</sup> The source for estimates of the wage bill for the period 1880-1914 are taken from Bowley<sup>17</sup> and it is, perhaps, relevant to re-state the methodology used (see chapter 1). This table, of the national wage bill 1880-1936, is obtained by the product of three indices - for wages per head in each year, employment and number of earners (with the 1906 wage census as the reference point for wages). This is then applied to the estimates of wages for 1911 and figures in £ millions extrapolated for the annual national wage bills. However, the second index - employment - is obtained by subtracting the trade union percentage unemployment from 100 in the years before 1914. The product of the three columns, divided by 10,000, yields the index number of the National Wage Bill, with 100 as the number for 1914. These are applied to the estimates of wages in 1911 and a National Wage Bill obtained<sup>18</sup>. The point is that with a weighting from trade union unemployment returns, which may not accurately reflect underlying economic and labour market conditions, this and other pre-1914 indices that are similarly weighted may not accurately reflect annual and sub-period to sub-period fluctuations. However, this weighting is not used in some estimates of actual earnings and a contrast may be noted between economic indicators that are so influenced (see figure 1.1, chapter 1) and those that are not. The most recent revision and re-estimation of average earnings by Feinstein<sup>19</sup> makes a number of key points concerning Bowley's works. For example, Feinstein suggests that the 1906 wage census was not after all utilised in the

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*History Review* XLIII, 4, 1990, pp 595-632

<sup>16</sup> C. H. Feinstein, *National Income*

<sup>17</sup> A. L. Bowley - *Wages and income in the United Kingdom since 1860* (Cambridge University Press, 1937), pp 75-76

<sup>18</sup> A. L. Bowley - *Wages and income since 1860*, pp 75 - 76

<sup>19</sup> C. H. Feinstein, *New Estimates*

construction of the (Bowley's) final estimates, even though they were not published until 1936 and that, in engineering and shipbuilding, the last years of the prewar period relied upon the Ministry of Labour's recorded changes in minimum weekly time rates and therefore failed to capture either the shift towards increasing piece work which occurred in these years and the extent to which the strong boom of 1911 - 13 raised earnings above wage rates.<sup>20</sup> With regards to the index produced by Wood, Feinstein suggests that it too was completed before the publication of the 1906 wage census and, like Bowley, omitted a number of important manufacturing industries - steel, clothing and footwear - and the whole range of services, including distribution, domestic service, road and rail transport, central and local government, and the armed forces.<sup>21</sup> With these points made, Feinstein set out to incorporate 'all necessary revisions to the original series and cover as many additional sectors as possible.'<sup>22</sup> The methodology and sources used by Feinstein therefore require some discussion so as to assess the extent to which these revisions may reflect actual income in the sectors studied. It is also worth noting that the claim that neither Bowley nor Wood took account of the 1906 Board of Trade Enquiries (wage censuses) in a work published by Bowley in 1936 appears to be surprising, especially when one considers the extent to which both authors refer to this in their works and, indeed, that Bowley used these enquiries in the same publication as the starting point for his calculations of the National Wage Bill.<sup>23</sup> Indeed, Bowley specifically states, with regards to his 'final estimate' of average earnings, that the 'principal check on its accuracy is found from the Reports of the Wage Censuses of 1886 and 1906. For adult males the average earnings of those

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<sup>20</sup> C. H. Feinstein, *New Estimates*, p 598

<sup>21</sup> *Idem.* p 599

<sup>22</sup> *Idem.*

<sup>23</sup> A. L. Bowley, *Wages and income since 1860*, p 73

included in the Reports were 24s. 7d. in 1886 and 30s. 9d. In 1906 the increase is thus 24 per cent.<sup>24</sup> Wood also makes specific references to the enquiries - it was a recurring point of reference in his work on wages in the cotton trade and, indeed, his series ended in the same year as the 1906 census- for example, 'in 1906 the wage census shows the average of all employed, when working full time, to have been 19s. 6d. At Rochdale, 19s. 5d. At Bacup, 14s. 8d.' etc.<sup>25</sup> Even in an earlier work, the results of the 1906 census were anticipated - ... 'and it is hoped that after the publication of the Board of Trade's Wage Census with complete figures for 1906, Mr Bowley's 'conjectural' index-numbers may be revised and more firmly established.'<sup>26</sup> The main basis that Feinstein uses for the assumption that the 'final estimate' by Bowley took no account of the Wage Census and other work that had taken place in the intervening years was the fact that it was reproduced unchanged from the series published in the first edition of what is today a 'largely forgotten textbook'<sup>27</sup> in which Bowley is quoted as writing that 'all results are tentative till checked by the wage census of 1906'<sup>28</sup> but a later edition of the same book, which carries the same index (and the one reproduced as the 'final estimate') states that 'all results were tentative till checked by the wage census of 1906, but there was sufficient evidence to support the statements of the table...as showing the general movements of rates of wages with

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<sup>24</sup> *Idem.* p 5

<sup>25</sup> G. H. Wood, *The History of Wages in the Cotton Trade* p 88

<sup>26</sup> G. H. Wood, *Real Wages*, p 91

<sup>27</sup> C. H. Feinstein, *New Estimates*, p 597; The reference is to the first edition of: A. L. Bowley, *An Elementary Manual of Statistics* (1st. Edition, 1910)

<sup>28</sup> A. L. Bowley, *An Elementary manual* (1st. Edition), p 145

fair accuracy.<sup>29</sup> Indeed, Bowley commented in detail on the use of wage censuses in estimating average earnings and suggested that, 'where industries are merged in industrial groups, as in the returns, there is some risk of error from this source.'<sup>30</sup>

Feinstein suggests that the construction of the index of annual wages requires three sets of data: an annual wages relative for each sector (total average wages of any given year divided by total wages in the reference year), an annual series for the number of wage earners occupied in each sector and an estimate of average wages in each sector in the reference year.<sup>31</sup> Essentially, this means that the starting point for the estimates is a total wages bill for the sectors, corrected using the three sets of data described above (this methodology would obviously be unnecessary in a project that starts with an annual average wage for the relevant sectors - as the co-operative data enables - and does not try to extrapolate assumptions onto unmeasured sectors). The estimates of wage-earners in each sector was taken by Feinstein from the four census years between 1881 to 1911. The important wages component, with 1911 as the reference year, was taken by Feinstein from the Wage Census of 1906 for agriculture, building, manufacturing industries, railways and 'a few others'<sup>32</sup> and adjusted to the 1911 levels. A number of other unspecified sources were used for other sectors. It is worth emphasising that this approach is similar to that which Bowley employed in his calculations of the national Wage Bill - 'for the computation of the basic wage-bill the wage census of 1906 was the starting point, modified to the year 1911

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<sup>29</sup> A. L. Bowley, *An Elementary Manual of Statistics* (P. S. King & Staples Ltd. 6th edition, 1945), p 188

<sup>30</sup> A. L. Bowley, *An Elementary Manual* (6th edition), p 195

<sup>31</sup> C. H. Feinstein, *New Estimates*, p 601

<sup>32</sup> C. H. Feinstein, *New Estimates*, p 604

so as to use the Population Census of that date, and extended so as to include occupations not dealt with in the Wage Census.<sup>33</sup>

This leads to what Feinstein describes as the core of the new series - the wage relatives or indicators of wage changes. He specifically describes each as being designed to 'capture changes in average earnings, not wage-rates,'<sup>34</sup> measuring weekly not hourly changes, and in changes for a worker in full-time employment - not adjusted for time lost by whatever cause other than unpaid annual leave. The sectors are grouped into three broad categories and assigned 'reliability grades.' The first - agriculture, building, coal, engineering, shipbuilding, cotton, printing, furniture, gas and shipping - are assigned a grade of B (+/- 5% to 15%) error margins. The second group - iron ore, mining, iron and steel, glass, railways, central and local government, the post office, police, armed services and general unskilled labourers are, with the exception of iron and steel, also assigned B grades (iron and steel are assigned a C grade - +/- 15% to 25% error margin). The third (and least reliable group) group comprises manufacturing industries (including wool, jute and other textiles), dressmaking, tailoring, footwear, domestic service, shop assistants and workers in road transport and the docks - approximately 40% of the wage-earning labour force - and is assigned a reliability grade of C, with the exception of dressmaking, tailoring and footwear, which are assigned a D grade (error margin of +/- 25%). Finally, the overall index of earnings is assigned a reliability grade of B. Feinstein discusses the relative merits of including crude indicators, particularly for the sectors graded as C or D, and decides that the limited evidence which could be found for these made it clear that wages within them

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<sup>33</sup> A. L. Bowley, *Wages and income since 1860*, p 73

<sup>34</sup> C. H. Feinstein, *New Estimates*, p 605

behaved rather differently from those that dominated the Bowley-Wood indices, thus warranting inclusion.<sup>35</sup> It is worth drawing attention to table 4.1, appendix 1, which shows the sources for statistics on wages in each sector used by Feinstein and the extent to which much of the data was the same as that which Bowley and Wood used, or indeed the specific indices produced by these authors.

The index of earnings for all sectors produced by Feinstein shows an increase of 41 per cent in the whole period between 1880 and 1913, with 27.5 per cent of the increase suggested as being due to a change in earnings and 10.6 per cent as a result of changes in the sectoral structure of the labour force.<sup>36</sup> Bowley's 'final estimates' show an increase of 27 per cent over the same period, Wood an increase of 27 per cent from 1880 to 1910 and Board of trade statistics<sup>37</sup> an increase of 28 per cent (1880 - 1913). Essentially, the main divergences between these summary indices is in the period 1900 to 1910, during which period Feinstein shows an annual increase in every year of that decade (of varying magnitude) whereas Bowley, Wood and the Board show static or declining income from 1900 to 1901, a decline in all three in 1902, static or declining to 1903, static or declining to 1904, static (Bowley), declining (Wood) and increasing (Board of Trade) to 1905, all increase to 1906, all increase to 1907 and all decrease to 1908 and 1909; this is followed by an increase in all indices for the following years. The indices are summarised in table 5.1 below:

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<sup>35</sup> C. H. Feinstein, *New Estimates*, p 606

<sup>36</sup> *Idem.* p 607

<sup>37</sup> Board of Trade, *17th abstract of labour Statistics of the United kingdom*, Parliamentary Papers LX1 (1914 - 16), p 66

Table 5.1 - indices of average wage earners, 1880 - 1914

Year	Bowley	Wood	Board of Trade	Feinstein
1880	100	100	83.1	74.8
1881	100	100	84.6	75.1
1882	103	100	85.8	75.9
1883	103	101	85.7	76.4
1884	103	102	85.0	76.1
1885	101	101	83.7	75.4
1886	100	101	83.0	74.9
1887	101	101	83.1	75.3
1888	104	103	84.9	76.4
1889	110	106	87.7	78.0
1890	114	111	90.5	80.7
1891	115	111	91.6	81.8
1892	115	110	90.2	82.2
1893	115	110	90.3	82.0
1894	115	110	89.6	82.6
1895	115	110	89.3	82.7
1896	115	111	90.2	83.8
1897	116	113	91.1	85.2
1898	120	114	93.4	86.9
1899	123	117	95.6	88.4
1900	130	122	100	91.2
1901	128	122	99.0	92.2
1902	126	120	97.8	92.3
1903	125	120	97.3	92.7
1904	123	120	96.8	92.8
1905	123	119	97.3	93.4
1906	126	123	98.7	94.6
1907	133	129	102.1	96.7
1908	130	127	101.5	97.4
1909	129	125	100.3	97.5
1910	130	127	100.7	98.4
1911	131	-	100.9	100
1912	135	-	103.4	102.2
1913	137	-	106.5	105.5

Sources: Bowley and Wood, A. L. Bowley, *Wages and income in the United Kingdom since 1860* (Cambridge University Press, 1937), p 6; Board of trade, *17th abstract of labour Statistics of the United kingdom*, Parliamentary Papers LX1 (1914 - 16), p 66; Feinstein, C. H. Feinstein, New estimates of average earnings in the United Kingdom, 1880 - 1913, *Economic History Review* XLIII, 4, 1990, p 612

This leads to the second part of the chapter, namely to an analysis of the continuous series for some sectors that are available from the Co-operative Movement data and to comparisons with the existing research discussed previously. A starting point may be made with the cotton industry. As previously discussed, this important sector (textiles as a whole employed 1,169,215

people in 1901 - 7.2 per cent of the working population<sup>38</sup>) was the subject of an exhaustive study by Wood for the century to 1906 from a range of sources. These sources included a large element of various piece price lists and statements from a number of firms on the changes in levels of the special price or 'standard wages in their own mills.'<sup>39</sup> The wage censuses of 1886 and 1906 were used as reference points for levels of wages and these, with intermittent local and district evidence, taken in varying years, is used to compile the index. This index was used by Feinstein for the period 1880 - 1906 and extrapolated to 1913 by means of annual statistics collected by the Board of Trade<sup>40</sup> (a point that will be discussed in more detail below).

The Annual Co-operative Congress Reports show two societies that produced cotton cloth in the period - Burnley Self-Help and Nelson Self-Help. The largest of these - Burnley Self-Help - had 300 employees in 1895 and 220 in 1913. Nelson Self-Help, unfortunately, returned no figures after 1906 (interestingly, this productive society consistently paid slightly more per worker in the preceding years than Burnley Self-Help). In order, therefore, to produce a consistent series, it is necessary to use only the data available from the Burnley Self-Help Society. This society existed and returned annual figures for every year from 1895, thus implying that it was a competitive firm within the sector, and sufficiently large - as measured by numbers of employees - to return representative wages for the sector. Inasmuch as Feinstein reproduced Wood's index, and extrapolated it to 1913, Feinstein's will be used as the only point of comparison for cotton. Table 5.2 shows the actual annual average earnings for the co-operative workers, these expressed

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<sup>38</sup> C. H. Lee, *British Regional Employment Statistics, 1841-1971* (Cambridge University Press 1979)

<sup>39</sup> G. H. Wood, *The History of Wages in the Cotton Trade*, pp 1 - 2

<sup>40</sup> C. H. Feinstein, *New Estimates*, p 620

as an index (1911 = 100), and Feinstein's index for the same period (1911 = 100):

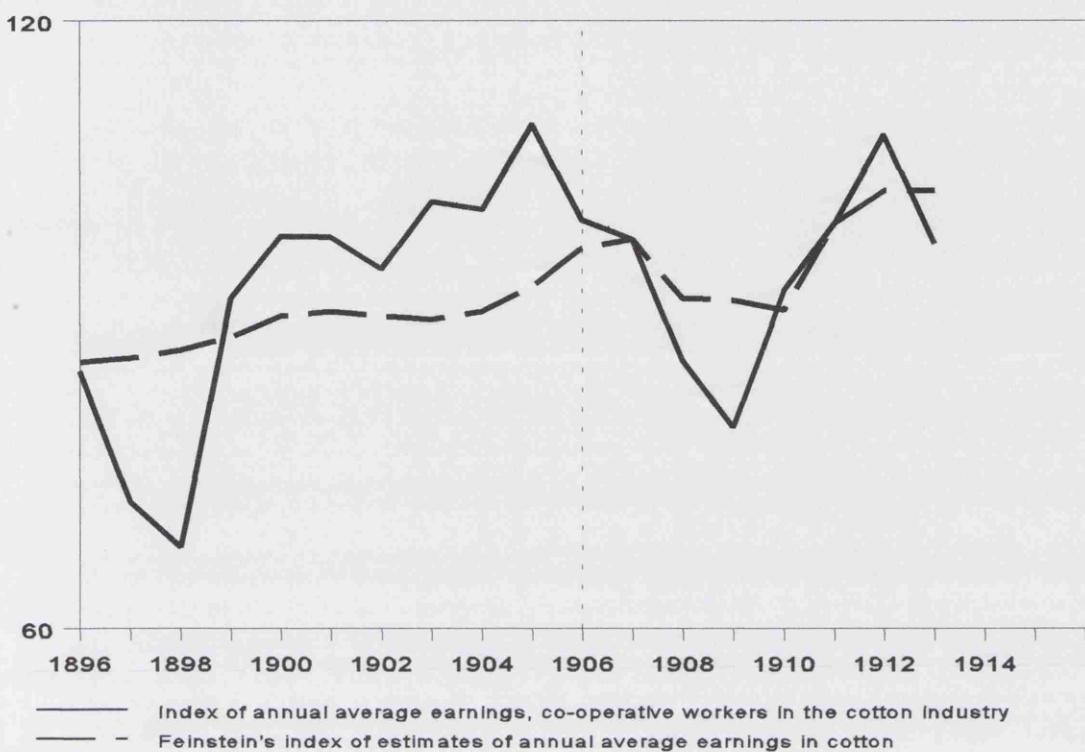
Table 5.2 - Sectoral earnings for the Cotton Industry, 1896 - 1913

year	Annual average wages, co-operative workers (£'s)	Annual average wages, co-operative workers, as an index (1911 = 100)	Feinstein's index (1911 = 100)
1896	46.66	85.43	86.3
1897	39.63	72.56	86.7
1898	37.16	68.03	87.5
1899	50.60	92.64	88.8
1900	53.93	98.74	90.9
1901	53.86	98.61	91.3
1902	52.19	95.55	90.9
1903	55.78	102.12	90.5
1904	55.38	101.39	91.3
1905	59.99	109.83	93.8
1906	54.80	100.33	97.6
1907	53.78	98.46	98.4
1908	47.19	86.40	92.6
1909	43.66	79.93	92.4
1910	51.01	93.39	91.5
1911	54.62	100.00	100.0
1912	59.49	108.75	103.2
1913	53.52	97.99	103.2

Sources: Columns 1 & 2: Annual Co-operative Congress reports; column 3: Feinstein New Estimates of average earnings in the UK.

Columns 2 (index of co-operative workers annual average wages, 1911 = 100) and 3 (Feinstein's index of estimates for cotton workers annual average wages, 1911 = 100) are reproduced below in graphical form (figure 5.1):

Figure 5.1 - Comparison of indices for sectoral annual average earnings, cotton industry, 1896 - 1913



Sources: Feinstein, New Estimates; Annual Co-operative Congress Reports

Two points that are immediately obvious from a glance at table 5.2 and figure 5.1 is the extent to which the series taken from the co-operative society data fluctuate on an annual and sub-period to sub-period basis and the clear change in relative fluctuations in Feinstein's index from 1906. This is an important point because of the different sources used in the period to 1906 and from 1906 to 1913. The former, as previously noted, is Wood's index and is primarily based in various wage and piece rates. The latter is from an 'annual series for average earnings derived from statistics of total weekly earnings and total numbers employed, collected monthly by the

Board of Trade for a large sample of cotton firms.<sup>41</sup> This suggests that the wide fluctuations in the co-operative data, which is of course a continuous series of actual annual earnings, may be reflective of and sensitive to actual variations of income and when it is compared with similar data, for example Feinstein's index from 1906, would appear to find some substantiation. The implications of this are wide - Feinstein's series appears to show less stability after 1906 whereas, for the co-operative series, the opposite is true. However, the variance in the former index may be due (in the main at least) to the use of two different types of data. Interestingly, Wood did not weight his index for unemployment but, on the other hand, neither is either the co-operative series nor Feinstein's index from 1907. However, the variance in wages may have a sensitivity to underlying economic and labour market conditions (hence the wider variance) and this important potential will very much be the subject of the following two chapters. The preceding comments may be substantiated by listing the standard deviations for the two indices for the whole and each sub-period indicated in figure 5.1 by the broken line:

	<u>Co-operative earnings index</u>	<u>Wood/Feinstein index</u>
Standard deviation 1896-1913	11.4070	5.2225
Standard deviation 1896-1905	13.3494	2.3935
Standard deviation 1906-1913	8.9729	4.7497

(sources: see table 5.2)

Another noteworthy point that is apparent from the two indices is the periods of a decline in wages and the extent to which these coincide with commonly held beliefs (supported by trade union unemployment returns) concerning general economic downturns. On the one hand, for example, annual average wages from the co-operative society data only dipped slightly during

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<sup>41</sup> C. H. Feinstein, *New Estimates*, p 620

the 'depression' of 1904 - 5 (0.7 per cent from 1903-4) but showed a longer sub-period of decline that did indeed include the 'depression' of 1908-9 - to the extent that wages started a decline in 1906 that did not recover to 1905 levels until 1912. A diluted mirror of this may be seen in the Wood/Feinstein index, with average earnings falling in 1902 and 1903 and, to a much greater extent from 1907 - 10. However, because the Wood/Feinstein series uses, as previously noted, two distinctly different types of data in the pre and post 1906 period, it is impossible to judge the extent to which this is an artefact of that factor or, indeed, of what may really have been occurring. Finally, the index produced from the Co-operative statistics shows an increase over the period of 14.7 per cent and the Wood/Feinstein series 19.6 per cent - well within Feinstein's 'B' grade margin of error (+/- 5 per cent to +/- 15 per cent), which may be expected because this series used the 1886 and 1906 wage censuses within its construction.

Feinstein produces a sectoral index for the 'Boots and Shoes' sector of the economy and there were, fortunately, a relatively large number of co-operative productive societies in that specific sector. These include Finedon Boot and Shoe, Glenfield Boot and Shoe, Higham Ferrers Boot and Shoe, Kettering Boot and Shoe and Leicester (Anchor) Boot and Shoe - all of which reported total wage and employee numbers for the relevant years. The total number of workers ranged from, for example, 614 at the turn of the century to 638 in 1913. In a general comment concerning the data sources for the clothing and footwear sectors, Feinstein notes that the 'relatives which can be compiled for the clothing and footwear industries provide, at best, only a very rough guide to the broad trends in wages in this large and important sector of the economy.'<sup>42</sup> For the Boot and Shoe industry specifically, Feinstein states that 'a rough index was

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<sup>42</sup> C. H. Feinstein, *New Estimates*, p 620

based partly on sources similar to those used for clothing, including the Wage Enquiries of 1886 and 1906; and partly on annual figures available from the early 1890's for the minimum time rates of adult men in the main occupations (clickers, lasters and finishers) and 'for 1906 - 13 the Labour Gazette provided a measure of average monthly earnings for a large sample of boot and shoe workers.'<sup>43</sup> Neither Bowley nor Wood produced a separate index for this industry. Unfortunately, boot and shoe manufacturing was not categorised as a separate classification in the population censuses but, as guide, the clothing and footwear industries employed 1,138,864 in 1901 (6.99 per cent of the employed workforce)<sup>44</sup> Table 5.3 shows the index produced by Feinstein (1911 = 100) for the Boot and Shoe sector and one produced from the Co-operative Productive Societies listed above (actual earnings and these expressed as an index (1911 = 100)):

Table 5.3 - Sectoral earnings for the Boot and Shoe Industry, 1896 - 1913

year	Annual average wages, co-operative workers (£'s)	Annual average wages, co-operative workers, as an index (1911 = 100)	Feinstein's index (1911 = 100)
1896	55.44	101.95	94.9
1897	58.93	108.37	94.9
1898	57.50	105.74	94.9
1899	56.29	103.51	94.9
1900	55.04	101.21	95.1
1901	53.88	99.08	96.1
1902	51.17	94.1	96.1
1903	54.04	99.37	96.3
1904	54.38	100.0	96.8
1905	50.26	92.42	97.1
1906	52.51	96.56	97.1
1907	56.78	104.41	97.7
1908	53.78	98.9	96.0
1909	53.17	97.77	96.0
1910	55.94	102.87	97.8
1911	54.38	100.0	100.0
1912	56.70	104.27	102.6
1913	60.88	111.95	103.3

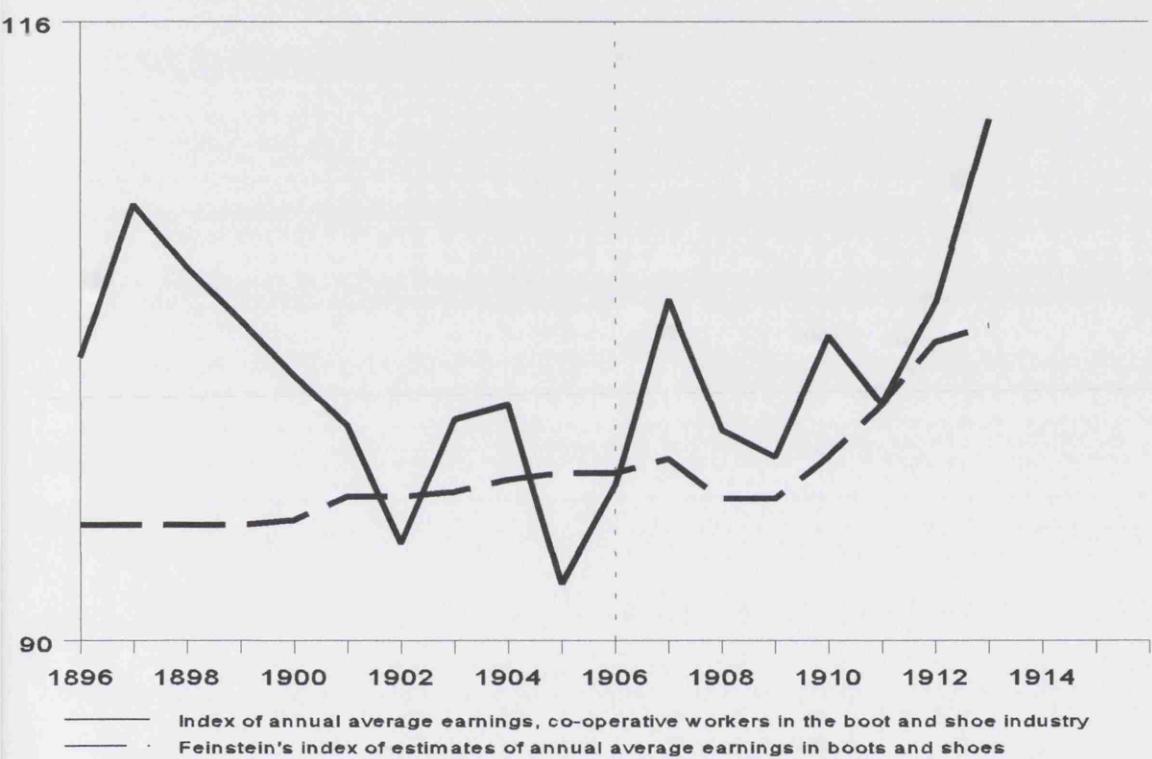
Sources: Columns 1 & 2: Annual Co-operative Congress reports; column 3: Feinstein New Estimates of average earnings in the UK.

<sup>43</sup> *Idem.*, p 622

<sup>44</sup> C. H. Lee, *British Employment Statistics*

Columns 2 (index of co-operative workers annual average wages, 1911 = 100) and 3 (Feinstein's index of estimates for boot and shoe workers annual average wages, 1911 = 100) are reproduced below in graphical form (figure 5.2)

Figure 5.2 - Comparison of indices for sectoral annual average earnings, boot and shoe industry, 1896 - 1913



Sources: Feinstein, *New Estimates*; Annual Co-operative Congress Reports

The increase in earnings over time for the respective indices for the Boot and Shoe Sector are 9.8 per cent for the Co-operative Societies and 8.9 per cent for Feinstein's index. This is again well within the error margin of Grade 'C' ( $=/- 15$  per cent to  $+/- 25$  per cent),<sup>45</sup> although this is again not surprising as the 1886 and 1906 Wage Censuses were major components in the

<sup>45</sup> C. H. Feinstein, *New Estimates*, p 606

construction of this series. What is again clear, as with cotton, is the noticeable difference in Feinstein's index between the periods before and after 1906 - and this must surely be due to the fact that it is composed from two different types of data. The pre-1906 source is, again, primarily wage rates and thus we have relatively little annual change. From 1906, however, the index moves in similar fashion (and amplitude) to that which is constructed from actual earnings of co-operative society workers in that sector. This suggests that the consistent data from co-operative societies, regardless of the extent to which they varied from wage rates, are giving an indication of what actual wages were in the industry and this is surely supported by the post-1906 Feinstein series, which is not surprising, because it is similar data. Standard deviations for the whole as well as sub-periods are given below:

	<u>Co-operative earnings index</u>	<u>Feinstein index</u>
Standard deviation 1896-1913	4.8066	2.5024
Standard deviation 1896-1905	4.8396	0.8672
Standard deviation 1906-1913	4.9534	2.8513

(sources: see table 5.3)

Apart from the relative (when compared to cotton) stability that is evident from both series, as well as the low level of long-term increase of income therein, the co-operative data seems to indicate short-term periods of decreases in wages - particularly 1902 and 1905 and 1908-9. Interestingly, these are only reflected in the index produced by Feinstein for 1908-9 and it may be the case that the extrapolation of wage rates in the earlier periods fails to indicate such movements.

The series produced by Bowley and Wood include only a limited number of years (eight out of

thirty five) for the Printing Sector.<sup>46</sup> Bowley commented briefly on these and noted that 'the fragmentary entries for printers only relate to time-rates for compositors, which do not measure the movement of earnings. They are included as an illustration of the stationariness of some time-rates over long periods.'<sup>47</sup> For this sector, therefore, only the index produced by Feinstein will be used for comparison with the Co-operative Society data. Interestingly, Feinstein suggests that 'construction of a wage index for printing and bookbinding is relatively straightforward,' with an 'abundance of information on an annual basis for compositors, lithographers and bookbinders.' This was based on a series compiled by Bowley and Wood and 'extended by means of information on standard time-rates of wages in a large sample of towns.'<sup>48</sup> The preliminary index was adjusted to correct differences with the Wage Censuses and this correction extended at the same annual rates for 1880-6 and 1906-13.

The Co-operative Congress Reports provide data for a geographically quite diverse range of productive societies in this sector and continuous series of wages and employee numbers are available from seven of these over the period in question. These are London Bookbinders, Blackpool Union Printers, Hull Printers, Leicester Printing, Co-operative Newspapers (Manchester), Nottingham Printing and Edinburgh Printing. The number of workers in these societies ranges from a total of 205 at the turn of the century to 340 in 1913. Table 5.4 shows the index produced by Feinstein (1911 = 100) for the Printing Sector and one produced from the Co-operative Productive Societies listed above (actual earnings) and these expressed as an index

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<sup>46</sup> A. L. Bowley, *Wages and income since 1860*, p 8

<sup>47</sup> *Idem.* p 9

<sup>48</sup> C. H. Feinstein, *New Estimates*, p 622

(1911 = 100). This sector had a total workforce of 277,627 in 1901,<sup>49</sup> 1.7 per cent of the employed population.

Table 5.4 - Sectoral earnings for the Printing Industry, 1896 - 1913

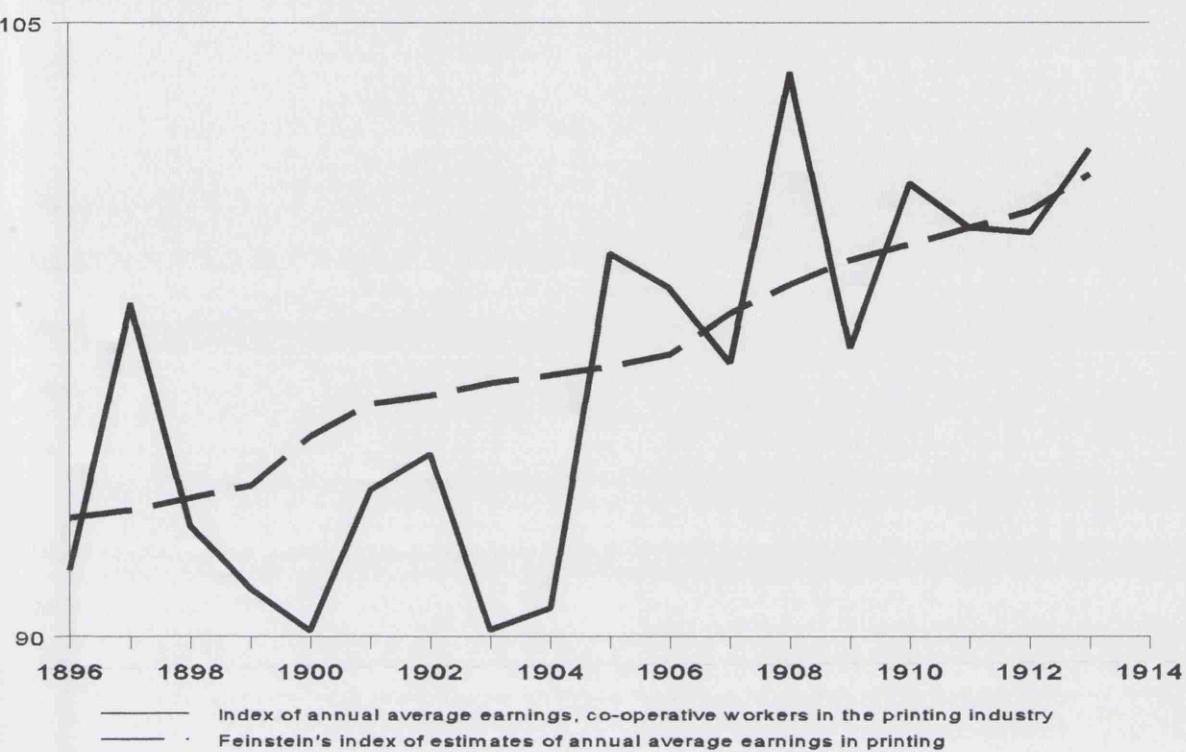
year	Annual average wages, co-operative workers (£'s)	Annual average wages, co-operative workers, as an index (1911 = 100)	Feinstein's index (1911 = 100)
1896	64.75	91.61	92.9
1897	69.37	98.15	93.1
1898	65.51	92.69	93.4
1899	64.44	91.17	93.7
1900	63.71	90.14	94.9
1901	66.16	93.6	95.7
1902	66.77	94.47	95.9
1903	63.72	90.15	96.2
1904	64.10	90.69	96.4
1905	70.23	99.36	96.6
1906	69.64	98.53	96.9
1907	68.35	96.7	97.9
1908	73.35	103.78	98.6
1909	68.60	97.06	99.2
1910	71.44	101.08	99.6
1911	70.68	100.0	100.0
1912	70.60	99.89	100.4
1913	72.04	101.92	101.3

Sources: Columns 1 & 2: Annual Co-operative Congress reports; column 3: Feinstein New Estimates of average earnings in the UK.

Columns 2 (index of co-operative workers annual average wages, 1911 = 100) and 3 (Feinstein's index of estimates for boot and shoe workers annual average wages, 1911 = 100) are reproduced below in graphical form (figure 5.3):

<sup>49</sup> C. H. Lee, *British Employment Statistics*

Figure 5.3 - Comparison of indices for sectoral annual average earnings, printing industry, 1896 - 1913



Sources: Feinstein, New Estimates; Annual Co-operative Congress Reports

The respective increases in the indices for annual average earnings over the whole period is 11.25 per cent for the co-operative workers and 9.04 per cent for Feinstein's. This is again well within the error margin assigned by Feinstein to this sector - 'B' (+/- 5 per cent to +/- 15 per cent) although this is again not at all a surprise because that index (see above) was specifically adjusted to correct for differences with the Wage Censuses of 1886 and 1906. What is, however, different with this index from Feinstein and those that were compiled for cotton and boots and shoes is the use of wage rates for the whole period, with no sub-period change from 1906 by the use of Board of Trade or labour Gazette series for actual average earnings. This is apparent from

figure 5.3, where the index shows a relatively smooth path for the whole period. We would therefore expect no significant change in standard deviation in this series, nor between sub-periods, and this is indeed the case:

	<u>Co-operative earnings index</u>	<u>Feinstein index</u>
Standard deviation 1896-1913	4.4349	2.6320
Standard deviation 1896-1905	3.2676	1.4680
Standard deviation 1906-1913	2.4117	1.4131

(sources: see table 5.4)

It is noteworthy that Feinstein's index shows an increase in the annual average earnings of printers for every year from 1896 to 1913, with no break that may have been caused by any sort of general economic downturn in the period. This perhaps brings to mind Bowley's comment (see above) where he noted that this sector provided an illustration of the 'Stationariness of some time-rates over long periods.' The index compiled from actual annual earnings of co-operative workers in this sector, whilst again far more stable than cotton (a theme, as previously noted, that will be explored in the next chapter) does show some relevant variations - for example, a significant decrease in 1903 and 1904 and again in 1907 and 1909.

The repetition of sectoral points for comparison in similar presentational style must be limited by space and data availability. However, one more is relevant and, preferably, another that exemplifies the use of wage rates in the construction of a sectoral index for the whole period from the work of Feinstein. Furnishing may provide this and, indeed, Feinstein states that 'an index for this trade was compiled on the basis of the estimate given by Wood for selected years from 1880 to 1906. Interpolation and extrapolation to 1913 was based on annual data for the standard rates of wages paid to cabinet makers and upholsterers in a number of representative

towns.<sup>50</sup> Wood's estimates are given at five or six yearly intervals between 1850 and 1906. No comment is made about the source material other than to state that the production of these estimates 'broke new ground.'<sup>51</sup> However, it may be assumed from remarks concerning other industries listed that the estimates by Wood are based in wage rates.

There are three co-operative societies that returned consistent data for the period being studied - Bolton Cabinet makers, Bradford Cabinet Makers and Newcastle - upon - Tyne Household Furnishing. These employed 248 workers at the turn of the century and 163 in 1913. Total numbers employed in this general sector (timber, furniture etc.) were 263,115 in 1901 - 1.6 per cent of the whole workforce.<sup>52</sup> Table 5.5 shows the index produced by Feinstein (1911 = 100) for the Furniture Sector and one produced from the Co-operative Productive Societies listed above (actual earnings) and these expressed as an index (1911 = 100):

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<sup>50</sup> C. H. Feinstein, *New Estimates*, p 623

<sup>51</sup> G. H. Wood, *Real Wages and the Standard of Comfort*, pp 91-2

<sup>52</sup> C. H. Lee, *British Employment Statistics*

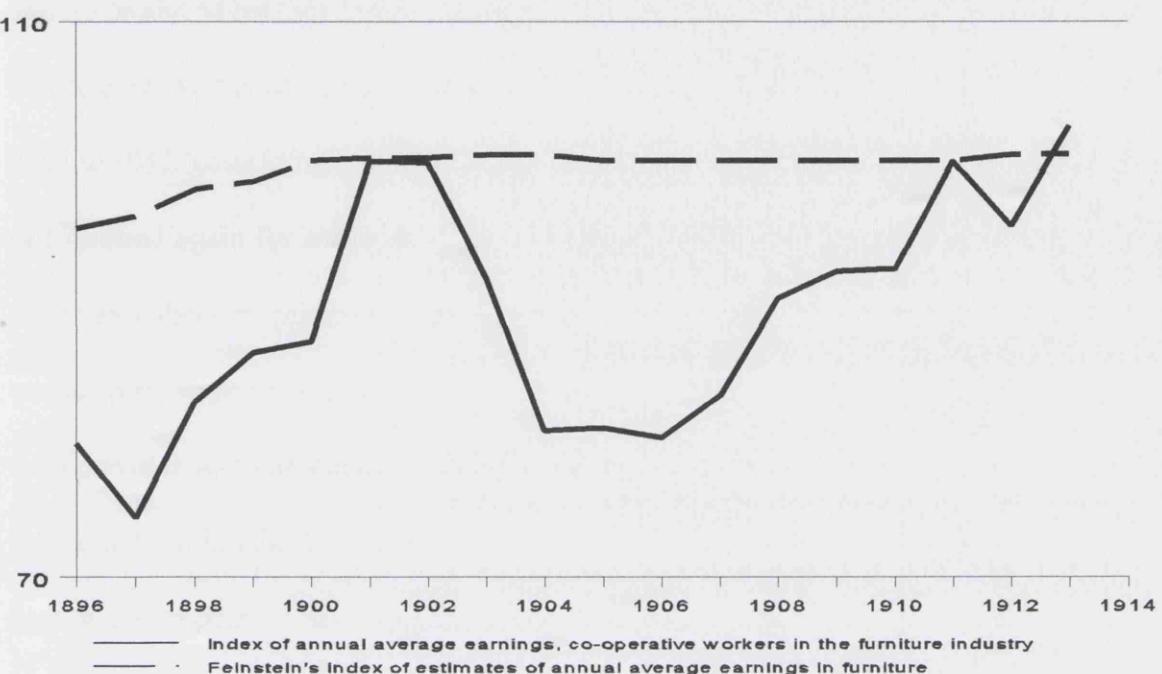
Table 5.5 - Sectoral earnings for the Furniture Industry, 1896 - 1913

year	Annual average wages, co-operative workers (£'s)	Annual average wages, co-operative workers, as an index (1911 = 100)	Feinstein's index (1911 = 100)
1896	56.70	79.66	95.1
1897	52.88	74.29	96.0
1898	58.84	82.66	97.9
1899	61.34	86.18	98.5
1900	61.93	87.0	100.0
1901	71.15	99.96	100.2
1902	71.06	99.83	100.2
1903	65.22	91.63	100.4
1904	57.35	80.57	100.4
1905	57.47	80.74	100.0
1906	56.98	80.05	100.0
1907	59.15	83.1	100.0
1908	64.15	90.12	100.0
1909	65.51	92.03	100.0
1910	65.64	92.22	100.0
1911	71.18	100.0	100.0
1912	67.86	95.34	100.4
1913	72.99	102.54	100.5

Sources: Columns 1 & 2: Annual Co-operative Congress reports; column 3: Feinstein New Estimates of average earnings in the UK.

Columns 2 (index of co-operative workers annual average wages, 1911 = 100) and 3 (Feinstein's index of estimates for furniture workers annual average wages, 1911 = 100) are reproduced below in graphical form (figure 5.4):

Figure 5.4 - Comparison of indices for sectoral annual average earnings, furniture industry, 1896 - 1913



Sources: Feinstein, New Estimates; Annual Co-operative Congress Reports

Table 5.5 and figure 5.4 perhaps give the clearest example thus far of the extent to which the use of wage rates in compiling an index of earnings does not show annual or sub-period to sub-period variations. Interestingly, furthermore, Feinstein placed the furniture sector within his group of industries that were 'based on annual observations from good sources, and likely to be of a relatively high order of reliability,'<sup>53</sup> giving them a probable error margin of +/- 5 to +/- 15 per cent (grade B). However, the increase in earnings for the co-operative society workers is 28.7 per cent over the period and Feinstein's increases by only 5.7 per cent. This is outside of the error margin and the crucial difference, surely, between this sector and the others studied is that *it was not corrected for the Wage Censuses of 1886 and 1906*

<sup>53</sup> C. H. Feinstein, New Estimates, p 605

- which suggests the possibility that these are indeed the crucial reference points in some of the indices produced but they represented only two measures, with a 20 year gap between them. In a general sense, the co-operative data seems to indicate a long period of relatively low wages - 1903 to 1911 (coinciding with two generally recognised 'downturns') and the 1901 'peak' was not reached again for a decade. This was clearly a relatively more volatile sector than either boots and shoes or printing as far as annual wage variations were concerned. Meanwhile, it would seem, wage rates showed no change whatsoever in every year from 1905 to 1911. In line with previous sectoral studies in this chapter, standard deviations are shown for the whole and sub-periods within the dates of study; this sector - along with printing being one where the same type of data appears to have been used in the construction of the index for the period studied and so no significant change between sub-periods is anticipated. Indeed (see below), the standard deviations indicate an even smoother path for the post 1906 period than in the years before this date:

	<u>Co-operative earnings index</u>	<u>Feinstein index</u>
Standard deviation 1896-1913	8.4669	1.5619
Standard deviation 1896-1905	8.5886	1.9522
Standard deviation 1906-1913	7.670	0.2100

(sources: see table 5.5)

The main underlying aim of this chapter has been to show that the statistics for annual average wages that can be calculated from the Co-operative Movement Congress Reports have some validity as an indication of sectoral levels of earnings. One problem associated with this attempt is the fact that the wage indices produced from that data source fluctuate to a far greater extent than series produced by previous research in this area. The argument therefore has to be made that, inasmuch as most of this previous research is based in the extrapolation of wage rates and

correction to two points (the Wage censuses of 1886 and 1906) of actual earnings that were 20 years apart, it is these indices that fail to show realistic annual and sub-period to sub-period variations in the interceding years. If one accepts that actual wages varied from rates, as Feinstein for instance does,<sup>54</sup> and as has been argued in this chapter, then the logical extension of this is that average earnings are a more accurate reflector of actual levels of income. Feinstein stated his intention as being to 'capture changes in average earnings, not wage rates'<sup>55</sup> but, essentially, most of the sources relate to rates rather than earnings. Where Feinstein did use actual earnings, for instance in the Cotton and Boot and Shoe sectors (see above), that part of his index fluctuated significantly and broadly in a similar manner to the Co-operative statistics. The even rate of annual growth that a wage rate - based index produces was perhaps best demonstrated in the furniture sector and bore little or no relation to the index of actual earnings for that sector that was produced from co-operative productive society statistics. Furthermore, there is clear evidence that most indices in Feinstein's work were, after all, corrected to the Wage Censuses of 1886 and 1906. Where this was not the case, for example in the furniture sector, the error margin was even outside the fairly wide levels set by Feinstein. It is surely inappropriate to suggest that wages, for instance as indicated by Feinstein, rose in every year studied (printing) or were rising or static (furniture) regardless of what may have been happening in the economy generally. This is perhaps an example of making modern day assumptions concerning notions of being employed or unemployed - based as they are in presumptions of comprehensive state welfare - onto an earlier era when no such assumption was relevant for most sectors of the economy. Drift from wage rates would have been both above and below,

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<sup>54</sup> C. H. Feinstein, *New Estimates*, p 598

<sup>55</sup> *Idem.* p 605

dependent upon underlying conditions. The use of consistent series for wages such as is possible from the Co-operative Society data obviously makes such research not only possible but also, in a sense, less painstaking than that which has been carried out previously. Remarks concerning other indices are therefore not intended as undue criticism. However, to claim that a comprehensive index of actual earnings is being produced when the data is often extrapolated wage rates and taken from earlier research has warranted a comment. It is worth emphasising that currently no data exist that represent levels of earnings for the majority of workers in the period, particularly in the service sectors. It seems appropriate, therefore, to produce an index of earnings for the distributive (service sector) from the co-operative society statistics:

Table 5.6 - index of annual average earnings, co-operative society distributive workers, 1896 - 1913 (1896 = 100)

year	annual average wages, co-op distributive workers
1896	100.00
1897	98.88
1898	98.60
1899	96.92
1900	98.56
1901	98.96
1902	101.75
1903	100.21
1904	101.57
1905	101.04
1906	99.07
1907	99.98
1908	101.00
1909	102.25
1910	102.78
1911	104.25
1912	104.74
1913	104.46

sources: annual co-operative congress reports

It is relevant, nevertheless, to note that the numbers of workers used in the respective series from the co-operative societies represented a small and, in some instances, location-specific sample.

This point perhaps precludes a definitive summary but, on the other hand, the possibility remains of comparing annual average wages in some sectors with the Board of Trade and Labour Gazette monthly statistics from 1906 (see above) because these - crucially - used a similar methodology and came from a large sample of firms. It is also worth pointing out that most of the series used in previous research did not have continuous observations for all years. For example, Wood<sup>56</sup> listed wages for a number of employment categories (and the average of all) in the Burnley district for 1882, 1886, 1891, 1893, 1899 and 1906 but there is no indication of how the intervening years were assessed. Within a discussion concerning sources for estimates in clothing and footwear, Feinstein notes that 'we have several estimates for the mid 1880's and 1890.'<sup>57</sup> These are two examples amongst many and whereas previous series have been corrected to the wage censuses of 1886 and 1906, the co-operative society statistics for sectors analysed in this chapter pass within 6 per cent of the latter (see chapter 3). In summary, where data does exist in the form of wage rates, it indicates a relatively smooth trend, whereas actual earnings from whichever source show greater year to year fluctuations. There is clearly scope for more work concerning sectoral earnings using data from the co-operative movement but this thesis, meanwhile, moves on to an associated area and one which, it is hoped, may further assist in the establishment of these data as an addition to the research agenda of the post 1895 period.

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<sup>56</sup> Wood, *The History*, p 84

<sup>57</sup> Feinstein, 'New Estimates,' p 621

## 6 - Underlying labour market conditions within Great Britain, 1895 - 1913

This chapter will attempt to draw further inferences concerning underlying labour market conditions within the period of study from the co-operative data and continues, in a sense, with some of the work from chapter 5 in as much as sector-specific statistics, calculated in the same manner, are the primary focus. Chapter 5 highlighted the potential within the co-operative data for indicating annual and sub-period to sub-period fluctuations in annual average income and argued that the difference between the co-operative earnings data and wage rate data is that the former may reflect the underlying level of labour demand in each sector. A further suggestion was made concerning notions (or the relevance) of being employed or unemployed in this period of relatively low state welfare provision or whether, indeed, the predominant practice in most sectors and industries was to spread work rather than to lay-off workers. Furthermore, to assume that unemployment was a totally separate entity (to being employed) implies that employers made relatively destitute some workers whilst remunerating those who remained to exactly the same extent, regardless of economic conditions. Evidence presented in chapters 3 and 4 suggests that this certainly was not the case within the Co-operative Movement, and societies that operated on the basis of paying the going rate regardless of work done/relative conditions tended to fold fairly quickly. One argument that can be made is that the only potential variation from this practice was in sectors where trade unions paid relatively generous donation (unemployment) benefits. However, this argument surely extends to the question of why such practice was necessary and one possible answer is that they were required in sectors that predominantly traded in

a volatile environment such as export markets and the domestic building trades. This leads to a discussion in this specific area of the pre - 1914 measurement of unemployment.

The reliability of trade union returns as a measure of unemployment/under-employment has been an area of considerable debate, not only in the period when they were used, but subsequently. The reasons for this concern are discussed elsewhere (see chapter 1). A major limitation of the trade union unemployment returns is that they were skewed towards skilled workers in export-based and/or relatively unstable employments. The majority of these workers were in a geographically small area or represented one part of a much wider group of workers. Their numeration in the returns was dependent upon qualification for donation (unemployment) benefit. The fluctuations in the returns for these occupations, due to their relative amplitude and weighting, meant that they dominated the general measure of unemployment, while many occupations and workers were excluded. This may be exemplified by pointing out that the general percentage<sup>1</sup> (or aggregate unemployment rate) was composed of five categories - (1) engineering, shipbuilding and metal, (2) building, (3) woodworking and furnishing, (4) printing and bookbinding and (5) all other trades included in the returns (coal mining, textiles, clothing, paper, leather, glass, pottery and tobacco). The general unemployment percentages for 1908 and 1909 are 7.8 and 7.7 respectively, composed of 12.5 and 13.0 from category (1), 11.6 and 11.7 from (2), 8.3 and 7.6 from (3), 5.5 and 5.6 from (4) and 2.9 and 2.6 respectively from (5). However, category (1) - in its

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<sup>1</sup> Parliamentary Papers, LXI (1914-16)

most broad interpretation - represents less than 9 per cent of the workforce in 1911<sup>2</sup> and category (2) 12 per cent whereas (5) represents at least 20 per cent. Furthermore, the returns include component parts for most of the five categories above. For engineering, shipbuilding and metal, these include miscellaneous metal trades (brass workers, sheet metal workers, braziers, farriers etc.) and the percentage unemployment returns for this component were 4.2 and 4.5 per cent respectively for 1908 and 1909. The returns for category (2), building, are noted as being exclusively from the returns of the Amalgamated Society of Carpenters and Joiners. A very crude comparison with sectoral employment categories suggests that over 60 per cent<sup>3</sup> of the occupied workforce for 1911 is unrepresented in the returns. Interestingly, Bowley<sup>4</sup> highlighted some of the potential problems and pointed out that, for 'many reasons,' the returns of trade unionists reported as out of work did not produce a safe or universal measurement. Within his discussion, furthermore, he noted that if a statistic is based only on the number unemployed, it reflects unequally the movements in industries where the one method (of spreading work) or the other (of dismissing hands) is prevalent and that it cannot escape from the confusion between these methods.<sup>5</sup> The implications of these points is important and effectively leaves no quantification of unemployment in those industries where the paternalistic

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<sup>2</sup> C. H. Lee, *British Regional Employment Statistics, 1841-1971* (Cambridge University Press 1979)

<sup>3</sup> *Idem.*

<sup>4</sup> A. L. Bowley, The measurement of unemployment: an experiment, *Journal of the Royal Statistical Society*, LXXV, 1913, pp 795-798

<sup>5</sup> *Idem.*, p 796

approach by employers predominated and, indeed, led Bowley to attempt measurement by adjectives (from written reports on the sectoral conditions, eg. 'poor,' 'very bad,' 'fair' etc.<sup>6</sup>). More recently, work has been undertaken to include these other sectors<sup>7</sup> but the use of poor law returns may have limitations (see chapters 1, 2 and 11). If, however, sufficient data were available for periodic fluctuations in average wages in those industries or, indeed, for representative groups of workers therein, there may be a clear measure of not only relative unemployment but also short-time working.

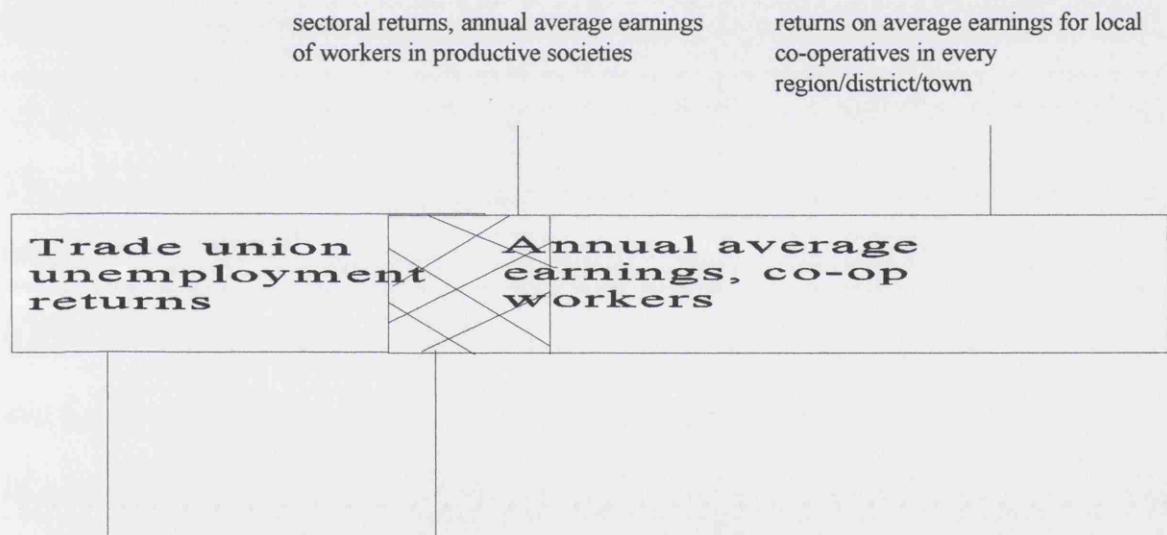
The point may, of course, be made, that despite their obvious limitations, trade union unemployment returns are reflective of underlying economic conditions even if the amplitude of the fluctuations are distorted. However, even if this were the case, their use in the weighting of general indicators suggests that any correction would substantially revise that which they are used to weight and potentially extend the relative importance of any correction to a measurement of unemployment (or perhaps a more relevant term - under-employment) in the pre - 1914 era. In sum, trade union unemployment returns are heavily influenced by and are therefore reflecting in the main one part of the economy (relatively unstable and liable to influence by factors exogenous to the British economy) whereas the majority of sectors (and workers) in the 'stable' economy (service and domestic manufacture, resilient to exogenous pressures) are either under-represented or not represented at all. This possibility can be examined by reference to sectoral points where

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<sup>6</sup> *Idem.*, p 798

<sup>7</sup> G.R. Boyer and T.J. Hatton, New Estimates of British Unemployment, 1870 - 1913, *Journal of Economic History*, 62 No. 3, 2002

each of the measures - trade union unemployment returns and annual average wages - meet. For example, the co-operative society data, as previously noted, is arranged for productive societies by sector for each of the years listed. This gives the earnings and numbers of workers in each of those societies and sectoral totals. This can be compared with trade union unemployment returns for those specific sectors. If they show some broadly similar and periodic trends, then the discussion may move towards an analysis of whether or not the wider data for annual average earnings may be used to imply broad trends in the hitherto unmeasured (but largest) service and small-scale manufacturing sectors at local, regional and national levels. The suggestion for the statistical analysis in this first examination may be summed in the form of a diagram:



trade union returns on mainly skilled workers in export-based occupations, influencing most indicators of economic activity

trade union sectoral returns on workers in manufacture for the domestic economy

It is, of course, the shaded area of the diagram in which both (ie. Trade union unemployment data and co-operative earnings data) potential indicators of economic activity coincide and

which the following discussion examines. Table 6.1 sets out the trade union unemployment returns by those sectors for the years 1896 - 1913 inclusive:

Table 6.1 - trade union unemployment returns by sector, 1896 - 1913

year	miscellaneous <sup>8</sup> metal trades	woodworking <sup>9</sup> and furnishing	bookbinding <sup>10</sup> and printing	all other trades <sup>11</sup> included in the returns
1896	4.2 <sup>12</sup>	2.0	4.3	2.3
1897	4.8	2.2	3.9	1.8
1898	4.0	2.3	3.7	1.5
1899	2.0	2.1	3.9	1.2
1900	2.1	2.8	4.2	1.6
1901	2.2	3.7	4.5	2.1
1902	2.4	4.1	4.6	1.9
1903	2.6	4.7	4.4	2.5
1904	3.5	6.8	4.7	3.0
1905	2.9	5.8	5.1	2.3
1906	2.5	4.8	4.5	1.9
1907	2.9	4.6	4.3	1.6
1908	4.2	8.3	5.5	2.9
1909	4.5	7.6	5.6	2.6
1910	2.8	5.4	4.9	2.2
1911	1.7	3.3	5.1	2.1
1912	2.0	3.1	5.2	2.1
1913	1.6	2.4	4.0	1.4

(source: Parliamentary Papers)

The returns from the co-operative societies show a varying number of entries and exits from business during the period and this factor suggests that a sectoral analysis of productive societies is ideally undertaken from those that existed throughout the period. Table 6.2 sets out the annual average earnings by sector for various productive societies and number of workers represented in each sector in 1913:

<sup>8</sup> Brass workers, sheet metal workers, braziers, farriers etc.

<sup>9</sup> United coach makers, furnishing trades association, amalgamated wood-cutting machinists

<sup>10</sup> London compositors, typographical association, London bookbinders

<sup>11</sup> Coal mining, textiles, clothing, paper, leather, glass, pottery and tobacco

<sup>12</sup> From 1896-1899 inclusive, these are returns for engineering, shipbuilding and metal trades as there are no data for miscellaneous metals prior to 1900

Table 6.2 - Annual average earnings (£'s) by sector, co-op productive societies, 1896 - 1913

year	metal workers <sup>13</sup>	wood workers <sup>14</sup>	Bookbinding & Printing <sup>15</sup>	Clothes, leather, boots, shoes and tobacco <sup>16</sup>
1896	33.72	56.70	64.75	51.61
1897	29.03	52.88	69.37	52.51
1898	38.21	58.84	65.51	51.56
1899	42.80	61.34	64.44	52.19
1900	41.26	61.93	63.71	52.57
1901	39.07	71.15	66.16	50.59
1902	42.05	71.06	66.77	49.98
1903	43.08	65.22	63.72	49.70
1904	39.36	57.35	64.10	50.24
1905	40.65	57.47	70.23	48.92
1906	44.68	56.98	69.64	51.24
1907	48.15	59.15	68.35	54.33
1908	45.30	64.15	73.35	51.79
1909	44.20	65.51	68.60	51.50
1910	48.91	65.64	71.44	54.31
1911	50.37	71.18	70.68	54.09
1912	47.98	67.86	70.60	55.65
1913	48.61	72.99	72.04	57.73
no wkrs				
1913	346	176	340	1250

(source: Annual Co-op Congress Reports)

There would, of course, be little expectation that statistics from tables 6.1 and 6.2 would move synchronously on an annual basis for the reasons that neither is calendar-sensitive (in the sense that each is an annual mean and the manifestation of a fluctuation in economic activity may have a variable lag), nor are the figures for annual earnings adjusted for cost of living increases.

<sup>13</sup> Societies in returns are: Alcester needle workers, Sheffield cutlery, Walsall locks & cart gear and Calderdale clog sundries manufacturing (Walsden)

<sup>14</sup> Societies in returns are: Bolton cabinet makers, Bradford cabinet makers and Newcastle-Upon-Tyne household furnishings

<sup>15</sup> Societies in returns are: Bookbinders (London), Blackpool union printers, Co-operative newspaper (Manchester), Hull printers, Leicester printers, Nottingham printers and Edinburgh printing

<sup>16</sup> Societies in returns are: Hebden Bridge fustian manufacturing, Wm. Thomson & sons Ltd. (Huddersfield), Finedon boot & shoe, Glenfield boot & shoe, Higham Ferrers boot & shoe, Kettering boot & shoe, Leicester (Anchor) boot & shoe and Shieldenhall (Glasgow) tobacco

Nevertheless, if both are a general indicator of economic fluctuations and labour market conditions in each sector, some broad similarities and periodic swings would be expected. The standard deviations for each series, in order of magnitude, are shown below:

<u>sector</u>	<u>standard deviation trade union unemployment</u>	<u>sector</u>	<u>standard deviation annual average wages</u>
woodworking & furnishing	1.9438	wood workers	6.0268
metal trades	1.0141	metal workers	5.5392
bookbinding & printing	0.5589	bookbinding & printing	3.1342
all other trades in returns	0.4997	clothes, leather, boots, shoes & tobacco	2.2484

Trade union unemployment returns for the metal trades shows three periods of relatively high unemployment - 1896-98 inclusive, 1904-5 and 1908-9, with an indication of a relatively fast return to lower levels in the intermittent years. Rates for the first of these periods are not from the same source (see footnote 11, p. 154) and are therefore not discussed. For 1904-5, average unemployment was 3.2 per cent and average wages for the metal trades (table 6.2) £40.05. In the preceding and following two years, average unemployment was 2.5 and 2.7 per cent respectively and annual average wages £42.57 and £46.42. For 1908-9, average unemployment was 4.35 per cent. In the preceding two years it was 2.7 and in the following two years 2.25 per cent. Annual wages for metal workers in the same periods were £44.75, £46.42 and £49.64 respectively. Unemployment returns for the woodworking trades suggest a longer period of relatively high rates - from 1903 to 1910 inclusive - when the average was 6.0 per cent. In the same period, annual average wages in that sector were £61.43 but in the preceding two years (1901-2) unemployment rates averaged 3.9 per cent and average wages £71.05 and in the following two

years (1911-12), the figures were 3.2 per cent and £69.52. Unemployment returns for the bookbinding trades suggests that rates were relatively high but stable throughout the period, with an average of 4.6 from 1900-1913 inclusive and a high point of 5.6 per cent in 1909 and a low - 4.2 per cent - in 1900. Annual average wage variations show a broadly similar picture of stability - with relatively small fluctuations against a background of generally rising incomes. Unemployment returns for all other trades included in the returns suggest a low level of unemployment throughout the period, and relative high points quickly returning to previous levels. A similar picture is shown by annual average wages, although it is worth noting that the two periods of marginally higher unemployment - 1903-4 and 1908-9 (average of 2.75 per cent in both cases) coincides with two periods of marginal wage deflation, when incomes dropped from an average of £50.29 in 1901-2 to £49.97 in 1903-4 and then £50.08 in 1905-6 and decreased from an average of £52.79 in 1906-7 to £51.65 in 1908-9 before rising to £54.20 in 1910-11.

Perhaps the potentially most interesting point from an analysis of tables 6.1 and 6.2, apart from the varying experience between sectors, is the relative stability and low levels of unemployment and variance in incomes of the sector that represents by far the largest element of the employed workforce in this analysis - all others in returns (table 6.1) and clothes, leather, boots, shoes and tobacco (table 6.2). The point could, of course, be made that this is in part a consequence of sample numbers, but the same relative 'flatness' exists when much smaller analyses are made at local levels (see chapters 8,9,10 & 11). Noteworthy also, perhaps, is the extent to which the relative stability in these series is reflected in the statistics for the wider co-op movement - dominated as they are by service sector workers - as will be discussed later in this chapter. With these points in mind, it is therefore relevant to attempt an aggregation of the series in tables 6.1

and 6.2 into one that reflects overall unemployment for those sectors and one that reflects overall annual levels of income for the same sectors. The methodology is somewhat general but, on the other hand, attempts to give a weighting relative to the proportions of the overall workforce in those sectors in 1911, by the breakdown from the census returns of that year.<sup>17</sup> A detailed description of the methodology applied is at appendix 1 but it is important to note that the same weighting applies to both tables. It is clear that such an approach will give predominance to all other trades included in the returns from table 6.1 and to clothes, leather, boots, shoes and tobacco from table 6.2. However, inasmuch as proportionally many more people were employed in these sectors than the others, this is appropriate. It is important, also, to emphasise that this approach does not make assumptions about sectors that are not included. Table 6.3 sets out the weighted aggregation of each series:

Table 6.3 - weighted aggregation of sectors representing trade union unemployment returns and annual average wages from co-operative production societies

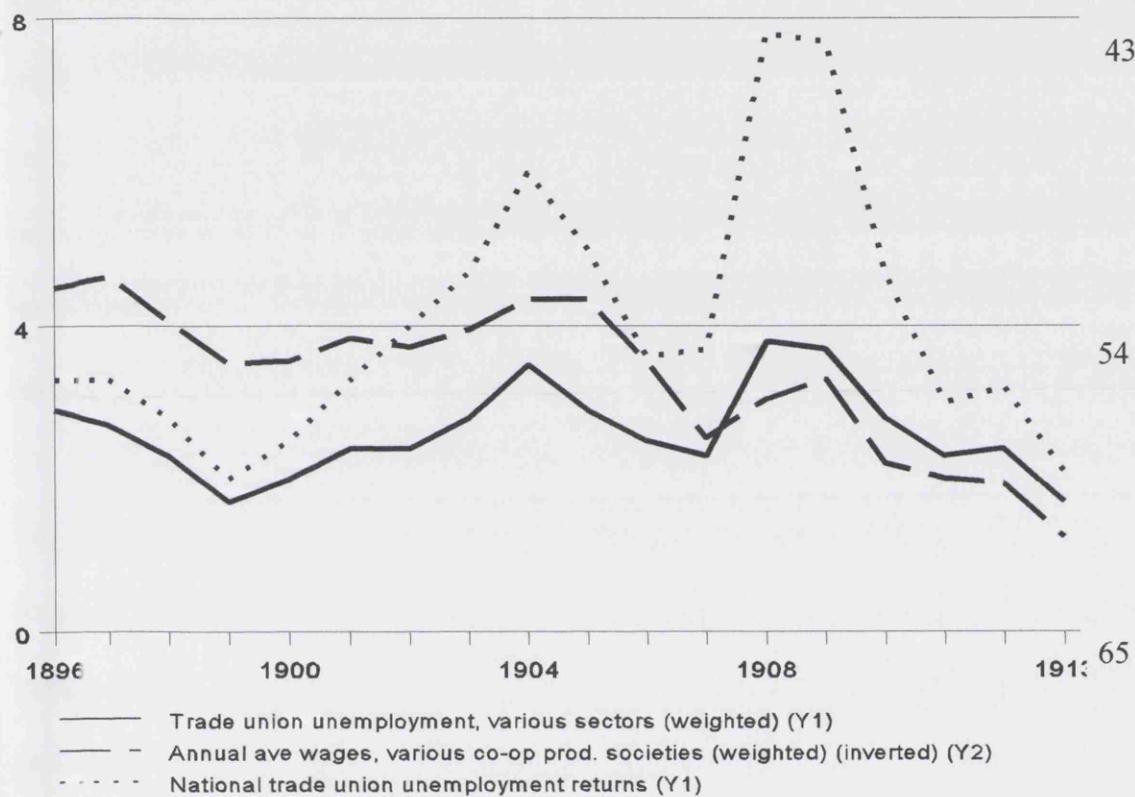
year	weighted aggregation of trade union unemployment returns from sectors shown in table 5.1	weighted aggregation of annual average earnings from the co-op productive societies in table 5.2 (£'s)
1896	2.9	49.06
1897	2.7	48.65
1898	2.3	50.26
1899	1.7	51.78
1900	2.0	51.66
1901	2.4	50.85
1902	2.4	51.18
1903	2.8	50.54
1904	3.5	49.47
1905	2.9	49.45
1906	2.5	51.70
1907	2.3	54.45
1908	3.8	53.03
1909	3.7	52.32
1910	2.8	55.36
1911	2.3	55.91
1912	2.4	56.08
1913	1.7	58.02

(sources: Parliamentary Papers, Annual Co-op Congress Reports)

<sup>17</sup> C. H. Lee, *British Regional Employment Statistics, 1841-1971* (Cambridge University Press 1979)

These data may be graphically compared with each other and with the national trade union unemployment returns. Wage data is, in each case, inverted around its mean value for ease of comparison with trade union unemployment returns (the relationship is, of course, inverse):

Figure 6.1 - comparison of weighted aggregation for trade union unemployment returns from table 6.3, weighted aggregation of annual average wages, co-operative productive societies from table 6.3 and national trade union unemployment returns



(sources: Parliamentary Papers, Annual Co-operative Congress Reports)

This first part of the chapter has explored the potential that lies within the data for one part of the Co-operative Movement for giving an indication of underlying labour market and economic conditions. A comparison was made with data from the same or similar sectors that gave trade union unemployment returns. This general part of the economy, which may be categorised as

‘manufacture for the domestic market’ showed, by both measures, a far more stable picture than that which is given by ‘national’ trade union unemployment returns. One potential criticism that could be made of the analysis is one of scaling, inasmuch as annual average wages and trade union unemployment returns are completely different sets of data and fluctuations are not directly comparable. However, whilst this is acknowledged, it is worth emphasising that relative stability in the one general sector (manufacture for the domestic market) was shown in both trade union unemployment returns and in the wage data. On the other hand, some indication of relative wages in the ‘unstable’ sector (which is over-represented in national trade union unemployment returns) is desirable. This leads to a discussion concerning the possibility of analysis in that part of the economy as well as the unmeasured but, perhaps, even more stable service sectors.

The investigation could end here but this would leave over 70 per cent of the employed labour force unmeasured. For this reason, further analysis is presented below but it becomes more tentative for two reasons; the first is that data from the co-operative movement for the ‘unstable’ part of the economy is less extensive than that which has been presented above and, secondly, for the service sectors, whilst being extremely comprehensive, has no existing measures (for example trade union unemployment returns) for comparison. Nevertheless, the exercise is worthwhile - if only as a starting point for further research and as incentive for unearthing further relevant data.

The ‘unstable’ sector of the economy has been categorised (see above) as those industries that are mainly export-oriented and/or service the domestic demand for building. These may be broadly summed as engineering, shipbuilding, cotton and building. In 1901, these industries were

included in sectors defined by the census as having a total of 3,243,160 workers - 19.9 per cent of the employed workforce (unfortunately it is not possible, in most cases, to separate the workers under discussion from those in more 'stable' occupations within these categories). The point can be made that these general industries are represented in the national trade union unemployment returns by a quantification of those who claimed donation (unemployment) benefit from the engineering, shipbuilding and metal trades and those in building. Essentially, the ASE (Amalgamated Society of Engineers) returns dominated the former and the latter was exclusively represented by returns of the ASCJ (Amalgamated Society of carpenters and Joiners). This leads to a further discussion of the respective practices in these industries concerning under-employment.

Engineering is not represented in the co-operative society data but, as Bowley suggests, it 'seems probable that the percentage shown as unemployed is nearly that of the industry as a whole since the numbers of labourers and numbers in other unions must remain in a nearly fixed proportion to the whole whether is busy or slack.'<sup>18</sup> A similar argument may be made for workers in the building trades, even for casual labourers, inasmuch as these would be roughly proportionate to the numerated skilled earners (the connection may be slightly less strong due to the fact that only carpenters and joiners are included). In cotton, however, where 'work is spread out in slack times,'<sup>19</sup> a numeration of those unemployed has less meaning. The building and cotton sectors are represented in the co-operative statistics but unfortunately the former was a declining area of co-operation in the period - particularly between 1908 and 1910 - and no consistent series are

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<sup>18</sup> A. L. Bowley, *The measurement*, p 796

<sup>19</sup> *Idem.*, p 796

possible. This means that the only series of annual average co-operative wages in the 'unstable' part of the economy is for cotton and the same data as was shown in chapter 5 is produced below, alongside trade union unemployment returns for engineering and carpentry and joinery:

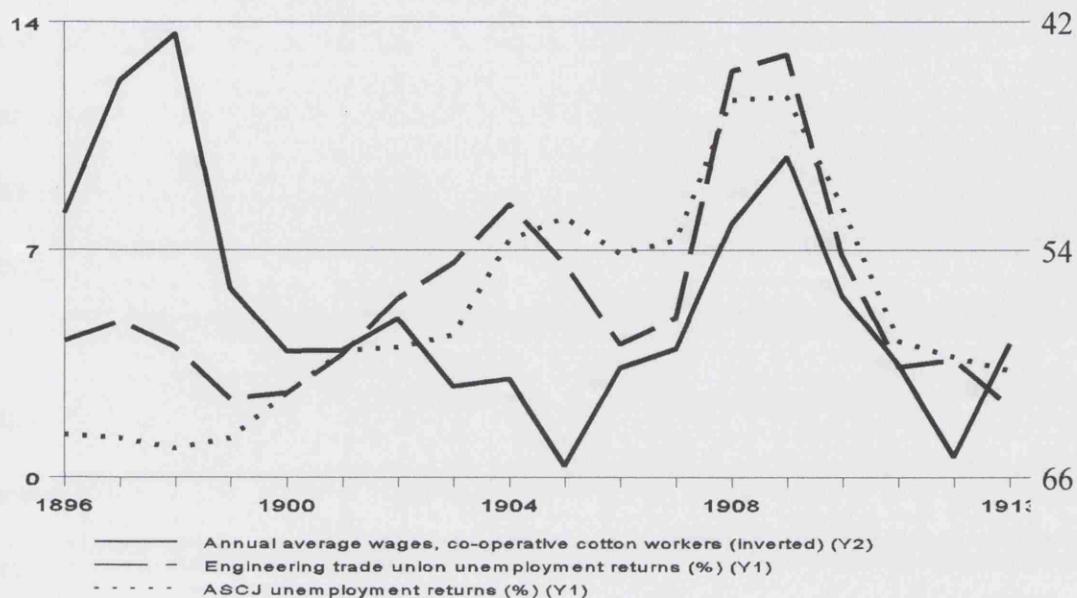
Table 6.4 - Annual average wages for co-operative cotton manufacture workers and trade union unemployment returns from the engineering industry and ASCJ, 1896 - 1913

year	Annual average wages, cotton co-operative workers (£'s)	Eng. unemployment returns (%)	ASCJ unemployment returns (%)
1896	46.66	4.2	1.3
1897	39.63	4.8	1.2
1898	37.16	4.0	0.9
1899	50.60	2.4	1.2
1900	53.93	2.6	2.6
1901	53.86	3.8	3.9
1902	52.19	5.5	4.0
1903	55.78	6.6	4.4
1904	55.38	8.4	7.3
1905	59.99	6.6	8.0
1906	54.80	4.1	6.9
1907	53.78	4.9	7.3
1908	47.19	12.5	11.6
1909	43.66	13.0	11.7
1910	51.01	6.8	8.3
1911	54.62	3.4	4.2
1912	59.49	3.6	3.7
1913	53.52	2.2	3.3

Sources: Column 1, Annual Co-operative Congress reports; columns 2 & 3, Parliamentary Papers

These data may be presented in graphical form for comparison:

Figure 6.2 - comparison of co-operative cotton workers annual average wages with trade union unemployment returns in engineering and building, 1896 - 1913



(sources: see table 5.4)

It is clear from table 6.4 and figure 6.2 that the respective sectoral indicators of under-employment suggest that - with the exception of the 'downturn' that can be crystallised into the years 1908 and 1909 - experiences and underlying economic and labour market conditions may not have been synchronous between industries. This holds out the interesting prospect of a diverse national economy where 'recession' and 'boom' are not so easy to define as would be the case if only the unemployment returns for a small minority of workers is used as the sole indicator and, furthermore, that not even the 'unstable' sectors showed convergent paths. However, some vindication of this - especially for cotton - would assist in the study. Unfortunately, and for reasons discussed above, very little information (or data) can be found but there is one exception to this. Bowley, in his measurement by adjectives (from reports on

relative sectoral conditions),<sup>20</sup> produced sectoral estimates of unemployment for a part of the period currently under investigation and this shows that the 'peak' of unemployment for cotton between the years 1894 and 1910 occurred - at an estimated percentage of 7.9 per cent - in the year 1897, with figures of 5.3 and 5 per cent respectively in the preceding and following years. This coincides with the peak of relative under-employment indicated by the sectoral annual average earnings for cotton in table 5.4, at a time when engineering unemployment returns stood at 4.8 per cent and building 1.2 per cent. Even the paternalistic approach of cotton industry employers did not totally prevail in these years but perhaps the workers in the Burnley Self-Help Manufacturing Society who were affected by the net decrease in employee numbers in that society between 1896 and 1897 got a job in another sector and remained there and/or moved again or, indeed, returned to cotton when conditions improved.

This leads to perhaps the core of this chapter - the use of statistics from the wider co-operative movement to draw inferences about what may have been happening in the largest group of sector in the national economy - services - and from which no recognised indication of unemployment or under-employment to date exists. The Co-operative Congress Annual Reports list, as previously mentioned, total earnings and numbers of workers for all societies from 1895 and the majority of these are categorised as 'distributive.' However, this term is a relatively all-embracing one and does not fully describe the wide range of occupations included. One small example of this may be given by reference to statistics in Parliamentary Papers which categorises some of the occupations in distributive departments<sup>21</sup> in retail societies for 1910. These include

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<sup>20</sup> A. L. Bowley, *The measurement of unemployment*, pp 798 - 81

<sup>21</sup> Parliamentary Papers LXXV, 1912-13

countermen, head carters, coal carters, fillers, carriers, other carters and vanmen, warehousemen and porters. If we take the range of service occupations implied by these categorisations and make reference to the occupational categories listed in the 1901 census,<sup>22</sup> it can be suggested that they are included in a total of 6,837,700 workers - 41.9 per cent of the occupied workforce. This excludes the occupational categories that were used for the series from productive societies (manufacture for the domestic economy) as well, of course, as textiles.

The co-operative society data enables the calculation of annual average wages for distributive workers in the range of occupations described (including those in insurance). All productive workers are excluded from this calculation but distributive employees in wholesale societies are included. The respective series for workers in production (weighted aggregation of wages from table 6.3) for the domestic economy and cotton are also listed in table 6.5:

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<sup>22</sup> C. H. Lee, *British Regional Employment Statistics*. The categories included are (3) food, drink & tobacco (289,313), (22) transport & communication (1,320,783), (23) distributive trades (1,302,446), (24) insurance etc. (165,774) (26) miscellaneous services (2,595,983) and (27) not classified (1,163,401) - this last category includes general labourers.

Table 6.5 - Annual average wages for co-operative workers in cotton, manufacture for the domestic economy and the service sectors, 1895 - 1913

year	Annual average wages, cotton co-operative workers (£'s)	Annual average wages, productive societies (£'s)	Annual average wages, co-operative service sector workers (£'s)
1896	46.66	49.06	57.82
1897	39.63	48.65	57.17
1898	37.16	50.26	57.01
1899	50.60	51.78	56.04
1900	53.93	51.66	56.99
1901	53.86	50.85	57.22
1902	52.19	51.18	58.83
1903	55.78	50.54	57.94
1904	55.38	49.47	58.73
1905	59.99	49.45	58.42
1906	54.80	51.70	57.28
1907	53.78	54.45	57.81
1908	47.19	53.03	58.40
1909	43.66	52.32	59.12
1910	51.01	55.36	59.43
1911	54.62	55.91	60.28
1912	59.49	56.08	60.56
1913	53.52	58.02	60.40
no. wkrs. 1913	220	2112	84350

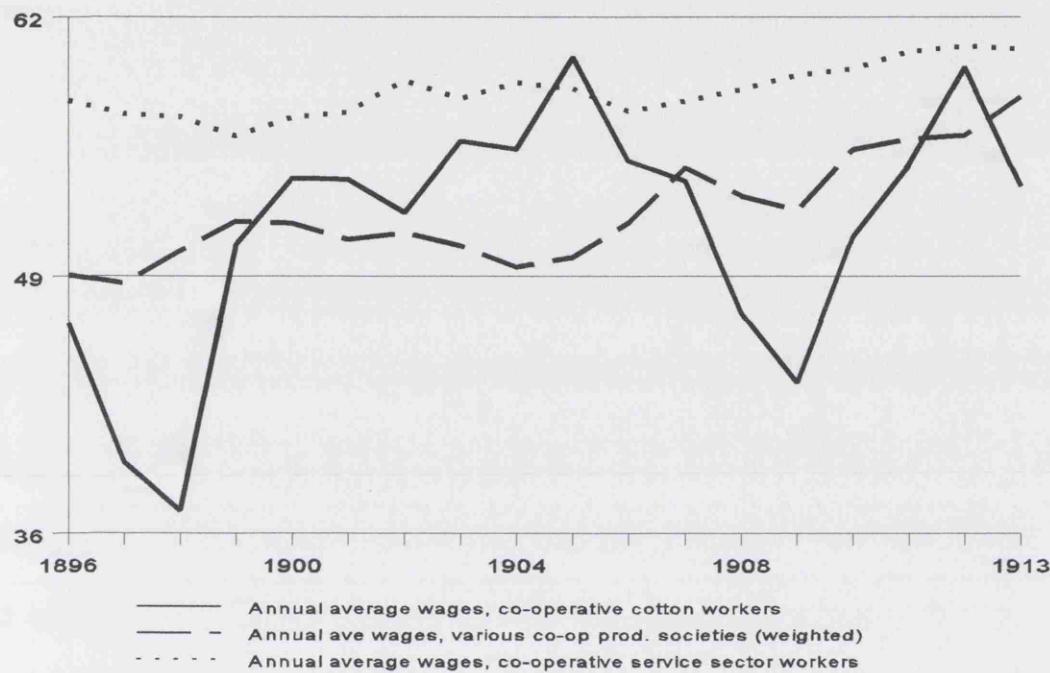
Sources: Annual Co-operative Congress Reports

The series from table 6.5 appear to indicate some sectoral convergence of wage levels. This may be the subject of future research but, on the other hand, if periods of relative 'good' or 'bad' conditions did not coincide, the starting and finishing points may have undue influence in the comparison. The extent of relative annual and sub-period to sub-period stability can perhaps first be highlighted by noting the standard deviations of the various co-operative wage series:

<u>sector</u>	<u>standard deviation</u> <u>annual average wages</u>
cotton	6.2375
manufacture for the domestic economy	2.7227
service sectors	1.2936

Figure 6.3 shows the series from table 6.5 in graphical format. They are, of course, on the same scale:

Figure 6.3 - Comparison of annual average co-operative wages in cotton, domestic manufacture and the service sectors



source: Annual Co-operative Congress Reports

The apparent divergence of experience as expressed by annual and sub-period to sub-period variations in annual average wages between these groups of sectors is significant. For example, the wage trough in cotton (1897) - corresponds with a period of relative stability in the domestic manufacture and service sectors. On the other hand, a decrease in wages for the service sectors (1899 and 1900) coincides with significant increases in wages in cotton and domestic manufacture. The two periods of high unemployment that are expressed in national trade union unemployment returns - 1903/4 and, particularly, 1908/9 - are highlighted in domestic

manufacture in both periods and, for cotton, in the latter. However, apart from a decrease in one year - 1903 - neither is apparent in the service sectors. It could be argued that this shows a lack of sensitivity in the co-operative statistics for service occupations but, conversely, there are local examples within the data that do not follow the same path as the aggregate figures suggest. For example, it was shown in chapter 3 that the Kinning Park (Glasgow) Society returned wage statistics that varied with locally reported conditions and these, indeed, show significant declines in annual average incomes in the sub-periods of 1903-5 and 1907-11. The fact that this is not reflected in the national picture holds out the obvious possibility that relative experience varied between place as well as sector and across time. This points towards a diverse economy where the definition of a national downturn was not at all easy to define or quantify. The only method, surely, by which some 'national' indication can be measured is by the weighting of sectors in some proportion to numbers employed. Applying the same method to the three series in table 6.5 as is explained in appendix 1, a weighted aggregation is made of these tables of annual average wages. In this case, 7.17 per cent (1,169,215 workers out of a total employed workforce of 16,311,539) is applied to cotton, 20.99 per cent to domestic manufacture (see appendix 1) and 41.9 per cent to the service sectors (see above). This gives an indication for 70.1 per cent of the employed workforce in 1901.<sup>23</sup> Sectors excluded are agriculture (1,392,865), chemical and allied industries (86,324), mechanical engineering (432,087), instrument engineering (36,159), electrical engineering (53,708), shipbuilding and marine engineering (121,293), vehicles (125,757), bricks, pottery, glass, cement etc. (182,130), other manufacturing (81,853), construction (1,262,521), gas, electricity and water (62,426), professional and scientific services (629,835), and public administration and defence (413,847) - 4,880,805 in total, representing

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<sup>23</sup> C. H. Lee, *British Regional Employment Statistics*

29.9 per cent of the employed workforce in 1901.<sup>24</sup> Table 6.6 shows the annual average wages from the weighted aggregation of the three series in table 6.5:

Table 6.6 - weighted aggregation for the cotton, production for the domestic economy and service sectors, 1896 - 1913

year	weighted aggregation
1896	54.02
1897	52.79
1898	52.93
1899	54.18
1900	55.05
1901	54.94
1902	55.83
1903	55.47
1904	55.58
1905	55.86
1906	55.32
1907	56.36
1908	55.61
1909	55.47
1910	57.32
1911	58.36
1912	59.07
1913	58.95

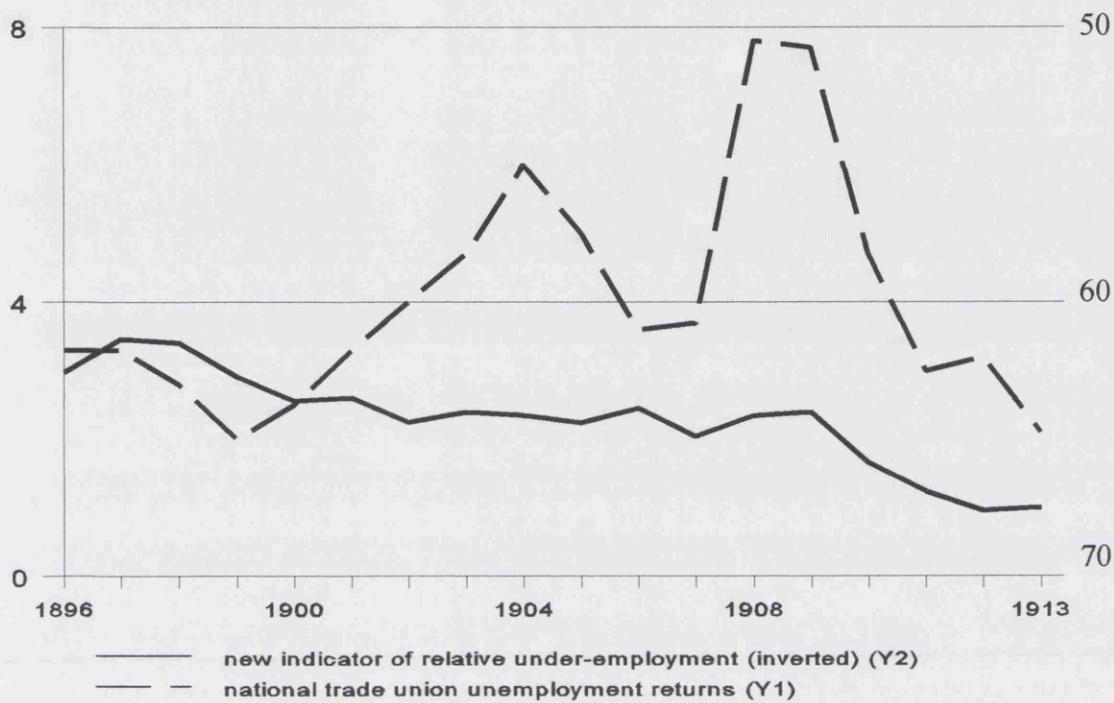
source: Annual Co-operative Congress reports

A graphical presentation of the above series is relevant, together with national trade union unemployment returns - not so much as to highlight the varying amplitude between 'peaks' and 'troughs' (they are, as noted above, different types of data) - but rather to assess the extent to which any discernible variation in annual average wages is mirrored in the unemployment returns. The new indicator of relative labour market conditions for over 70 per cent of the workforce is inverted around its mean value:

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<sup>24</sup> *Idem.*

Figure 6.4 - Comparison of a new indicator of relative labour market conditions for over 70 per cent of the workforce with national trade union unemployment returns, 1896 - 1913



(sources: Annual Co-operative Congress Reports; Parliamentary Papers)

Two immediately obvious observations can be made about the new indicator of relative labour market conditions for over 70 per cent of the workforce, 1896 - 1913 - namely that it is not detrended and, for most of the economy, may be seen as a series of annual nominal wages. However, with regards to these points, the next step would be to weight it with a price index but, if the latest is used,<sup>25</sup> this has the effect of creating a trend in the opposite direction - ie. of indicating declining real wages in the period. Interestingly, Feinstein's index of total average

<sup>25</sup> C. H. Feinstein, A new look at the cost of living 1870-1914, in J. Foreman-Peck (ed.) - *New perspectives on the late Victorian economy* (Cambridge University Press, 1991), pp 170-71

earnings shows an increase of 21.7 per cent in the period<sup>26</sup> and the cost of living index an increase of 16.5 per cent. The new indicator of service sector nominal wages increases by 9.1 per cent in the period whereas, for cotton workers the series increases by 14.7 per cent and domestic manufacture by 18.3 per cent. This suggests the possibility that the overall index by Feinstein may have given too much weight to productive occupations and, indeed, to the unstable part of the economy. Alternatively, the implication could be that the reward for specific skilled labour could be increasing relatively in this period. This is an important issue within the notion of a 'second industrial revolution.' For example, was demand for exports rising? Were more women moving into distributive and service sector occupations, thus pulling wages down in that area (notwithstanding - see chapter 4 - that the representativeness of co-operative earnings were tested against the 1906 wage census)? Detail of such an investigation is beyond the parameters of this thesis, but it is worth noting that female employment in the distributive trades increased by 46.9% between 1901 and 1911.<sup>27</sup>

Table 6.6 and figure 6.5, showing the new indication of relative labour market conditions, can be criticised on many grounds. The sectors are grouped under wide headings and, furthermore, only one of the 'unstable' industries - cotton - is included. Indeed, another potential criticism is that the above is merely an exercise in 'flattening' trade union unemployment returns (although this point can be dismissed unless a plausible explanation is forthcoming that accounts for the wide fluctuations in cotton and even wood-working). As starting point for more research in this

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<sup>26</sup> C. H. Feinstein, New estimates of average earnings in the United Kingdom, 1880 - 1913, *Economic History Review* XLIII, 4, 1990, p 612

<sup>27</sup> C. H. Lee, *British Regional Employment Statistics, 1841-1971* (Cambridge University Press 1979)

area, however, it perhaps has some clear and positive aspects. The most obvious is that it gives an indication for most parts of the economy and geographical areas. Unstable sectors that are not included could be factored into a more comprehensive index - proportionate to the numbers of workers represented in these industries - and those not included that may be considered as 'stable,' for example government service, may be included in the service sectors. This is the first attempt at giving some indication of the service sectors in the period (at least that has some consistent statistical basis) and this indicates stability and diversity. One point of reference worth highlighting is that Bowley<sup>28</sup> (see chapter 3) estimated a national average wage from the wage census of 1906 and the weighted aggregation for that year (see table 6.6) passes to within 4 per cent of that figure.

This and the previous chapter have shown that sectoral and service annual average wage returns from the Co-operative Movement show a widely divergent picture to that which is indicated by wage-rate and trade union unemployment based research. This has extended to the use of these data as an indication of relative under-employment. Reference has been made to divergent experiences across place as well as time and this leads to a spatial investigation of the data for one year.

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<sup>28</sup> A. L. Bowley, *Wages and income in the United Kingdom since 1860* (Cambridge University Press, 1937), p 52

## **Chapter 7 - National, regional and county - level income variance**

The aim of this chapter is to analyse existing work on income variance and compare and contrast this with the data from the Co-operative Movement. Appendix 2 lists co-operative workers income by town, sector, district and region for 1906. The methodology for calculating annual average income is the same as outlined in chapter 4 and individual societies, as well as district and regional totals, give separate figures for both productive and distributive workers and as total annual average income. Productive societies are separately listed at the end of each district within which they lay. These data will be used in this chapter to try and draw some inferences concerning spatial income variance and which factors may have influenced (or been influenced by) this variance. Examples of the potential factors include such possibilities as geographical location (ie. relative nearness to sea ports/ commercial or industrial centres), relative density of population and local employment structures. Some identifiable relationship between all or some of these factors may assist in a greater understanding of the forces that determined relative earnings and could influence such areas of research as migratory motivation, economic development, and the progressive evolution of urban concentrations. It is possible that a more micro investigation, enabled by the use of data from the Co-operative Movement, may give a better understanding of these factors. The aim is not to attempt a 're-write' of existing work but, nevertheless, a necessary starting point is to re-construct the co-operative society data in the same geographical units as has been used by historians working in this field of research. One clear difference between this current work and some which has been previously undertaken is the notion that actual earnings - rather than wage rates - may be the more sensitive indicator, as discussed in previous chapters, of underlying labour market conditions.

Perhaps the most authoritative and widely used work on income variance in this and previous eras is by Hunt.<sup>1</sup> Using data on wage rates and earnings for a number of occupations, Hunt produced tables indicating earnings differentials within Great Britain, which was split into thirteen regions, each consisting of a number of counties for various dates between 1860 and 1907. For the purposes of the task in hand, it is most relevant to reproduce Hunt's data for 1906 or, indeed, the nearest year thereto. This may then be compared with the co-operative society data, re-arranged into the same geographical units for 1906.

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<sup>1</sup> E. H. Hunt, *Regional wage variations in Britain, 1850 - 1914* (Clarendon Press, Oxford, 1973)  
E. H. Hunt, Industrialisation and Regional Inequality: Wages in Britain, 1760 - 1914, *Journal of economic History*, Vol XLV1, No 4, 1986, pp 935 - 966

Table 7.1 - Hunt's indices of income variance by region (GB = 100)<sup>2</sup>

Region	Agricultural Labourers (1907)	Carpenters & Labourers (1906)	Police Constables (1906)
London & Home Counties	102	109	114
South West	92	87	84
Rural South East	90	91	90
South Wales	100	104	98
Rural Wales & Herefordshire	97	-	-
Midlands	101	109	116
Lincs., Rutland, E & N Riding	103	99	106
Lancs., Cheshire & W Riding	108	107	106
Cumberland & Westmorland	105	95	94
Northumberland & Durham	118	111	110
South Scotland	106	95	98
Central Scotland	111	105	100
Northern Scotland	96	93	90
			103
			101
			112
			104
			109
			97
			104
			97

(Source: E.H. Hunt, see footnote 2)

The Co-operative Society data is not in each case within the same geographical boundaries as those used by Hunt. They can, however, be broadly re-arranged to coincide with these boundaries and the results of this exercise are produced below. The calculation is made using total numbers of workers and total earnings for each region and is therefore not the mean of each society. The data is presented in figures as well as in index form. Total

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<sup>2</sup> E. H. Hunt, *Regional wage variations*, pp 64 - 75. The regions indicated included, in each case, whole counties. These are listed in Appendix 3.

numbers represented are also listed:

Table 7.2 - Co-operative society annual average earnings by Hunt's regions for 1906

Region	Annual Ave Income (£)	Annual ave income as index (GB = 100)	Total no. workers
London & Home Counties	62.46	112	4321
South West	52.91	95	2976
Rural South East	54.77	98	3085
South Wales	62.37	112	1266
Rural Wales & Herefordshire	55.07	99	128
Midlands	57.75	104	5054
Lincs., Rutland, E & N Riding	50.99	92	2354
Lancs., Cheshire & W Riding	55.15	99	25056
Cumb. & W'm'lnd	57.80	104	1545
Northumberland & Durham	57.93	104	9410
South Scotland	53.82	97	1843
Central Scotland	51.97	93	14165
Northern Scotland	52.24	94	3512

(Source: Annual Co-operative Congress Reports)

In a sense, comparisons between regional variations of income between tables 7.1 and 7.2 are inappropriate because on the one hand they use dissimilar data and on the other are measuring income levels for differing occupations. Even the occupational data within table 7.1 do not show consistent variation between regions. There may be a case for arguing that agricultural earnings will not necessarily be consistent in variation when compared with urban employments. There could be several reasons for this - for example, relative remoteness, overall levels of demand for labour within regions and differing intensity of

labour inputs in farming when, for example, pastoral, arable and even 'mixed' methods are compared. On the other hand, if underlying regional labour market conditions have any consistency (within a region), then some level of relative parity may be expected. This suggests the possibility that the geographical units of analysis may not be sensitive to the differing opportunities that existed within such large areas.

One particular point of interest is the extent to which the region-specific indices of co-operative income are at variance with Hunt's indices based on the wage rates for carpenters and their labourers. One explanation for this may be that measurement by wage rates over-emphasises the levels of income within enclaves of industrial occupations or, indeed, that these rates were particularly formalised and bid upwards in a relatively heavily unionised area. If this is the case, then no account for divergence from rates in the form of short-time working or overtime is made. These points are, however, at this stage speculative, and await the more micro analysis that will be undertaken in subsequent chapters. Whilst the discussion remains at these very general levels, it must be anticipated that indications of disparity will be inconclusive, and this is borne out by the preceding comparisons. Whilst regional variance of agricultural labourers income had no significant statistical relationship with co-operative earnings, there were correlation coefficients of 0.545, 0.397 and 0.353 respectively when the latter were compared with carpenters, their labourers and police constables.

The occupational structure of a geographical entity will clearly be of some relevance to a

discussion on regional variations. Before moving to a more micro analysis, therefore, use may be made of the work by Lee,<sup>3</sup> which includes county level occupational structures for twenty nine classifications of employment for decennial periods from 1841. This chapter, as well as subsequent ones in the thesis, will make use of the tables for 1911. A full itemisation of these categories is not in this instance practical so, for the present general purpose, these will be grouped in four blocks of occupational types - agricultural, extractive, industrial and service. Whilst Lee listed female and male levels of occupation, the present discussion will deal only with total numbers in employment. One further general comparison that may be made at this point is of population change in the preceding three decades:

Table 7.3 - Comparison of co-operative workers annual average wages by county with percentages in various employment sectors and population change in the previous two decades for 1906

County/ County Group <sup>4</sup>	Co-op workers annual ave wage <sup>5</sup> (£'s)	% working pop. in agriculture	% working pop. in extractive occ's	% working pop. in industrial occ's	% working pop. in manufact'g occ's	% working pop. in service occ's	+/- pop. 1901-11	+/- pop. 1891- 1911
London	66.42	0.43	0.41	9.8	22.49	57.61	-0.33	+7.36
Leicestershire	63.91	6.82	5.9	23.58	29.68	29.73	+9.72	+26.55
Northamptonsh'e	62.43	12.28	2.05	6.85	41.36	33.13	+8.4	+18.09
Middlesex	62.40	3.16	0.48	10.69	19.63	55.0	+44.44	+99.04
Surrey	62.33	6.07	0.51	6.65	16.57	61.34	+39.87	+59.78
Buckinghamshire	60.60	18.41	0.46	8.4	21.38	46.07	-1.92	+18.93

<sup>3</sup> C. H. Lee, *British Regional Employment Statistics, 1841-1971* (Cambridge University Press 1979)

<sup>4</sup> Lee amalgamated Scottish counties into seven units and Welsh counties into two. These same geographical entities have been retained for this table for the co-operative average annual wages so that like with like is compared - see C. H. Lee, *British regional employment statistics 1841 - 1971* (Cambridge University Press, 1979), p 6

<sup>5</sup> Every county classified by Lee has a co-operative society annual average wage observation with the exception of two - Westmorland and Herefordshire. The former has no co-operative society listed within its boundaries for 1906 and the latter only one. Their total working populations were 29,602 and 50,209 respectively in 1911

County/ County Group	Co-op workers annual ave wage (£'s)	% working pop. in agriculture	% working pop. in extractive occ's	% working pop. in industrial manufact'g occ's	% working pop. in manufact'g occ's	% working pop. in service occ's	+/- pop. 1901-11	+/- pop. 891- 1911
Hertfordshire	60.33	13.5	0.60	6.78	18.32	53.96	+13.23	+35.99
Berkshire	60.06	13.61	0.42	6.57	16.88	56.53	+19.56	+12.53
N.& W. Wales	59.99	22.44	13.59	9.15	14.09	36.17	+3.09	+9.06
Dorset	59.67	18.71	2.33	6.25	15.67	52.13	+9.46	+17.02
Durham	58.81	2.72	29.11	21.04	11.78	35.35	+16.0	+34.42
Kent	58.80	11.77	0.94	9.19	15.39	56.05	+6.08	+26.45
Dumf's&G'way	58.15	29.57	3.61	9.18	15.26	37.52	-1.0	-4.73
Cumberland	58.04	15.12	14.91	12.75	14.29	38.02	-0.44	-0.3
Derbyshire	57.95	6.42	21.6	23.82	13.18	30.29	-7.63	+30.42
Warwickshire	57.90	4.02	3.80	33.83	17.59	34.12	+7.15	+25.62
Lancashire	57.56	2.21	5.19	37.35	14.66	34.36	+7.53	+19.19
Sussex	57.16	12.94	0.54	5.62	15.88	60.0	+10.74	+20.26
Nottinghamshire	57.04	6.31	14.6	25.29	33.51	33.41	+33.41	+35.83
Tayside	56.52	11.84	0.94	36.61	12.35	33.23	-0.26	+1.65
West Riding	56.52	3.44	10.57	35.92	15.26	29.66	+11.3	+24.22
Northumberland	56.44	6.25	19.63	17.77	12.74	36.92	+15.55	+37.72
Central & Fyfe	56.33	7.52	22.31	20.57	14.56	29.58	+16.96	+34.65
Somerset	56.09	16.9	4.09	7.91	21.22	45.07	+12.49	-4.08
North Riding	56.06	15.5	6.12	20.22	13.3	39.47	+10.81	+17.99
Essex	56.01	8.44	0.66	11.77	19.03	49.94	+22.65	+74.66
Gl'gan&M'mth	55.94	2.97	32.95	13.01	12.50	32.53	+33.14	+59.22
Lothian	55.62	5.35	9.96	10.73	16.22	49.93	+6.39	+20.33
Cheshire	55.18	7.1	1.27	27.82	15.61	41.0	+11.28	+30.02
Bedfordshire	54.83	16.29	0.76	11.18	30.08	36.9	+15.23	+19.19
Wiltshire	54.03	21.22	1.07	14.54	15.96	42.67	+2.94	+9.51
Worcestershire	53.81	9.68	2.02	25.56	17.48	38.71	+26.32	+35.65
Devon	53.60	14.69	1.33	8.92	16.79	52.80	+6.04	+10.37
Oxford	53.39	19.49	0.75	6.68	17.32	50.95	+7.0	+6.0
Staffordshire	53.29	4.17	10.88	24.48	25.22	29.66	+10.21	+23.54
Shropshire	53.23	23.12	6.27	10.01	14.3	41.57	+10.77	+4.26
Hampshire	52.95	8.17	0.53	9.29	14.72	61.44	+13.76	+38.03
Borders	52.78	23.69	0.44	28.38	12.36	31.33	-1.15	-9.01
Cambridge	52.56	33.04	0.55	4.1	14.76	43.86	+15.82	+9.03
East Riding	52.41	11.77	0.89	13.78	15.82	50.74	+9.32	+26.49
Huntingdonshire	51.3	37.02	0.52	5.19	15.61	38.75	-10.94	-4.15
Rutland	51.10	27.51	2.79	4.17	13.84	48.38	+8.48	-3.36
Grampian	51.02	26.51	2.09	10.97	14.12	40.8	+1.41	+7.85
Lincolnshire	50.05	26.78	1.49	13.7	13.65	39.8	+10.99	+18.76
Suffolk	49.57	25.62	0.39	10.13	15.25	44.42	+2.48	+8.16
Strathclyde	49.45	3.84	9.01	29.45	14.82	35.03	+9.17	+28.81
Cornwall	48.63	21.96	11.05	7.69	14.59	39.99	+0.63	+1.81
Gloucestershire	46.66	8.46	3.11	8.94	20.23	52.64	-4.54	+23.21
Norfolk	46.54	25.61	0.59	7.71	18.74	42.7	+2.89	+6.51
Highlands	46.08	41.16	0.45	8.08	10.4	36.23	-2.8	-5.5

(Sources: Annual co-operative congress reports; Lee, see footnote 3)

One immediately obvious point that can be made from the data in table 7.3 is the extent to which the smaller counties which are geographically adjacent to London not only have a relatively high level of annual average co-operative society earnings but also quite high population expansions in the preceding two decades. Interestingly, London does not return such high population growth rates but this is surely a factor that is determined by the setting of geographical boundaries rather than economics. These smaller home counties - Middlesex, Surrey, Buckinghamshire and Hertfordshire were, it may be speculated, influenced to a greater extent by the London market (indeed they were probably part of it) than those that have a much larger rural hinterland - for example Kent and Essex. This factor suggests the possibility that a boundary could be set by economic influence rather than any other factor. This may be done by finding the locations (co-operative societies) at which annual average wages 'normalised'. Such an exercise will become part of the later stages of this chapter.

The previously made point concerning London and the home counties emphasises the fact that no conclusive relationships could be expected between a county level indication of annual average income and other economic indicators. The units are not necessarily too large but are, as previously stated, set on historic/administrative grounds rather than by occupational structures or wages. However, there may be some 'loose' associations between county - level measures of economic structure and wage values. For example, it would be anticipated very generally that the higher the levels of agricultural occupation within a county, the lower the levels of annual average wages would be and, indeed, the two

variables have a negative correlation coefficient of 0.5088. The highest coefficients between co-operative annual average income and other variables were 0.3467, 0.3423 and 0.3147 with population change 1891-1911, levels of manufacturing occupation and population change 1901-11 respectively. One potentially distortive factor in the preceding discussion is that Lee (see footnote 4) did not separate all of the Scottish and Welsh counties. If these are taken out of the equation, the negative relationship between levels of annual average co-operative earnings and levels of agricultural occupations increases to 0.56078 and the positive relationship between levels of earnings and population change between 1891 and 1911 increases to 0.3675. A regression of co-operative earnings on other variables shows no significance:

Coeff.	-.327 ag.	-.093 ext.	-.178 ind.	+.079 man.	-.099 serv.	+.021 pop.1	+66.1 pop.2
T val.	(-1.66)	(-0.45)	(-0.80)	(0.39)	(-0.41)	(0.36)	(3.28)

$\bar{R}^2 = .254$ , F = 3.78

In a sense, the relative levels of income within the geographical entity that is England, Scotland and Wales has less relevance than income differentials within economic spheres of influence. One reason for this is that there may have been migration over shorter distances than of transversing the whole country. Even though the London region had higher wages than Leicestershire and Northamptonshire, for example, it would have been the relatively higher incomes in the latter that would have been of more interest perhaps to most potential migrants from Rutland and Lincolnshire. With this in mind, it may be of interest to re-divide table 7.3 into counties of relatively high annual average earnings and compare these with those immediately adjacent to them. This is also, in part, an introductory exercise to the more refined

definitions (see above, page 178) that will be attempted at a later point in the chapter.

Correlation coefficients will also be listed in the following tables but this is for very general indication only - it is acknowledged that some samples are really too small to be specific about their relevance.

Table 7.3.1 - Comparison of co-operative workers annual average wages by county with percentages in various employment sectors and population change in the previous two decades for 1906, London and surrounding counties<sup>3</sup>

County/ County Group	Co-op workers annual ave wage (£'s)	% working pop. in agriculture	% working pop. in extractive occ's	% working pop. in industrial occ's	% working pop. in manufact'g occ's	% working pop. in service occ's	+/- pop. 1901-11	+/- pop. 1891- 1911
London	66.42	0.43	0.41	9.8	22.49	57.61	-0.33	+7.36
Middlesex	62.40	3.16	0.48	10.69	19.63	55.0	+44.44	+99.04
Surrey	62.33	6.07	0.51	6.65	16.57	61.34	+39.87	+59.78
Hertfordshire	60.33	13.5	0.60	6.78	18.32	53.96	+13.23	+35.99
Berkshire	60.06	13.61	0.42	6.57	16.88	56.53	+19.56	+12.53
Kent	58.80	11.77	0.94	9.19	15.39	56.05	+6.08	+26.45
Essex	56.01	8.44	0.66	11.77	19.03	49.94	+22.65	+74.66
Correlation coefficients with co-op ann ave income	-0.6875	-0.6094		-0.1684	0.5705	0.6622	-0.08209	-0.2692

Table 7.3.2 - Comparison of co-operative workers annual average wages by county with percentages in various employment sectors and population change in the previous two decades for 1906, Leicestershire/Northamptonshire and surrounding counties

County/ County Group	Co-op workers annual ave wage (£'s)	% working pop. in agriculture	% working pop. in extractive occ's	% working pop. in industrial occ's	% working pop. in manufact'g occ's	% working pop. in service occ's	+/- pop. 1901-11	+/- pop. 1891- 1911
Leicestershire	63.91	6.82	5.9	23.58	29.68	29.73	+9.72	+26.55
Northamptonsh'e	62.43	12.28	2.05	6.85	41.36	33.13	+8.4	+18.09
Buckinghamshire	60.60	18.41	0.46	8.4	21.38	46.07	-1.92	+18.93
Derbyshire	57.95	6.42	21.6	23.82	13.18	30.29	-7.63	+30.42
Warwickshire	57.90	4.02	3.80	33.83	17.59	34.12	+7.15	+25.62
Nottinghamshire	57.04	6.31	14.6	25.29	33.51	33.41	+33.41	+35.83
Bedfordshire	54.83	16.29	0.76	11.18	30.08	36.9	+15.23	+19.19
Oxford	53.39	19.49	0.75	6.68	17.32	50.95	+7.0	+6.0
Huntingdonshire	51.3	37.02	0.52	5.19	15.61	38.75	-10.94	-4.15
Rutland	51.10	27.51	2.79	4.17	13.84	48.38	+8.48	-3.36
Lincolnshire	50.05	26.78	1.49	13.7	13.65	39.8	+10.99	+18.76
Correlation coefficients with co-op ann ave income	-0.7345	0.2151		0.3846	0.6386	-0.5414	0.0559	0.5983

<sup>3</sup> Although Hertfordshire and Berkshire are not directly adjacent to London, their geographical nearness warrants inclusion (Middlesex is a small and very narrow county)

Table 7.3.3 - Comparison of co-operative workers annual average wages by county with percentages in various employment sectors and population change in the previous two decades for 1906, Durham and surrounding counties

County/ County Group	Co-op workers annual ave wage (£'s)	% working pop. in agriculture	% working pop. in extractive occ's	% working pop. in industrial manufact'g occ's	% working pop. in service occ's	% working pop. in 1901-11	+/- pop. 1891- 1911
Durham	58.81	2.72	29.11	21.04	11.78	35.35	+16.0 +34.42
Cumberland	58.04	15.12	14.91	12.75	14.29	38.02	-0.44 -0.3
Northumberland	56.44	6.25	19.63	17.77	12.74	36.92	+15.55 +37.72
North Riding	56.06	15.5	6.12	20.22	13.3	39.47	+10.81 +17.99
Correlation coefficients with co-op ann ave income		-0.4297	0.7444		-0.1262 -0.2533	-0.7043	-0.1509 -0.0932

Table 7.3.4 - Comparison of co-operative workers annual average wages by county with percentages in various employment sectors and population change in the previous two decades for 1906, Dumfries & Galloway and surrounding counties

County/ County Group	Co-op workers annual ave wage (£'s)	% working pop. in agriculture	% working pop. in extractive occ's	% working pop. in industrial manufact'g occ's	% working pop. in service occ's	% working pop. in 1901-11	+/- pop. 1891- 1911
Dumf's&G'way	58.15	29.57	3.61	9.18	15.26	37.52	-1.0 -4.73
Cumberland	58.04	15.12	14.91	12.75	14.29	38.02	-0.44 -0.3
Northumberland	56.44	6.25	19.63	17.77	12.74	36.92	+15.55 +37.72
Borders	52.78	23.69	0.44	28.38	12.36	31.33	-1.15 -9.01
Correlation coefficients with co-op ann ave income		-0.0708	0.4645		-0.9842 0.8356	0.9791	0.0474 0.1638

Table 7.3.5 - Comparison of co-operative workers annual average wages by county with percentages in various employment sectors and population change in the previous two decades for 1906, Dorset and surrounding counties

County/ County Group	Co-op workers annual ave wage (£'s)	% working pop. in agriculture	% working pop. in extractive occ's	% working pop. in industrial manufact'g occ's	% working pop. in service occ's	% working pop. in 1901-11	+/- pop. 1891- 1911
Dorset	59.67	18.71	2.33	6.25	15.67	52.13	+9.46 +17.02
Somerset	56.09	16.9	4.09	7.91	21.22	45.07	+12.49 -4.08
Wiltshire	54.03	21.22	1.07	14.54	15.96	42.67	+2.94 +9.51
Devon	53.60	14.69	1.33	8.92	16.79	52.80	+6.04 +10.37
Hampshire	52.95	8.17	0.53	9.29	14.72	61.44	+13.76 +38.03
Cornwall	48.63	21.96	11.05	7.69	14.59	39.99	+0.63 +1.81
Correlation coefficients with co-op ann ave income		-0.0732	-0.5821		-0.2110 0.3833	0.2978	0.5456 0.0850

The tables and the preceding discussion highlights, of course, how complicated and diverse the British economy was and, indeed, how wrong it would be to make assumptions based on one sector or occupational group. This may produce neat and superficially convincing scenarios but would inevitably be flawed. If nothing else, the chapter thus far has shown that there were very few consistencies concerning reasons for levels of relatively high or low incomes except that, in the main, areas of high agricultural occupation were more likely to be areas of low wages relative to the region(s) in which they were located and, conversely, large urbanised (in a general sense - no definitive measure of urbanisation is implied) areas not only tended to have higher wages (relative to the rest of the region in which they were located) regardless of their occupational structure, but also that their influence may have extended to some undefined point in the surrounding area. At its most optimistic interpretation, this may enable the re-division of Edwardian Britain by the local economy (or economies) rather than other factors and could suggest regions of logical economic investigation. The most obvious, affluent and influential of these regions was dominated by London and is the starting point for such an exercise.

The approach and methodology to this exercise is quite straightforward inasmuch as points of relatively low wages around London can be selected from appendix 2 and the nearest point of high wages to these districts will also be selected. The closer these points are, the narrower will the 'line' at which wages were no longer influenced by the metropolis, and it may be assumed that the border of the unit of

economic analysis lays within the points plotted. Interestingly, there are urbanised areas outside of these lines that had relatively higher wages - the Medway towns, for instance, and coastal towns such as Southend, Ramsgate and Dover but these were presumably more affluent for other reasons, for example as coastal resorts or important ports rather than their nearness to London (although this would clearly not have been disadvantageous). In table 7.4, the furthest point within the London - dominated region are listed, with the nearest listed point of relatively low wages:

Table 7.4 - Outer points of relatively high and low wages within the London - dominated region in 1906

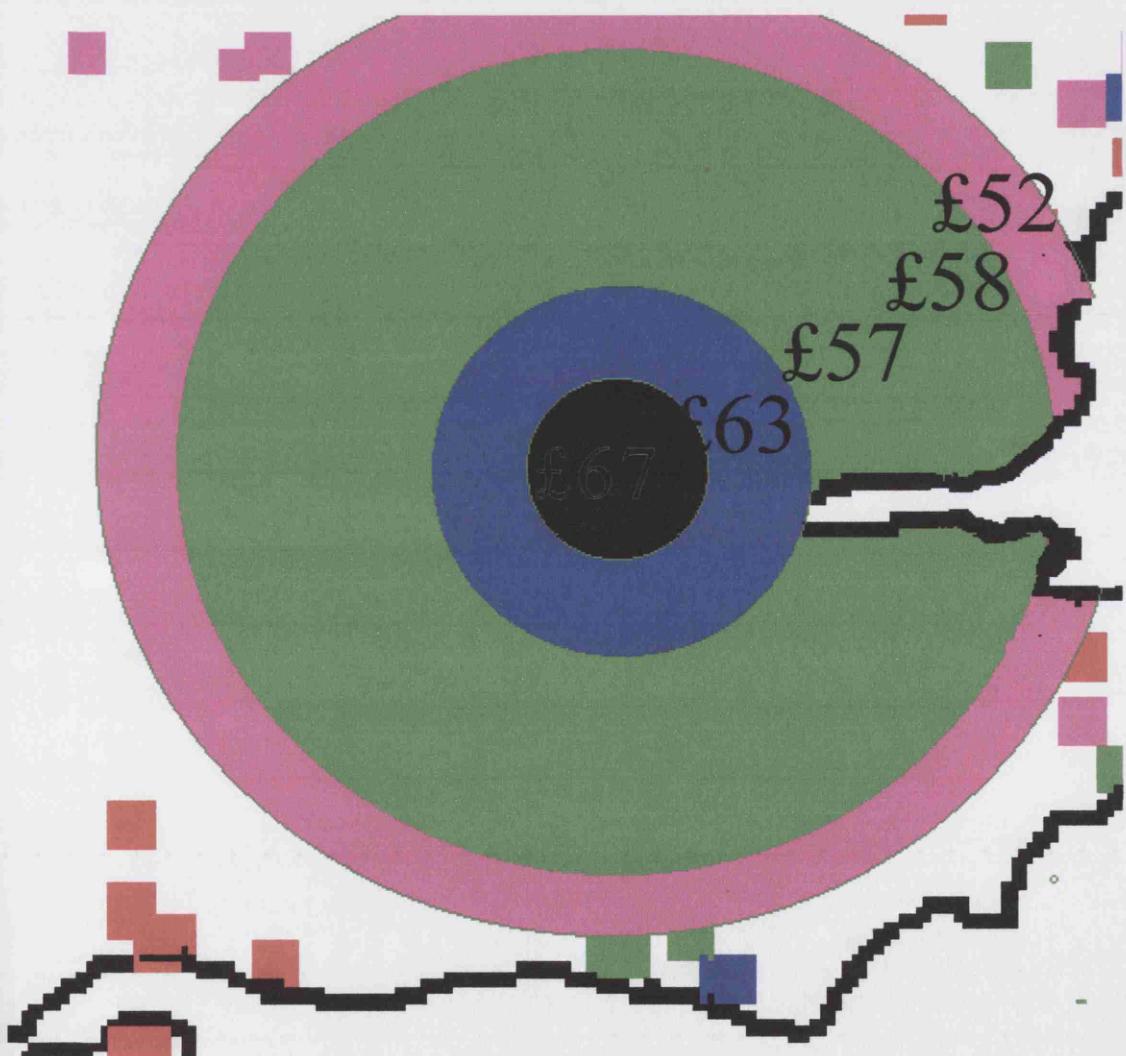
<u>High wage</u>	<u>Ann. Ave. Wage (£'s)</u>	<u>Nearest point of relatively low wages</u>	<u>Ann. Ave. Wage (£'s)</u>
Grays	75.40	Brentwood	54.09
Dartford	65.20	Gravesend	56.52
Bromley	65.90	Tonbridge	55.00
Croydon	61.10		
Epsom	68.65	Cobham	54.40
Leatherhead	62.13		
Staines & Egham	61.52	Slough	54.09
Yiewsley & W. Drayton	82.67		
Watford	64.11	Croxley	47.33
		Tring	48.40
Luton	59.25	Arlesey	41.18
		Hitchin	50.14
Welwyn Garden City	72.50	Epping	51.36
Enfield	72.23	Brentwood	54.09

source: Annual co-operative congress reports

This exercise suggests, broadly, an area that is influenced by the service-dominated London economy of approximately forty miles from the centre. However, one expectation would be that within this the level of wages may vary as we spread out

from London. This is not to suggest that some sub-districts may return relatively low annual average wages - and appendix 2 suggests this - but if these are aggregated at ten mile intervals from the centre, the following may be diagrammatically observed (the individual observations can be seen in figure 7.3, page 191):

Figure 7.1 - Representation of annual average co-operative society wages in the London - dominated economy at ten mile intervals



This is, of course, an aggregated indication of annual average wages but, nevertheless, is an attempt to give some quantification to a discussion in previous

chapters concerning the dynamism of the London - dominated economy. This discussion, for example, noted the identification of the 'metropolitan' region 'spilling over into adjacent counties (who adopt a similar pattern of development, mainly in the service sector), which has the highest growth levels.'<sup>4</sup> This exercise also adds weight to a notion that the British economy cannot be divided on historical geographical boundaries because, for example, the extent - as previously noted - to which Kent and Essex were relatively affluent or not is dependent on the size of their rural hinterland that is outside of the London influence and, conversely, smaller counties that were all or mainly within this influence were affluent as a whole because they were a part of that market. The extent to which population grew in the 'small' counties adjacent to London - see fig. 7.3.1 above - in the preceding twenty years is surely relevant.

One anomaly from the statistics that is worth investigation is annual average wages in the Midlands region. Table 4.2, chapter 4, shows - on an index - that co-operative earnings are 95, where the average is 100, whereas Hunt<sup>5</sup> shows 103 and 102 respectively for carpenters and labourers. However, when the co-op data are rearranged to include the same counties as Hunt, the Midlands shows 104. This is clearly because some low paying counties - for example Lincolnshire - are separately listed. We have a region, therefore, of greatly contrasting wage levels. This is shown

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<sup>4</sup> C.H. Lee, *Regional Growth and Structural Change in Victorian Britain*, *Economic History Review*, 2nd Series 33, 1981

<sup>5</sup> E.H. Hunt, *Regional wage*, p67

in fig. 7.3.2, where the relative levels of co-operative society annual average wages at a county level for Leicestershire and Northamptonshire and those that are around these range from £63.91 in the former to £50.05 in Lincolnshire. However, the point that this part of the chapter is trying to make can, perhaps, best be made by reference to urban areas within the Midlands region so that an attempt can be made to give an explanation as to why two authors - Hopkins<sup>6</sup> and Barnsby<sup>7</sup> - suggested relatively poor living standards, whereas Hunt<sup>8</sup> estimated higher than average regional wages for the Midlands as a whole:

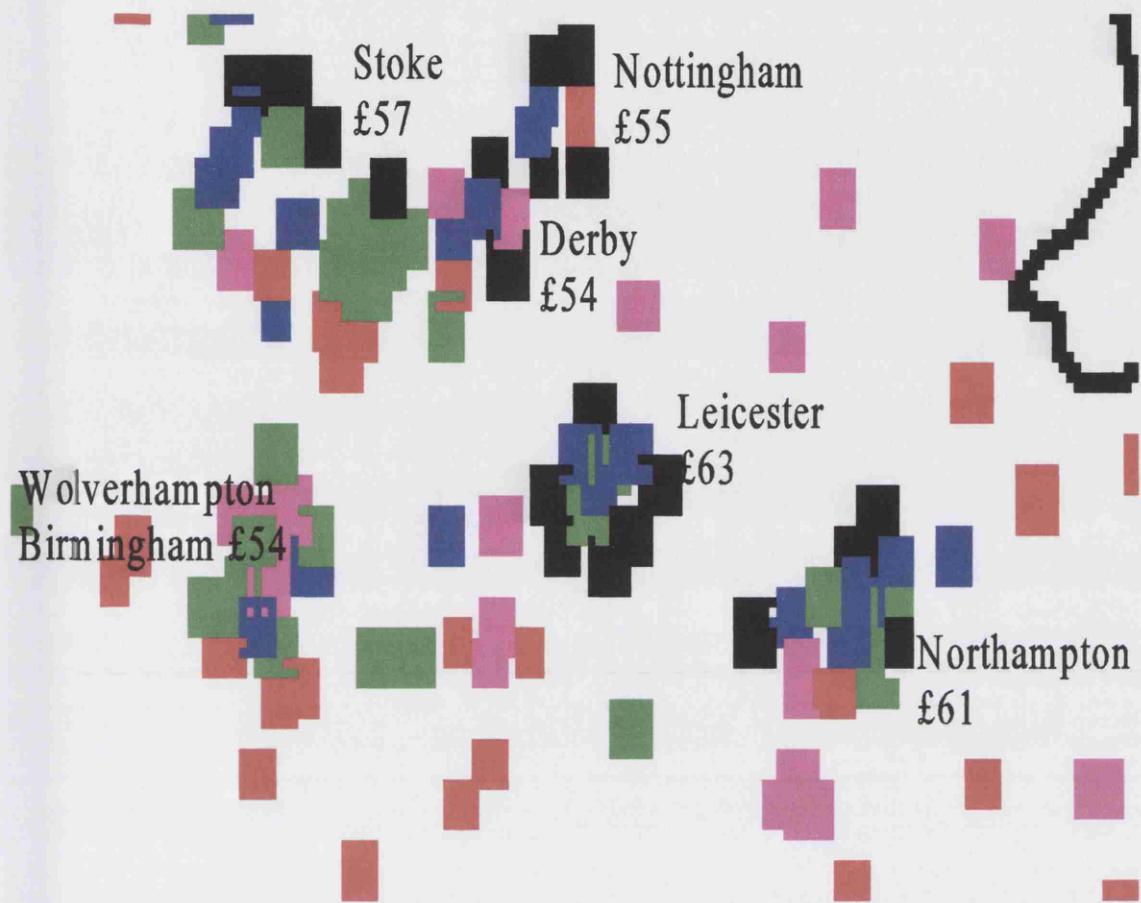
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<sup>6</sup> Hopkins, 'Small town'

<sup>7</sup> Barnsby, 'The Standard'

<sup>8</sup> E. H. Hunt, *Regional wage*, p 67

Figure 7.2 - Annual average co-operative society service sector wages for 1906 in the urban Midlands

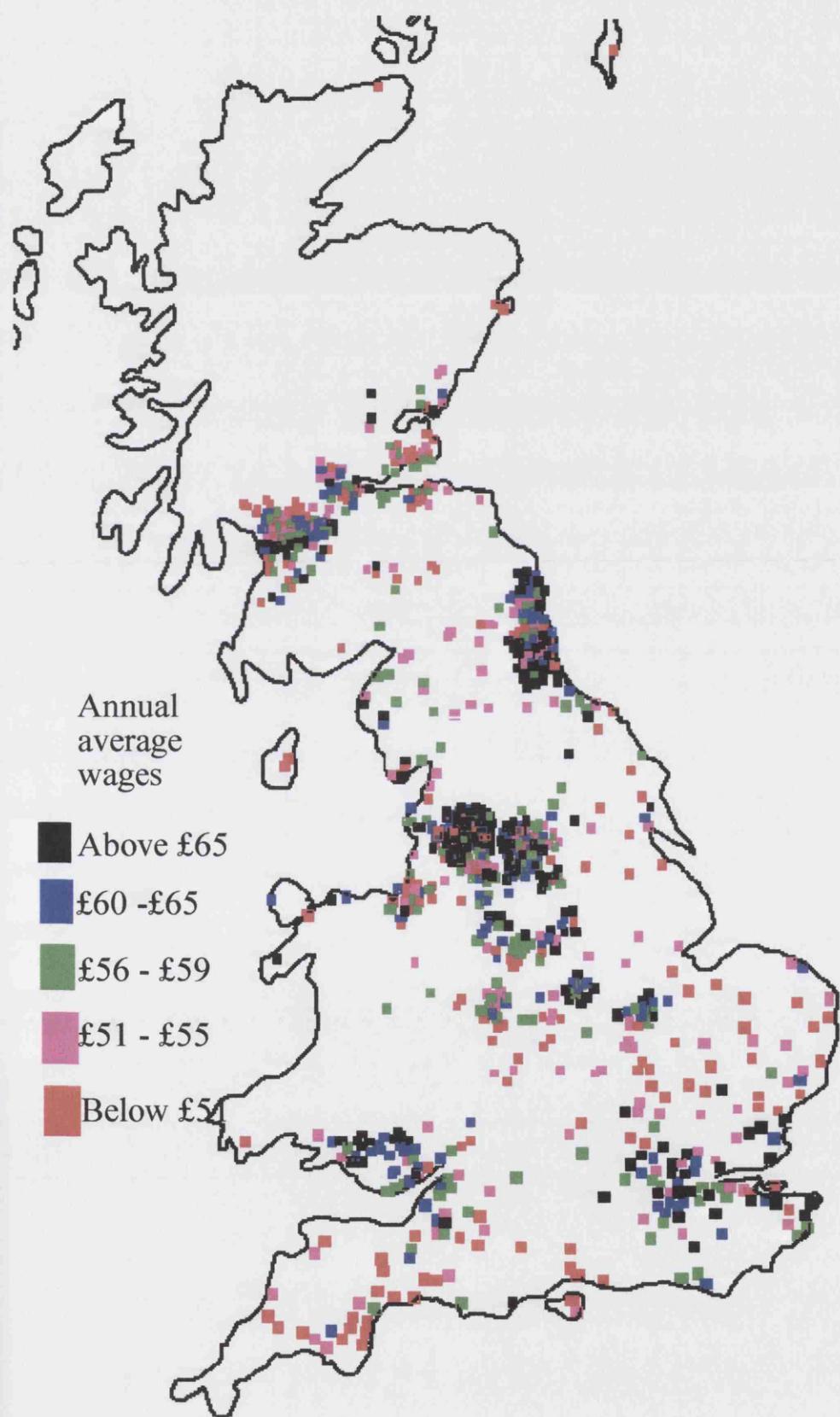


The above map is colour coded as follows: lowest wages (£0 - 50) are red, mauve (£51 - 55), green (£56 - 59), blue (£60 - 65) and black (£66+). This does, indeed, appear to offer some explanation of the previously mentioned anomalies inasmuch as Hopkins and Barnsby were investigating Stourbridge and the Black Country respectively, whereas Hunt listed wage rates for three cities, two of which - Leicester and Nottingham - had annual average wages that were above normal. The Black Country - Stourbridge within it - are in the West Midlands and the urbanised areas - particularly Wolverhampton - that are within that geographical boundary - show

below average annual wages.

The preceding parts of this chapter have highlighted the extent to which economic data arranged by administrative (county or city) boundaries may give an - at best - incomplete indication of the dynamics and diversity of Britain in 1906. Traditional measures are based almost exclusively in industrial towns and cities which - due to a paucity of data - give an untypical representation of British economic and social life. If we now - in our present era - can talk of a service sector that is buoyant, but manufacturing and industry in recession, then one question is whether this is due to the existence of comprehensive statistics for this era, or whether our predecessors lived in a one-dimensional state, where all economic life was led by industry and manufacturing? This question suggests that some benefit may be gained by mapping all of Great Britain by annual average wages and the results of this exercise are shown below in figure 7.3. In the interests of accuracy, only distributive (service sector) wages are shown because they are spread over the whole country, and only societies with more than five workers. The five categories are split as follows: red 198 societies, mauve 160 societies, green 170 societies, blue 160 societies and black 202 societies:

Figure 7.3 - Annual average service sector wages within Great Britain by co-operative society for 1906.



In a sense, figure fig. 7.3 reveals how an economic map of Great Britain may be expected to look. The South East of England is heavily dominated by the London economy, and then popular coastal resorts on the east coast show similarly high levels of wages. This aside, the agricultural areas in the South that have an absence of a heavily urbanised area retain relatively low levels of service sector wages. The heavily urbanised areas of South Wales show relatively high levels of wages, as do the east and north midlands. West Yorkshire and Manchester - which are large urban districts - again show relatively high wages, with lower levels - albeit slightly higher than the arable south - in the countryside. The urbanised North East and Strathclyde area of Scotland also show relatively higher levels of wages.

This chapter has attempted to give quantification to the dynamics and diversity of earnings in Britain in 1906. It has shown how irrelevant geographical boundaries are to economics and how diverse even one 'region' can be. The picture that emerges is one of urban dominance of wages, even within service-sector occupations. Indeed, earlier chapters have suggested that service sector occupations were generally more stable and consistent in their remuneration than those in industry. No wonder, perhaps, that there are few - if any - statistics of wage rates and trade union contributions for these areas and occupations - they didn't need them.

## **Part 3 - The measurement of relative economic and labour market conditions at a local level and the search for an alternative proxy measure**

**Chapter 8 - Measuring relative economic distress at a local level: Sheffield 1895 - 1914**

**Chapter 9 - Measuring relative economic distress at a local level: Stourbridge and district 1895 - 1914**

**Chapter 10 - Measuring relative economic distress at a local level: Sheerness 1895 - 1914**

**Chapter 11 - Measuring relative economic distress at a local level: Dover 1895 - 1914**

## 8. Measuring relative economic distress at a local level: Sheffield 1895 - 1914

This chapter is the first of several that will investigate relative economic distress at local levels. Before these can be presented, however, it is necessary to make some general observations and re-state and briefly discuss the methodology and data sources.

The potential for annual variations in actual earnings, unimpeded by weighting from trade union unemployment returns, to reflect conditions, has been previously discussed. Some aspects of these points, however, require expansion. Part of the general theoretical approach to this work is the notion that trade union unemployment returns are insensitive to conditions that existed for the majority of the working population in the Victorian and Edwardian periods but have nevertheless exerted an undue influence on the attempts by both contemporaries and historians to measure relative labour market conditions and estimate general economic indicators. Despite the fact that those trade unions which paid donation (unemployment) benefit drew their membership from the more highly paid and skilled workers, who were employed predominantly in export-dominated industries, and despite the fact that the membership of those unions was concentrated in relatively few geographical areas, their unemployment data are used to weight estimates of real earnings, general levels of income and even economic conditions at a national level. The reason for this is clearly because no suitable alternative measure has been shown to consistently proxy levels of economic activity but, on the other hand, it was acknowledged contemporarily and is acknowledged now that use of these returns is problematic. Within this discussion lie further areas of debate - for instance the notion of being employed or unemployed as separate conditions and the extent to which being 'unemployed' may be partly a function of more comprehensive donation, unemployment and welfare benefits. If proxy measures show

that they are a consistent indicator of relative conditions for various occupational groups they may, *ceteris paribus*, be assumed to operate the same function in earlier times because there were no periods when higher relative benefits were paid.

So far, this thesis has argued that data on the annual earnings of employees in each co-operative society in the UK may provide just the sort of proxy indicator of economic conditions that has, hitherto, eluded researchers. The justification for using actual earnings in these studies may be expanded upon. It is worth emphasising that this is not an investigation of general increases in living standards over time but, rather, variations in relative conditions on a year to year basis amongst various groups of workers in each location. If there were any years of very high inflation or deflation, then prices may have an impact but, provided that this is not the case, price indices will not be imposed for several reasons. The first is that behavioural responses to and the welfare effect of price increases would vary and be dependent upon income levels. Secondly, the measurement of price increases is not exact and the imposition of national estimates (which ignore, among other things, local variations in rents) on local earnings, would be potentially more distortive than the relatively small effect the annual price changes in this period actually had. Thirdly, and perhaps most importantly, the subjects of the study would surely measure their own relative year to year conditions by the extent to which their income had actually risen or fallen, assuming the relatively low level of annual price changes. It is worth re-emphasising that these arguments are viewed as relative to the period under discussion and not in times of high inflation/deflation, as might be the case for research on the inter-war era. Interestingly, Feinstein<sup>1</sup> estimates annual percentage growth rates in the cost of living nationally as 0.97 per

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<sup>1</sup> C. Feinstein - What really happened to real wages?: trends in wages, prices, and productivity in the United Kingdom, 1880-1913, *Economic History Review*, 2nd series,

cent for the period 1899-1913 (-0.66 per cent for 1882-99), Pollard<sup>2</sup> - on a weighted average price index - an increase from 92 in 1895 to 107 in 1914 (1900 = 100) for Sheffield and Hopkins<sup>3</sup> a cost of living index rising from 89 in 1890-0 to 101 in 1910-14 (1840 = 100) for Stourbridge.

The towns selected for local investigation are Sheffield, Stourbridge, Sheerness and Dover. On the one hand, they may provide a contrast in relative fortunes for working people and in local structures of employment and on the other have been (with the exception of Sheerness) the subject of previous studies and these may provide a point of reference within the discussions. The data for the independent variable (actual average earnings within various occupational groups) is taken from annual statistics provided in the Annual Co-operative Congress Report.<sup>4</sup>

The comparators (potential proxy measures) are marriage rates, poor law indoor returns and small debt data for each town.<sup>5</sup> Local-level trade union unemployment data are used (no

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XL111. 3 (1990), p 344

<sup>2</sup> S. Pollard - Real earnings in Sheffield, 1851 - 1914, *Yorkshire Bulletin of Economic and Social Research*, 1X, 1957, pp 60-61

<sup>3</sup> E. Hopkins - Small town aristocrats of labour and their standard of living, 1840 - 1914, *Economic History Review*, 2nd series, XXVII, 1975, p 225

<sup>4</sup> *Annual Co-operative Congress*, No's 28 (1896) to 47 (1915) (Co-operative union limited, published annually)

<sup>5</sup> Extracted from *Parliamentary Papers* and *Annual Reports of the Registrar General* for each town, with the exception of small debt data for Sheerness and Dover, which was obtained from the *Great Britain Historical Database*, depositor H. R. Southall

<sup>6</sup> Local-level trade union unemployment statistics have been obtained for Sheffield, Wolverhampton Sheerness and Dover from the *Great Britain Historical Database* - depositor, H. R. Southall

statistics on trade union unemployment for Stourbridge, so the nearest available - Wolverhampton - were used) for each town, and local - level employment data - male and female - is presented.<sup>7</sup> A brief survey of the ASE monthly returns for Sheffield shows a relatively high penetration - for instance, four branches with a total of 837 full members in 1897, rising to ten branches with 2074 full members in 1912. On the other hand, membership would appear to be relatively small or non-existent in the other towns investigated, except Wolverhampton, where it reached 640 in 1912. Local structures of employment are a relevant starting point before a discussion regarding potential proxy measures continues:

Table 8.1 - Categories of male and female occupations, Sheffield 1911 (Source: C. H. Lee, see footnote 7)

<u>Category</u>	<u>No. of males</u>	<u>Category</u>	<u>No of Females</u>
Total engaged in occupations	150529	Total engaged in Occupations	49753
General or Local Government	2398	Civil Service, Telegraph & Telephone	308
Defence of the Country	1817	Municipal Officers, Hosp & Institutions	698
Professional Occ's & subordinate services	3517	Midwives, nurses etc.	769
Domestic outdoor & other services	879	Teaching	1679
Domestic indoor & other service	938	Literary, scientific & Political, art etc.	454
Merchants, agents, accountants, banking, ins etc.	3492	Domestic indoor Service, hotels etc.	268
Commercial or business clerks	5178	Other domestic Indoor servants	11867
Conveyance on railways	4179	Charwomen, day Girls & servants	2518

<sup>7</sup> From the Census Statistics of Employment, town level statistics for 1911 males and females - deposited at the *Great Britain Historical Database* by H. R. Southall, from material supplied by C. H. Lee

Conveyance on roads	7165	Laundry & washing	981
Conveyance on seas, rivers etc,	95	Others in service	443
Dock labourers, labourers etc.	132	Bank & insurance Clerks	1734
Messengers, porters, watchmen	3816	Agriculture, on farms, woods, gardens	51
Others in conveyance	145	Metals, machines, Implements	9281
Agriculture, on farms, woods etc.	1304	Makers of jewellery etc.	363
Coal & mine workers	6114	Furniture & decorations	954
Engineering & machine making	13439	Chemicals, soap etc.	278
Tool manufacture & misc. Metal trades	50931	Hairs & feathers	169
Electrical apparatus	976	Papers, newspapers, stationary etc.	748
Ships & boats	15	Textile Manufacture & dyeing	145
Cycles, coaches & other vehicles	2329	Drapers, linen drapers etc.	1667
Precious metals, jewels etc	1187	Tailoresses	938
Building & Construction	10944	Milliners	668
Wood & furniture fittings	3068	Dressmakers	2737
Brick & tile makers	498	Seamstresses & shirtmakers	368
Earthenware & glass manufacture etc.	289	Boot, shoe & clog Makers	274
Chemicals, soap etc	554	Food workers	794
Skins, leathers etc.	318	Food dealers, Shopkeepers	3419
Printers & lithographers	966	Lodging house & Inn keepers etc.	2155

Others in printing & stationary	146	All other occupations	3007
Textile manufacture & dyeing	108	Proportion per 1000 of unmarried in occ	510
Tailors	870	Proportion per 1000 Of married in occ	68
Boot, shoe & clog makers	1650		
Drapers, linen drapers etc.	1335		
Food, tobacco, drink & lodgings	9271		
General & factory labourers (unspecified)	2518		
All other occupations	8788		

Table 8.1 shows clearly the employment bases of the town, with 46.8 per cent of males in three occupational categories - tool manufacture and miscellaneous metal trades, engineering and machine making and coal and mine workers and 18.7 per cent of females in one group - metal, machines and implements. The contrast with the other three towns will be shown (see chapters 9, 10 and 11).

A glance at the potential proxy measures highlights a number of interesting points. The most obvious is the extent to which data for small debts varies between locations - for example, returns show between a minimum of 92 and a maximum of 195 plaints per thousand of population in Sheffield during the period whereas the same statistic for Dover varies between 22 and 33. This suggests that either traders in that town were far more 'mistake'-prone,<sup>8</sup> or that Dover contained far less of the very low paid occupational groups amongst whom weekly credit

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<sup>8</sup> H. R. Southall & D. Gilbert - A good time to wed? Marriage and economic distress in England and Wales, 1839 - 1914, *Economic History Review*, 1996, p 54

was popular. Another noteworthy point is that poor law indoor rates per thousand of population increased every year from 1895 to 1910 in Dover against a background of obviously rising prosperity. This may suggest that there were locations in this period where policy adjusted to reflect rising levels of income and may be a clue towards an explanation of why national-level rates rose so sharply from the turn of the century. Interestingly, the statistics for the town of Dover in particular do seem to show some trends that diverge considerably from the supposed national picture and emphasises the diversity of experience in the second half of the nineteenth century between urban areas within Britain. These are, however, general comments and the focus now moves to the town of Sheffield.

In this study, as well as those for other towns, all data will be presented as three year moving averages. This will provide not only for consistency of presentation but will also make provision for the fact that downturns and upturns were not calendar-sensitive. It will also preclude a temptation to lag some data but not others (although this on the whole is not unreasonable on the grounds that there may be a variable space between the onset of changes in circumstances and its manifestation in the potential proxy measures - nevertheless consistency is important). Marriage rates and actual wage variations will be inverted around their mean values for the period. This is necessary because the relationship of both marriage rates and actual annual average earnings to relative distress is inverse. This method allows for ease of presentation, with all data graphically shown in consistent format and with peaks and upper levels indicating relative distress and troughs and lower levels relative well-being. The inverted data becomes a mirror of the original and this method of presentation allows for consistency of comparison both graphically and in a statistical analysis. An obvious starting point is to graphically show the data for the potential proxy measures:

Fig. 8.1 - Comparison of potential proxy measure, Sheffield 1895 - 1914

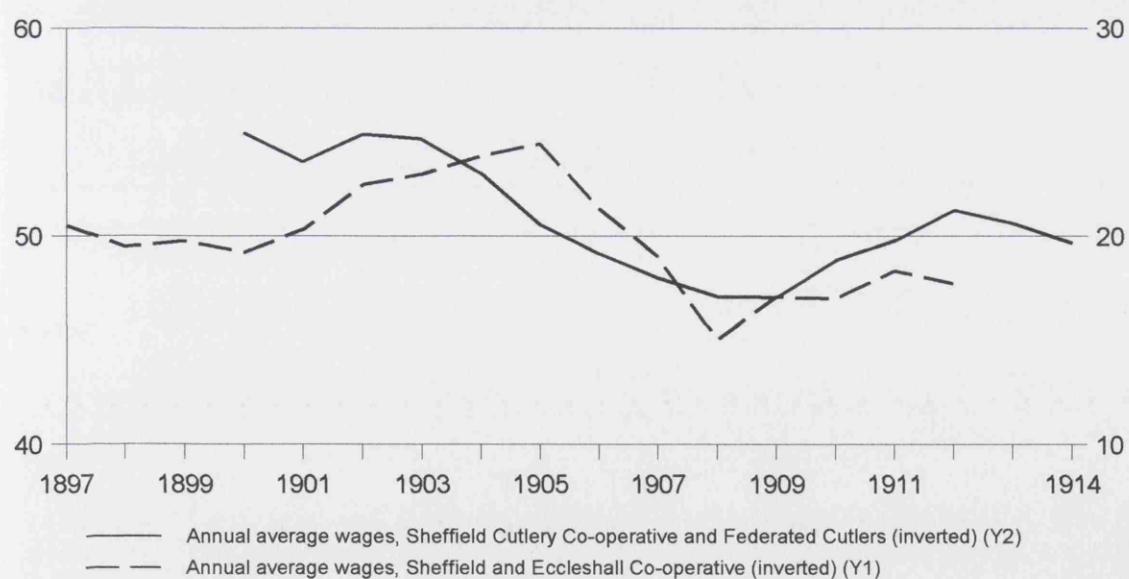


Sources: Small debts & Poor law indoor relief - Parliamentary Papers, Marriage rates - Annual Reports of the Registrar General, Trade union unemployment returns - Great Britain Historical Database

There are clearly some divergent fluctuations between the data. Years when all are synchronous are 1898 (trade union unemployment returns not available for 1897, 1898, 1913 & 1914), 1902, 1907, 1908, 1909 and 1911 but there is obviously no way of assessing which, if any, reflects conditions for working people as a whole in the period. The above years could be described as relatively good in the cases of 1898, 1907 and 1911 and relatively bad in 1902, 1908 and 1909 but none of these show a steep fluctuation either way. Longer term fluctuations may be of interest and perhaps the potentially most interesting analysis will be for the period 1911 - 1913, when data for small debts - for two years at least - is shown to be obviously divergent from marriage rates, and 1902-7, where there is apparently a similar divergence. With these general points in mind, it is relevant to now graphically show the annual fluctuations for the highest and

lowest paid groups of workers from the data for the Co-operative movement in Sheffield. These are on the one hand the Sheffield and Eccleshall distributive and productive workers and, on the other, the Sheffield Cutlery Co-operative and Federated Cutlers. The number of workers in the former co-operative ranged from 103 in 1895 to 539 in 1914 and, in the latter, from 60 in 1895 to 70 in 1914. The series for the Sheffield and Eccleshall workers ends in 1912 because the number of distributive workers increased from 310 in 1912 to 460 in 1913 and this affects the calculation of average wages - it was clearly a 'good' year for this occupational group. The series for cutlery begins in 1900 because wage data for 1895 and 1897 is not entered in the returns. The average annual payment per worker in the period was £49.86 to the Sheffield and Eccleshall workers and £20.88 to those in the cutlery co-operatives:

Fig 8.2 - Annual average wages for workers in the Sheffield and Eccleshall Co-operative and the Cutlery Co-operative and Federated Cutlers, Sheffield

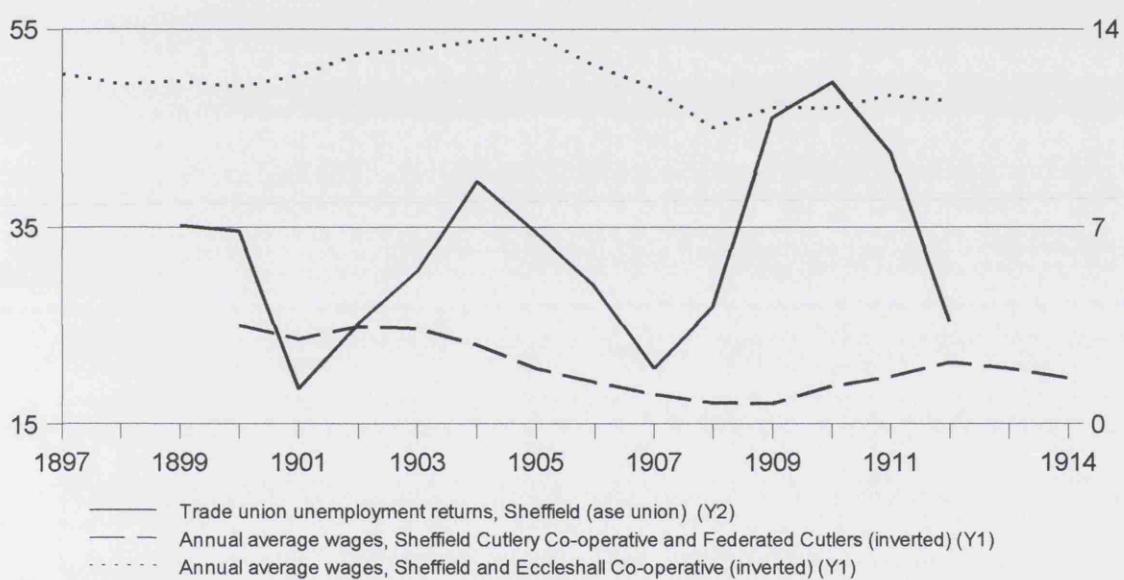


Source: Annual co-operative congress reports

The overall trend in wages in Sheffield is clear and long term periods of relatively low and high

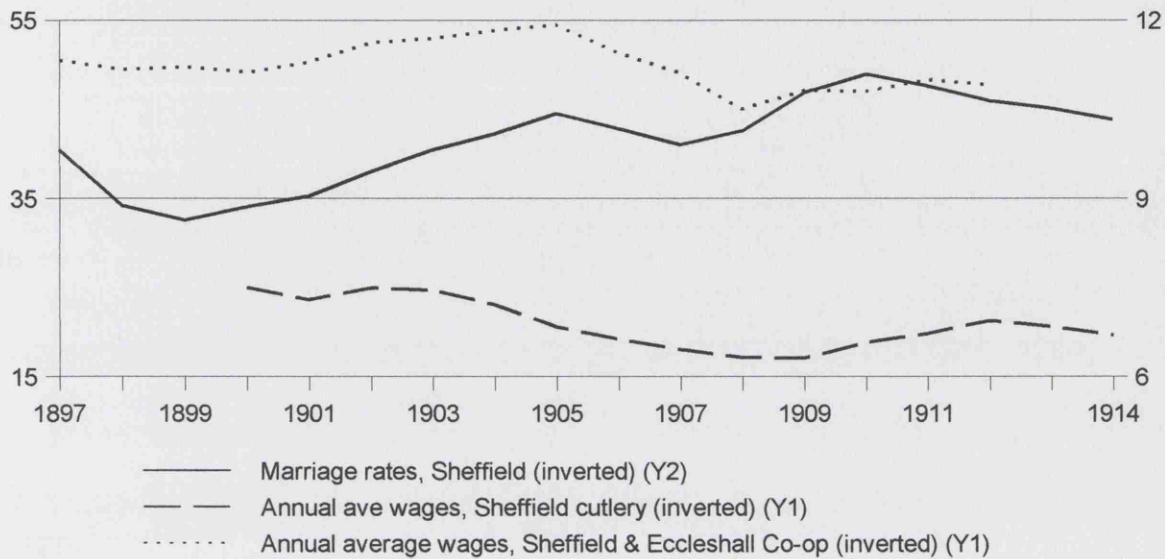
wages generally coincided. However, there are significant short-term periods of divergence - for instance from 1902 to 1905, when conditions for the higher paid group worsened while the lower paid workers improved relatively. This is again the case between 1900 and 1901, with the relative position reversed from 1911 to 1912. If we assume that these two measures represent conditions for two occupational groups in Sheffield - one relatively highly paid and the other of relatively low pay - they may be used against which to test our potential proxy measures:

Fig 8.3 - Annual average wages for workers in the Sheffield and Eccleshall Co-operative, the Cutlery Co-operative and Federated Cutlers in Sheffield and local trade union returns



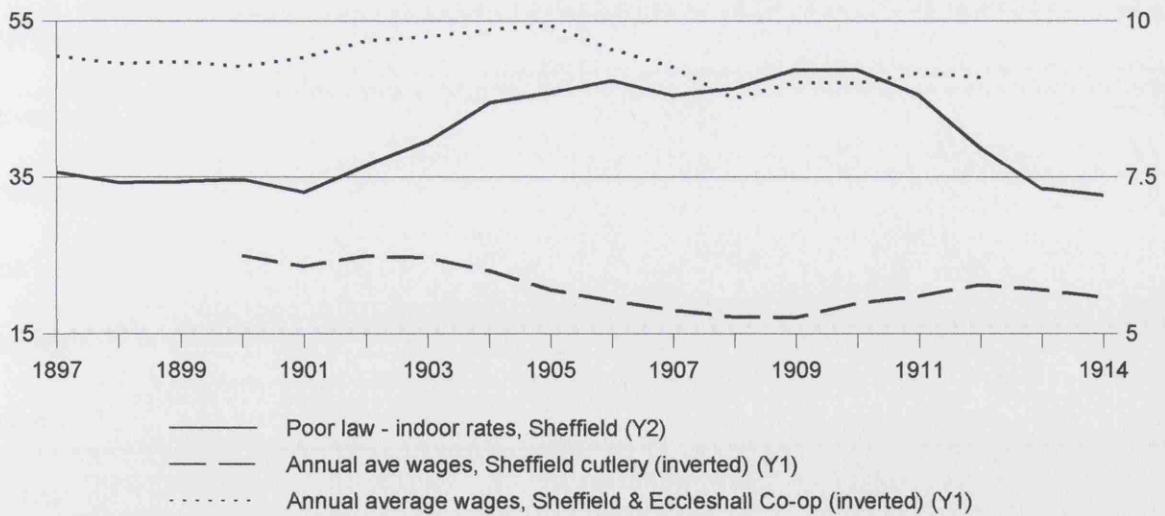
Sources: see figures 8.1 & 8.2

Fig 8.4 - Comparison of average annual wages in two occupational groups and marriage rates, Sheffield



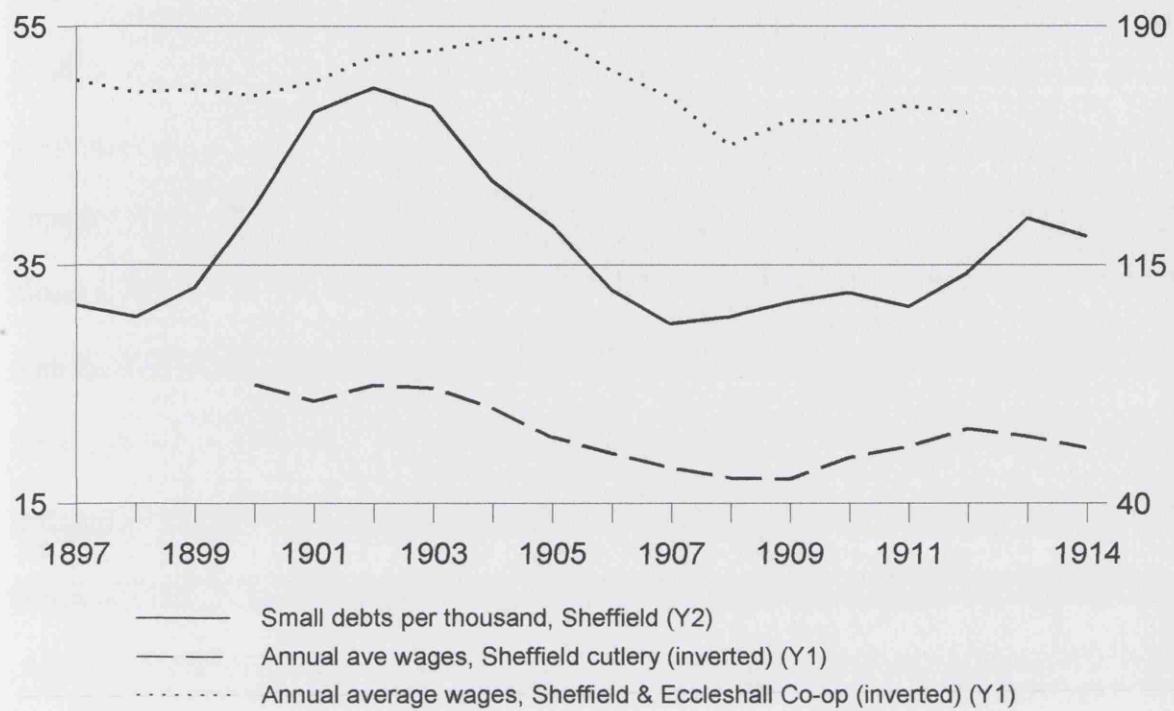
Sources: see figures 8.1 & 8.2

Fig 8.5 - Comparison of annual average wages in two occupational groups and poor law indoor relief, Sheffield



Sources: see figures 8.1 & 8.2

Fig 8.6 - Comparison of ave wages for two occupational groups and small debts, Sheffield

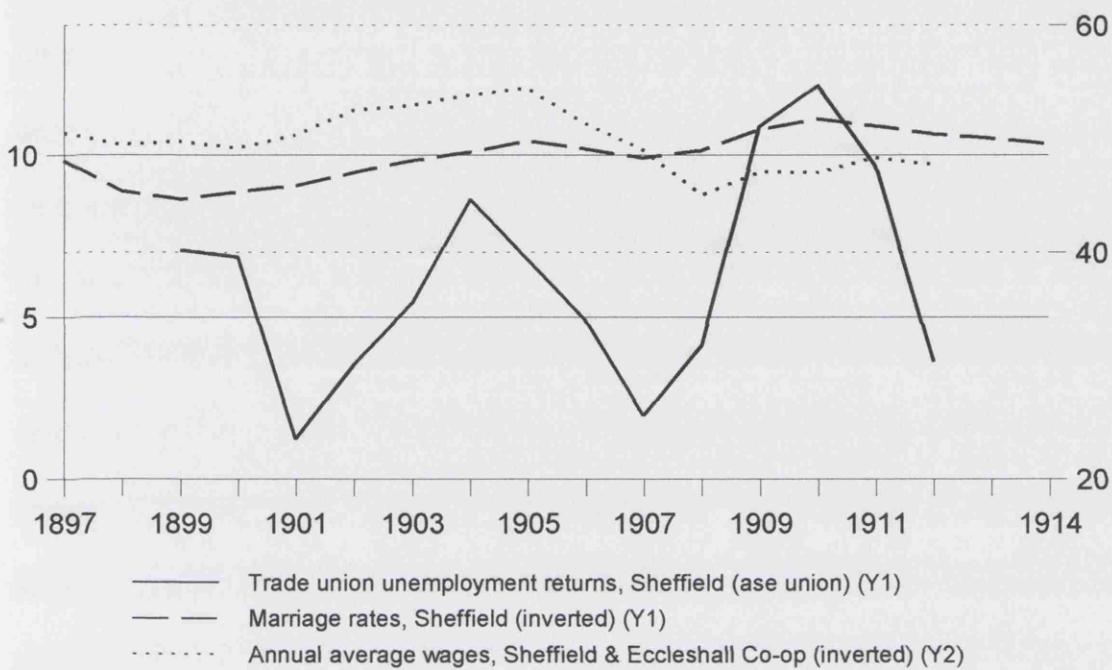


Sources: see figures 8.1 & 8.2

Perhaps the most striking point to be made from figures 8.1 - 8.6 inclusive is the obvious divergence in a long term fluctuation (approximately 1902 - 1912) between the series for marriage rates and trade union unemployment on the one hand and the annual average wages of the lowest paid group on the other. A similar (but not so pronounced) variance is noticeable with the series for poor law indoor relief. On the other hand, the statistics for small debts appears to have a closer relationship with the lower paid groups but its relationship to the higher paid group is less pronounced. These points can be further exemplified by pointing out that trade union unemployment returns moved synchronously with the higher paid workers in 10 of the 13 fluctuations measured but with only 5 of the 12 for the lower paid group. Marriage rates, similarly, measured 10 out 15 for the higher paid and 7 out of 14 for the lower paid. Indoor relief

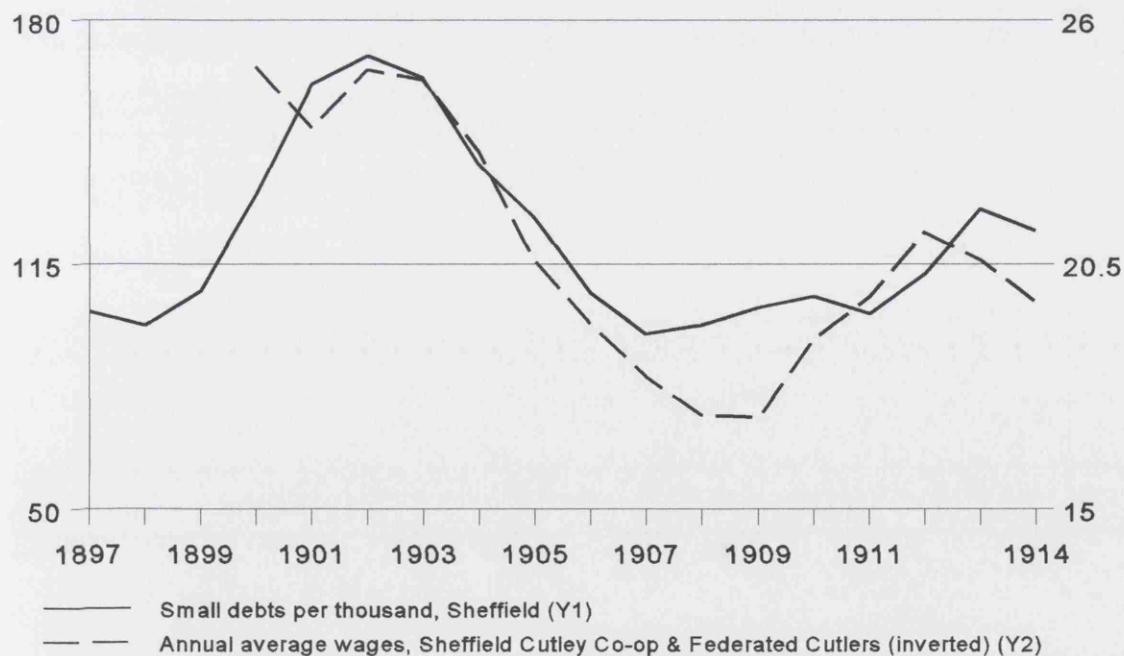
was 9 out of 15 and 3 out of 14 respectively and data for small debts 7 out of 15 and 9 out of 14 respectively. Clearly this is only one part of the measurement and assessment - the relative amplitude and movement over a longer period is perhaps more important. However, when the graphical observation of trends is taken into account with the above statistics, the indications appear to suggest that marriage rates and trade union unemployment returns may have had a closer relationship with higher paid workers but small debts had by far the closest relationship with the lower paid - and this relationship was virtually non-existent in the other proxy measures. This can be further exemplified graphically. As indoor relief appears to have exogenous influences that make it relatively unrepresentative - particularly with the lowest paid (surprisingly) - it is excluded from figures 8.7 and 8.8:

Fig 8.7 - Comparison of the highest paid occupational group (Sheffield & Eccleshall Co-operative workers) with local marriage rates and local trade union unemployment returns



Sources: see figures 8.1 & 8.2

Fig 8.8 - Comparison of lower paid occupation (Sheffield Cutlery Co-op & Federated Cutlers) and data for small debts for Sheffield



Sources: see figures 8.1 & 8.2

A previous study<sup>9</sup> into wages and earnings in Sheffield investigated wage data for a number of local firms. Included within this investigation are details of estimated average weekly earnings for a number of occupational groups within a cutlery firm for the period 1901 - 1914.<sup>10</sup> The departmental earnings that most closely corresponded with the average earnings for the co-operative workers was the spring knife section, with an annual average income for the period of £20.58. The methodology for calculating the estimates, as previously discussed however, included the division of total earnings of the employed members of a 'trade' among all members employed, part-employed and unemployed<sup>11</sup> and this suggests that the imposition of trade union unemployment returns may have affected the outcome. Bearing in mind that this present study seems to indicate a relatively insignificant relationship between trade union unemployment and the lower paid workers in Sheffield for the period, it is important to make a comparison:

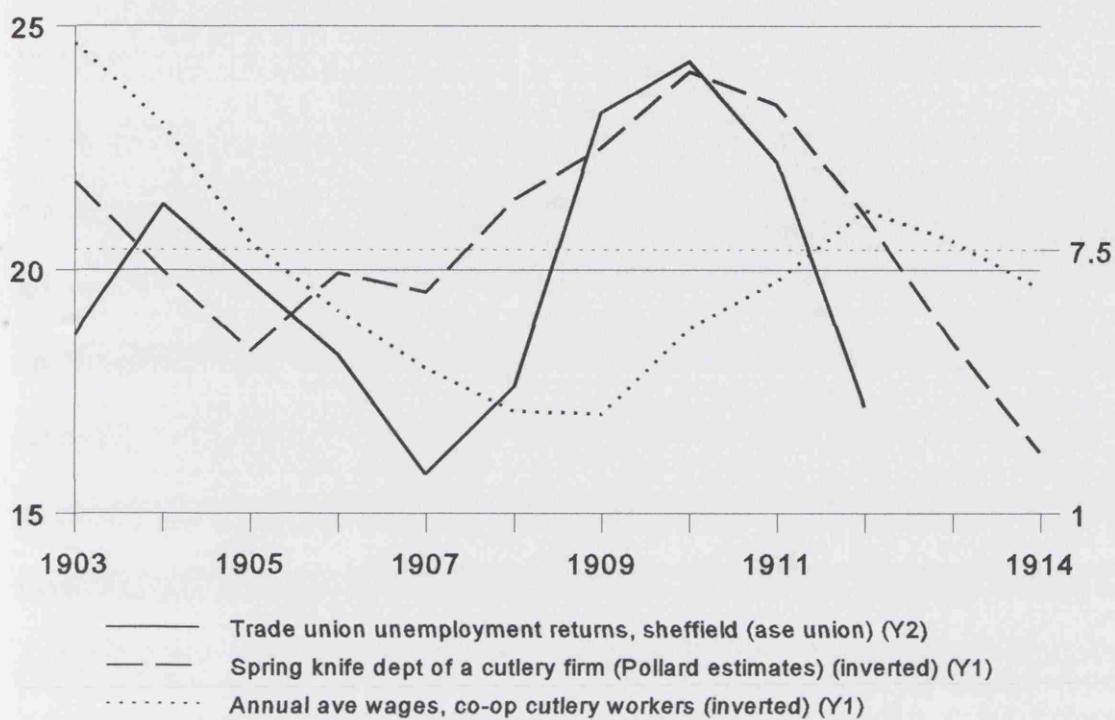
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<sup>9</sup> S. Pollard - Wages and earnings in the Sheffield Trades, 1851 - 1914, *Yorkshire Bulletin of Economic & Social Research*, February 1954, pp 49 - 64

<sup>10</sup> *Ibid.*, p 59

<sup>11</sup> *Ibid.*, pp 49-50

Fig 8.9 - Comparison of estimated earnings from the spring knife dept of a cutlery firm, Sheffield cutlery co-op & federated cutlers and local trade union unemployment returns



Sources: Pollard [see footnote] and figures 8.1 & 8.2

The fact that the weighted estimates of earnings by Pollard not only move closely with trade union unemployment returns but also diverge so significantly from the actual average earnings in the co-operative firms suggests that either the weighting unduly affects the series or, indeed, that conditions are not reflected by movements in earnings. Interestingly, Pollard points towards the fact that some workers, notably the unskilled grades, were likely to drift - temporarily or permanently into other occupations - and that their number can be estimated 'only within a wide margin of error.'<sup>12</sup> If this is indeed the case, then actual earnings may be the most sensitive indicator because it implies that the labour market was clearing quickly.

<sup>12</sup> *Ibid.*, pp 49-50

Overall, then, this brief study of relative local conditions in Sheffield may point us towards the possibility that no single potential proxy measure is sensitive to labour market conditions and that this can be shown when tested at a local level. It seems intuitive to say that if the more highly skilled and higher paid workers were more likely to defer marriage in relatively bad times but that the lower paid were not, then marriage rates will mainly reflect conditions for the former group. Conversely, if skilled workers were less likely to deal with tallymen or engage in weekly credit but this was endemic amongst the lower paid, then data for small debts should be more reflective of conditions amongst that group. The local study appears to reflect these points, to an extent at least, and suggests that conditions between income levels and occupational groups were often asynchronous. This possibility has important implications and can only be shown via further extensive local studies. This leads us towards an investigation of Stourbridge and district.

## 9. Measuring relative economic distress at a local level: Stourbridge and district 1895 - 1914

The choice of Stourbridge as a district for local study is driven by the fact that it has on the one hand previously been examined in detail<sup>1</sup> and, on the other, because it has formed part of a wider investigation<sup>2</sup> of the Black Country. Its structure of local employment, furthermore, may have features that are contrastable with Sheffield on the one hand and Sheerness and Dover on the other. This point will be expanded when details for local occupations are presented but it is worth re-emphasising that Stourbridge was well known in the nineteenth century for iron, firebrick and extractive industries as well as glass-making.<sup>3</sup> It is noteworthy, furthermore, that Barnsby described contemporary evidence in the Black Country (see chapter 2) as showing not only that destitution was endemic through most of the nineteenth century but also that actual starvation took place.<sup>4</sup> The context in which these studies were set has been previously discussed, as has relevance to the task in hand, but in summary it may be suggested that some elements of the indices produced - for instance earnings per year of a senior glass-maker<sup>5</sup> - may provide a reference for comparison.

Barnsby describes the Black Country as an area of about 100 square miles, comprising the

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<sup>1</sup> E. Hopkins - Small Town Aristocrats of Labour and their Standard of Living, 1840 - 1914, *Economic History Review*, 2nd Series, XXVII, 1975, pp 222-242

<sup>2</sup> G. J. Barnsby - The Standard of Living in the Black Country during the Nineteenth Century, *Economic History Review*, 2nd Series, XXXIV, 1971, pp 220-221

<sup>3</sup> E. Hopkins - *Op. cit.*, p 222

<sup>4</sup> G. J. Barnsby - *Op. cit.*, p 221

<sup>5</sup> E. Hopkins - *Op. cit.*, p 242

present county boroughs of Dudley, Walsall, Warley, West Bromwich and Wolverhampton, together with Stourbridge and Halesowen.<sup>6</sup> The data that will be used to produce indications of variations in actual wages paid per worker per annum in a number of occupational groups are taken from statistics in the Annual Co-operative Congress<sup>7</sup> for the towns of Dudley, Smethwick and Bromsgrove. This may seem rather illogical but, on the other hand, the focus on Stourbridge is necessary in order to make a comparison with the indices produced by Hopkins and, furthermore, the approach broadens out the analysis somewhat so that some of the findings made by Barnsby may be used as points for comparison. Furthermore, inasmuch as the districts for which data on wages is extracted are within 5 to 7 miles of Stourbridge, it is reasonable to make the assumption that these will adequately reflect conditions for the district of Stourbridge as a whole and certainly may be considered to be within the same local labour market. Stourbridge has no listed co-operative for the era under scrutiny but it is approximately five miles from Dudley, that town lying in a north-easterly direction and, again, about five miles from Smethwick in a somewhat similar direction. Bromsgrove is a slightly greater distance, situated in a south-easterly direction from the town. It is worth noting, furthermore, that the data for each town is for local co-operative societies and, if variations show similar tendencies, then this will support the preceding supposition (regarding local labour markets).

Data will be presented as three year moving averages and the comparators will be marriage rates, indoor poor law returns and small debts - all per thousand of population, as well as local trade union unemployment returns. Trade union unemployment returns are for the town of

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<sup>6</sup> G. J. Barnsby - *Op. cit.*, p 220

<sup>7</sup> *Annual Co-operative Congress*, No's 28 (1896) to 47 (1915) (Co-operative union limited, published annually)

Wolverhampton, as none exist for Stourbridge. All other comparators and census data are for the town (see footnotes 5,6 & 7, chapter 8) of Stourbridge. Local employment structure can be shown:

Table 9.1 - Categories of male and female occupations, Stourbridge 1911 (Source: C. H. Lee, see footnote 7, chapter 8)

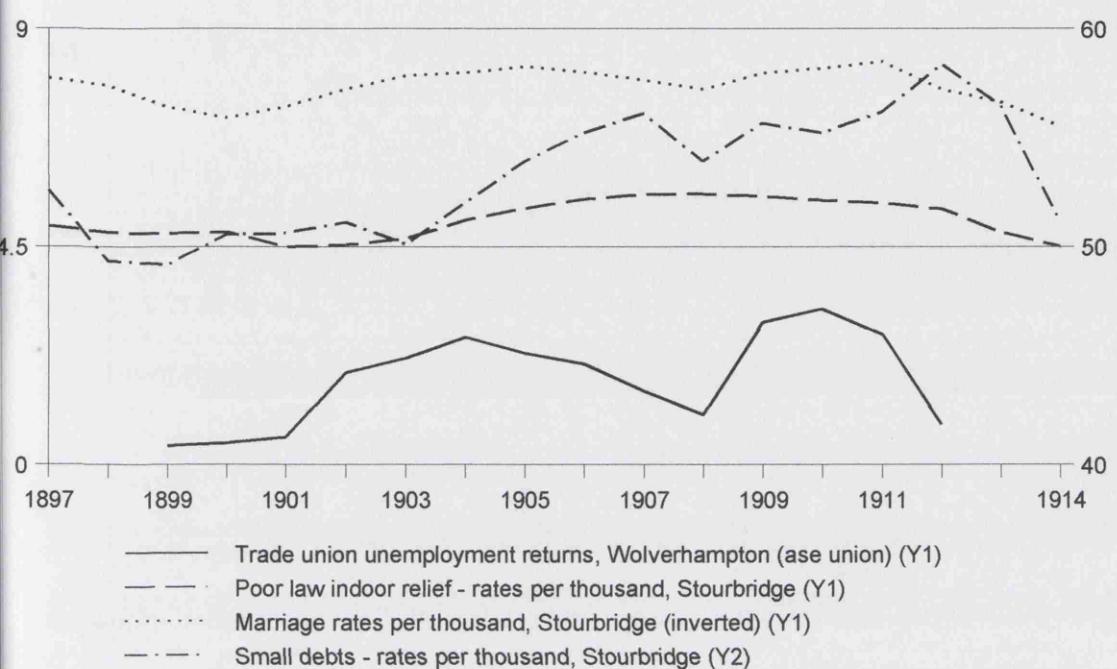
<u>Category</u>	<u>No. of males</u>	<u>Category</u>	<u>No of Females</u>
Total engaged in occupations	5456	Total engaged in Occupations	2062
General or Local Government	284	Civil Service, Telegraph & Telephone	6
Defence of the Country	18	Municipal Officers, Hosp & Institutions	19
Professional Occ's & subordinate services	246	Midwives, nurses etc.	41
Domestic outdoor & other services	145	Teaching	128
Domestic indoor & other service	27	Literary, scientific & Political, art etc.	38
Merchants, agents, accountants, banking, ins etc.	162	Domestic indoor Service, hotels etc.	11
Commercial or business clerks	165	Other domestic Indoor servants	697
Conveyance on railways	467	Charwomen, day Girls & servants	67
Conveyance on roads	232	Laundry & washing	82
Conveyance on seas, rivers etc,	4	Others in service	19
Dock labourers, labourers etc.	7	Bank & insurance Clerks	47
Messengers, porters, watchmen	107	Agriculture, on farms, woods, gardens	8
Others in conveyance	5	Metals, machines, Implements	48
Agriculture, on farms, woods etc.	151	Makers of jewellery etc.	8

Coal & mine workers	101	Furniture & decorations	12
Engineering & machine making	337	Chemicals, soap etc.	1
Tool manufacture & misc. Metal trades	741	Hairs & feathers	55
Electrical apparatus	16	Papers, newspapers, stationary etc.	52
Ships & boats	8	Textile Manufacture & dyeing	2
Cycles, coaches & other vehicles	93	Drapers, linen drapers etc.	65
Precious metals, jewels etc	30	Tailoresses	48
Building & Construction	474	Milliners	21
Wood & furniture fittings	117	Dressmakers	115
Brick & tile makers	128	Seamstresses & shirtmakers	8
Earthenware & glass manufacture etc.	208	Boot, shoe & clog Makers	19
Chemicals, soap etc	21	Food workers	148
Skins, leathers etc.	280	Food dealers, Shopkeepers	31
Printers & lithographers	47	Lodging house & Inn keepers etc.	88
Others in printing & stationary	7	All other occupations	167
Textile manufacture & dyeing	3	Proportion per 1000 of unmarried in occ	478
Tailors	39	Proportion per 1000 Of married in occ	94
Boot, shoe & clog makers	78		
Drapers, linen drapers etc.	70		
Food, tobacco, drink & lodgings	477		

General & factory labourers (unspecified)	65
All other occupations	299

The data for actual wages paid per worker per annum represents, for Dudley, a total of 60 distributive and productive workers in 1895, rising to 76 in 1914. For Bromsgrove, it represents 50 productive workers in 1895 and 42 in 1909. For Smethwick, it represents 57 distributive and productive workers in 1895 - rising to 128 in 1914. The data for Bromsgrove nail forgers ends in the Congress Reports in 1911 but the presented series finishes in 1909 because the number of workers decreases from 42 in that year to 10 in 1910. This produces the previously discussed anomaly of higher wages per worker in the clearly 'bad' year of 1910. Accuracy dictates that this and subsequent years are therefore disregarded. The relevant starting point is to show the potential proxy measures for relative economic distress for the town of Stourbridge:

Figure 9.1 - Comparison of potential proxy measures, Stourbridge 1895 - 1914



Sources: Small debts & Poor law indoor relief - Parliamentary Papers, Marriage rates - Annual Reports of the Registrar General, Trade union unemployment returns - Great Britain Historical Database

One potentially interesting point of contrast is the extent to which ASE union returns differ in magnitude between Wolverhampton and Sheffield. This could, perhaps be because although metal manufacture is a dominant feature in both towns, with 19.8 per cent so occupied in Wolverhampton, the one - Sheffield catered mainly for export markets, whereas the other - Wolverhampton predominantly for the domestic market. This can be shown diagrammatically, with both on the same scale, and with the same methodology in calculating the returns - the mean of two observations in each year (January and July), with numbers receiving donation benefit as the divisor of total members:

Figure 9.2 - Comparison of local trade union unemployment returns, Sheffield & Wolverhampton



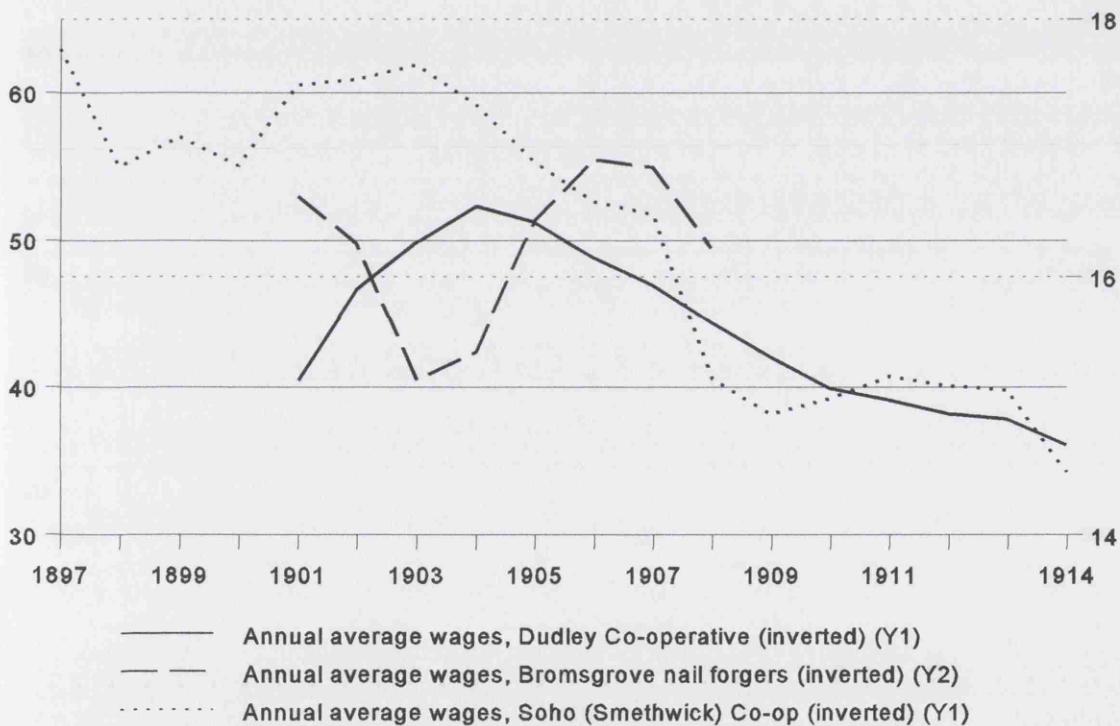
Sources Great Britain Historical Database

Returning to the district of Stourbridge, the fluctuations clearly diverge at various points between the data for potential proxies for Stourbridge. Interestingly, the individual measures also have some alternate fluctuations with their corresponding series for Sheffield and the significance of this will be discussed at a later point of this chapter. Years when all four are synchronous are 1899, 1902, and 1904 and, within this, 1899 and 1902 may be described as an apparently relatively 'good' year and 1904 as relatively 'bad'. With regards to longer term fluctuations, it is noteworthy that all indicators (with the exception of local trade union unemployment returns) appear to show an improvement in relative conditions from 1912 and with marriage rates indicating a peak in relative distress in 1911 and small debts a peak in 1912.

A period of divergence between these indicators is 1905 to 1907 as well as a number of

individual years. The extent to which the divergence in these comparators may be indicative of a variance in relative well-being and distress between occupational groups and levels of income can perhaps be assessed by analysing the series for actual income per annum for workers in Stourbridge. The average annual payment per worker was £41.70 for distributive and productive workers in the Dudley co-operative, £15.89 for the Bromsgrove nail forgers and £50.29 for the Smethwick co-operative:

Figure 9.3 - Comparison of annual average wages, Stourbridge district 1895 - 1914

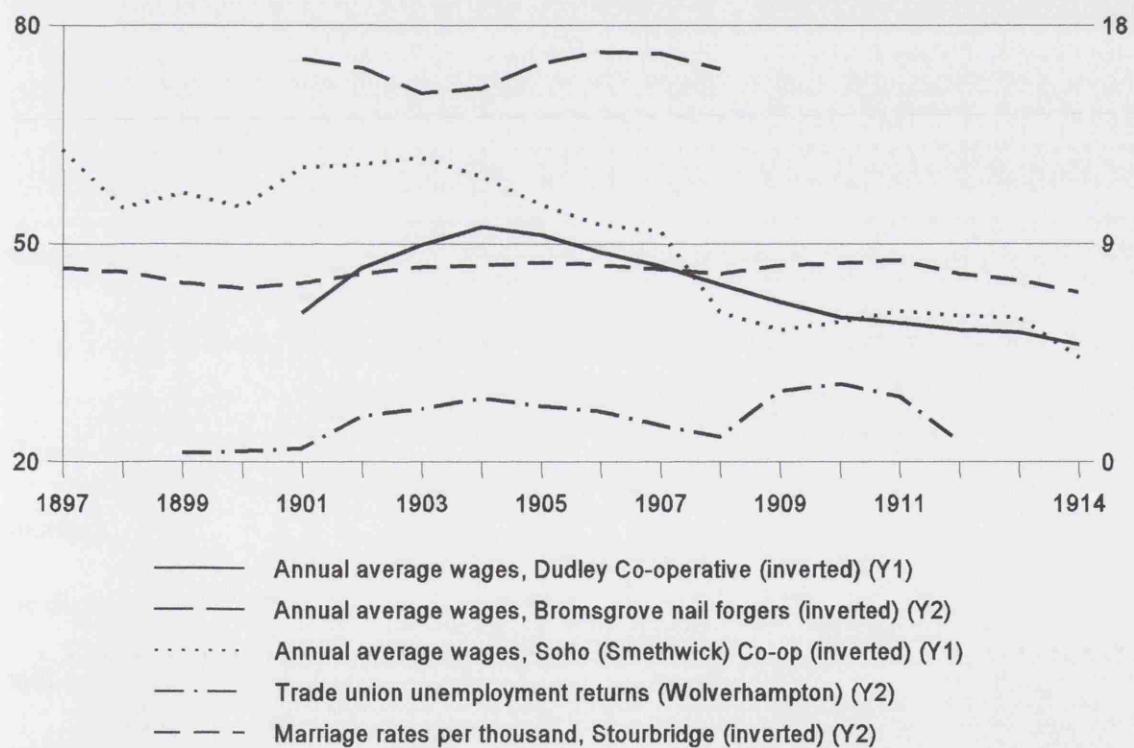


Sources: Annual Co-operative Congress Reports

It is noteworthy that long term periods of relatively low and high wages generally coincided for the distributive and productive workers in the Dudley and Smethwick Co-operatives but diverged considerably from those of the much lower paid nail forgers. The peak of relatively low wages

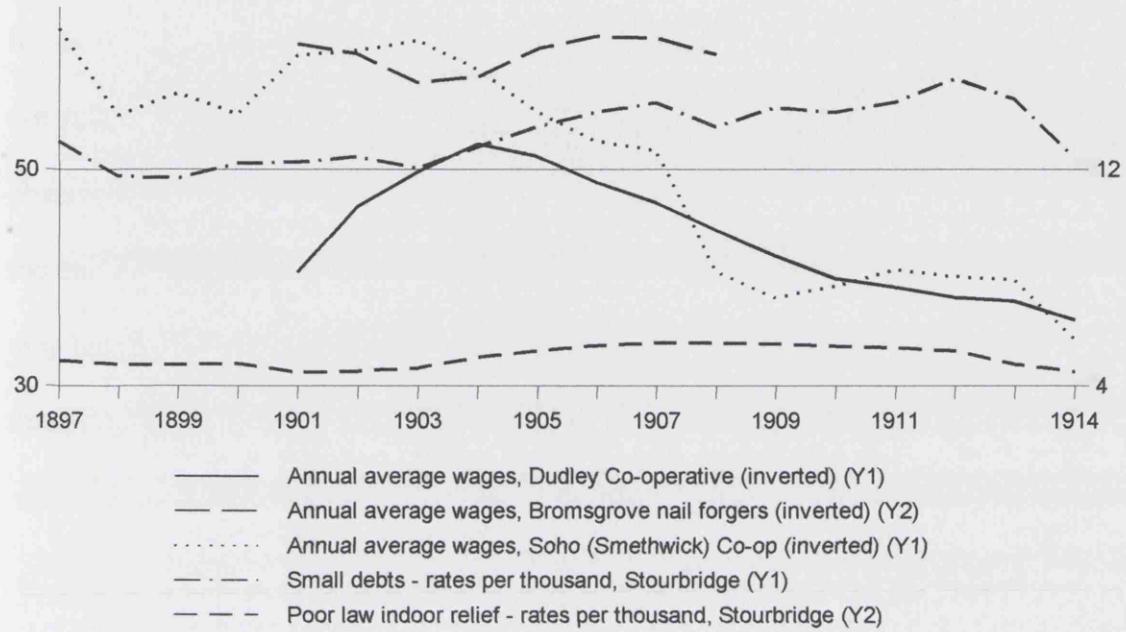
for the former group of workers was 1903 and 1904 respectively but this appears to be a time when a short-run peak of relatively higher wages was achieved by the latter group. It is also clear that this asynchronous fluctuation lasted from at least 1901 until 1906, when all series converged - for two years at least. These points enhance the necessity for comparison with the potential proxy measures for relative economic distress and the following figures will be an attempt to address this need:

Figure 9.4 - Comparison of annual average wages for three groups of workers in the Stourbridge district, local trade union unemployment returns and marriage rates for Stourbridge



Sources: Annual Reports Co-op Congress, Parliamentary Papers, Annual Reports of the Registrar General & Great Britain Historical Database

Figure 9.5 - Comparison of annual average earnings for three groups of workers in the Stourbridge district, poor law indoor relief and small debts for the town of Stourbridge

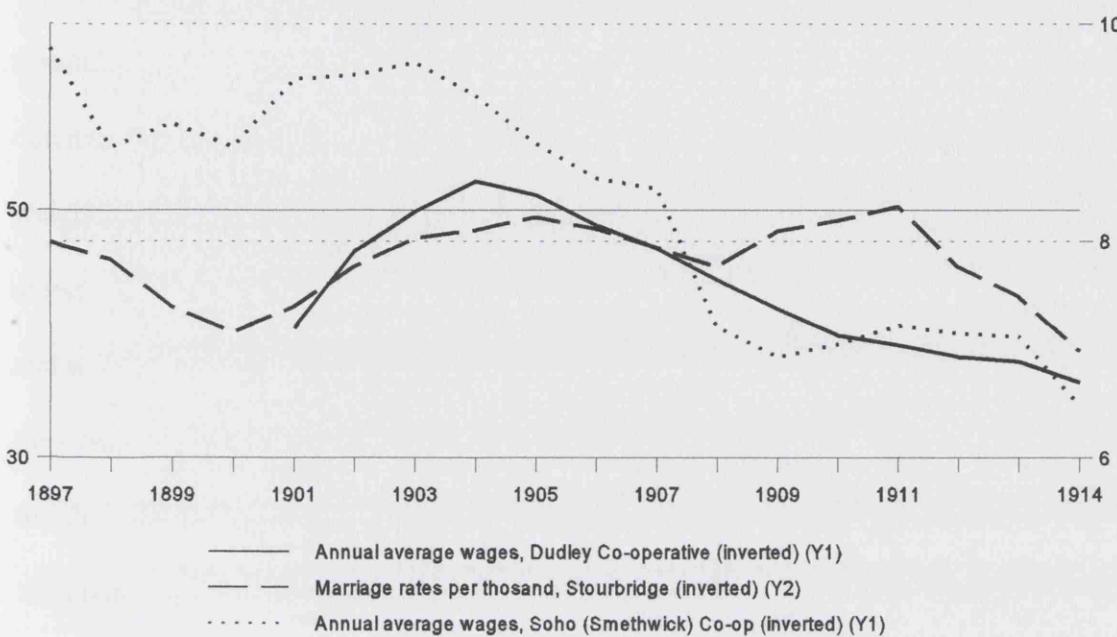


Sources: See Fig. 9.4

Figure 9.4 appears to suggest that neither local-level marriage rates nor local trade union unemployment returns are reflective of conditions amongst the lower paid group of workers in the district of Stourbridge but, on the other hand, may have a closer relationship with the higher paid occupations. Figure 9.5 appears to indicate that for the period measured with the lower-paid nail forgers, data for small debts at the local level may be reflective - to an extent at least - of conditions for those workers. This may be exemplified by pointing out that small debt data is synchronous in 5 of the 7 annual fluctuations measured with the nail forgers, but only in 7 of the 13 annual fluctuations with the Dudley co-op employees and in 7 out of 17 with the Smethwick workers. Marriage rates, on the other hand, are synchronous in only 3 of the annual fluctuations

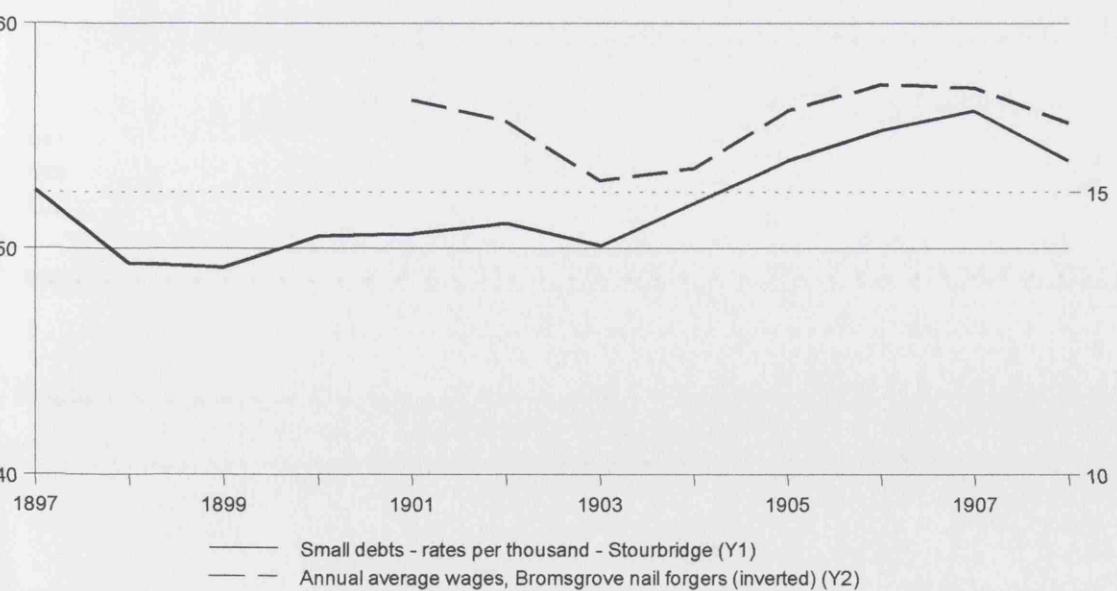
with the nail forgers but in 10 of the 13 measurements with the Dudley workers and in 13 of the 17 measurements with those at Smethwick.. Local poor law indoor relief returns are synchronous in 4 of the 7 fluctuations with the nail forgers, 8 of 13 with Dudley co-op employees and 6 of 17 for those at Smethwick. This is, of course, only one part of the measurement and assessment - the relative amplitude and measurement over a longer time is important, but the graphical observations as well as these points, suggest that marriage rates had a closer relationship with the more highly paid workers than either small debts or poor law indoor relief but small debts may have a closer relationship to the lower paid. This can be further observed by focusing on these comparisons:

Figure 9.6 - Comparison of Dudley and Smethwick distributive and productive workers annual average wages with local - level marriage rates for Stourbridge



Sources: See fig. 9.4

Figure 9.7 - Comparison of Bromsgrove nail forgers annual average wages and small debt statistics for Stourbridge



Sources: See fig. 9.3

As previously discussed, Barnsby<sup>8</sup> produces an index of economic activity for the Black Country for the years 1839 to 1899. He also uses this as one of the contributing factors towards a standard of living index for miners in the same period.<sup>9</sup> The index of economic activity is constructed by using qualitative evidence, both local and national, and with a considerable weighting from sources such as the Miners Examiner and ASE monthly reports. This measure, along with miners wage rates in money per day, real wages of miners assuming full employment, and a summary calculation of miners real wages - corrected for unemployment - contribute to the miners' standard of living index. Unfortunately, this research has limited comparative value for the present study as only five years coincide. However, it is noteworthy that it shows an increase of 18 per cent in one year to 1899, which is by no means reflected in other potential measures and suggests, perhaps a limited ability to reflect local variations in relative distress:

Comparison of Barnsby's Black Country miners' standard of living index with other potential measures of relative distress, 1895 - 1899 (3 year moving averages)

<u>Barnsby's index</u>	<u>Marriage rates</u>	<u>Small debts</u>	<u>Poor law Indoor rates</u>	<u>Co-op workers, Smethwick</u>
1897 121.67	7.63	52.6	4.93	37.59
1898 125.67	7.79	49.35	4.79	45.56
1899 147.67	7.39	49.15	4.77	43.56

Sources: G. J. Barnsby, see footnote, and figures 9.1 -9. 7 inclusive

Hopkins<sup>10</sup> discusses wages in the nailng industry in Stourbridge and points out that they were

<sup>8</sup> G. J. Barnsby - The Standard of Living in the Black Country during the Nineteenth Century, *Economic History Review*, 2nd Series XXXIV, 1971, pp 220-221

<sup>9</sup> *Ibid.*, p 238

<sup>10</sup> E. Hopkins - Small Town Aristocrats of Labour and their Standard of Living, 1840-1914, *Economic History Review*, 2nd Series, XXVII, 1975, pp 222-242

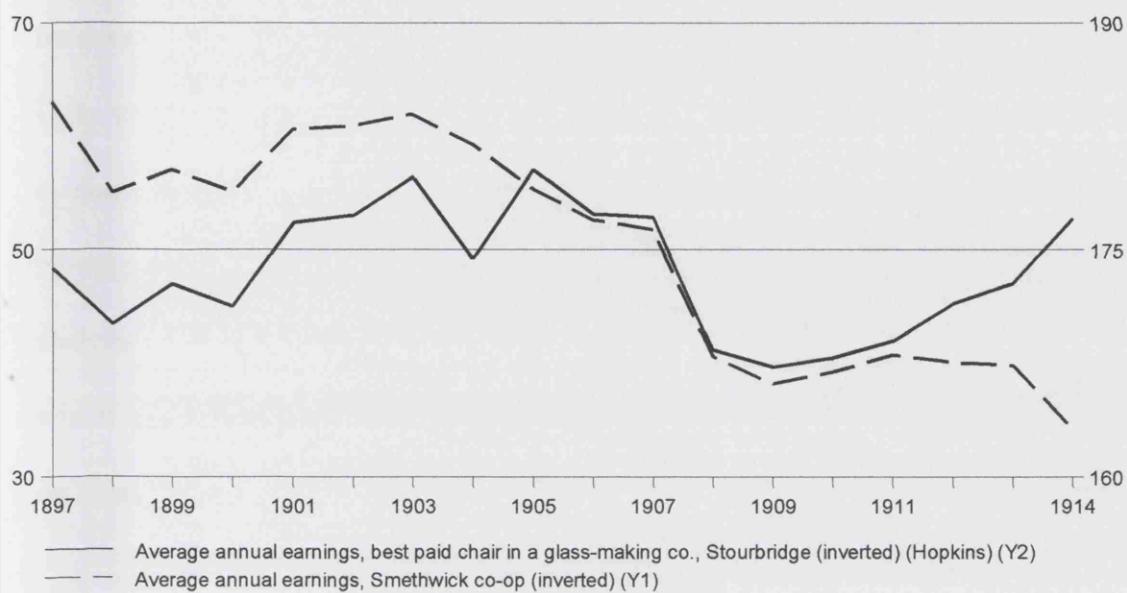
usually lower than in any other trade, dropping to 'intolerable levels' at times. Interestingly, his analysis suggests that by 1897 levels had improved to about 14 shillings per week - and this is broadly in line with levels found in this study at the Bromsgrove Nail Forgers Co-operative (15s 15d in 1901). Unfortunately, for present purposes, most data for wage rates and earnings is presented as decennial averages and this makes comparisons rather difficult, compounded by the fact that Hopkins' research is in the trades of puddling, mining and glass-making. The only series that lists annual average earnings is for the workman in the best paid chair of two local glass-making companies<sup>11</sup> and the registered level of annual earnings, at a mean value of £175 for the period 1895 - 1914 inclusive, is almost three times those of the productive workers at the Dudley Co-operative and three and a half times those for distributive and productive workers in the Smethwick Co-op. The person whose wages this series represents could, perhaps, be described as being at the apex of non-professional earnings for the period but, nevertheless, fluctuations in annual earnings may be compared to the series in the present study. Hopkins<sup>12</sup> notes that in 1910 the person studied had 5 weeks off and the figure for that year has been adjusted accordingly:

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<sup>11</sup> *Ibid.*, p 242

<sup>12</sup> *Ibid.*, p 242

Figure 9.8 - Comparison of glass-makers earnings (best chair), Stourbridge, and Smethwick co-op employees



Sources: E. Hopkins (see footnote) & see fig. 9.3

The series for the glassmaker is synchronous with the average earnings at the Smethwick co-op in 13 of the 17 years measured and, indeed, with 13 of the 14 years up to 1911. Interestingly, furthermore, it is synchronous with both the average earnings at Smethwick and marriage rates in 10 of the 14 years to 1911 and, with marriage rates alone, in 12 of the 15 years to 1912. This provides, perhaps, some further vindication of the series presented in this chapter when compared with data from other research that is impinged by a weighting from trade union unemployment.

Overall, then, this brief study of Stourbridge and district appears to confirm that relative conditions varied at times between occupational groups and income levels and, furthermore, that proxy measures may have a different relative relationship with these groups, dependent on levels of earnings. As with the study of Sheffield (see chapter 8), the lowest income earners appear to have a closer relationship to variations in local levels of small debt proceedings but

marriage rates are more reflective of relative distress amongst the skilled and more highly paid occupations. The fact that levels of relative distress diverged in some periods is significant, as is the extent to which this is reflected in the respective proxy measures. Further corroborative evidence has been presented of the data used in this research, not only in levels of actual income amongst the lowest paid, but also in fluctuations in actual earnings. This encourages further analysis in localities that not only may have different structures of local employment, but also which have not been the subject of the same level and type of research that has been focused on areas of traditional industrial and extractive occupations.

## 10. Measuring relative economic distress at a local level: Sheerness 1895 - 1914

Sheerness is the main town on the Isle of Sheppey, which is situated to the east of, and approximately thirty miles from, South East London. It is probably true to say that it has traditionally not been a particularly affluent area relative to its location and may provide an interesting potential area of study within the framework of the present research. The population of the town was 16371 in 1891 and 18607<sup>1</sup> for the Isle of Sheppey as a whole. Some local level statistics - namely proceedings for small debts<sup>2</sup>, marriage rates<sup>3</sup> and poor law indoor returns<sup>4</sup> - are for the Isle as a whole simply because that is how they are categorised, but it is nevertheless clear that these are representative of Sheerness in the main.

Local level statistics have also been obtained for trade union unemployment returns<sup>5</sup> as well as the local structure of employment for 1911<sup>6</sup> and the latter is a logical starting point for this analysis:

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<sup>1</sup> *Annual Report of the Registrar General* (58th - 1895)

<sup>2</sup> *Parliamentary Papers*

<sup>3</sup> *Annual Reports of the Registrar General: 58th (1895) - 77th (1914)*

<sup>4</sup> *Parliamentary Papers*

<sup>5</sup> From the *Great Britain Historical Database*, University of Essex - depositor H. R. Southall

<sup>6</sup> From the Census Statistics of Employment, town level statistics for 1911 males and females - deposited at the *Great Britain Historical Database* by H. R. Southall, from material supplied by C. H. Lee

Table 10.1 - Categories of male and female occupations, Sheerness 1911 (Source: C. H. Lee, see footnote 6)

<u>Category</u>	<u>No. of males</u>	<u>Category</u>	<u>No of Females</u>
Total engaged in occupations	6672	Total engaged in Occupations	1366
General or Local Government	326	Civil Service, Telegraph & Telephone	5
Defence of the Country	2152	Municipal Officers, Hosp & Institutions	3
Professional Occ's & subordinate services	102	Midwives, nurses etc.	35
Domestic outdoor & other services	7	Teaching	74
Domestic indoor & other service	53	Literary, scientific & Political, art etc.	32
Merchants, agents, accountants, banking, ins etc.	45	Domestic indoor Service, hotels etc.	29
Commercial or business clerks	28	Other domestic Indoor servants	394
Conveyance on railways	89	Charwomen, day Girls & servants	44
Conveyance on roads	90	Laundry & washing	69
Conveyance on seas, rivers etc,	161	Others in service	8
Dock labourers, labourers etc.	110	Bank & insurance Clerks	29
Messengers, porters, watchmen	59	Agriculture, on farms, woods, gardens	0
Others in conveyance	161	Metals, machines, Implements	4
Agriculture, on farms, woods etc.	33	Makers of jewellery etc.	0
Coal & mine workers	1	Furniture & decorations	1
Engineering & machine making	775	Chemicals, soap etc.	10
Tool manufacture & misc. Metal trades	6	Hairs & feathers	0
Electrical apparatus	74	Papers, newspapers,	0

		stationary etc.	
Ships & boats	663	Textile Manufacture & dyeing	11
Cycles, coaches & other vehicles	11	Drapers, linen drapers etc.	49
Precious metals, jewels etc	16	Tailoresses	28
Building & Construction	328	Milliners	26
Wood & furniture fittings	27	Dressmakers	166
Brick & tile makers	1	Seamstresses & shirtmakers	102
Earthenware & glass manufacture etc.	46	Boot, shoe & clog Makers	1
Chemicals, soap etc	30	Food workers	0
Skins, leathers etc.	6	Food dealers, Shopkeepers	91
Printers & lithographers	13	Lodging house & Inn keepers etc.	112
Others in printing & stationary	1	All other occupations	43
Textile manufacture & dyeing	0	Proportion per 1000 of unmarried in occ	459
Tailors	31	Proportion per 1000 Of married in occ	50
Boot, shoe & clog makers	24		
Drapers, linen drapers etc.	71		
Food, tobacco, drink & lodgings	378		
General & factory labourers (unspecified)	419		
All other occupations	335		

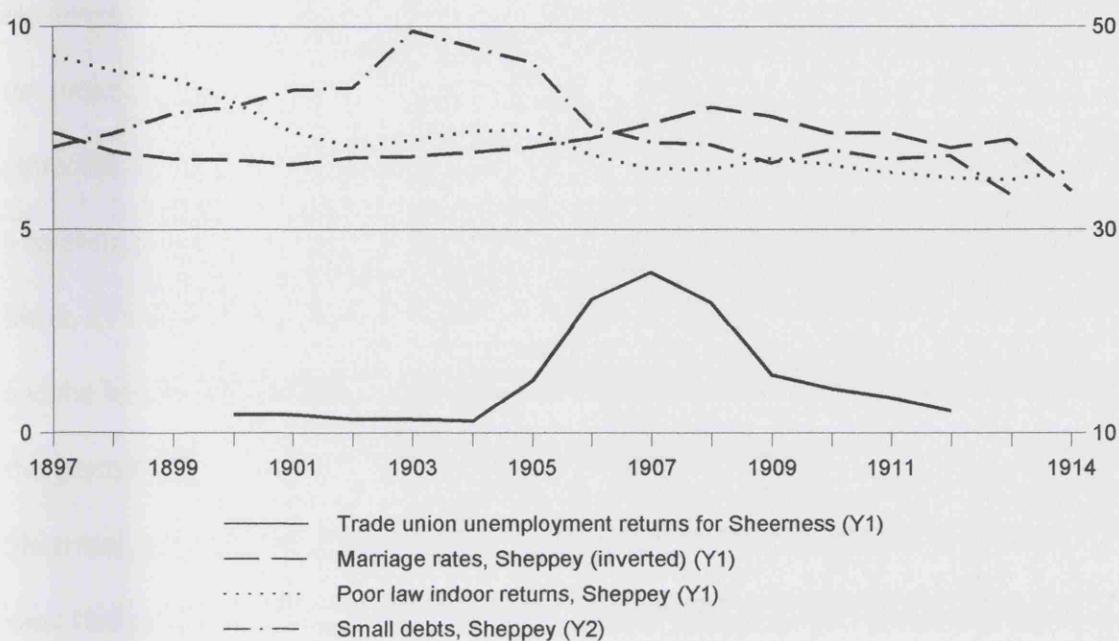
Apart from the obviously strong military presence, the largest occupational groups amongst the male workforce were, as shown above, in the categories of engineering (17.1 per cent of non-military workforce), ships and boats (14.7 per cent), unspecified general and factory labourers (9.3 per cent), food & tobacco etc. (8.4 per cent) and building and construction (7.3 per cent). The extent to which some of these occupations were unionised may be exemplified by the fact that, for instance, the ASE had 113 members in 1895, 256 in 1912, and the Amalgamated Society of Carpenters and Joiners had 21 in 1896 and 44 in 1908.<sup>7</sup> The largest concentrations of the female workforce were in domestic and cleaning occupations (39.2 per cent) and the production and repair of clothing (21.67 per cent).

Data for the potential proxy measures of local relative economic distress will be marriage rates, indoor poor law returns and prosecutions for the recovery of small debts - all per thousand of population, as well as local- level trade union unemployment returns, calculated as a percentage of total members for each year. This data is for January and July of each year shown and is further calculated by totalling the unemployment numbers for each of these months as well a total for members in both of these months. Unfortunately, there are zero unemployment returns for the ASE local branch until 1898 and zero for the ASCJ until 1904. This means that the calculation from 1898 to 1904 represents ASE returns only but, from 1904, both unions. It not presently known why there are zero returns in the previous years and may reflect the possibility that qualification for donation benefit only began locally in those years. This is, however, speculation, and the relevant starting point in this analysis is to graphically show the potential proxy measures for the town of Sheerness:

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<sup>7</sup> From data supplied by H. R. Southall to the *Great Britain Historical Database - Op. cit.*

Figure 10.1 - Comparison of potential proxy measures for Sheerness, Isle of Sheppey, 1895 - 1914



Sources: Great Britain Historical database, Parliamentary Papers, Annual Reports of the Registrar General

There would appear to be periods when the potential proxy measures diverge in their fluctuations. Local level trade union unemployment returns and marriage rates indicate periods of relative distress in 1906 - 1908 (inclusive) and in 1906 - 1909 respectively. Data for small debts suggest surprisingly higher levels between 1903 and 1905 (inclusive) as, to a lesser extent, do poor law indoor returns in the same years. Interestingly, during the period when marriage rates and trade union unemployment returns suggest a peak of relative distress, poor law indoor relief and returns for the recovery of small debts show an opposite long term fluctuation. Some relevant points for discussion lie within these statistics, but it is necessary first to analyse the data on average annual earnings that has been extracted.

Consistent with previous chapters, the approach is to select the relatively highest and lowest

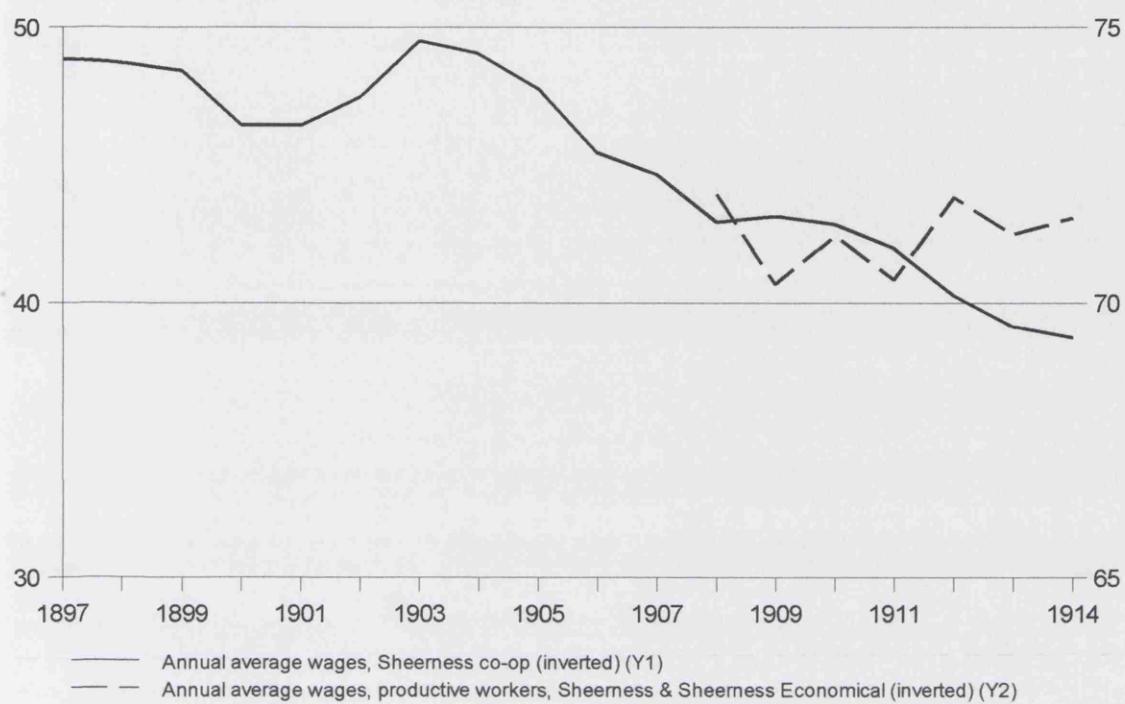
paid series of earnings<sup>8</sup> so that fluctuations may be compared with the potential proxy measures. However, it is noteworthy that for the whole co-operative district (effectively Kent), there are no societies whose level of average earnings are anywhere near so low as those that were extracted for the Sheffield cutlers (see chapter 3) or the Bromsgrove nail forgers (see chapter 4). The average annual wages in the period for the former group of workers was £20.88 and, for the latter, £15.89 - but the lowest paid workers in the Kentish societies, at Sheerness co-operative and the Medway ship, barge, yacht and boat building society, received annual average wages in the period of £44.91 and £45.09 respectively. The analysis of variations in actual wages in Sheerness, therefore, presents a partial problem compared to Sheffield and Stourbridge. There were two co-operative societies - Sheerness and Sheerness Economical. The former had a total of 83 workers in 1895 and 134 in 1914 and the latter had 48 workers in 1895 and 71 in 1914. As with data for other towns, total income is not separated between distributive and productive workers until 1906 but the actual number of workers in each category is. Sheerness co-op had 14 productive workers (16.9%) in 1895 and 14 (13.7%) in 1905. Sheerness Economical had 18 productive workers (37.5%) in 1895 and 20 (37.7%) in 1905. This relative disparity in numbers of more highly paid productive workers explains why the mean average annual earnings at the Sheerness society was £41.96 for the period 1895-1905 and £43.14 for Sheerness Economical. The mean values for the whole period 1895-1914 were £44.91 and £54.80 respectively. It is clear that the lowest paid group were distributive workers at the Sheerness society and the only long term consistent series that may be used is for combined annual average earnings from this source for the whole period, at the mean value of £44.91. The only meaningful series for a relatively more highly paid group is for productive workers from both societies for 1906-1914, at a mean

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<sup>8</sup> *Annual Co-operative Congress*, No's 28 (1896) to 47 (1915) (Co-operative union limited, published annually)

average annual value of £71.31. The relative lack of data for very low paid workers is regrettable but, on the other hand, suggests that such low paid groups were scarce or just did not exist in this area and that is, perhaps, why proceedings for the recovery of small debts were at a lower level than in the other towns studied to date. The anticipation, furthermore, that there may be a variable sensitivity to the proxy measures - perhaps less pronounced than in the other towns - is consistent with a supposition that the Victorian and Edwardian labour markets and relative conditions within them were far more complex than measurement by one single proxy would accurately allow, certainly within such a unit as the national boundary. The association between occupational groups and levels of income may be related to local-level structures of employment and this can only be assessed by bringing into the equation localities that have not been systematically researched. Figure 10.2 shows relative fluctuations in the annual average earnings of workers in the appropriate groups for Sheerness:

Figure 10.2 - Comparison of annual average earnings for distributive and productive workers at the Sheerness co-operative and productive workers at the Sheerness and Sheerness Economical co-operatives

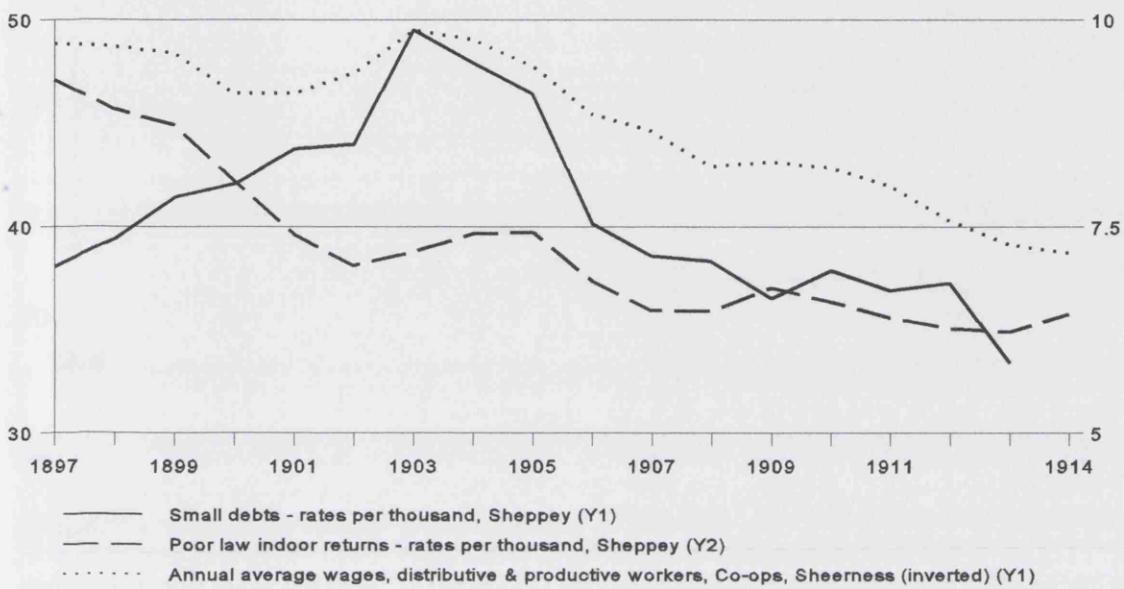


Sources: See fig. 10.1 & Annual Reports of the Co-operative Congress

The long-term improvement in annual average earnings for the relatively lower paid group from 1903 is clear, as well as the comparative consistency of remuneration to the more highly paid between 1906 and 1914. The series for annual average wages of workers at the Sheerness co-operative is synchronous in two of the six years measured, but a relevant point for discussion is the apparently sharp narrowing of the gap between the two groups of workers in this later period. Figures for distributive workers can be isolated from 1906 and these show an annual average for both co-operatives in Sheerness of £45.39 for 1906/7 and £51.75 for 1913/14 (+14.01%) whereas for productive workers overall, the figures are £72.34 and £70.74 respectively (-2.21%). This significant narrowing of the gap between the occupational groups being studied would be expected to blur the extent to which other measures may reflect relative conditions, certainly for

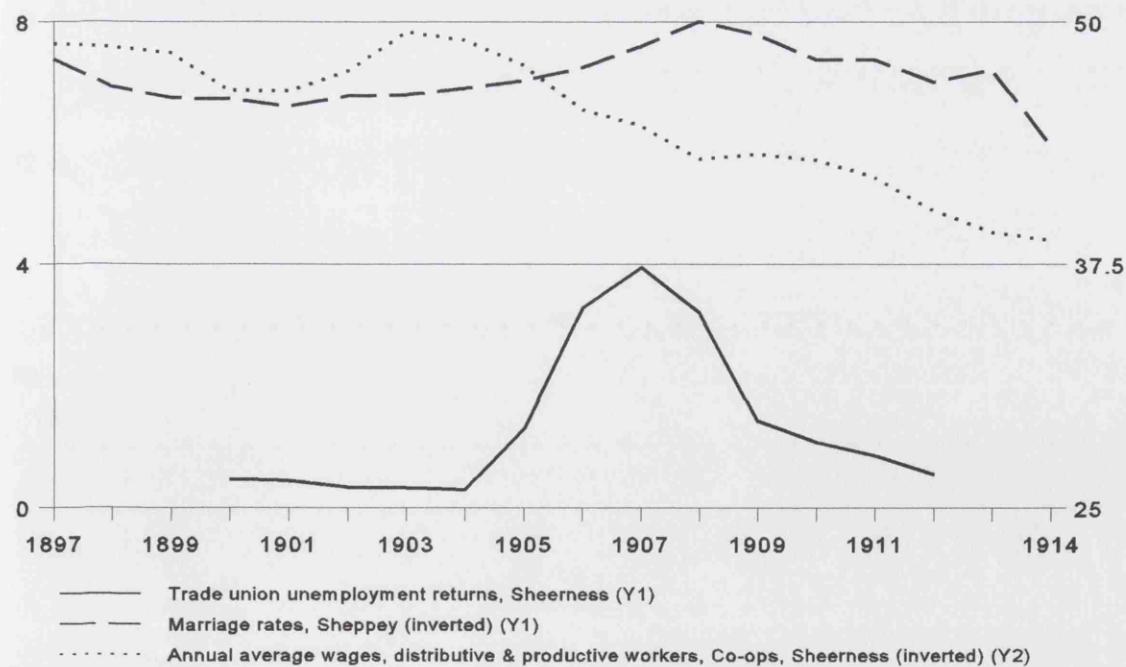
these later years in the analysis. With this in mind, it is relevant to graphically compare the series of wages with the potential proxy measures:

Figure 10.3 - Comparison of annual earnings for the relatively lower paid occupational group with data for small debts and poor law indoor returns for Sheerness



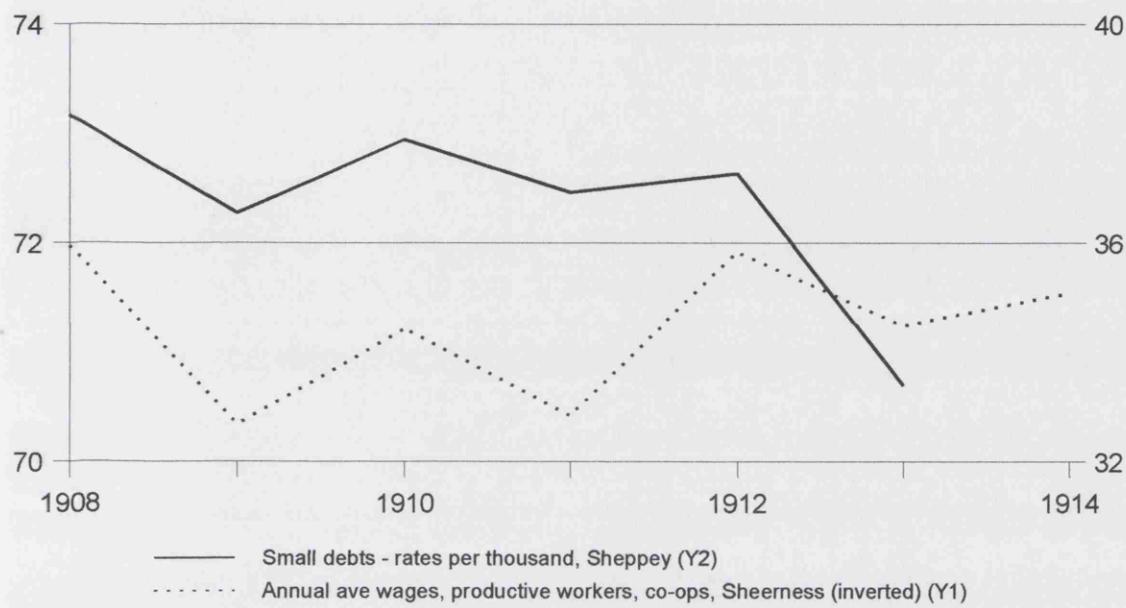
Sources: See figs. 10.1 & 10.2

Figure 10.4 - Comparison of local -level marriage rates, trade union unemployment and annual average wages for the relatively lower paid occupational group, Sheerness



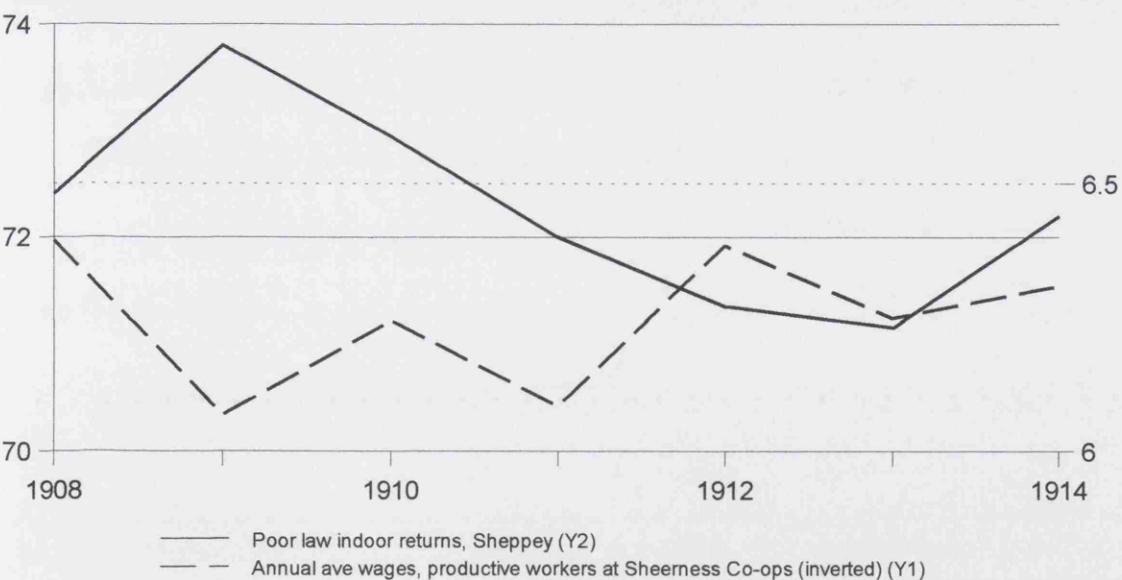
Sources: See figs. 10.1 & 10.2

Figure 10.5 - Comparison of local-level data for small debts and annual average wages for a relatively higher-paid occupational group, Sheerness



Sources: See figs. 10.1 & 10.2

Figure 10.6 - Comparison of poor law indoor relief returns and a higher-paid occupational group, Sheerness



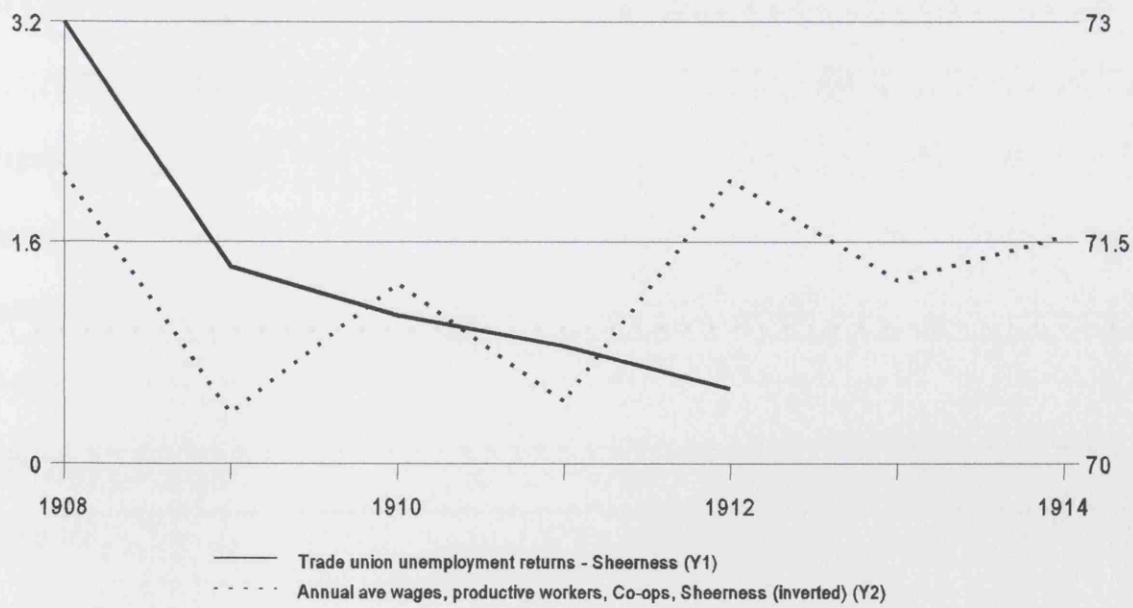
Sources: See figs. 10.1 & 10.2

Figure 10.7 - Comparison of local-level marriage rates and annual average wages for a higher-level occupational group, Sheerness



Sources: See figs. 1-0.1 & 10.2

Figure 10.8 - Comparison of local-level trade union unemployment returns and annual average wages for a higher-level occupational group, Sheerness



Sources: See figs. 10.1 & 10.2

There are clearly some noteworthy points that can be discussed from the data and its graphical illustration. Unfortunately, this is curtailed to an extent by the relatively short period for statistics on the higher paid group of workers. Nevertheless, it would appear that while the anticipated and apparently less obvious relationship between the lower occupational group and data for small debts is shown, the important peak of relative distress - in 1903 - is clearly shown, as is the long term fluctuation from 1901 to 1913 (when the series for small debts ends). Also emphasised is the previously mentioned indication in both the data for average earnings and small debts of significant relative improvement in well-being over time, from the low point of 1903. Data for poor law indoor returns (fig 10.3) also mirrors, to an extent at least, an improvement but - importantly - does not show significantly higher levels of relative distress either in 1903-5 or 1906-9 (as indicated by marriage rates and trade union unemployment returns). Data for small debts is synchronous with the annual average wages of the lowest paid group of co-operative workers in 10 of the 16 fluctuations measured and poor law returns in 12 of 17.

Figure 10.4 emphasises the apparently different periods of relative distress for the low paid occupational group when compared to marriage rates and local level trade union unemployment rates. It is worth noting that trade union returns for Sheerness were above 1.5 per cent in only 3 of the 13 years for which statistics were available and above 3 per cent in only 2 of those years. The peak years of relative distress as measured by these returns as well as local marriage rates were 1906-8 and yet this was a time when actual earnings for the lower paid occupational group were 3 and 6 years respectively into a long term improvement in wages, from a trough in 1903. Local-level trade union unemployment returns were synchronous in 6 out of the 12 fluctuations observed and marriage rates in 9 of 17. Interestingly, furthermore, marriage rates were

synchronous in only 3 of the 11 fluctuations observed between 1904 and 1914.

Although the sample is too few in number for any sensible inference, data for small debts is synchronous with the relatively higher paid group of workers in each of the five annual fluctuations measured and re-emphasises the need for a longer-term series for higher paid workers. The decrease over time in small debts is not reflected in the wages data (which, as previously noted, decreases by 2.21%). Poor law indoor returns are synchronous in 3 of the 6 fluctuations with this group (figure 10.6), against a background of relatively level returns (minimum 6.23, maximum 6.76 per thousand). Local-level trade union unemployment returns simply show a continuous decrease (figure 10.8) from their peak in 1907 and are therefore synchronous with the wages series in the two years where both show a downward fluctuation. Marriage rates (figure 10.7) are synchronous with average annual earnings for this group of workers in 1 of the 6 fluctuations measured. Notwithstanding these findings, it may be possible to make a presumption that if a series of wages for productive workers or, more ideally, for those at a higher level of income were available, these may show a correspondence with trade union returns and marriage rates in Sheerness for the period 1906-8. A slight indication of this may lie in the fact that the average annual wage for these productive workers was £70.65 for the years 1906-8 inclusive and £72.20 for the three years 1909-11 inclusive - a fairly significant increase against a background of relatively stable and static average wages for the decade 1905-1914. However, it is acknowledged that this is speculative and a more detailed series for wages would be required for any substantial conclusions to be reached.

The relative changes in income between occupational groups has been noted and it is relevant to show a comparison between the relatively lowest paid and small debts:

Comparison of decennial changes in income levels and small debts, Sheerness

	Small debt rate	Annual ave earnings, Sheerness co-op	Annual ave earnings, Medway boats etc.
1895- 1904	42.91	41.96	39.20
1905- 1914	36.62	47.85	50.99
% change	-14.7	+14.04	+30.08

The significant shift in levels of income seem to be reflected in data for the recovery of small debts in Sheerness and the extent to which annual average wages for workers at the Medway ship, barge, yacht and boat building society improved is noteworthy. The inclusion of this series is not intended for comparison with the Sheerness study but suggests, perhaps, that conditions in nearby Medway towns, within the London-dominated 'metropolitan' region, may have shown significantly higher than average improvements in this period. Correlation coefficients have been calculated and the statistic for the series for small debts and the lowest paid co-op workers was 0.7723.

Overall, this brief analysis of relative conditions in Sheerness has illuminated some potentially interesting features of the local labour market and wage differentials in an area that has been under-investigated. There is no evidence of the potentially desperately low wage levels found in Sheffield and Stourbridge and decennial increases are considerable for the distributive workers. The main peaks of relative distress appear to be signified by the relevant proxy measures, although the lack of such a clear distinction between levels of wages may suggest that these are slightly more blurred than in the other towns studied. These potential relationships

seem particularly blurred in the case of marriage rates and trade union unemployment and if one were seeking a single proxy measure for this town, then data for small debts would, based on the limited data available, be it. However, the mistake in doing this is clear when the two asynchronous peaks of relative distress are brought into the equation. It is worth re-emphasising, nevertheless, that trade union unemployment returns were at zero or, at best, negligible levels for all but three of the years studied - in a town with a reasonable penetration by the main unions. Marriage rates seem to have a declining relationship with variations in annual average wages from the 1906-9 period and it is worth noting the point made by Glass (see chapter 1, page 17), namely that the lowest correlation that he found in sub-periods between marriage rates and an index of real wages was at this time.<sup>9</sup> It may be that Sheerness and such towns and areas were responsible for this relative distortion.

Bearing in mind that Sheerness would not be considered a particularly affluent area for workers, but nevertheless noting its apparently favourable comparison with Sheffield and Stourbridge in the period, the analysis of another urban area in Kent - Dover - may give a further dimension to relative conditions in the Victorian and Edwardian labour markets.

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<sup>9</sup> D. V. Glass - Marriage frequency and economic fluctuations in England and Wales, 1851 - 1934, in L. Hogben (ed.) - *Political Arithmetic, a symposium of population studies* (George Allen & Unwin Ltd., 1938), pp 251-282

## 11. Measuring relative economic distress at a local level: Dover 1895 - 1914

Dover may perhaps be described as an expanding town in the Victorian and Edwardian eras, famous as an important channel port, but whose economy was not consumed by the cross-channel industry. It is outside of the metropolitan-influenced inner circle described by Lee<sup>1</sup> but its economy and society was urban rather than agricultural. Its relative size and rate of expansion may be partly shown by the fact that the population was, for example, 41,314 in 1891 and 51,944 by 1911.

The relative affluence of this district comparatively may be exemplified, not only by the data for actual earnings that is presented later in this chapter and the apparent absence of particularly low-paid occupational groups, but also by other factors - for instance the local guide and almanack for 1876<sup>2</sup> boasts that 'commercially the town continues to prosper' and that the death rate was only 14.7 per thousand, three below any other town in the Kingdom. Against this background it is clearly necessary, in a study such as this, to establish the working-class credentials of the town. Local-level statistics on the structures of employment have been obtained<sup>3</sup> and are shown in table 11.1:

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<sup>1</sup> C. H. Lee - *The British Economy since 1700: A macroeconomic perspective* (Cambridge university press), 1986

<sup>2</sup> *Dover guide and appendix with almanack for 1876* ('Chronicle' office publication), 1876

<sup>3</sup> From the Census Statistics of Employment, town level statistics for 1911 males and females - deposited at the *Great Britain Historical Database* by H. R. Southall, from material supplied by C. H. Lee

Table 11.1 - Categories of male and female occupations, Dover 1911 (Source: C. H. Lee, see footnote 3)

<u>Category</u>	<u>No. of males</u>	<u>Category</u>	<u>No of Females</u>
Total engaged in occupations	14330	Total engaged in Occupations	4796
General or Local Government	446	Civil Service, Telegraph & Telephone	20
Defence of the Country	2693	Municipal Officers, Hosp & Institutions	88
Professional Occ's & subordinate services	497	Midwives, nurses etc.	154
Domestic outdoor & other services	79	Teaching	229
Domestic indoor & other service	180	Literary, scientific & Political, art etc.	64
Merchants, agents, accountants, banking, ins etc.	256	Domestic indoor Service, hotels etc.	168
Commercial or business clerks	286	Other domestic Indoor servants	1747
Conveyance on railways	587	Charwomen, day Girls & servants	155
Conveyance on roads	534	Laundry & washing	237
Conveyance on seas, rivers etc,	846	Others in service	44
Dock labourers, labourers etc.	317	Bank & insurance Clerks	92
Messengers, porters, watchmen	407	Agriculture, on farms, woods, gardens	6
Others in conveyance	371	Metals, machines, Implements	4
Agriculture, on farms, woods etc.	314	Makers of jewellery etc.	1
Coal & mine workers	23	Furniture & decorations	27
Engineering & machine making	480	Chemicals, soap etc.	7
Tool manufacture & misc. Metal trades	38	Hairs & feathers	3

Electrical apparatus	81	Papers, newspapers, stationary etc.	144
Ships & boats	92	Textile Manufacture & dyeing	44
Cycles, coaches & other vehicles	215	Drapers, linen drapers etc.	128
Precious metals, jewels etc	89	Tailoresses	28
Building & Construction	1421	Milliners	80
Wood & furniture fittings	223	Dressmakers	397
Brick & tile makers	12	Seamstresses & shirtmakers	40
Earthenware & glass manufacture etc.	8	Boot, shoe & clog Makers	7
Chemicals, soap etc	40	Food workers	7
Skins, leathers etc.	29	Food dealers, Shopkeepers	312
Printers & lithographers	89	Lodging house & Inn keepers etc.	397
Others in printing & stationary	113	All other occupations	166
Textile manufacture & dyeing	27	Proportion per 1000 of unmarried in occ	465
Tailors	99	Proportion per 1000 Of married in occ	84
Boot, shoe & clog makers	132		
Drapers, linen drapers etc.	196		
Food, tobacco, drink & lodgings	1519		
General & factory labourers (unspecified)	814		
All other occupations	777		

Perhaps the most striking feature from table 11.1 is the diversity of occupations and numbers overall in service and distribution as well as the lack of any large-scale manufacture or extractive industries. Of the non-military male workforce, 12 per cent were in construction, 7 per cent were unspecified general and factory labourers, 9 per cent worked on road and rail conveyance, whilst 4 per cent were employed in engineering and machine-making overall. The difference with other areas may be seen by pointing out that the whole county of Lancashire in 1911 had 15 per cent of the male and 42 per cent of the female workforce in textile manufacture, 11 per cent of its male workforce in metal manufacture and metal goods and 7 per cent<sup>4</sup> in mining and quarrying. In the urban areas, the percentages would have been much higher. The most notable concentrations of the female workforce in Dover were in domestic and cleaning (41 per cent) and in shopkeeping and boarding houses etc. (15 per cent).

Data for potential proxy measures of relative distress are local-level marriage rates,<sup>5</sup> indoor poor law returns,<sup>6</sup> data for the recovery of small debts<sup>7</sup> - all per thousand of population, as well as local-level trade union unemployment returns<sup>8</sup>, calculated as a percentage of total members for each year (data is given for January and July, the totals in each case being taken as figures for the relevant year). The returns for the ASE show zero returns for donation benefit until 1898 and the ASCJ none until 1902. This limits the data somewhat, and indeed the ASE returns show one

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<sup>4</sup> *Ibid.*, statistical tables, unpage

<sup>5</sup> *Annual Reports of the Registrar General*: 58th (1895) - 77th (1914)

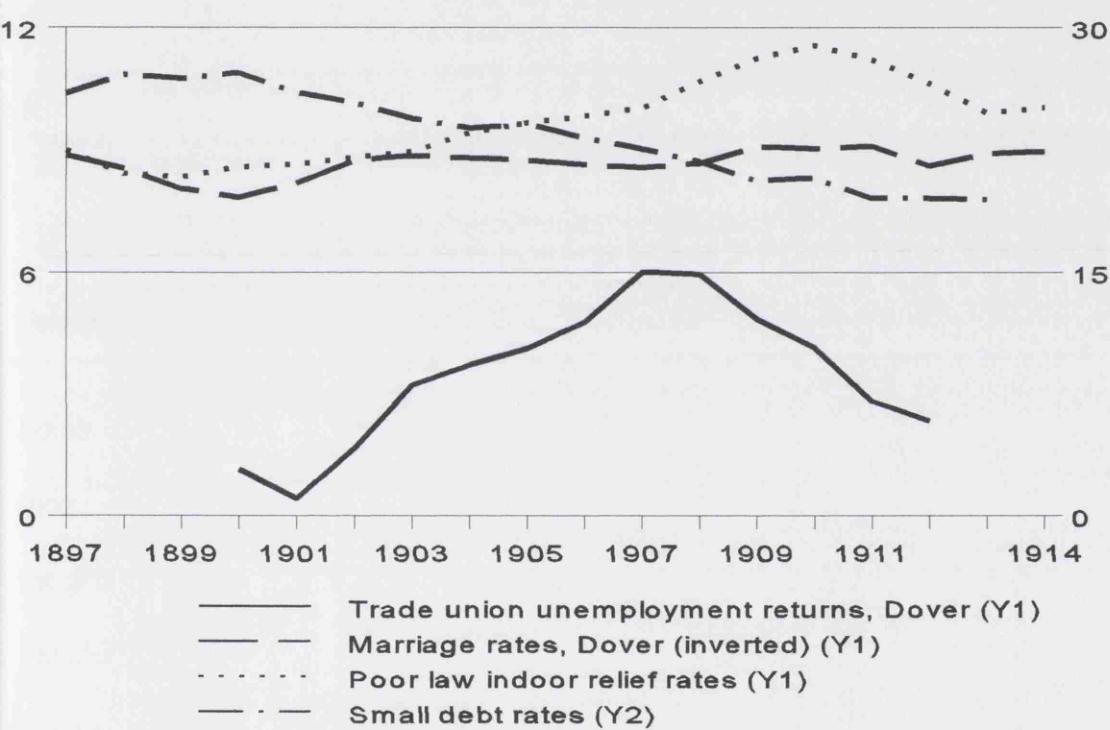
<sup>6</sup> *Parliamentary Papers*

<sup>7</sup> From the *Great Britain Historical Database* - data supplied thereto from collaborative research by H. R. Southall, D. Gilbert & P. Johnson

<sup>8</sup> *Ibid.*, data supplied by H. R. Southall

member unemployed in three of the five years between 1899 and 1903 (inclusive). Nevertheless, these are the trade union unemployment returns for Dover, and all possible data will be presented. From 1898 to 1902, however, the percentage is calculated for ASE members only. The potential proxy measures for Dover are shown below, with marriage rates inverted around their mean value for the period:

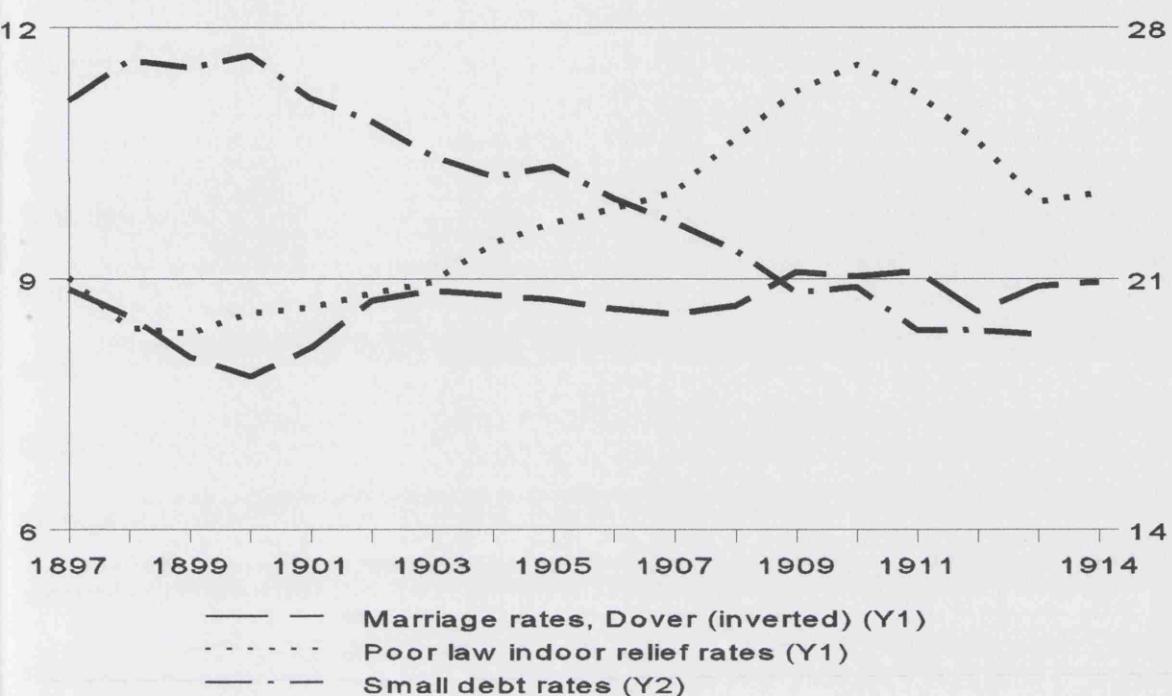
Figure 11.1 - Comparison of potential proxy measures for Dover, 1895 - 1914



Sources: Great Britain Historical Database, Parliamentary Papers, Annual Reports of the Registrar General

The fluctuations in other data can be better presented by taking out trade union unemployment:

Figure 11.2 - Comparison of marriage rates, poor law indoor relief and small debt rates for Dover



Sources: See fig. 11.1

Points of divergence between the potential proxy measures are quite striking. For example, the long term upward trend in local rates for poor law indoor relief from 1899 to 1910 and, indeed, the general levels of relief from the turn of the century. This will be discussed at a later point in the chapter. Also noteworthy is the long term downward trend in proceedings for the recovery of small debts from the turn of the century, alongside the relatively low levels of default in this compared to other towns studied (see chapter 8) and the decennial movements in this measure will be shown. The peak of apparent distress as measured by trade union unemployment returns is 1907-8, similar to the peak in this measure for Sheerness (see chapter 10). However, in the case of Dover, this is not reflected in local marriage rates, which suggest a low level peak of relative distress from 1909-11. Interestingly, again, data for small debts shows a small peak in 1905 against the background of the long term downward trend. All measures are synchronous

in only two years - 1899 and 1912 - and the long term trends as well as fluctuations over years within these trends perhaps demonstrate the need for studies such as this as well as the relevance of a measure that is truly independent and against which to test these potential proxy measures.

With this in mind, and consistent with previous chapters, several series of wages for co-operative workers have been extracted.<sup>9</sup> The data for the local co-operative in Dover is reported in the same way as the other societies studied and one feature stands out immediately - namely that those in distribution, listed separately from productive workers, earned more - at an annual average of £57.12 compared to £51.46 - than those in production. Furthermore, the lowest consistent series of wages for workers - distributive and productive combined - had an annual average income of £51.29 for the whole period 1895-1914. This is higher than in other towns researched to date and, it should be emphasised, may be seen against a background where there is little or no evidence of very low paid occupational groups. The annual average figure for distributive workers alone from 1906-14 is considerably higher than in other towns reported - at Sheerness, for instance, £49.21. The only consistent series for a higher paid occupational group is in the town of Ashford, approximately 10-15 miles away, and is for the Alfred Joint Stock Bread and Flour Co-operative. Although this series represents wages in an adjacent area, a reference point for its relevance may be seen in some earlier research, which obtained data on wages for a flour mill located in Dover.<sup>10</sup> The annual average wages of the workers at the Alfred Joint Stock co-operative was £72.54 for the period 1896-1914.

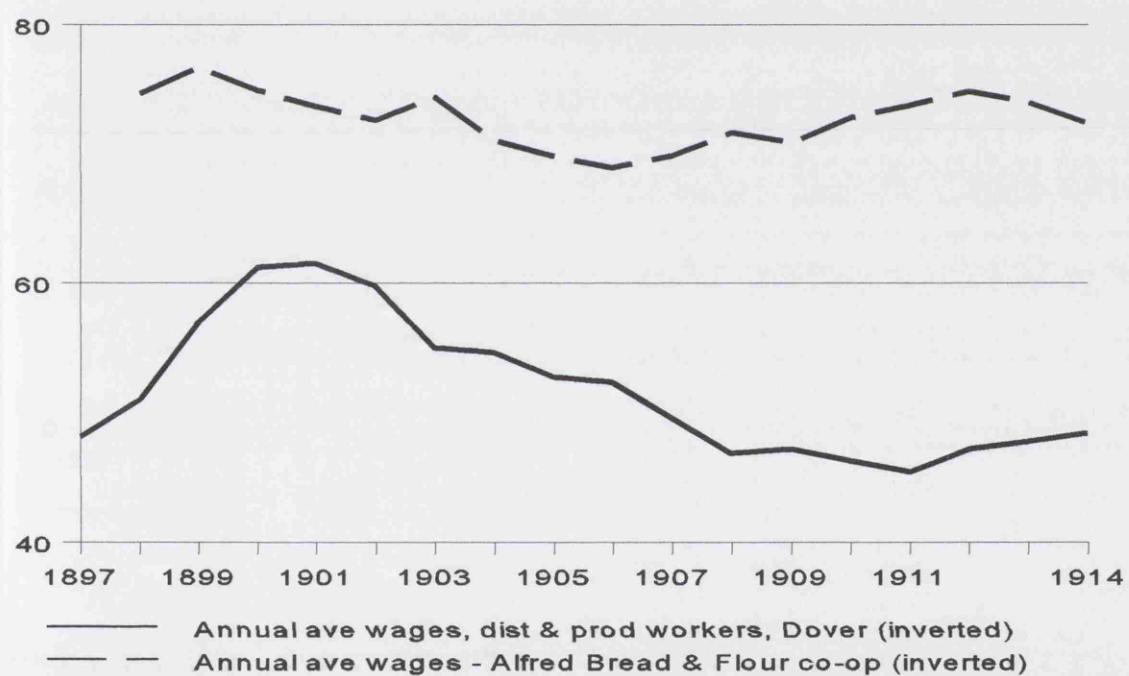
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<sup>9</sup> *Annual Reports of the Co-operative Congress*

<sup>10</sup> P. Searles - *Economic distress in the second half of the nineteenth century: a local study*, unpublished Msc report - the data was obtained from the wages records of the Mannerling and Buckland Flour Mills in Dover and obtained the average weekly payments per annum to one employee in the periods 1898-1906 and 1909-13

The number of workers represented by the figures for the co-operative in Dover was 31 in 1895 and 178 in 1914. For the workers at the Alfred Joint Stock co-operative, the figures were 7 in 1896 and 32 in 1914. The series for both groups of workers are inverted around their respective mean values for the period:

Figure 11.3 - Comparison of annual average wages for two occupational groups in Dover

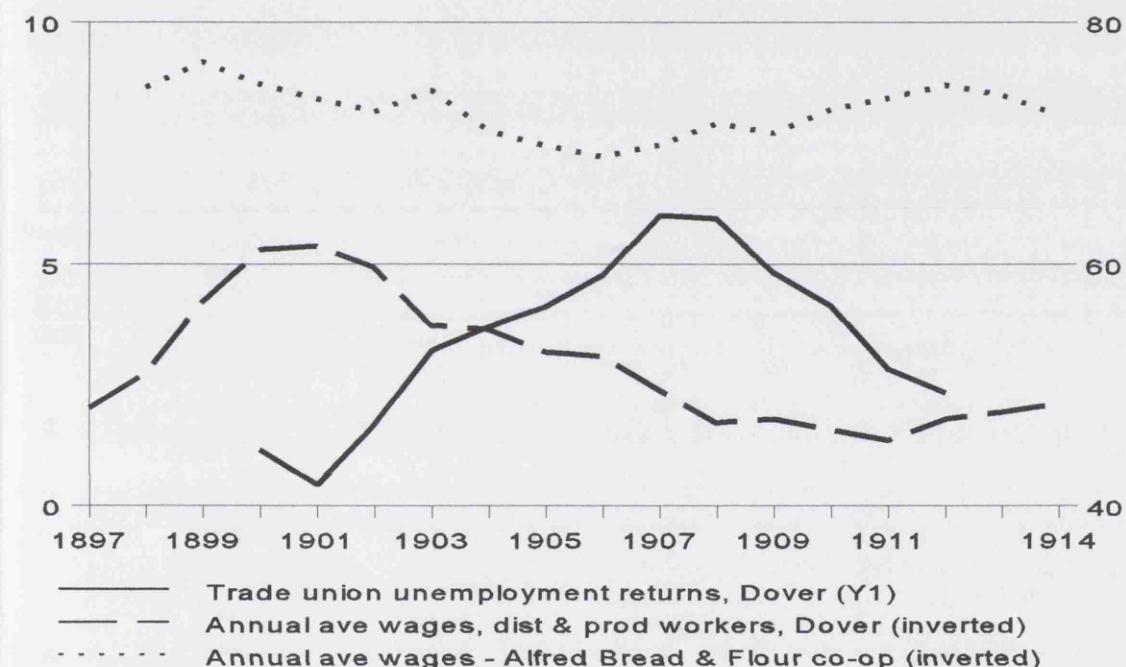


Sources: Annual Reports of the Co-operative Congress

The long term upward trend in average wages for the co-operative workers at Dover from 1901 to 1911 is notable, as is the relative lack of such a trend for the more highly paid mill workers. This narrowing of the income differential between the two groups can be demonstrated by the

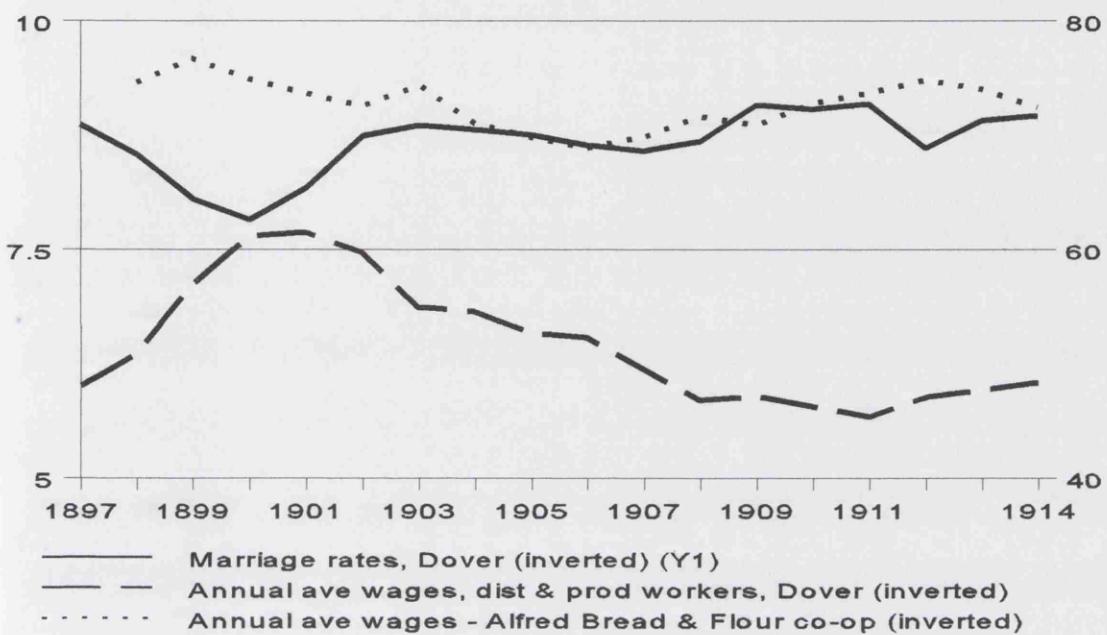
fact that it was £30.35 in 1901 (£41.06 for workers at the Dover co-op and £71.36 for the mill workers) and £14.17 in 1911 (57.19 and £71.36 respectively). By 1914, this gap had widened slightly to £18.45. Within the whole period, furthermore, there is clearly a divergence in long term fluctuations between the series from 1906 to 1914, during which time they were asynchronous in every annual fluctuation except one (1911-12). Comparisons between the series for wages and potential proxy measures may be shown:

Figure 11.4 - Comparison of local trade union unemployment returns and average wages in two occupational groups, Dover



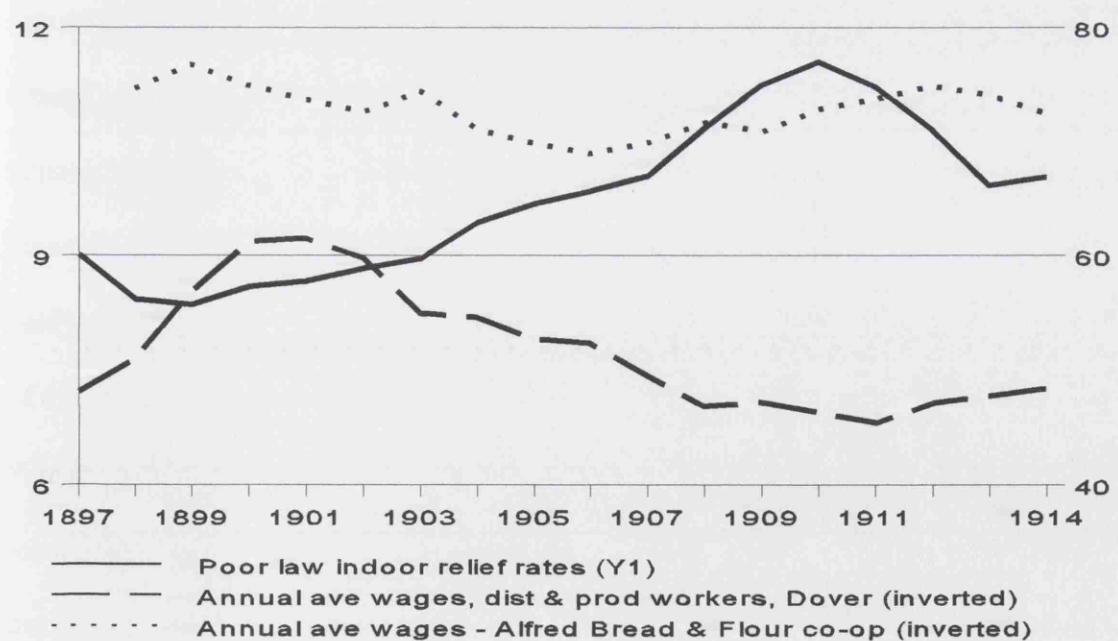
Sources: See figs. 11.1 & 11.3

Figure 11.5 - Comparison of local level marriage rates with two occupational groups, Dover



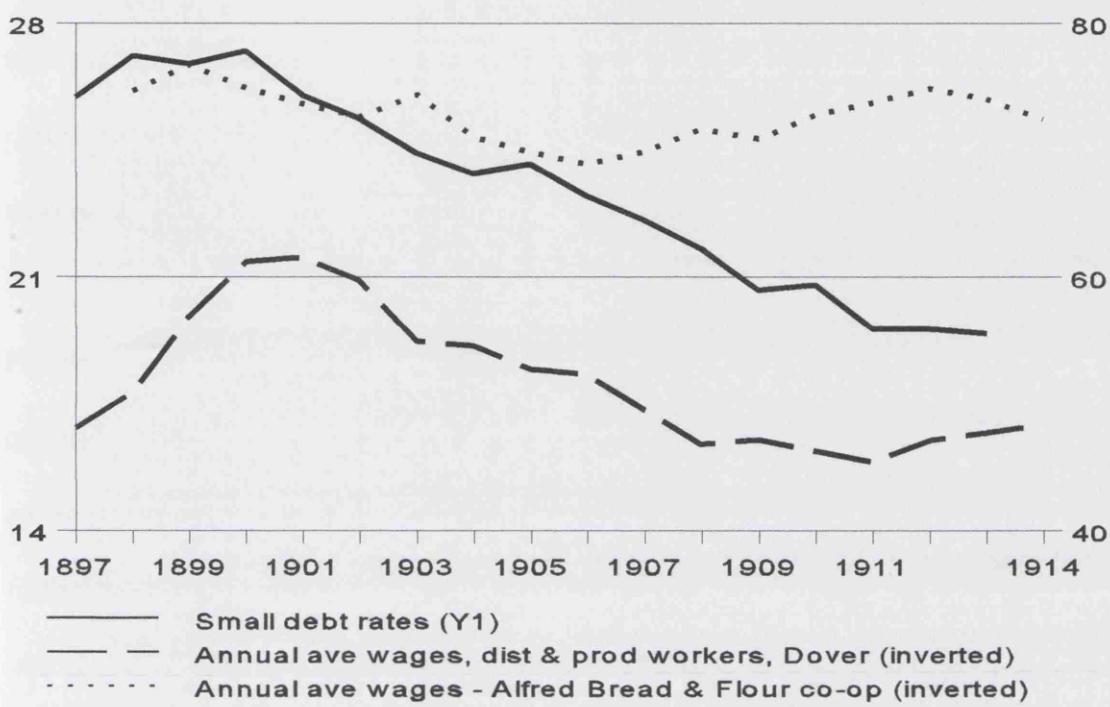
Sources: See figs. 11.1 & 11.3

Figure 11.6 - Comparison of local poor law indoor rates with annual average wages from two occupational groups, Dover



Sources: See figs 11.1 & 11.3

Figure 11.7 - Comparison of local small debt rates and annual average wages from two occupational groups, Dover



Sources: See figs. 11.1 & 11.3

Figure 11.4 appears to show little relationship between local level trade union unemployment returns and variations in annual average earnings for the two occupational groups studied. The apparent relative peak in distress that is signalled by the trade union returns, between 1906-9, coincides with short run but low level peak of apparent relative distress amongst the more highly paid mill workers. Trade union returns are synchronous with the lower paid co-op workers in 3 of the 12 years where comparisons can be made and in 4 of the 12 years with the mill workers.

Figure 11.5 seems to show a quite divergent long trend in a comparison between the series for local marriage rates and for the lower paid occupational group in Dover and, in the shorter term, the two have synchronous fluctuations in 9 of the 17 years measured. With the more highly paid mill workers, marriage rates have synchronous fluctuations in 8 of the 16 years shown. Figure 11.6 perhaps clearly demonstrates the extent to which local policy variations may have impinged

upon the potential for local level poor law indoor rates to proxy relative distress. The long term fluctuation is obviously asynchronous to a great extent with the lower paid occupational group and to a lesser extent with the more highly paid. This potential measure is synchronous with the Dover co-op workers in 5 of the 17 annual fluctuations measured and in 5 of the 16 with those who worked at the mill.

Figure 11.7 shows, perhaps, that the long term trend in reduction of proceedings for the recovery of small debts corresponds quite closely with the long term trend in rising annual average wages amongst the relatively lower paid occupational group in Dover. Within this long term trend, furthermore, the two series are synchronous in 10 of the 16 annual fluctuations measured, and in 8 of the 15 with the higher paid group. The extent to which the relatively long term trend in improvements for co-op workers in Dover is reflected in local level data for small debts may be shown by the decennial change in each measure:

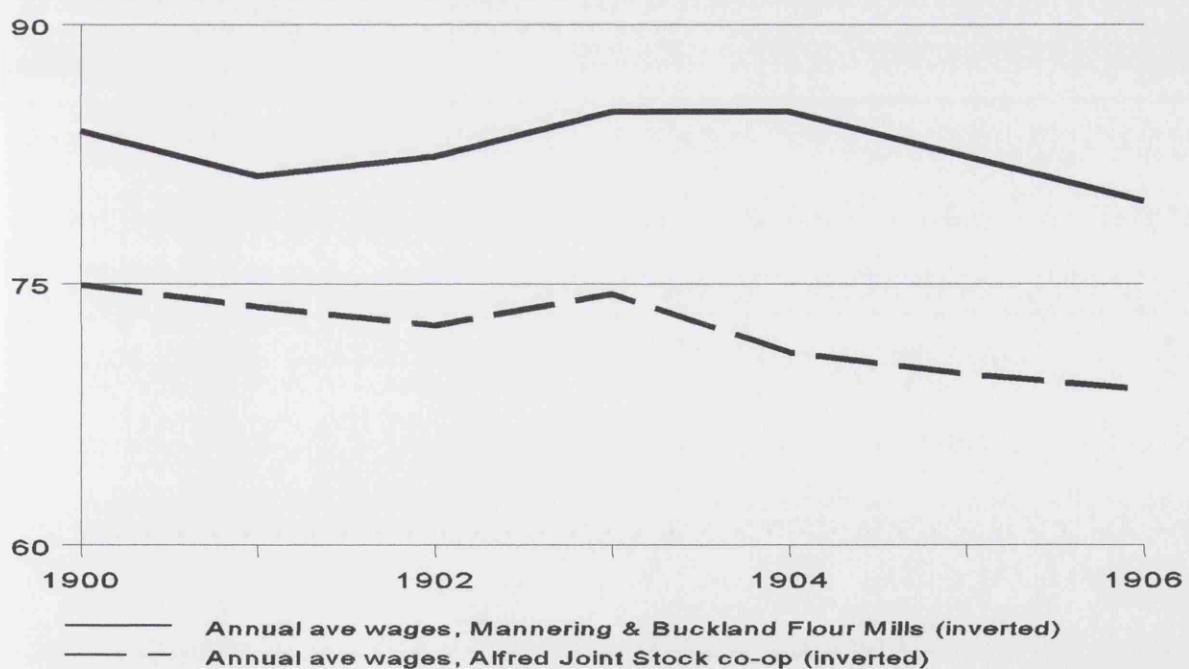
Decennial changed in annual average earnings for co-op workers at Dover and small debts

	Annual average Co-op wages	Small debts, rates per thousand, Dover
1895- 1904	£47.63	25.63
1905- 1914	£54.96	20.82
% change	+15.4	-18.77

Correlation coefficients between the series of data presented in this chapter show by far the highest relationship between those for the lower paid co-op workers in Dover and small debt rates, at 0.7665.

The previous study into relative conditions in Dover,<sup>11</sup> mentioned earlier in this chapter, included a series of wages paid to one worker in the Mannering and Buckland flour mills in Dover. It is, perhaps, important to compare this with the series for co-op flour workers in Ashford not only because the one is in an adjacent town but also to give some indication of the possible representativeness of these series as indicating annual wage variations for mill workers in the town and district. The years for which comparisons are possible are the years 1898-1906. The average annual payment to the worker in Dover in this period was £82.78 whereas the Alfred Joint Stock co-op workers received an annual average of £72.20:

Figure 11.8 - Comparison of annual average variations in wages for mill workers in Dover and Ashford



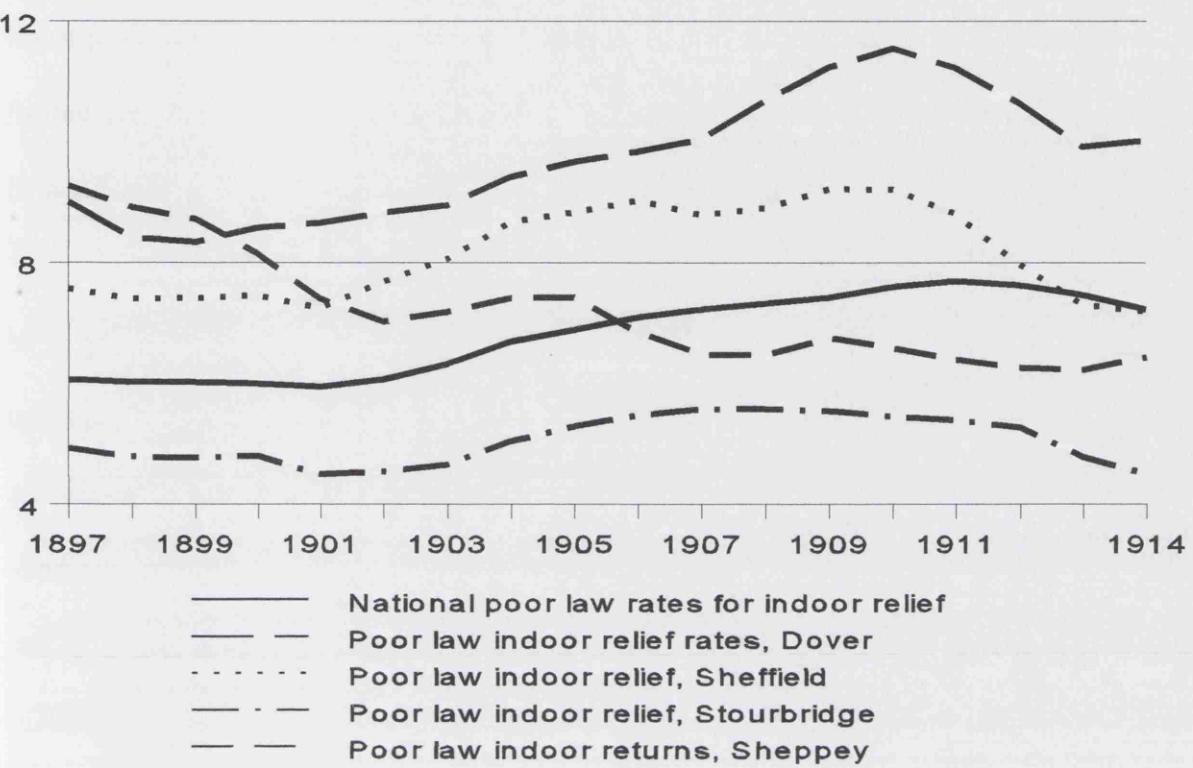
Sources: See fig. 11.3 & Wage accounts of the Mannering and Buckland mills, Dover

<sup>11</sup> P Searles - *Op. cit.*

The two series are synchronous in five of the six annual fluctuations measured. Perhaps the most interesting feature, however, is the consistent maintenance of wage differential between the two. This may be because the wages for Dover represent a relatively longer serving and more skilled individual whereas those for Ashford represent the whole company. On the other hand, it may suggest the possibility that differentials existed even between towns that are 10-15 miles apart and this could be relative not only to local opportunities but also to the ensuing structures of employment.

Another interesting feature from the presented statistics for the town of Dover is, as previously noted, the long term increase in local poor law indoor relief rates. These increased in every year from 1898 to 1910 in Dover and in every year from 1901 to 1911 nationally. The statistics for each town studied may be graphically compared to the national rate:

Figure 11.9 - Comparison of national poor law indoor returns with those for Dover, Sheffield, Stourbridge and Sheerness



Sources: Parliamentary Papers

Interestingly, poor law indoor returns for Dover appear to have the closest relationship with national rates compared to the other towns studied (correlation coefficient of 0.9367 compared to 0.6042 for Sheffield and 0.6914 for Stourbridge) and, although this is only one indicator, perhaps allows the question to be asked as to how relatively 'untypical' Dover and such towns were of the Victorian and Edwardian economy. Statistics in this chapter suggest that unless this is a particularly untypical town, an alternate view to that which is conventional may be more apparent.

This study of Dover, then, seems to suggest that neither trade union unemployment returns, marriage rates nor small debt rates had any significant relationship to variations in actual average

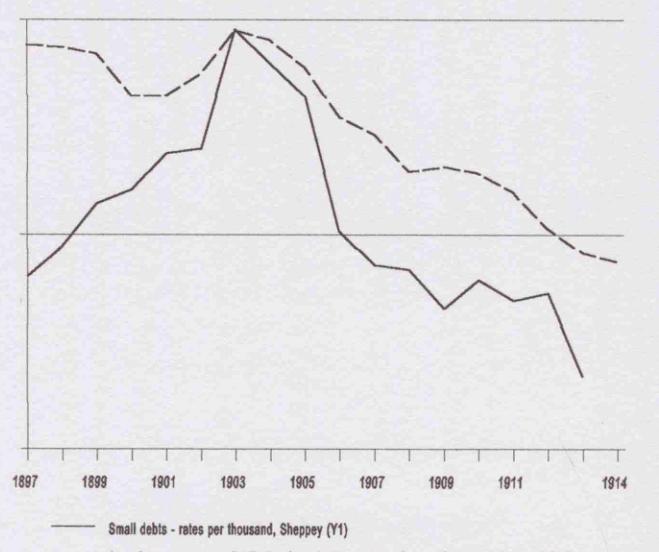
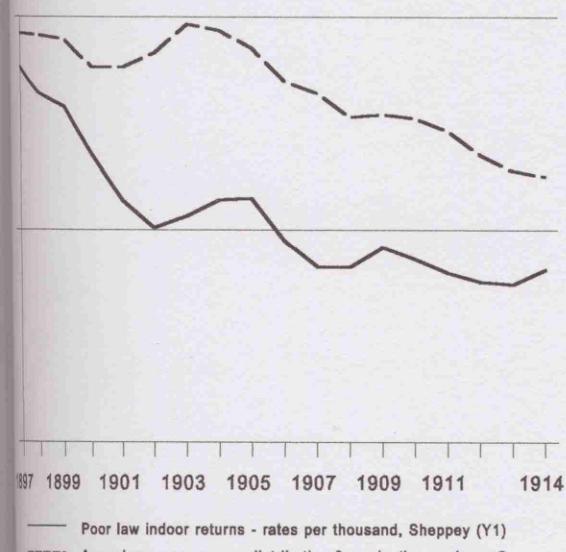
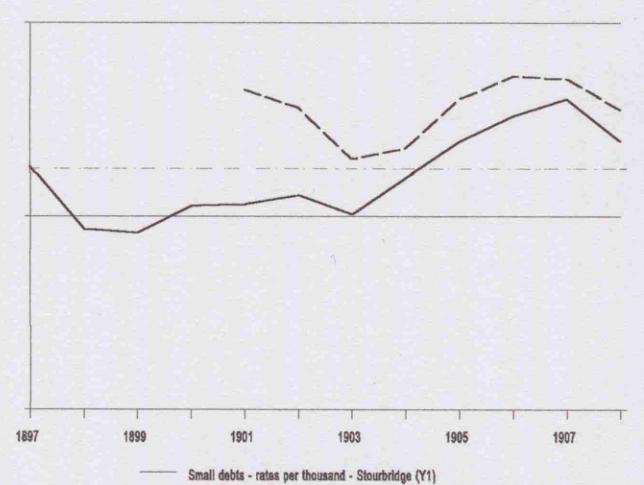
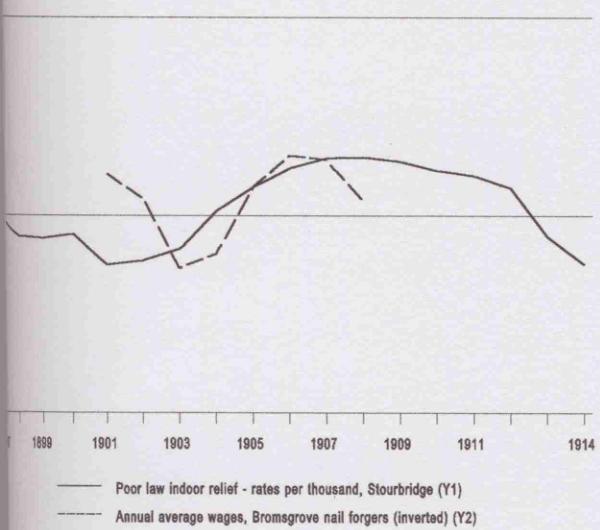
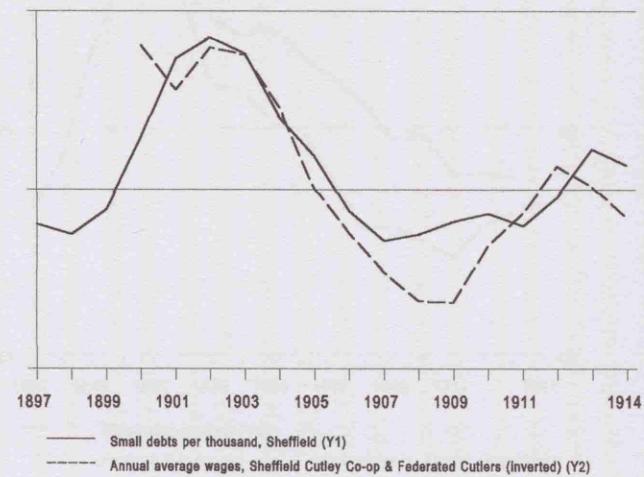
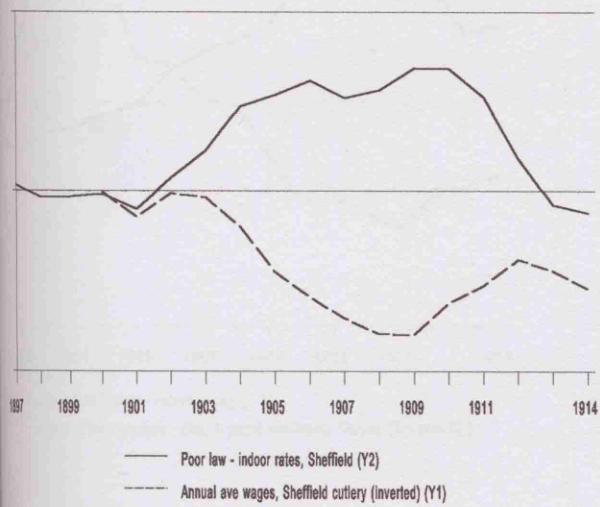
annual earnings received by some groups of workers in that town but that small debts appears to have had some correlation with variations and long term trends in earnings of the relatively lower paid. If actual earnings reflect levels of and variations in relative economic distress, then further sub-national research is required to establish a true picture of conditions in Victorian and Edwardian England.

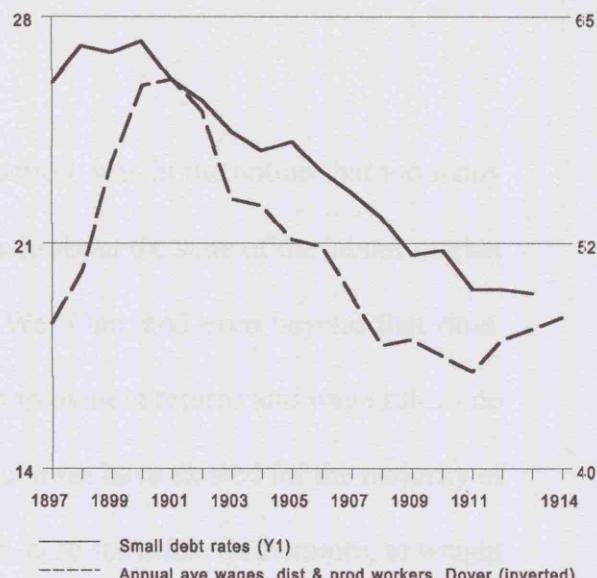
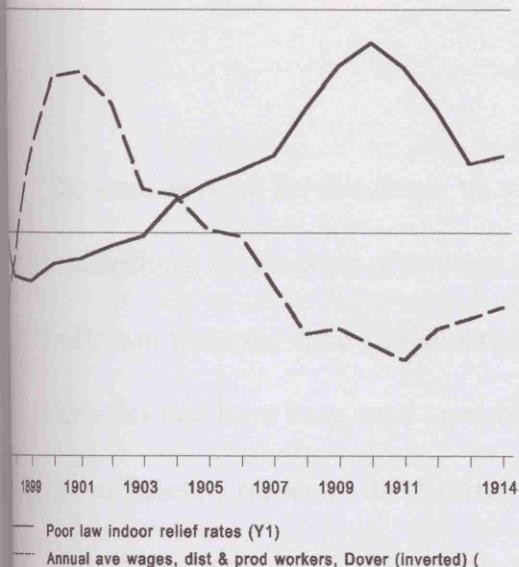
In a general summary to this part of the thesis, it may be suggested that trade union unemployment returns and marriage rates may - to a greater or lesser extent - have some association with the more highly paid workers in some industrial areas. However, in the four locations studied, by far the closest association was between data for the recovery of small debts and local earnings of the lower paid, with correlation coefficients of 0.8884, 0.6544, 0.7723 and 0.7665 respectively. Table 11.10 shows this graphically - there is clearly no relationship whatever between local annual average earnings and poor law returns. This has particular importance because of the use of poor law returns to substitute for conditions of the poorly paid. Boyer and Hatton,<sup>12</sup> for example, use these data in a sectoral weighting of unemployment for general unskilled labour and this comprises 11.3 per cent of the total index. Furthermore, this leads to an estimated mean unemployment rate in that sector of 9.5 per cent in the period 1870-1913. The relative unrepresentativeness of poor law returns and, indeed, trade union unemployment returns that are discussed in this and other chapters (eg. chapter 2) of the thesis as well as the relative stability of annual average earnings suggest the need for another approach to the question of relative levels of unemployment and under - employment:

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<sup>12</sup> G.R. Boyer and T.J. Hatton, New Estimates of British Unemployment, 1870 - 1913, *Journal of Economic History*, 62 No. 3, 2002, pp 652 - 657.

Fig. 11.10: Comparison of poor law returns and data for small debts with ann. ave earnings in four towns





## Conclusions

The starting point for this thesis, as noted in the introduction, was in the notion that too many assumptions, for the want of relevant data, have been made about the state of the labour market in Britain from the time of industrialisation to World War One, and even beyond that time. Statistics that have been used - notably trade union unemployment returns and wage rates - do not sufficiently represent the diversity and dynamism that must have existed for the majority of workers and most areas of economic activity. The use of these statistics, furthermore, to weight other indices - for example national income - further compounds any possible distortion. By contrast, data on annual average earnings for workers in most sectors of the national economy not only offers the potential for an alternative view of economic life but also is, perhaps, the indicator that gets as close as possible to what was really important to those workers as well as directly indicating the peaks and troughs of economic activity. Of course, the experience of a minority of workers is reflected in trade union unemployment returns because a system had evolved whereby substantial contributions were made so that donation benefits could be received in bad times. However, this organisation was surely driven by necessity in industries that were prone to severe downturns and were particularly exposed to factors that were exogenous to the British economy. If this experience were typical, then surely more industries and sectors would have organised and paid contributions. Perhaps workers in other parts of the economy did not see the system as cost effective because they, in the main, either remained in employment or could normally get another job. That trade union unemployment returns were biased to one part of the economy and crystallised mainly in one geographical area can be exemplified by noting that on the one hand the proportional contribution to the employment calculation was 68% from coal-mining, engineering, shipbuilding, metal trades and textiles in 1904 and on the other, the

largest union - the ASE - had a membership of between 12 and 60 between the years 1860 - 1912 in a town (Dover) with a working population of 19,126 in 1911. Further points made concerning the returns include the fact that they take no account of other ways of responding to reduced labour demand, such as reducing hours or increasing compulsory 'holiday' stoppages. The point was well made by Bowley<sup>1</sup> when he noted that for 'many reasons' the returns of trade unionists reported as out of work did not produce a safe or universal measurement of the state of the labour market and that 'if a statistic is based only on the number unemployed, it reflects unequally the movements in industries where the one method (of spreading work) or the other (of dismissing hands) is prevalent' and that it cannot escape from the confusion between these two methods.'

The extent to which such a study could quantify the experience of most workers and most parts of the economy is, of course, dependent upon the comprehensiveness, relative accuracy and consistency of the data being used. The use of consistent statistics from the Co-operative Movement of Great Britain and its availability at all levels, from national to town, has taken the investigation - to an extent - beyond the original aim. This is because, if the data stands up to rigorous examination, their use could potentially go beyond this thesis. It was therefore necessary that a substantial part of the work was used to discuss the data, and this will be reflected in the conclusion.

Chapter 3 attempted to find qualitative evidence from the co-operative movement that economic logic had to prevail in order for societies to exist. Although this may seem self - evident, there

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<sup>1</sup> A.L. Bowley, 'The measurement,' p 18

are two crucial questions that have to be addressed: 1. To what extent were the utopian ideals and aspirations of some of the leadership of the movement able to affect what really happened in the societies? And 2. Did societies take what may be called the paternalistic approach, namely to spread work or even reduce wages and increase work (overtime) and increase wages when times were respectively bad or good? One example of the former noted that whereas Beatrice Potter had proclaimed the end of the credit and tally system within co-operatives in 1891, a delegate had read a paper to congress in 1889 noting that co-operatives were no better than their neighbours in this respect and a pamphlet published by a former General Secretary of the movement pointed out that the number of societies giving credit had risen from 56% in 1886 to 82% by 1911. Another example, again from Beatrice Potter, is her discussion concerning ownership and control of societies. She divided productive societies into four categories - the first that were run according to some co-operative principles and the other three that were, to varying degrees, owned and run as normal business. She listed 8 out of 46 in the first category. Of these, four were insignificant and five of the eight gave work out, thus acting as small masters. Numerous other examples are given in the chapter and these supported the obvious contention that, in lieu of an oligopolistic or monopolistic position (which no co-operatives had), they had to compete to survive.. Any society that held to any ideal that was counter to market forces quickly folded. If the societies were out of necessity competitive, then that must have included the levels at which people were paid. Further points from the qualitative evidence included regional differences, and it was noted how the attitude of co-operators in London differed so much from their northern counterparts. Basically, evidence from the Congress Reports suggested that people were far more mobile in London - in one society, over 50% of members had moved away to other districts in a three year period. Written evidence was taken from the Kinning Park society in Glasgow in the period, and this supported quantitative evidence

from wages paid in that society. In sum, there was considerable evidence to support the obvious notion that co-operatives had to compete to survive.

This led (chapter 4) to a thorough quantitative examination of the co-operative society data. When direct sectoral comparisons were made with figures from the Board of Trade Enquiries of 1906, it was shown that they compared very closely with these other (sectoral) statistics. Alongside this, comparisons were made with levels of earnings from social investigations and, again, the relative representativeness of the data was established. This led (chapter 5) to an analysis of existing work on sectoral levels of earnings and, again, demonstrated that when wage or piece rates (sometimes weighted by trade union returns) were used, there was little or no comparison with the annual variations that the co-operative societies showed. However, it was noted that in some years in some of the work, indices were derived from actual annual earnings, and when this was the case, the fluctuations were greater and compatible with variations in co-operative society data. In sum, this was a fairly critical discovery that suggested several key points. The first is that indices of sectoral earnings that are based in wage rates will show very little annual fluctuations. This is because they are reflecting going rates and can take no account of actual hours worked or actual earnings received. The comparisons that were made passed, in the main, through the year of 1906, as did the co-op data. The difference, of course, is that the former were extrapolated from and to that date because it was the only existing measure of real earnings (except when real earnings were used for 1906 - 13 in cotton and boots and shoes). The second is that if these fluctuations were reflecting underlying conditions, and this was further supported by periods when actual earnings were used in other indices, then it may be reasonable to compare relative fluctuations with unemployment returns.

Chapter 6 came to the core of the thesis. Its theme is a suggestion that the amplitude of fluctuations in unemployment returns are not indicative of the wider economy. Of course, it is not relevant to merely compare two different sets of data, but sectoral comparisons could be made. When the same sectors were compared in the two sets - domestic manufacture (weighted by numbers employed), both showed far less volatility than on the one hand unemployment returns and, on the other, annual average wages in cotton manufacture. This suggested that the wider statistics for the co-operative movement - representing service sector workers - were a reflection of underlying conditions in that sector (which represented the majority of workers).

Appendix 2 holds all statistics for one year regarding annual average earnings for co-operative society workers. These are used in chapter 7 to map spatial variations of income for one year for the whole of Great Britain. Interestingly, the pattern that emerges is one where urban wages are (not unexpectedly) higher than the rural areas. As well as this, a study is made of the London - dominated region on purely economic grounds, and it was found that wages did not 'normalise' to the national average for about 40 miles from the centre of the city. This perhaps at last gives quantification to the extent to which this 'metropolitan region' was able to influence the lives and experiences of working people. A small investigation was also made of the Midlands, and this showed that it was, as expected, the Black Country which contrasted with the more affluent towns of the East of that region. In a very general sense, this study highlighted the obvious fact that investigation on geographical or administrative rather than economic boundaries obscures the picture.

For the above and other reasons, a number of other proxy measures of labour market conditions and economic distress have been discussed over the course of the last century, the main ones

being poor relief, marriage rates and data for small debt plaints. The relevance of these data has been discussed in detail in the thesis, and it has been noted that no satisfactory and unbiased variable exists against which these alternatives could be tested and measured. For the want of other statistics, the default has been trade union unemployment returns. However, if these are unrepresentative, then the test cannot be accurate or even relevant. This leads back to the search, not so much for a proxy measure, but a variable that is more representative.

In a sense, a somewhat nebulous picture emerges from the local – level studies in part 3 of the thesis. On the one hand, this can be seen as reassuring inasmuch as there are no quick – fit answers and therefore no aggregated assumptions are being made about any potential proxy measure. This would surely be the expectation in an economy and society as diverse and dynamic as the one under investigation. However, the choice is either to leave it at that or to try to see if the possibility exists – in an imperfect world – of proposing that one or more of the potential measures may give some indication of underlying relative conditions for some or all groups of workers. For the purposes of this summary, there is the choice to either accept or reject the relative accuracy of variations in local co-op earnings. If we accept, then this is an independent variable against which to measure the proxies. The results of these may be summarised:

Trade union unemployment returns appear to have little or no relationship with lower – paid groups of workers, even when local rates were used, as in the investigations at Sheerness and Dover. If there was any association at all that is worth investigating further at local levels, it is with higher – paid groups of workers in traditional industrial areas, such as Sheffield. This is not an unexpected result and, indeed, confirms one of the underlying themes of the thesis.

Marriage rates, again, appear to have little or no association with lower – paid groups. However, in some areas – for example Sheffield and Stourbridge – there exists the possibility that they may have an association with higher paid groups of workers.

This leads to the other two potential proxy measures – poor law relief and small debts – and it is useful to discuss them together as they have – particularly poor law – been suggested as proxy measures for the lower paid. Fundamentally, when measured at local levels, data for the recovery of small debts appears to have a reasonably consistent ability to give an indication of variations in levels of earnings for the lowest paid groups of workers. This is, of course, only the case for the four locations where measured, but contrasts sharply when compared with poor law indoor relief.

In none of the towns studied was there any recognisable association in the short term trends for poor relief, but data for the recovery of small debts gave correlation coefficients of 0.8884, 0.6544, 0.7723 and 0.7665 respectively in the four towns. It is, of course, acknowledged that this is not only a somewhat crude yardstick but also that the methodology had imperfections. Nevertheless, the approach was consistent in each case and this does offer the possibility that further investigation at local levels may be rewarding. It would, of course, be relatively easy to take the appropriate proxy measures at a national level – trade union unemployment, marriage rates and small debt data – and weight them by the national sectoral employment numbers. This could then be suggested as an approximation of underlying conditions for the half century or so before the co-operative data is available. However, whilst this may have some relevance for the future, it is more realistic to on the one hand suggest that this awaits further research, and on the

other that it may be more practical to study conditions at a regional or lower level. The sum of these studies, rather than aggregation, may then help in an understanding of underlying conditions.

In a general sense, this thesis has shown that data concerning annual average wages for workers in the Co-operative Movement of Great Britain can be used in a number of ways to reflect underlying labour market conditions in the late Victorian and Edwardian periods. They show that traditional measures may not be reflective of conditions and, indeed, the extent to which unemployment statistics have been used to weight so many other indicators suggests that some extensive revision would be necessary if the co-op data has any accuracy. The aim was to investigate underlying conditions and this has been achieved. For the first time, adequate quantitative evidence and weighting can be given to the largest general sector of the economy of the period. The work has demonstrated the diversity of employment opportunities. Why would all areas and all sectors be in recession at the same time as export - oriented manufacture? If we in our present era can see manufacturing in recession whilst the tertiary sectors remain buoyant, why would there have been such a different experience for our forbears? The answer to this is surely that there wasn't. It is this experience that the thesis has attempted to address, and it is hoped that some success has been achieved. Previous work in the areas researched in this thesis, for example sectoral levels of wages<sup>2</sup> and unemployment rates<sup>3</sup> are too dependent on, for example, wage rates, trade union unemployment and poor law returns, and it has been shown that these do not adequately represent economic and labour market conditions. It is hoped that

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2 C. H. Feinstein, *National Income, Expenditure and Output of the United Kingdom, 1855 - 1965* (Cambridge University Press, 1972)

3 G.R. Boyer and T.J. Hatton, *New Estimates of British Unemployment, 1870 - 1913*, *Journal of Economic History*, 62 No. 3, 2002.

the data used in this thesis, and their application to the study areas researched, will assist in our understanding of the history of the period. Appendix 2 shows the extent to which data is available for just one year in the period that has been investigated.

Appendix 1 - calculations for table 6.3, the aggregation and weighting of trade union unemployment returns and annual average earnings in various co-operative productive societies

Table 6.3 is based on the data in tables 6.1 and 6.2. These data are weighted by the sectoral numbers from the work by C. Lee.<sup>1</sup> This work gives total numbers in employment in 28 sectoral groups as well as total numbers in employment for Great Britain. The categories and percentages of the workforce represented by each sector are shown below:

<u>Sector (see tables 4 &amp; 5)</u>	<u>Category</u>	<u>no's in employment 1901</u>	<u>% workforce</u>
metal workers	6 - metal manufacture	297,473	4.7
	12-metal goods	468,374	
woodworkers	17-timber, furniture etc.	273,115	1.61
printing & bookbinding	18-paper, printing & publishing	277,627	1.7
all others in returns/	2 - mining & quarrying	892,689	12.98
clothes, leather boots, shoes & tobacco	14-leather goods & fur	85,677	
	15-clothing & footwear	1,138,864	

The total workforce is shown as being 16,311,539 and the above categories represent 20.99% of that figure. The calculation for the weighting of each series in table 6.3 is the percentage of the workforce represented in each category divided by 20.99 and multiplied by its corresponding figure from tables 6.1 and 6.2 respectively. The total of the four resulting figures represents the weighted average for each year. For example, in 1896 the unemployment returns (table 6.1) are 4.2, 2.0, 4.3 and 2.3 per cent. 4.2 is multiplied by the result of 4.7 divided by 20.99(0.9404), 2.0 by the result of 1.61 divided by 20.99(0.1534), 4.3 by the result of 1.7 divided by 20.99(0.3483) and 2.3 by the result of 12.98 divided by 20.99(1.4223). The sum of these gives the weighted aggregation (2.9%) for that year. Exactly the same method and calculation is applied to the co-operative society annual average wages (table 5)

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<sup>1</sup> C. H. Lee - *British Regional Employment Statistics, 1841-1971* (Cambridge University Press 1979)

## Appendix 2 - Co-operative workers income by town/district/region, 1906

### Irish Section

	Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
Armagh	54.08	15	-	-	54.08	15
Ballymena & Harryville	55.33	5	-	-	55.33	5
Belfast	48.84	90	-	-	48.84	90
Coalisland	58.33	3	-	-	58.33	3
Dublin	58.67	11	-	-	58.67	11
Dublin Industrial	54.2	5	-	-	54.2	5
Dunsany	60.5	7	-	-	60.5	7
Inchicore	79.71	7	-	-	79.71	7
Keady	50.00	4	-	-	50.00	4
Lisburn	47.46	25	-	-	47.46	25
Londonderry	47.15	13	59.33	1	48.17	14
Lucan	29.25	3	-	-	29.25	3
Lurgan	48.80	5	-	-	48.80	5
Portadown	40.29	7	-	-	40.29	7
<b>Total</b>	<b>51.20</b>	<b>200</b>	<b>59.33</b>	<b>1</b>	<b>51.27</b>	<b>201</b>

### Midland Section

#### **Northampton & Earls Barton District**

	Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
Blakesley	62.0	2	-	-	62.0	2
Braefield	59.5	2	54.0	1	57.67	3
Cogenhoe Self Help	63.0	1	-	-	63.0	1
Daventry	53.0	17	48.0	2	52.21	19
Denton	64.0	1	-	-	64.0	1
Earls Barton	70.22	9	59.75	4	67.0	13
Harleston	70.00	3	-	-	70.00	3
Harpole	66.77	12	40.00	4	60.75	16
Long Buckby	63.64	16	43.6	5	58.37	21
Moulton	78.50	2	60.50	2	69.50	4
Northampton	50.70	34	74.25	4	53.00	38
Pitsford	41.00	2	-	-	41.00	2
West Haddon	53.43	4	-	-	53.43	4
Yardley Hastings	54.00	3	-	-	54.00	3
<b>Total</b>	<b>58.09</b>	<b>108</b>	<b>53.32</b>	<b>22</b>	<b>57.25</b>	<b>130</b>
Productive Society:						
Long Buckby Boot & Shoe	-	-	33.67	9	33.67	9

## Wellingborough & Kettering District

	Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
Burton latimer	49.84	13	-	-	49.84	13
Desborough	64.11	19	66.67	3	64.48	22
Finedon	57.38	13	61.75	4	58.41	17
Higham Ferrers	83.00	4	67.00	2	77.67	6
Irchester	48.94	7	-	-	48.94	7
Irthlingborough	67.65	10	49.67	3	63.93	13
Kettering	83.95	94	92.24	15	84.82	109
Market Harborough	58.48	29	51.2	5	57.27	34
Raunds Distributive	57.44	19	62.5	4	58.30	23
Rushden	62.77	33	44.30	14	57.35	47
Thrapston	39.75	4	48.00	2	42.92	6
Wellingborough Midland	49.93	59	60.00	13	52.51	72
Wollaston	62.73	17	-	-	62.73	17
Woodford	36.5	4	36.5	2	36.5	6
<b>Total</b>	<b>65.48</b>	<b>325</b>	<b>53.92</b>	<b>67</b>	<b>63.38</b>	<b>392</b>
Productive Societies:						
Avalon (Rothwell Boot & Shoe)	-		45.30	84	45.30	84
Desborough boot & Shoe	-		39.52	139	39.52	139
Finedon Boot & Shoe	-		42.24	100	42.24	100
Highham ferrers Boot & Shoe	-		61.07	67	61.07	67
Kettering Boot & Shoe	-		52.86	215	52.86	215
Kettering Clothing	-		38.39	505	38.39	505
Kettering Corset manufacturers	-		32.77	180	32.77	180
Northamptonshire Productive (Wollaston)			28.86	156	28.86	156
Ringstead Unity	-		36.31	60	36.31	60
St. Crispin Productive (Raunds)	-		46.45	80	46.45	80
Wellingborough Ideal Clothiers	-		28.90	292	28.90	292

## Leicester District

	Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
Ashby-de-la-Zouch	72.33	3	49.00	2	63.00	5
Barwell	67.27	21	58.25	4	65.80	25
Burbage	68.00	6	-	-	68.00	6
Coalville	51.82	71	65.67	24	55.43	95
Enderby	52.55	16	73.20	8	59.00	24
Fleckney	72.36	6	64.50	2	70.27	8
Great Glen	64.00	1	-	-	64.00	1
Great Wigston	73.64	24	50.17	5	68.70	29
Hatherne	68.33	3	45.00	2	59.00	5
Hinckley	51.84	30	72.31	6	56.13	36
Huncote	74.50	2	-	-	74.50	2
Leicester	66.07	400	68.30	80	66.53	480
Loughborough Industrial	60.29	11	70.00	2	61.84	13
Melton Mowbray	60.67	11	57.00	3	59.85	14
Mount Sorrel	70.40	5	-	-	70.40	5

Shepsed	-	-	56.75	4	56.75	4
<b>Total</b>	<b>63.57</b>	<b>610</b>	<b>66.50</b>	<b>142</b>	<b>64.21</b>	<b>752</b>
Productive Societies:						
Glenfield Boot & Shoe	-	-	50.66	76	50.66	76
Leicester Anchor Boot & Shoe	-	-	55.42	180	55.42	180
Leicester Boot & Shoe	-	-	52.11	247	52.11	247
Leicester Cabinet & Woodworks	-	-	56.00	6	56.00	6
Leicester Printing	-	-	55.25	56	55.25	56
Leicester Self-Help Boot & Shoe	-	-	53.56	59	53.56	59
Sperope Boot & Shoe (Barwell)	-	-	61.51	55	61.51	55
Wigston Magna Hosiers	-	-	42.10	41	42.10	41

### Coventry District

	<b>Dist.</b> <b>Wages</b>	<b>No.</b> <b>Wkr's</b>	<b>Prod.</b> <b>Wages</b>	<b>No.</b> <b>Wkr's</b>	<b>All</b> <b>Wages</b>	<b>No.</b> <b>Wkr's</b>
Atherston	58.67	7	55.00	4	57.39	11
Coventry	58.72	200	70.00	30	61.41	230
Eathorpe and Marton	34.44	5	-	-	34.44	5
Harbury	37.94	16	40.00	5	38.43	21
Lockhurst Lane	63.33	15	84.00	2	65.57	17
Long Itchington	53.50	4	-	-	53.50	4
Nuneaton	61.93	88	68.48	22	63.27	110
Rugby	59.07	124	59.91	46	59.28	170
<b>Total</b>	<b>58.80</b>	<b>459</b>	<b>66.11</b>	<b>109</b>	<b>60.22</b>	<b>568</b>
Productive Societies:						
Coventry Builders	-	-	34.40	5	34.40	5
Coventry Licensed Trade Supply	-	-	67.00	12	67.00	12
Coventry watch Manufacturing	-	-	30.26	19	30.26	19

### Birmingham District

	<b>Dist.</b> <b>Wages</b>	<b>No.</b> <b>Wkr's</b>	<b>Prod.</b> <b>Wages</b>	<b>No.</b> <b>Wkr's</b>	<b>All</b> <b>Wages</b>	<b>No.</b> <b>Wkr's</b>
Alcester	44.26	61	54.46	6	45.22	67
Bidford	51.14	10	47.67	3	50.37	13
Birmingham Industrial	59.77	194	76.89	40	62.66	234
Dudley	37.98	60	63.29	7	40.63	67
Evesham	33.20	5	51.71	3	40.82	8
Halesowen and Hasbury	57.21	13	78.00	4	61.83	17
Kidderminster	48.12	51	54.31	17	49.62	68
Ten Acres and Stirchley (Birmingham)	57.39	52	76.56	10	60.36	62
Warwick	54.83	6	44.29	4	50.95	10
Worcester	53.24	52	70.36	10	56.20	62
<b>Total</b>	<b>51.42</b>	<b>504</b>	<b>65.99</b>	<b>104</b>	<b>53.89</b>	<b>608</b>
Productive Societies:						
Alcester needle Makers	-	-	37.21	12	37.21	12
Birmingham Printers	-	-	57.32	22	57.32	22
Bromsgrove Nail Forgers	-	-	18.04	55	18.04	55
Dudley Bucket and Fender	-	-	52.59	136	52.59	136

Midland Sheet metal Workers (Birmingham)	58.69	15	58.69	15
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### Stafford District

	Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
Bridgnorth	52.80	3	-	-	52.80	3
Burton-on-Trent	59.05	130	56.27	34	58.44	164
Cannock	57.13	22	58.50	8	57.48	30
Ironbridge and Coalbrookdale	48.28	19	72.50	2	50.70	21
Mayfield	66.00	4	-	-	66.00	4
New Lichfield	36.00	1	-	-	36.00	1
Oakengates	47.58	23	63.5	5	50.08	28
Oswestry	50.58	20	50.00	5	50.46	25
Shrewsbury	58.39	26	72.18	6	60.00	32
Stafford	51.82	37	63.33	6	53.36	43
Stone	50.86	14	-	-	50.86	14
Tamworth	62.34	57	47.26	33	56.80	90
Tibberton	53.00	1	-	-	53.00	1
Tipton	29.04	13	46.67	3	32.24	16
Walsall	58.36	82	68.32	11	59.43	93
Wednesbury (New)	58.22	14	53.14	4	57.18	18
Wheaton Aston	41.00	1	-	-	41.00	1
Wolverhampton	46.88	42	61.00	10	49.60	52
<b>Total</b>	<b>55.18</b>	<b>509</b>	<b>56.33</b>	<b>127</b>	<b>55.41</b>	<b>636</b>
Productive Societies:						
Walsall locks & Cart Gear	-	-	47.99	232	47.99	232

### Derby District

	Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
Bolsover	66.33	22	80.50	2	67.53	24
Codnor Park & Ironville	57.50	18	46.50	2	56.40	20
Derby	50.09	448	58.48	267	52.85	715
Ilkeston	57.77	90	67.17	24	59.55	114
Langley Mill & Aldercar	69.03	76	58.77	41	65.28	117
Lea & Holloway	48.47	8	-	-	48.47	8
Long Eaton	52.87	248	71.64	72	57.24	320
Pinxton	56.28	15	-	-	56.28	15
Ripley	59.31	167	57.94	52	58.98	219
Wirksworth	44.55	5	-	-	44.55	5
<b>Total</b>	<b>54.48</b>	<b>1097</b>	<b>61.07</b>	<b>460</b>	<b>56.28</b>	<b>1557</b>
Productive Societies:						
Derby Printers	-	-	52.33	9	52.33	9
Derby Umbrella Makers	-	-	32.50	4	32.50	4
Long Eaton Printers	-	-	62.00	9	62.00	9

### Nottingham District

	Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
Annesley	68.17	11	-	-	68.17	11
Annesley Woodhouse	63.00	6	-	-	63.00	6
Bulwell	60.96	40	58.67	3	60.80	43
Calverton	84.00	2	-	-	84.00	2
Cinder Hill	55.62	36	65.69	13	58.40	49
Hucknall Torkard	71.19	66	71.17	37	71.18	103
Keyworth	78.50	2	-	-	78.50	2
Kirkby-in-Ashfield	66.29	32	54.71	8	64.16	40
Langwith	72.63	9	-	-	72.63	9
Lowdham	73.25	4	67	1	72.00	5
Mansfield & Sutton	49.48	125	48.27	25	49.28	150
Netherfield	59.68	28	79.64	6	62.91	34
New Basford	55.20	20	70.94	7	59.89	27
Nottingham	48.73	255	72.29	42	51.94	297
Pleasley & Pleasley Hill	61.93	17	-	-	61.93	17
Radcliffe-on-Trent	69.85	7	39.50	2	62.71	9
Ruddington	57.45	11	69.71	4	60.41	15
Selston	55.70	14	80.00	2	58.84	16
Southwell	77.14	4	-	-	77.14	4
Stanton Hill	62.35	18	-	-	62.35	18
Stapleford & Sandiacre	51.23	58	79.17	12	56.38	70
Warsop Vale	67.67	4	-	-	67.67	4
Woodborough	38.00	2	-	-	38.00	2
<b>Total</b>	<b>55.57</b>	<b>771</b>	<b>67.20</b>	<b>162</b>	<b>57.59</b>	<b>933</b>
Special Society:						
Ruddington Carrying	-	-	69.17	6	69.17	6
Productive Societies:						
Codnor Park & Selston Baking	-		78.00	3	78.00	3
Kirkby-in-Ashfield Manufacturers	-		35.02	27	35.02	27
Nottingham Bakers	-	-	64.86	3	64.86	3
Nottingham printers	-	-	67.89	9	67.89	9

### Lincoln District

	Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
Boston	50.61	46	53.70	16	51.31	62
Empingham & Normanton	61.00	2	-	-	61.00	2
Gainsborough	47.37	92	48.50	46	47.75	138
Grantham	55.23	30	72.20	5	57.66	35
Great Grimsby	47.20	131	56.74	23	48.83	154
Huntingdon	60.00	7	45.67	3	55.47	10
King's Lynn	42.89	25	65.85	7	47.34	32
Lincoln	52.41	315	63.15	181	56.83	496
Newark	54.62	24	-	-	54.62	24
Oakham	41.20	2	-	-	41.20	2
Peterborough	41.02	391	53.48	101	43.51	492
Retford	51.91	22	42.50	4	50.46	26

St. Ives (Hunts.)	43.38	7	52.00	2	45.41	9
Saxby	48.00	2	-	-	48.00	2
Scunthorpe	49.00	51	58.62	7	50.15	58
Spalding	44.39	19	-	-	44.39	19
Walmsgate	67.00	1	-	-	67.00	1
Wisbech Phoenix	47.22	8	52.00	2	48.09	10
<b>Total</b>	<b>47.05</b>	<b>1175</b>	<b>58.15</b>	<b>397</b>	<b>50.02</b>	<b>1572</b>
Productive Societies:						
Grimsby Printers	-	-	54.00	5	54.00	5
Lincoln Land & Building	-	-	72.40	46	72.40	46

### Midland Section Summary<sup>2</sup>

Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
<b>54.99</b>	<b>5697</b>	<b>50.62</b>	<b>5122</b>	<b>52.92</b>	<b>10819</b>

### Northern Section

#### North Northumberland District

Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's	
Amble	67.29	36	47.41	24	60.18	60
Ashington	59.08	133	55.94	54	58.18	187
Bebside	77.11	14	34.57	3	68.35	17
Bedlington	61.66	89	33.08	47	49.71	136
Blyth-Clive Industrial	54.69	12	-	-	54.69	12
Blyth Cowpen Quay Cent'l	58.88	54	55.56	18	58.10	72
Broomhill	64.25	20	45.73	17	56.31	37
Cambois	87.30	11	82.25	4	86.00	15
Choppington	60.00	9	66.00	4	61.50	13
Felton	84.50	2	-	-	84.50	2
Guide Post	61.19	14	55.00	3	60.06	17
Hedgeley	50.36	6	-	-	50.36	6
Howick	75.00	4	-	-	75.00	4
Longhirst	70.00	2	-	-	70.00	2
Newbiggin-by-the-Sea	60.70	43	59.23	24	60.19	67
New Delaval	79.06	19	70.31	7	76.73	26
Pegswood	69.39	11	69.50	2	69.41	13
Radcliffe	67.73	11	-	-	67.73	11
Togston Ter. & Broomhill	66.00	4	-	-	66.00	4
Tweedside	55.98	51	50.72	28	54.13	79
Widdrington	72.50	7	-	-	72.50	7

<sup>2</sup> The regional totals vary from those in table 4.1, chapter 4. This is due to the fact that workers in productive, wholesale and special societies as well as those in insurance are excluded from the figures in this appendix

<b>Total</b>	<b>62.58</b>	<b>552</b>	<b>49.26</b>	<b>235</b>	<b>58.54</b>	<b>787</b>
<b>South Nortumberland district</b>						

	<b>Dist.</b>	<b>No.</b>	<b>Prod.</b>	<b>No.</b>	<b>All</b>	<b>No.</b>
	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>
Backworth	61.29	35	48.00	17	57.29	52
Belsay	52.80	2	-	-	52.80	2
Coxlodge & Fawdon	80.21	14	-	-	80.21	14
Cramlington	51.55	144	69.35	45	55.10	189
Newcastle-upon-Tyne	52.72	720	67.98	129	55.24	849
North Shields	45.37	120	62.45	23	48.08	143
St. Anthony's	58.87	12	-	-	58.87	12
Seaton Delaval	60.68	86	43.18	36	54.87	122
Seghill	73.20	10	30.00	1	69.27	11
Shiremoor	60.63	30	69.20	9	62.35	39
Walker-on-Tyne	52.71	58	80.57	10	56.98	68
Wallsend	55.00	125	78.56	45	60.93	170
Willington Quay & Howden	58.71	40	36.51	24	50.00	64
<b>Total</b>	<b>53.56</b>	<b>1396</b>	<b>62.94</b>	<b>339</b>	<b>55.44</b>	<b>1735</b>
Special Society:						
Pioneer Fishing (N. Shields)	-		37.00	40	37.00	40
Productive Society:						
Newcastle-upon-Tyne Household Furnishing			48.99	165	48.99	165

### Cumberland & Westmorland District

	<b>Dist.</b>	<b>No.</b>	<b>Prod.</b>	<b>No.</b>	<b>All</b>	<b>No.</b>
	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>
Aspatria Industrial	58.21	22	62.17	7	59.14	29
Broughton Moor	81.00	1	-	-	81.00	1
Carlisle	50.56	224	52.85	71	51.14	295
Cleator Moor	72.78	120	67.34	48	71.21	168
Dalston	52.71	7	-	-	52.71	7
Egremont	61.26	30	38.00	12	54.37	42
Harrington	78.50	6	87.00	1	79.71	7
Keswick	56.56	13	33.60	3	50.00	16
Lazonby	56.44	9	-	-	56.44	9
Longtown	69.82	4	-	-	69.82	4
Maryport	57.33	88	40.93	42	51.82	130
Naworth Collieries	55.88	17	50.00	4	54.76	21
Penrith	54.81	14	75.00	1	56.21	15
Tebay	56.00	5	62.00	1	57.00	6
Warwick Bridge	55.75	4	-	-	55.75	4
Wigton	62.86	4	-	-	62.86	4
Windermere	62.00	4	-	-	62.00	4
Workington Bee Hive & Industrial	50.99	93	47.74	52	49.91	145
<b>Total</b>	<b>57.39</b>	<b>665</b>	<b>51.99</b>	<b>242</b>	<b>55.93</b>	<b>907</b>

### West Durham & South Northumberland District

	Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
Allendale town	54.22	5	-	-	54.22	5
Annfield Plain	79.34	190	59.70	44	75.28	234
Blaydon	62.19	182	60.96	55	61.91	237
Burnopfield	76.17	58	57.74	11	72.95	69
Coanwood	49.75	4	-	-	49.75	4
Consett	44.96	70	32.22	29	41.44	99
Esh	66.08	26	43.50	2	64.44	28
Fourstones & Newbrough	58.00	4	-	-	58.00	4
Greenhead	52.67	7	-	-	52.67	7
Haltwhistle	50.95	11	66.00	4	54.71	15
Haydon Bridge	40.77	8	-	-	40.77	8
Hexham & Acomb	54.42	11	-	-	54.42	11
Leadgate	68.13	41	52.94	9	65.44	50
Nenthead	58.00	2	-	-	58.00	2
Shotley Bridge	68.96	12	40.19	12	55.83	24
Swalwell	67.26	14	-	-	67.26	14
Tantobie	66.56	18	22.75	4	58.59	22
Throckley	59.29	42	59.79	10	59.42	52
West Stanley	43.47	132	48.27	68	45.24	200
West Wylam & Prudhoe	60.56	68	51.71	30	57.70	98
Whitfield	53.50	2	81.00	1	62.67	3
<b>Total</b>	<b>62.12</b>	<b>907</b>	<b>52.02</b>	<b>279</b>	<b>59.61</b>	<b>1186</b>
Productive Society: Derwent Flour Mill	-	-	81.30	47	81.30	47

### East Durham district

	Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
Birtley	46.01	220	49.23	21	46.41	241
Boldon Colliery	76.41	47	-	-	76.41	47
Chester-le-Street	57.69	195	67.39	40	59.19	235
Craghead & Holmside	72.00	15	-	-	72.00	15
Felling	68.06	34	-	-	68.06	34
Felling Shore	60.92	17	-	-	60.92	17
Gateshead	56.92	351	72.22	55	59.11	406
Haswell	74.05	83	84.97	15	75.87	98
Hebburn Colliery	65.19	19	-	-	65.19	19
Jarrow & Hebburn	53.34	130	64.45	37	55.58	167
Marsden	63.00	10	-	-	63.00	10
Murton Colliery	66.60	48	56.75	7	65.07	55
Pelton Fell	69.52	12	-	-	69.52	12
Ryhope & Silksworth	63.90	186	80.31	15	64.99	201
Seaham Harbour	46.22	80	75.19	16	50.44	96
South Shields	52.84	46	-	-	52.84	46
Sunderland	45.48	470	52.94	244	48.09	714
Tyne Dock	51.25	45	-	-	51.25	45
West Pelton	65.01	67	44.00	19	60.22	86

Windy Nook	65.86	39	-	-	65.86	39
<b>Total</b>	<b>55.42</b>	<b>2114</b>	<b>59.34</b>	<b>469</b>	<b>56.15</b>	<b>2583</b>
Productive Society: Northern Iron & Tinplate (Birtley)	-		65.76	32	65.76	32

### South Durham District

	<b>Dist. Wages</b>	<b>No. Wkr's</b>	<b>Prod. Wages</b>	<b>No. Wkr's</b>	<b>All Wages</b>	<b>No. Wkr's</b>
Bearpark Colliery	68.71	7	-	-	68.71	7
Bishop Auckland	66.74	323	58.47	117	64.53	440
Brandon & Byshottles	64.89	41	40.52	30	53.95	71
Cornforth & Coxhoe	72.64	68	64.66	27	70.23	95
Crook	73.38	130	45.35	50	64.81	180
Durham	67.64	42	71.65	10	68.51	52
Easington Lane	74.58	12	60.17	7	69.78	19
Framwellgate Moor	70.50	6	-	-	70.50	6
Hetton Downs	74.48	51	64.59	14	72.39	65
Low Moorsley	84.87	12	-	-	84.87	12
Newbottle	55.24	64	66.07	13	57.06	77
New Brancepeth	70.42	27	63.76	9	68.80	36
Pittington	61.10	48	64.12	8	61.54	56
Sherburn Hill	79.43	61	68.18	18	76.97	79
Stanhope-in-Weardale	53.65	26	40.50	2	52.69	28
Station Town	76.05	38	58.50	4	74.40	42
Tow Law	65.76	33	67.71	10	66.23	43
Tudhoe Colliery	73.57	35	-	-	73.57	35
West Cornforth	83.59	20	87.00	2	83.91	22
Willington	57.73	58	65.52	15	59.35	73
<b>Total</b>	<b>68.36</b>	<b>1102</b>	<b>57.63</b>	<b>336</b>	<b>65.78</b>	<b>1438</b>

### South Durham & North Riding of Yorkshire District

	<b>Dist. Wages</b>	<b>No. Wkr's</b>	<b>Prod. Wages</b>	<b>No. Wkr's</b>	<b>All Wages</b>	<b>No. Wkr's</b>
Barnard Castle	51.33	20	-	-	51.33	20
Castle Howard	48.50	6	-	-	48.50	6
Darlington	54.30	165	44.61	32	52.58	197
Grosmount	47.33	5	-	-	47.33	5
Guisborough	70.42	22	41.25	4	64.58	26
Hartlepools	60.69	234	69.19	89	63.11	323
Kirkby Stephen	54.67	6	-	-	54.67	6
Loftus	52.76	59	70.79	14	58.06	73
Malton & Norton	64.00	4	-	-	64.00	4
Markse-by-the-Sea	56.70	11	-	-	56.70	11
Middlesborough	57.41	327	57.43	116	57.41	443
Middleton-in-Teesdale	52.50	29	50.63	10	52.05	39
Northallerton	72.43	7	-	-	72.43	7
Pickering	39.00	3	-	-	39.00	3
Skelton	57.87	31	69.20	6	59.46	37

Skinningrove	55.04	11	61.20	6	56.91	17
Stockton-on-Tees	51.96	345	35.63	99	47.69	444
Thirsk	76.67	3	-	-	76.67	3
Whitby	46.34	17	-	-	46.34	17
<b>Total</b>	<b>55.78</b>	<b>1305</b>	<b>52.58</b>	<b>376</b>	<b>55.03</b>	<b>1681</b>

### Northern Section Summary

Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
<b>58.37</b>	<b>8100</b>	<b>55.70</b>	<b>2544</b>	<b>57.71</b>	<b>10644</b>

### North-Western Section

#### Airedale District

	Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
Addingham	62.00	4	-	-	62.00	4
Allerton	94.57	4	-	-	94.57	4
Bingley	75.32	66	82.69	31	65.57	97
Birkenshaw	73.72	45	46.15	6	70.14	51
Bradford (City of)	58.91	375	55.19	290	57.25	665
Carleton	62.33	3	-	-	62.33	3
Clayton	54.10	11	46.27	6	50.83	17
Cononley	71.67	3	-	-	71.67	3
Cowling	66.89	5	-	-	66.89	5
Cowling & District Coal	52.00	3	-	-	52.00	3
Cross Hills	57.00	4	65.50	2	59.83	6
Denholme	63.14	7	55.00	4	60.18	11
Eccleshill	51.65	10	-	-	51.65	10
Gargrave	61.75	4	-	-	61.75	4
Great Horton	50.18	105	47.50	52	49.30	157
Greengates & Apperley B.	58.43	6	-	-	58.43	6
Guiseley	58.57	20	60.33	10	59.10	30
Harrogate	58.63	55	56.25	7	58.33	62
Haworth	59.54	20	113.67	3	66.76	23
Ingleton	66.25	4	-	-	66.25	4
Keighley Industrial	65.88	119	55.40	130	60.51	249
Lane Ends	65.00	3	-	-	65.00	3
Leeds Industrial	51.00	1343	42.62	613	48.36	1956
Lees & Cross Roads	70.32	9	52.00	3	65.92	12
Low Wortley	83.22	10	22.27	7	59.16	17
New Road Side	68.17	6	55.00	2	64.88	8
Oakworth	65.38	7	-	-	65.38	7
Oxenhope	79.00	2	-	-	79.00	2
Rawden	53.42	28	94.00	2	56.32	30
Silsden	59.13	16	45.85	7	55.12	23
Skipton	57.22	41	65.40	10	58.82	51

Stanbury	62.50	2	-	-	62.50	2
Steeton	70.46	7	31.50	2	61.29	9
Uppertown	52.75	8	77.00	2	57.60	10
Wilsden	83.25	4	-	-	83.25	4
Windhill (Shipley)	57.49	120	55.09	60	56.70	180
<b>Total</b>	<b>53.99</b>	<b>2479</b>	<b>49.30</b>	<b>1249</b>	<b>52.43</b>	<b>3728</b>
Productive Societies:						
Airedale Worsted Manufacturing (Bradford)			49.64	44	49.64	44
Bradford Cabinet Makers	-	-	86.34	28	86.34	28
Keighley Ironworks	-	-	64.85	70	64.85	70

### Bolton District

	<b>Dist.</b>	<b>No.</b>	<b>Prod.</b>	<b>No.</b>	<b>All</b>	<b>No.</b>
	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>
Adlington	54.30	15	-	-	54.30	15
Ainsworth New Road	97.50	2	-	-	97.50	2
Ainsworth Old Road	87.67	3	-	-	87.67	3
Bamfurlong	62.24	17	60.00	3	61.85	20
Blackrod	46.14	7	-	-	46.14	7
Bolton	58.88	712	56.78	250	58.34	962
Bryngates (Bamfurlong)	73.88	8	62.00	5	69.60	13
Chorley	53.42	64	75.30	23	58.66	87
Eagley Bridge	69.40	20	59.05	9	66.07	29
Earlestown	49.43	52	85.09	19	58.28	71
Edgworth	93.54	6	60.75	4	81.05	10
Egerton	78.00	5	-	-	78.00	5
Farnworth & Kearsley	57.17	156	55.50	79	56.59	235
Heapey	80.00	5	-	-	80.00	5
Hindley	73.39	29	-	-	73.39	29
Hindsford	62.29	18	76.00	3	64.29	21
Horwich	60.36	53	61.84	19	60.75	72
Hulton & Chequerbent	65.33	3	49.00	2	58.80	5
Leigh	51.00	317	79.68	93	58.49	410
Little Hulton	63.00	20	64.27	8	63.35	28
Little Lever	73.10	10	-	-	73.10	10
Park Lane	70.28	35	84.25	8	73.04	43
Radcliffe & Pilkington	62.87	109	60.03	37	62.16	146
Ringley & Kearsley	69.44	13	73.33	3	70.19	16
Tyldesley	64.93	37	66.69	15	65.39	52
Walkden	55.66	73	70.14	26	59.64	99
Westhoughton	65.72	53	53.92	27	62.06	80
Wheelton	76.00	2	-	-	76.00	2
White Coppice	56.00	1	-	-	56.00	1
Whittle-le-Woods	73.80	6	-	-	73.80	6
Wigan	49.60	174	67.95	56	54.00	230
Withnell (Brinscall)	60.80	12	-	-	60.80	12
<b>Total</b>	<b>57.80</b>	<b>2037</b>	<b>63.98</b>	<b>689</b>	<b>59.38</b>	<b>2726</b>
Productive Societies:						
Bolton Cabinet Makers	-	-	65.30	38	65.30	38

### Calderdale District

	Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
Brighouse	51.03	160	63.43	100	55.98	260
Cragg Vale	64.40	5	40.00	1	60.33	6
Halifax Coal	34.13	8	-	-	34.13	8
Halifax industrial	57.84	233	56.59	116	57.43	349
Hebden Bridge Industrial	59.90	52	45.17	47	53.69	99
Hepton stall	62.00	9	-	-	62.00	9
Holmfirth	97.00	2	59.00	1	84.33	3
Holmfirth Coal	114.00	2	-	-	114.00	2
Illingworth	54.44	5	-	-	54.44	5
Luddenden	49.50	8	40.00	2	47.60	10
Luddendenford	54.38	8	44.50	2	52.40	10
Midgeley	70.20	5	94.00	1	74.17	6
Pecket Well	60.50	2	-	-	60.50	2
Queensbury	53.91	44	59.65	38	56.46	82
Rippenden	68.76	10	69.67	4	68.96	14
Siddall	70.00	3	-	-	70.00	3
Sowerby Bridge Industrial	67.52	53	58.72	31	64.09	84
Stainland & Holywell Green	63.27	13	104.00	3	72.00	16
Todmorden	59.47	99	56.92	67	58.43	166
Todmorden Bridge End	61.38	13	48.25	4	58.29	17
Wainstalls	64.33	3	-	-	64.33	3
Walsden	52.52	14	61.50	2	53.68	16
<b>Total</b>	<b>57.57</b>	<b>751</b>	<b>57.68</b>	<b>419</b>	<b>57.61</b>	<b>1170</b>
Productive Societies:						
Calderdale Clog Sundries Manufacturing (Walsden)			51.31	18	51.31	18
Halifax Flour	-	-	86.34	80	86.34	80
Hebden Bridge Fustian	-	-	49.61	297	49.61	297
Sowerby Bridge Flour	-	-	73.34	104	73.34	104

### Cheshire & North Wales District

	Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
Bangor	42.14	7	-	-	42.14	7
Birkenhead	49.80	78	57.46	19	51.43	97
Bromboro' Pool	94.40	5	-	-	94.40	5
Brymbo	68.67	3	-	-	68.67	3
Buckley	82.80	3	-	-	82.80	3
Cefn (Ruabon)	67.13	9	-	-	67.13	9
Chester	45.99	130	77.43	21	50.10	151
Chirk Green	63.35	11	70.00	2	64.38	13
Colwyn Bay	63.40	5	-	-	63.40	5
Ellesmere Port	49.26	10	49.40	6	49.31	16
Employees Provident (Port Sunlight)	60.18	24	-	-	60.18	24
Ewloe Place	67.20	3	-	-	67.20	3
Ffynon Groyw	70.40	3	-	-	70.40	3

Flint & Oakenholt	41.85	7	-	-	41.85	7
Garston	51.89	17	87.00	3	56.90	20
Hawarden	58.00	8	-	-	58.00	8
Holyhead	62.67	9	-	-	62.67	9
Leeswood	56.80	3	-	-	56.80	3
Liverpool (City of)	46.12	93	74.33	16	50.09	109
Liverpool (Toxteth)	37.21	156	48.07	31	39.11	187
Llandudno Junction	61.43	4	-	-	61.43	4
Mold Junction	57.89	9	54.00	2	57.18	11
New York (Penmaenmawr)	83.33	5	43.50	2	71.08	7
Pant-y-Fownog	44.40	3	-	-	44.40	3
Penyfford	44.50	2	-	-	44.50	2
Queensferry	52.31	18	72.67	6	57.86	24
Runcorn & Widnes	58.76	201	82.35	39	62.40	240
St. Helens	55.34	247	41.65	82	50.40	329
St. Martins	46.40	3	66.00	1	52.00	4
Warrington	59.37	108	106.80	13	64.52	121
Whitston	56.30	18	-	-	56.30	18
Wrexham	40.88	16	63.00	3	44.20	19
<b>Total</b>	<b>52.27</b>	<b>1218</b>	<b>60.27</b>	<b>246</b>	<b>53.62</b>	<b>1464</b>
Productive Society:						
North Wales Quarries (Bethesda)	-		44.82	124	44.82	124

### Dewsbury District

	Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
Batley	72.32	88	44.77	59	61.42	147
Battyeford (Mirfield)	46.86	4	-	-	46.86	4
Beeston	59.00	3	-	-	59.00	3
Birstall	64.30	27	49.11	9	60.50	36
Buttershaw	85.20	9	67.00	1	83.06	10
Churwell	91.00	6	70.00	1	88.00	7
Cleckheaton	56.24	94	46.44	50	52.83	144
Crigglestone	56.15	4	83.00	1	59.73	5
Dewsbury	54.67	211	49.46	90	53.06	301
Drighlington	60.70	20	-	-	60.70	20
Gomersal	62.67	15	34.91	6	55.22	21
Grange Moor Friendly	90.00	2	-	-	90.00	2
Grange Moor United	105.00	1	-	-	105.00	1
Heckmondwike	63.43	124	50.21	88	58.52	212
Horbury	59.81	26	60.11	9	59.89	35
Liversedge	66.83	11	-	-	66.83	11
Middlestown	62.67	12	81.00	3	66.33	15
Mirfield Industrial	46.63	24	63.91	10	51.79	34
Mirfield Perseverance	73.29	7	-	-	73.29	7
Morley	59.68	114	55.76	51	58.53	165
Ossett	82.31	50	46.67	20	72.16	70
Ravensthorpe	83.80	5	-	-	83.80	5
Wakefield Borough	58.56	18	-	-	58.56	18
Wakefield Industrial	45.32	145	54.50	30	46.83	175
Wibsey Slack Side	48.18	11	-	-	48.18	11
<b>Total</b>	<b>59.54</b>	<b>1031</b>	<b>50.35</b>	<b>428</b>	<b>56.91</b>	<b>1459</b>

Special Society:  
West Yorkshire Coal Federation (Dewsbury)

65.00 1 65.00 1

### East Yorkshire District

	Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
Beverley	62.47	9	-	-	62.47	9
Castleford Industrial	51.52	48	85.00	2	52.92	50
Driffield	46.83	6	-	-	46.83	6
Escricks	60.00	2	-	-	60.00	2
Goole	44.03	36	71.60	7	49.01	43
Kingston-upon-Hull	54.31	228	56.80	32	54.64	260
Kippax	58.53	17	66.00	2	59.32	19
Market Weighton	46.50	4	-	-	46.50	4
Pocklington	46.86	4	-	-	46.86	4
Ripon & District Industrial	56.57	11	-	-	56.57	11
Scarborough	55.58	8	-	-	55.58	8
Selby	53.67	12	-	-	53.67	12
Settrington	72.00	1	-	-	72.00	1
Tadcaster	66.15	6	-	-	66.15	6
Wetherby	63.29	7	-	-	63.29	7
York	46.18	250	64.54	90	51.00	340
<b>Total</b>	<b>50.80</b>	<b>649</b>	<b>63.34</b>	<b>133</b>	<b>52.95</b>	<b>782</b>
Productive Societies:						
Hull Brushmakers	-	-	68.00	1	68.00	1
Hull Printers	-	-	55.28	26	55.28	26
Ripon Flour	-	-	54.45	11	54.45	11

### Huddersfield District

	Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
Brockholes	72.40	5	-	-	72.40	5
Central Working Men's (Golcar)	66.25	8	-	-	66.25	8
Close Hill	67.40	15	47.00	1	66.13	16
Crosland Moor	65.45	15	36.33	7	54.28	22
Dogley Bar	56.00	3	-	-	56.00	3
Emley	58.25	8	-	-	58.25	8
Flockton	88.75	4	-	-	88.75	4
Golcar	62.00	16	74.50	4	64.50	20
Hepworth	64.88	13	-	-	64.88	13
Highburton	73.50	2	-	-	73.50	2
Hillhouse	59.82	38	69.57	12	62.04	50
Hinchliffe Mill	59.07	15	-	-	59.07	15
Honley	58.64	24	50.4	8	56.65	32
Huddersfield Industrial	57.18	262	68.90	154	61.49	416
Junction House (Slaithw'te)	48.00	7	-	-	48.00	7
Kirkburton	67.67	3	-	-	67.67	3
Kirkheaton	62.89	4	-	-	62.89	4
Lane Dyehouse	59.27	11	-	-	59.27	11

## (Huddersfield)

Lepton Town Bottom	60.50	2	-	-	60.50	2
Linthwaite	52.64	12	81.00	3	59.52	15
Marsden	56.04	24	50.29	9	54.24	33
Meltham Industrial	52.19	27	51.33	6	52.03	33
Milnsbridge	90.78	13	85.67	3	89.72	16
Netherthong	58.89	5	-	-	58.89	5
Parkgate & Berry Brow	73.50	15	66.40	2	72.42	17
Scapegoat Hill (Golcar)	57.65	8	-	-	57.65	8
Scar Wood Coal	85.00	2	-	-	85.00	2
Sheepridge	78.75	4	-	-	78.75	4
Shepley	77.14	4	-	-	77.14	4
Skelmanthorpe	49.00	5	-	-	49.00	5
Slaithwaite	56.20	46	53.92	38	55.18	84
South Crosland &	61.83	12	65.60	3	62.48	15
Netherton						
Wooldale	49.48	12	-	-	49.48	12
<b>Total</b>	<b>60.27</b>	<b>644</b>	<b>64.46</b>	<b>250</b>	<b>61.44</b>	<b>894</b>
Productive Societies:						
Colne Vale Corn Millers	-	-	73.31	30	73.31	30
Wm. Thomson & Sons	-	-	59.12	97	59.12	97

## Macclesfield, Crewe &amp; District

	<b>Dist.</b>	<b>No.</b>	<b>Prod.</b>	<b>No.</b>	<b>All</b>	<b>No.</b>
	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>
Burslem	52.04	30	60.73	6	53.48	36
Butt Lane	46.43	23	49.83	5	47.12	28
Congleton	56.52	48	58.17	25	57.04	73
Crewe Friendly	62.80	231	51.51	227	57.29	458
Disley	72.00	4	-	-	72.00	4
Great Rocks	60.80	3	-	-	60.80	3
Hazel Grove	68.93	23	69.33	3	68.98	26
Leek & Moorlands	53.89	35	79.71	11	59.78	46
Macclesfield	57.01	91	55.20	64	56.22	155
Malkins Bank	79.00	1	46.00	1	62.50	2
Peak Forest	48.00	2	-	-	48.00	2
Poynton & Worth	124.89	10	-	-	124.89	10
Sandbach	45.97	31	39.94	35	42.90	66
Silverdale	53.00	26	68.75	4	55.10	30
Stockport	55.65	103	86.50	7	57.38	110
Stockport Great Moor	57.20	8	-	-	57.20	8
Stoke-on-Trent	54.53	9	50.00	2	53.58	11
Styal	65.00	5	47.00	2	59.86	7
Whitebough	31.50	4	-	-	31.50	4
Winnington, Northwich & District	48.38	100	65.73	23	51.67	123
Winsford	63.62	40	-	-	63.62	40
Youlgreave	62.71	8	-	-	62.71	8
<b>Total</b>	<b>57.74</b>	<b>835</b>	<b>54.01</b>	<b>415</b>	<b>56.52</b>	<b>1250</b>
Productive Societies:						
Leek Silk Twist Manufacturing	-		50.35	91	50.35	91
Macclesfield Silk	-		48.38	129	48.38	129

Nantwich boot & Shoe	-	-	27.17	42	27.17	42
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### Manchester District

	Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
Beswick	67.65	108	91.86	7	69.20	115
Blackley	51.22	146	60.15	20	52.29	166
Chisworth	53.67	3	-	-	53.67	3
Clifton	65.92	12	73.50	4	67.81	16
Compstall	50.51	48	74.00	9	54.42	57
Denton & Haughton	59.60	36	63.67	3	59.92	39
Droylsden	52.17	136	63.14	27	53.93	163
Eccles	55.31	417	59.54	139	56.39	556
Failsworth	47.51	190	105.54	61	60.72	251
Glossop Dale	60.02	63	59.33	20	59.85	83
Hadfield	80.58	33	49.30	9	72.95	42
Hadfield & Hollingworth Coal	97.50	4	-	-	97.50	4
Haughton Green	64.08	13	60.67	3	63.44	16
Hollingworth	62.97	20	34.13	8	54.96	28
Hyde	58.33	64	93.40	22	66.63	86
Manchester Equitable	50.32	464	59.84	87	51.85	551
Middleton & Tonge	64.04	73	68.07	42	65.51	115
Mossley	75.54	66	48.75	25	67.87	91
New Mills	64.69	41	65.50	8	64.84	49
New Moston	65.41	9	70.00	3	66.61	12
Pendleton	45.97	594	58.41	150	48.58	744
Prestwich	67.88	60	85.71	11	70.58	71
Rhodes	69.13	15	66.18	5	68.34	20
Roe Green - Worsley	73.67	3	68.00	3	70.83	6
Swinton - Chorley Road	58.67	8	-	-	58.67	8
Swinton Upper	52.36	5	90.00	1	58.15	6
Whaley Bridge	53.57	36	91.43	4	57.05	40
Whitefield & Unsworth	71.25	16	-	-	71.25	16
<b>Total</b>	<b>53.91</b>	<b>2683</b>	<b>66.21</b>	<b>671</b>	<b>56.39</b>	<b>3354</b>
Productive Societies:						
Co-op. Sundries Manufacturing (Droylsden)			55.01	150	55.01	150
Eccles Manufacturing	-	-	52.56	76	52.56	72
Manchester - Newspaper	-	-	123.23	41	123.23	41
Manchester Printing	-	-	72.24	434	72.24	434

### North - East Lancashire District

	Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
Accrington	56.45	196	83.50	120	67.70	316
Barnoldswick	60.32	20	73.29	17	66.44	37
Barrowford Industrial	108.00	4	51.80	5	74.56	9
Billington & Whalley	54.91	12	99.00	2	61.69	14
Blackburn - Daisyfield	63.76	78	73.17	45	67.47	123
Blackburn - Excelsior	93.25	4	-	-	93.25	4

Blackburn-Grimshaw Park	66.94	50	42.94	35	56.90	85
Blackburn - Industrial	54.83	86	65.84	13	56.29	99
Blackburn - Livesey	77.82	6	-	-	77.82	6
Brierfield	84.79	25	56.00	26	69.31	51
Burnley	53.56	335	58.28	214	55.77	549
Clayton-le-Moors	72.04	24	51.30	29	60.99	53
Clitheroe	60.42	18	-	-	60.42	18
Colne	46.16	121	98.46	67	65.22	188
Darwen Industrial	54.92	155	58.58	106	56.34	261
Darwen Provident	57.25	28	62.40	15	59.05	43
Earby	32.50	8	39.50	4	34.83	12
Great Harwood	63.79	52	64.56	56	64.15	108
Higham	61.00	2	-	-	61.00	2
Knuzden Brook	79.00	3	-	-	79.00	3
Lower Darwen Fore Street	68.00	4	-	-	68.00	4
Low Moor - Nelson Street	72.67	3	-	-	72.67	3
Low Moor - Union Street	76.50	2	-	-	76.50	2
Nelson	60.09	171	63.88	199	62.13	370
Oswaldtwistle	57.17	33	79.21	19	65.30	52
Padiham	59.60	45	75.45	24	65.20	69
Rishton	61.02	24	74.00	15	65.97	39
Sabden Industrial	80.67	5	-	-	80.67	5
Salterforth	78.50	2	-	-	78.50	2
Trawden	59.40	6	-	-	59.40	6
Winewall	78.29	4	52.80	3	67.67	7
<b>Total</b>	<b>57.79</b>	<b>1526</b>	<b>66.26</b>	<b>1014</b>	<b>61.31</b>	<b>2540</b>
Productive Societies:						
Burnley Self-Help Manufacturing	-		54.80	232	54.80	232
Nelson Self-Help Manufacturing	-		69.34	112	69.34	112

### North Lancashire District

	Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
Bamber Bridge	61.00	5	-	-	61.00	5
Bentham	53.00	4	-	-	53.00	4
Blackpool	56.24	101	59.47	96	57.82	197
Churchtown (Southport)	51.26	37	95.00	3	54.58	40
Fleetwood	62.60	46	48.47	18	58.53	64
Fylde - Kirkham	65.95	20	51.60	5	63.08	25
Gregson's Lane	82.67	3	-	-	82.67	3
Higher Walton	84.33	3	-	-	84.33	3
Lancaster & Skerton	50.25	145	68.17	79	55.71	224
Leyland & Farington	63.58	22	27.94	19	49.33	41
Longridge	58.74	26	74.20	17	64.84	43
Preston	52.78	314	62.36	203	56.34	517
Ribchester	72.00	3	-	-	72.00	3
School Lane, Walton-le-Dale	59.92	14	43.67	3	56.88	17
Skelmersdale	56.34	15	59.33	4	56.95	19
Walmer Bridge	63.33	3	-	-	63.33	3
<b>Total</b>	<b>54.72</b>	<b>761</b>	<b>61.04</b>	<b>447</b>	<b>56.93</b>	<b>1208</b>

Productive Societies:						
Blackpool Union Printers	-	-	59.15	32	59.15	32

### Lonsdale District

	<b>Dist.</b> <b>Wages</b>	<b>No.</b> <b>Wkr's</b>	<b>Prod.</b> <b>Wages</b>	<b>No.</b> <b>Wkr's</b>	<b>All</b> <b>Wages</b>	<b>No.</b> <b>Wkr's</b>
Barrow - in - Furness	68.98	212	64.29	60	67.96	272
Broughton - in - Furness	50.33	3	-	-	50.33	3
Carnforth	53.12	42	44.71	11	51.77	53
Coniston	49.00	3	-	-	49.00	3
Dalton - in - Furness	50.03	67	46.30	23	49.03	90
Hawkshead	58.25	4	-	-	58.25	4
Kendal	57.49	57	58.43	7	57.61	64
Kirkby -in - Furness	82.00	6	21.60	4	54.55	10
Langdale	46.00	6	31.00	1	43.69	7
Lower Holker	77.33	3	-	-	73.33	3
Millom	53.69	49	81.54	13	59.98	62
Swarthmoor & Ulverston	57.06	43	58.59	24	57.55	67
<b>Total</b>	<b>60.96</b>	<b>495</b>	<b>58.74</b>	<b>143</b>	<b>60.47</b>	<b>638</b>
Supply association:						
Furness & South Cumberland	-		85.67	3	85.67	3

### Oldham District

	<b>Dist.</b> <b>Wages</b>	<b>No.</b> <b>Wkr's</b>	<b>Prod.</b> <b>Wages</b>	<b>No.</b> <b>Wkr's</b>	<b>All</b> <b>Wages</b>	<b>No.</b> <b>Wkr's</b>
Ashton - under - Lyne	49.93	128	64.24	45	53.79	173
Crompton (Shaw)	59.06	76	-	-	59.06	76
Delph	45.17	15	60.56	8	51.06	23
Diggle	75.38	6	-	-	75.38	6
Dobcross	45.50	2	-	-	45.50	2
Grasscroft	57.88	8	-	-	57.88	8
Greenfield	71.73	11	-	-	71.73	11
Higher Hurst	63.29	30	68.55	5	64.15	35
Hurst Brook	53.57	14	-	-	53.57	14
Lees	62.07	14	-	-	62.07	14
Oldham Equitable	56.61	224	62.27	70	57.90	294
Oldham Industrial	59.96	372	45.02	192	54.87	564
Royton	70.79	37	78.75	4	71.55	41
Stalybridge	67.69	73	44.86	35	60.59	108
Uppermill	67.95	20	48.00	1	67.00	21
Waterloo	57.53	26	56.75	4	57.42	30
<b>Total</b>	<b>59.03</b>	<b>1056</b>	<b>51.84</b>	<b>364</b>	<b>57.19</b>	<b>1420</b>
Productive Societies:						
Delph Woollen Manufacturing	-		30.09	13	30.09	13

### Rochdale District

<b>Dist.</b>	<b>No.</b>	<b>Prod.</b>	<b>No.</b>	<b>All</b>	<b>No.</b>
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	<b>Wages</b>	<b>Wkr's</b>		<b>Wages</b>	<b>Wkr's</b>		<b>Wages</b>	<b>Wkr's</b>
Bury	62.77	210		60.21	145		61.81	355
Healey	91.75	4		-	-		91.75	4
Heywood	68.19	94		66.42	36		67.70	130
Littleborough	58.57	46		61.63	9		59.06	55
Millgate	67.00	5		65.00	3		66.25	8
Milnrow	68.33	3		-	-		68.33	3
Milnrow Conservative	82.71	7		-	-		82.71	7
New Hey Industrial	66.78	9		-	-		66.78	9
Rochdale Equitable	58.60	220		64.56	119		60.60	339
Pioneers								
Rochdale Provident	64.89	186		-	-		64.89	186
Shawforth	69.25	4		-	-		69.25	4
Smithy Bridge	76.80	2		-	-		76.80	2
Steps (Smallbridge)	59.00	6		-	-		59.00	6
Summerseat & Breaksbottoms	64.67	3		-	-		64.67	3
Tottington Equitable	74.00	2		-	-		74.00	2
Tottington Industrial	68.00	18		60.00	4		66.58	22
Wardle	60.33	3		-	-		60.33	3
Whitworth	68.90	17		69.00	8		68.93	25
Woolfold	76.67	10		-	-		76.67	10
<b>Total</b>	<b>65.45</b>	<b>849</b>		<b>62.87</b>	<b>324</b>		<b>64.76</b>	<b>1173</b>

### Rossendale District

	<b>Dist. Wages</b>	<b>No. Wkr's</b>		<b>Prod. Wages</b>	<b>No. Wkr's</b>		<b>All Wages</b>	<b>No. Wkr's</b>
Bacup	103.16	57		61.26	36		85.57	93
Crawshawbooth	73.50	10		30.50	4		61.21	14
Edenfield	79.50	4		50.25	5		64.88	9
Haslingden	43.60	60		84.38	28		55.41	88
Helmshore	77.00	5		-	-		77.00	5
Love Clough	71.08	6		-	-		71.08	6
Lumb	69.50	2		-	-		69.50	2
Ramsbottom Industrial	58.70	53		50.71	36		55.31	89
Rawtenstall	59.02	33		57.63	8		58.73	41
Stacksteads	68.12	9		53.67	3		64.35	12
Tunstead	63.50	8		-	-		63.50	8
Water	99.00	2		92.00	1		96.67	3
Whitewell Bottom	78.00	5		-	-		78.00	5
<b>Total</b>	<b>67.39</b>	<b>254</b>		<b>61.36</b>	<b>121</b>		<b>65.38</b>	<b>375</b>

### South Yorkshire District

	<b>Dist. Wages</b>	<b>No. Wkr's</b>		<b>Prod. Wages</b>	<b>No. Wkr's</b>		<b>All Wages</b>	<b>No. Wkr's</b>
Bakewell	42.86	11		-	-		42.86	11

Barnsley	68.60	493	43.97	337	58.55	830
Brightside & Carbrook (Sheffield)	59.09	433	73.87	81	61.18	514
Chesterfield Provident	64.16	19	78.00	1	64.85	20
Clown	67.22	12	71.00	1	67.52	13
Denaby Main	75.31	16	-	-	75.31	16
Doncaster	45.31	182	79.03	53	53.23	235
Eccleshall (Sheffield)	58.50	224	95.37	36	63.60	260
Handsworth Woodhouse	50.00	31	-	-	50.00	31
Hasland	68.57	7	-	-	68.57	7
Killamarsh	64.50	10	-	-	64.50	10
Kilnhurst	73.80	10	95.00	1	75.73	11
Masbrough	71.75	196	64.78	52	70.34	248
Matlock Bank	44.80	15	-	-	44.80	15
Oughtbybridge	70.17	6	-	-	70.17	6
Oxcroft	71.50	2	-	-	71.50	2
Pilsley	59.24	11	-	-	59.24	11
Sheffield	56.67	6	-	-	56.67	6
Staveley Town	58.44	13	-	-	58.44	13
Stocksbridge	65.32	45	63.85	6	65.13	51
Whittington	50.53	9	-	-	50.53	9
Worksop	55.17	56	70.00	4	56.11	60
<b>Total</b>	<b>61.57</b>	<b>1807</b>	<b>57.16</b>	<b>572</b>	<b>60.52</b>	<b>2379</b>
Productive Societies:						
Sheffield Cutlery	-	-	25.85	40	25.85	40
Sheffield federated Cutlers	-	-	18.87	30	18.87	30

### Isle of Man District

	Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
Foxdale	60.25	4	46.00	2	55.50	6
Laxey Industrial	45.60	13	59.27	5	49.78	18
Laxey Old Equitable	49.33	6	40.50	2	47.13	8
<b>Total</b>	<b>49.20</b>	<b>23</b>	<b>52.53</b>	<b>9</b>	<b>50.19</b>	<b>32</b>

### North Western Section Summary

Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
<b>57.57</b>	<b>19253</b>	<b>58.09</b>	<b>10017</b>	<b>57.75</b>	<b>29270</b>

## Scottish Section

### Ayrshire District

	<b>Dist.</b>	<b>No.</b>	<b>Prod.</b>	<b>No.</b>	<b>All</b>	<b>No.</b>
	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>
Annandale	56.00	1	-	-	56.00	1
Ardrossan	69.46	43	75.56	11	70.84	54
Auchinleck	58.95	20	61.29	14	59.91	34
Beith	43.60	20	70.57	7	50.59	27
Carrick (Maybole)	43.37	30	69.09	11	49.14	41
Catrine	43.68	12	54.94	11	48.24	23
Creetown	63.20	3	-	-	63.20	3
Crosshouse (Kilmarnock)	55.13	15	61.17	12	57.81	27
Dalbeattie	58.40	2	-	-	58.40	2
Dalmellington	60.93	8	68.25	4	63.48	12
Dalry	56.89	10	52.36	6	55.17	16
Darvel	61.31	18	56.00	17	58.66	35
Dreghorn (Irvine)	58.86	14	51.31	15	54.83	29
Dumfries & Maxwelltown	50.44	35	66.61	14	54.71	49
Fergushill	71.25	4	49.67	3	62.00	7
Galston	67.96	21	54.91	27	61.51	48
Glenbuck	49.20	2	-	-	49.20	2
Hurlford	69.35	17	63.69	16	66.61	33
Irvine & Fullarton	49.20	22	63.43	10	54.10	32
Kilbirnie	54.69	53	52.29	33	53.67	86
Kilmarnock Equitable	37.82	244	58.83	132	45.35	376
Kilwinning	59.59	20	74.80	14	65.53	34
Largs	35.67	3	-	-	35.67	3
Mauchline	45.90	10	55.25	4	48.57	14
Millport	87.00	2	-	-	87.00	2
Muirkirk	57.94	16	67.67	15	62.65	31
New Cumnock	59.47	16	53.33	12	56.74	28
Newmilns	58.43	32	62.63	28	60.40	60
Patna	81.45	6	65.50	2	77.20	8
Stevenston	47.22	23	68.64	12	54.76	35
Troon	49.33	20	69.43	10	56.74	30
Wigtown	42.33	3	-	-	42.33	3
<b>Total</b>	<b>50.47</b>	<b>745</b>	<b>60.57</b>	<b>440</b>	<b>54.23</b>	<b>1185</b>

### Border Counties

	<b>Dist.</b>	<b>No.</b>	<b>Prod.</b>	<b>No.</b>	<b>All</b>	<b>No.</b>
	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>
Earlston	42.00	5	57.67	3	47.53	8
Galashiels	53.75	99	55.08	61	54.31	160
Hawick	56.54	135	50.46	83	54.13	218
Innerleithen	49.29	16	52.96	14	50.92	30

Jedburgh	45.28	12	60.67	5	49.35	17
Kelso	49.80	5	57.00	3	52.50	8
Langholm	56.74	13	70.93	8	61.81	21
Peebles	51.80	41	73.15	14	56.99	55
Riccarton Junction	54.00	2	-	-	54.00	2
Selkirk	49.73	58	43.82	52	46.99	110
Walkerburn	69.18	11	43.79	18	53.10	29
<b>Total</b>	<b>53.76</b>	<b>397</b>	<b>52.06</b>	<b>261</b>	<b>53.07</b>	<b>658</b>

### Central District

	<b>Dist.</b>	<b>No.</b>	<b>Prod.</b>	<b>No.</b>	<b>All</b>	<b>No.</b>
	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>
Auchenheath	68.89	10	66.40	3	68.35	13
Bellshill & Mossend	63.20	36	64.36	11	63.48	47
Blantyre	61.84	44	84.39	17	68.39	61
Burnbank	24.67	38	42.20	26	31.68	64
Carluke	62.05	22	58.84	9	61.06	31
Chapelhall	57.81	21	44.57	3	55.96	24
Chapelton	45.50	2	-	-	45.50	2
Clarkston	65.20	2	-	-	65.20	2
Coalburn	57.67	26	49.23	8	57.77	34
Coatbridge	53.03	291	54.63	151	53.62	442
Crofthead	66.00	21	80.27	8	69.75	29
Dalziel (Motherwell)	60.91	234	55.77	146	58.97	380
Darnigavil	77.50	2	-	-	77.50	2
Douglas Park	65.28	14	-	-	65.28	14
Dylehead & Shotts	54.65	40	80.57	18	62.75	58
Glenboig	62.13	7	-	-	62.13	7
Glengowan	69.64	5	-	-	69.64	5
Glespin	52.50	2	-	-	52.50	2
Greengairs	93.00	3	-	-	93.00	3
Hamilton	54.30	70	46.95	21	52.76	91
Lanark	46.93	33	55.71	15	49.52	48
Larkhall	61.39	76	40.57	69	51.99	145
Leadhills	45.67	3	-	-	45.67	3
Moffat Mills	78.50	2	-	-	78.50	2
Newarthill	66.50	13	-	-	66.50	13
Newmains & Cambusnethan	67.99	27	69.64	22	68.59	49
Overtown	58.70	10	-	-	58.70	10
Strathaven	53.33	9	63.43	4	56.16	13
Uphall	56.55	6	51.43	3	54.56	9
Wanlockhead	66.60	5	-	-	66.60	5
Wishaw	59.18	53	70.25	28	63.11	81
<b>Total</b>	<b>57.13</b>	<b>1127</b>	<b>56.37</b>	<b>562</b>	<b>56.87</b>	<b>1689</b>
Productive Societies:						
Chapelhall Federated Baking	-	-	83.62	29	83.62	29
Hamilton Baking	-	-	76.50	60	76.50	60

### East of Scotland District

	Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
Armadale	62.85	28	44.29	26	52.75	54
Bathgate	59.47	69	53.12	51	55.79	120
Bonnyrigg	45.70	17	41.94	15	43.91	32
Broxburn	55.59	55	64.08	36	59.04	91
Dalkeith	43.30	31	44.92	29	44.08	60
Edinburgh St. Cuthbert's	57.30	1312	57.32	737	57.31	2049
Gavieside	74.50	2	-	-	74.50	2
Gorebridge	51.20	34	48.22	32	49.72	66
Haddington	54.42	29	84.71	7	60.39	36
Hillwood	47.91	45	65.94	18	53.10	63
Juniper Green	62.05	21	62.18	24	62.12	45
Leith	50.28	210	53.23	158	51.57	368
Musselburgh & Fisherrow	57.63	135	54.03	89	56.19	224
Norton Park	47.64	42	54.09	22	49.86	64
Penicuik	49.94	80	54.67	51	51.78	131
Portobello	41.35	28	93.42	12	57.79	40
Prestonpans	55.48	17	65.60	5	57.95	22
Springfield	42.33	3	-	-	42.33	3
Tranent	50.22	59	54.72	53	52.38	112
West Barns	53.57	7	73.00	3	59.40	10
West Benhar	43.06	43	90.53	17	58.28	60
West Calder	57.15	172	57.27	106	57.20	278
<b>Total</b>	<b>55.01</b>	<b>2439</b>	<b>56.64</b>	<b>1491</b>	<b>55.63</b>	<b>3930</b>
Productive Society: Edinburgh Printing	-	-	63.26	91	63.26	91

### Falkirk District

	Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
Bo'ness	68.27	32	62.67	28	65.60	60
Bonnybridge	48.84	45	70.97	18	55.14	63
Camelon	49.23	62	55.92	37	51.76	99
Carron	66.29	13	62.00	9	64.50	22
Condorrat	60.50	2	-	-	60.50	2
Cumbernauld	56.80	5	-	-	56.80	5
Denny & Dunipace	61.11	39	78.90	19	67.24	58
Grahamston & Bainsford	52.19	127	40.31	56	48.94	183
Grangemouth	50.16	59	59.21	44	53.99	103
Larbert	62.70	13	81.38	7	69.44	20
Laurieston	48.30	10	96.00	3	59.31	13
Longcroft	56.19	11	75.83	6	63.33	17
Redding	62.34	61	80.36	23	67.09	84
Skinflats	74.33	3	52.00	4	61.57	7
Slamannan	50.18	33	50.18	26	50.18	59
Stenhousemuir Equitable	58.18	26	40.00	16	51.38	42
<b>Total</b>	<b>55.14</b>	<b>541</b>	<b>58.94</b>	<b>296</b>	<b>56.47</b>	<b>837</b>
Productive Societies:						

Bainsford & Grahamston Baking	-	72.44	42	72.44	42
Stenhousemuir Baking	-	71.41	18	71.41	18

### Fife & Kinross District

	<b>Dist.</b>	<b>No.</b>	<b>Prod.</b>	<b>No.</b>	<b>All</b>	<b>No.</b>
	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>
Anstruther	32.00	3	-	-	32.00	3
Auchtermuchty	50.35	9	59.00	3	52.61	12
Buckhaven	55.03	40	54.00	34	54.54	74
Burntisland	47.81	13	83.43	4	56.71	17
Coaltown of Wemyss	69.71	4	-	-	69.71	4
Cowdenbeath	49.64	48	69.86	23	55.88	71
Cupar (Fife)	58.67	3	52.75	4	55.29	7
Dunfermline	55.49	226	58.81	171	56.95	397
Dysart	33.17	13	82.67	7	49.67	20
East Wemyss	56.94	10	82.44	5	65.77	15
Falkland	43.50	2	42.00	2	42.75	4
Freuchie Equitable	59.50	2	55.50	2	57.50	4
Freuchie New Store	59.50	2	-	-	59.50	2
Gallatown	34.46	7	79.80	5	54.17	12
Guard Bridge	44.91	11	69.27	6	53.03	17
Kelty	53.77	60	58.76	55	56.06	115
Kette	43.33	3	-	-	43.33	3
Kingseat	57.40	5	-	-	57.40	5
Kinross & Vicinity	44.00	3	-	-	44.00	3
Leslie & District	35.48	28	57.85	11	42.75	39
Leven (Reform)	42.25	43	56.40	40	49.33	83
Lochgelly	59.28	93	55.08	75	57.40	168
Markinch	59.46	39	69.84	19	62.86	58
Methil	53.04	13	64.00	15	58.63	28
Newburgh & District	54.33	4	-	-	54.33	4
Pathead & Sinclairtown	56.51	69	67.22	36	60.12	105
St. Andrews	47.00	8	-	-	47.00	8
Strathkinnness	39.00	2	-	-	39.00	2
Townhill	56.43	16	73.69	7	61.90	23
West Wemyss	57.82	6	86.50	2	65.47	8
<b>Total</b>	<b>53.23</b>	<b>785</b>	<b>60.44</b>	<b>526</b>	<b>56.15</b>	<b>1311</b>
Productive Societies:						
Kettle Baking	-	-	70.78	9	70.78	9
Newburgh & Mount Pleasant Baking			70.00	4	70.00	4

### Glasgow & Suburbs District

	<b>Dist.</b>	<b>No.</b>	<b>Prod.</b>	<b>No.</b>	<b>All</b>	<b>No.</b>
	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>
Anniesland	54.26	22	-	-	54.26	22
Avonbank (Rutherglen)	49.75	52	-	-	49.75	52
Blairdardie	61.50	2	-	-	61.50	2
Bridgeton Old Victualling	68.36	41	77.93	14	70.71	55
Cadder	59.09	17	-	-	59.09	17

Cambuslang	63.78	31	47.13	18	57.66	49
Clydebank	43.00	240	64.61	45	46.42	285
Cowlairs	34.99	491	55.63	95	38.18	586
Dalmuir	65.04	29	65.00	2	65.04	31
Dumbarton Equitable	44.52	155	46.35	72	45.12	227
East Kilbride	84.67	3	-	-	84.67	3
Gilbertfield	65.64	14	-	-	65.64	14
Glasgow Drapery & Furnishing	63.26	118	48.41	217	53.40	335
Glasgow Eastern	35.59	564	50.00	68	36.99	632
Glasgow Kinning Park	49.59	769	54.93	140	50.43	909
Glasgow London Road	55.65	53	-	-	55.65	53
Glasgow St. George	41.33	1337	31.64	185	40.06	1522
Glasgow St. Rollox	49.66	179	66.18	5	50.15	184
Hallside	76.82	8	-	-	76.82	8
Kirkintilloch	39.20	58	77.91	32	53.45	90
Lennox (Dunbarton)	39.15	39	80.33	11	47.48	50
Milngavie	56.38	13	-	-	56.38	13
Newton	62.67	9	85.00	1	64.90	10
Radnor Park	54.06	20	-	-	54.06	20
Shettleston	48.66	155	45.20	37	47.96	192
Stonefield	106.31	7	159.00	2	118.71	9
Tollcross	57.22	43	55.18	10	56.85	53
Uddingston	57.86	58	45.13	26	54.13	84
Vale of Leven (Alexandria)	54.24	155	54.84	108	54.48	263
<b>Total</b>	<b>44.98</b>	<b>4682</b>	<b>50.23</b>	<b>1088</b>	<b>46.01</b>	<b>5770</b>
Special Society: Scottish Guild of handicraft	-		62.62	16	62.62	16
Productive Societies: Glasgow Scottish Newspaper	-		166.50	2	166.50	2
Glasgow united Baking	-		69.23	1239	69.23	1239

### Perth, Forfar and Aberdeen District

	Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
Aberdeen Northern	50.22	815	53.57	344	51.30	1159
Aberuthven	60.00	1	-	-	60.00	1
Arbroath	62.05	81	65.91	21	62.87	102
Auchterarder Feus	58.00	3	-	-	58.00	3
Auchterarder Provident	50.25	4	-	-	50.25	4
Blairgowrie	82.31	6	-	-	82.31	6
Brechin Equitable	54.79	35	68.43	42	60.78	77
Brechin United Association	55.20	36	66.67	24	60.40	60
Carnoustie Association	54.19	21	58.94	19	56.35	40
Crieff	67.00	4	67.00	2	67.00	6
Don (Port Elphinstone)	33.85	29	49.25	17	39.52	46
Dundee (City of)	58.81	39	-	-	58.81	39
Dundee Eastern	46.16	230	94.02	53	54.35	283
Dundee Coal Supply	67.03	16	-	-	67.03	16
Forfar High Street	54.33	3	57.67	3	56.00	6
West Port	62.67	3	69.33	3	66.00	6

Fraserburgh	56.00	3	-	-	56.00	3
Kirriemuir	57.82	17	-	-	57.82	17
Kirriemuir Coal	98.00	1	-	-	98.00	1
Lerwick	36.40	6	-	-	36.40	6
Perth (City of)	53.69	215	49.89	194	51.84	409
Perth Coal	99.33	18	-	-	99.33	18
Thurso	37.78	23	51.25	4	39.81	27
Wick & Pulteney Town	74.80	2	69.14	4	71.50	6
<b>Total</b>	<b>52.21</b>	<b>1611</b>	<b>57.11</b>	<b>730</b>	<b>53.78</b>	<b>2341</b>

### Renfrewshire District

	<b>Dist.</b>	<b>No.</b>	<b>Prod.</b>	<b>No.</b>	<b>All</b>	<b>No.</b>
	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>
Barrhead	39.17	125	72.64	45	47.96	170
Bridge of Weir	55.38	6	-	-	55.38	6
Cathcart	56.22	9	-	-	56.22	9
Greenock Central	39.71	216	60.31	59	44.53	275
Greenock East End	42.08	27	78.00	5	47.87	32
Howwood	47.33	3	-	-	47.33	3
Hurlet & Nitshill	67.38	8	-	-	67.38	8
Kilbarchan	60.31	16	53.67	3	59.26	19
Linwood	63.33	6	-	-	63.33	6
Lochwinnoch	51.78	5	-	-	51.78	5
Newton Mearns	56.40	5	-	-	56.40	5
Paisley Equitable	39.08	69	71.76	17	45.42	86
Paisley Provident	43.26	261	80.09	73	50.82	334
Paisley Underwood Coal	53.69	52	-	-	53.69	52
Pollokshaws	56.80	47	-	-	56.80	47
Port Glasgow - Fore Street	43.13	35	66.60	16	50.62	51
Port Glasgow - Provident	42.37	35	76.00	10	49.55	45
Thornliebank	55.27	18	-	-	55.27	18
<b>Total</b>	<b>43.93</b>	<b>943</b>	<b>71.27</b>	<b>228</b>	<b>49.17</b>	<b>1171</b>
Special Society:						
Scottish Laundry Association (Barrhead)			41.52	109	41.52	109
Productive Society:						
Paisley Manufacturing	-	-	51.33	355	51.33	355

### Stirling, West Fife & Clackmannan District

	<b>Dist.</b>	<b>No.</b>	<b>Prod.</b>	<b>No.</b>	<b>All</b>	<b>No.</b>
	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>
Aberfoyle	61.67	4	-	-	61.67	4
Alloa	54.61	120	55.42	97	54.99	217
Alva bazaar	50.05	22	19.35	17	36.67	39
Bannockburn	60.05	43	52.41	29	56.86	72
Clackmannan	60.09	11	63.40	5	61.13	16
Coalsnaughton	48.17	6	54.75	4	50.80	10
Deanston	58.00	1	91.00	1	74.50	2

Dunblane	51.50	10	63.33	3	54.23	13
Menstrie	57.75	4	60.50	2	58.67	6
Newtonshaw	76.11	18	54.50	16	66.09	34
Stirling	51.23	103	79.33	60	61.97	163
Tillicoultry	54.00	23	49.43	24	51.64	47
Tillibody & Cambus	54.00	3	60.00	2	56.40	5
<b>Total</b>	<b>55.26</b>	<b>368</b>	<b>56.72</b>	<b>260</b>	<b>55.87</b>	<b>628</b>
Productive Society:						
Alva baking	-	-	66.25	12	66.25	12

### Scottish Section Summary

Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
<b>50.36</b>	<b>13638</b>	<b>56.62</b>	<b>5882</b>	<b>52.24</b>	<b>19520</b>

### Southern section

#### North Metropolitan District

	Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
Anchor (London)	107.67	3	-	-	107.67	3
Co-op Brotherhood Trust (London)	62.40	3	-	-	62.40	3
Croxley	47.33	3	-	-	47.33	3
Ealing	70.00	4	-	-	70.00	4
High Barnet	56.44	4	67.00	1	58.36	5
Perseverance (London)	45.60	2	-	-	45.60	2
Railway Clearing House	179.47	8	-	-	179.47	8
Watford	60.51	40	81.00	8	64.11	48
West London	65.83	61	95.58	11	70.86	72
Willesden	66.62	32	83.82	5	69.11	37
Wood Green	51.52	28	62.31	7	53.39	35
<b>Total</b>	<b>70.94</b>	<b>188</b>	<b>82.67</b>	<b>32</b>	<b>72.70</b>	<b>220</b>
Supply Associations:						
Canteen & Mess (London)	103.22	136	-	-	103.22	136
Civil Service Supply Association	84.81	1375	96.30	163	85.72	1538
Special Society:						
London Cab Drivers	83.68	10	-	-	83.68	10
Productive Societies:						
London Bass Dressers	-	-	70.00	18	70.00	18
London Bookbinders	-	-	63.23	7	63.23	7
London General Builders	-	-	98.00	1	98.00	1
London Typewriters	-	-	78.67	3	78.67	3

### South Metropolitan District

	<b>Dist.</b>	<b>No.</b>	<b>Prod.</b>	<b>No.</b>	<b>All</b>	<b>No.</b>
	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>
Addington	27.00	2	-	-	27.00	2
Battersea & Wandsworth	62.07	14	82.57	7	64.94	21
Brixton Result	65.67	3	-	-	65.67	3
Bromley	58.96	82	117.58	10	65.90	92
Crays (St. Mary's)	69.00	13	-	-	69.00	13
Crocken Hill	67.33	3	-	-	67.33	3
Croydon	59.91	25	70.00	3	61.10	28
Norwood Co-operators	66.67	4	-	-	66.67	4
Penge & Beckenham	71.85	21	89.50	4	74.73	25
Sevenoaks	70.41	16	60.00	5	68.64	21
South London General	85.00	4	-	-	85.00	4
Woolwich (Royal arsenal)	59.20	692	68.30	236	62.48	928
<b>Total</b>	<b>59.84</b>	<b>879</b>	<b>69.86</b>	<b>265</b>	<b>63.03</b>	<b>1144</b>
Supply Association:						
Agricultural & Horticultural (London)			39.42	161	39.42	161
Productive Societies:						
Greenwich Bread & Flour	-	-	75.67	3	75.67	3
London General Engineers	-	-	100.00	4	100.00	4

### East Metropolitan District

	<b>Dist.</b>	<b>No.</b>	<b>Prod.</b>	<b>No.</b>	<b>All</b>	<b>No.</b>
	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>
Brentwood	53.87	8	54.50	4	54.09	12
Clapton Park (London)	59.67	3	-	-	59.67	3
Edmonton	63.32	88	75.92	16	65.21	104
Enfield	67.47	96	110.09	12	72.23	108
Epping	52.93	8	48.00	3	51.36	11
Grays	77.83	135	65.56	30	75.40	165
Hoddesdon	63.67	3	-	-	63.67	3
Southend	65.54	6	63.14	3	64.70	9
Stratford	62.04	567	91.37	145	68.99	712
<b>Total</b>	<b>65.02</b>	<b>914</b>	<b>86.03</b>	<b>213</b>	<b>69.52</b>	<b>1127</b>

### Surrey District

	<b>Dist.</b>	<b>No.</b>	<b>Prod.</b>	<b>No.</b>	<b>All</b>	<b>No.</b>
	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>
Addlestone	66.72	12	69.71	3	67.45	15
Aldershot	55.20	5	60.67	2	56.46	7
Cobham	54.40	2	-	-	54.40	2
Epsom	67.78	15	74.50	2	68.65	17
Godalming	67.12	25	64.00	4	66.63	29
Gomshall	56.78	9	61.33	3	57.92	12

Guildford	59.64	39	83.09	6	62.57	45
Hampton & New Hampton	53.14	10	64.33	3	55.63	13
Haslemere	58.18	5	-	-	58.18	5
Leatherhead	61.27	5	64.00	3	62.13	8
Staines & Egham	59.40	35	73.33	6	61.52	41
Sutton	62.80	9	82.00	2	66.84	11
Woking, Horsell & District	61.91	12	76.00	2	64.08	14
Yiewsley & West Drayton	78.57	4	97.00	1	82.67	5
<b>Total</b>	<b>60.79</b>	<b>187</b>	<b>68.99</b>	<b>37</b>	<b>62.21</b>	<b>224</b>

### Bucks. District

	<b>Dist.</b>	<b>No.</b>	<b>Prod.</b>	<b>No.</b>	<b>All</b>	<b>No.</b>
	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>
Aylesbury	36.96	15	61.33	3	41.39	18
Bletchley & Fenny	52.83	15	50.00	3	52.34	18
Stratford						
Buckingham	48.40	3	-	-	48.40	3
Chesham	71.44	9	65.25	4	69.54	13
Newport Pagnell	66.00	3	50.00	2	59.60	5
Stoney Stratford	82.43	11	77.33	2	81.85	13
Swanbourne	78.00	1	-	-	78.00	1
Tring	47.18	22	57.33	3	48.40	25
Wolverton	53.50	22	64.25	4	55.29	26
<b>Total</b>	<b>55.27</b>	<b>101</b>	<b>62.29</b>	<b>21</b>	<b>56.49</b>	<b>122</b>
Productive Society: Chesham Boot & Shoe	-	-	42.24	19	42.24	19

### Sheerness District

	<b>Dist.</b>	<b>No.</b>	<b>Prod.</b>	<b>No.</b>	<b>All</b>	<b>No.</b>
	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>
Ashford	52.51	29	64.00	1	52.89	30
Chatham	85.29	36	70.57	7	82.92	43
Cliffe-at-Hoo	68.35	8	60.00	3	66.17	11
Dartford	56.86	19	103.75	4	65.20	23
Faversham	50.40	53	62.73	7	51.56	60
Folkestone	56.73	70	78.91	11	59.86	81
Gravesend (Borough of)	54.62	50	76.60	5	56.52	55
Greenstreet	56.29	11	52.75	4	55.31	15
Maidstone	93.20	3	83.00	1	90.29	4
New Brompton	49.29	143	64.31	46	52.90	189
Rainham	61.85	13	66.75	4	63.00	17
Ramsgate	91.40	5	124.50	2	100.86	7
River (Dover)	59.14	92	54.89	23	58.29	115
Rochester	54.71	88	71.50	6	55.79	94
Sheerness	46.03	122	66.91	30	50.44	152
Sittingbourne	67.64	91	77.26	28	69.88	119
South Darenth	54.00	4	-	-	54.00	4

Tonbridge	58.75	4	50.00	3	55.00	7
Tunbridge Wells	62.29	7	62.50	2	62.33	9
Walmer & Mongeham	95.20	5	66.67	4	84.50	9
<b>Total</b>	<b>56.48</b>	<b>853</b>	<b>68.14</b>	<b>191</b>	<b>58.60</b>	<b>1044</b>
Special Society:						
Thames & Medway Barge-owning and Carrying (New Brompton)	-		58.58	12	58.58	12
Productive Societies:						
Alfred Joint Stock (Ashford)	-		75.62	20	75.62	20
Medway Ship, Barge and Yacht Building (New Brompton)	-		37.78	3	37.78	3

### Lewes District

	<b>Dist.</b>	<b>No.</b>	<b>Prod.</b>	<b>No.</b>	<b>All</b>	<b>No.</b>
	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>
Arundel	44.00	2	67.33	15	58.48	17
Basingstoke	80.80	18	55.82	6	74.83	24
Bognor	48.50	4	-	-	48.50	4
Brighton	55.67	45	83.64	6	59.12	51
Cowes	47.70	26	51.70	16	50.31	42
Crawley & Ifield	53.83	6	-	-	53.83	6
East Grinstead	69.00	4	-	-	69.00	4
Eastleigh	48.95	9	78.57	4	56.36	13
Haywards Heath	67.05	11	55.67	3	64.52	14
Lewes	55.51	22	64.00	3	56.60	25
Newhaven	60.12	35	77.60	5	62.33	40
Portsea Island (Portsmouth)	50.48	160	52.97	56	51.13	216
Shanklin, Lake, and	54.75	16	64.50	2	55.83	18
Branstone						
Southampton	48.58	53	62.91	6	49.95	59
Winchester	47.41	7	59.43	4	50.92	11
Worthing	47.14	3	-	-	47.14	3
<b>Total</b>	<b>53.45</b>	<b>421</b>	<b>58.92</b>	<b>126</b>	<b>54.63</b>	<b>547</b>

### Wilton District

	<b>Dist.</b>	<b>No.</b>	<b>Prod.</b>	<b>No.</b>	<b>All</b>	<b>No.</b>
	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>
Bradford-on-Avon	55.84	13	-	-	55.84	13
Calne	45.00	3	39.50	2	42.80	5
Childe, Okeford	45.67	3	-	-	45.67	3
Chippenham	53.48	14	53.33	5	53.45	19
Devizes	51.75	4	42.86	4	47.60	8
Mere & district	49.54	7	-	-	49.54	7
Parkstone & Heatherlands	71.41	20	70.20	6	71.18	26
Salisbury	49.81	21	60.83	6	52.26	27
Trowbridge	43.61	69	64.76	10	46.57	79
Warminster	52.22	10	57.00	2	53.09	12

Weymouth	55.59	18	75.11	5	59.67	23
<b>Total</b>	<b>52.46</b>	<b>182</b>	<b>60.97</b>	<b>40</b>	<b>53.97</b>	<b>222</b>

### Oxford District

	<b>Dist.</b>	<b>No.</b>	<b>Prod.</b>	<b>No.</b>	<b>All</b>	<b>No.</b>
	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>
Aldermaston	69.33	3	-	-	69.33	3
Banbury	43.02	104	53.76	42	46.05	146
Chipping Norton	51.75	42	53.70	14	52.24	56
High Wycombe	81.13	8	76.50	2	80.20	10
Maidenhead	62.56	11	54.75	4	60.67	15
New Swindon	58.55	33	53.50	11	57.26	44
Oxford	57.78	116	74.54	26	61.05	142
Reading	57.95	157	73.01	48	61.19	205
Slough	52.95	30	62.50	4	54.09	34
Sunningdale	53.00	3	-	-	53.00	3
Windsor	58.61	23	64.25	4	59.44	27
<b>Total</b>	<b>54.71</b>	<b>530</b>	<b>63.92</b>	<b>155</b>	<b>56.75</b>	<b>685</b>
Productive Society: Oxford builders	-	-	60.62	22	60.62	22

### Cambridge District

	<b>Dist.</b>	<b>No.</b>	<b>Prod.</b>	<b>No.</b>	<b>All</b>	<b>No.</b>
	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>
Bishops Stortford	51.63	15	56.67	3	52.42	18
Cambridge	57.95	106	35.69	14	55.39	120
Chatteris	59.00	3	-	-	59.00	3
Ely (city of)	50.92	7	44.00	2	49.29	9
Newmarket	48.00	22	53.71	4	48.85	26
Saffron Walden	43.14	7	36.67	3	41.20	10
Sawston	43.77	18	61.33	3	46.34	21
Soham	42.25	4	-	-	42.25	4
Willingham	36.33	3	-	-	36.33	3
<b>Total</b>	<b>53.31</b>	<b>185</b>	<b>43.78</b>	<b>29</b>	<b>52.02</b>	<b>214</b>

### Bedford District

	<b>Dist.</b>	<b>No.</b>	<b>Prod.</b>	<b>No.</b>	<b>All</b>	<b>No.</b>
	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>
Arlesey	39.00	7	45.00	4	41.18	11
Bedford Progressive	48.55	5	63.50	2	52.53	7
Garden City Co-operators	72.50	2	-	-	72.50	2

Hitchin united	52.60	5	44.00	2	50.14	7
Luton	56.96	26	72.00	5	59.25	31
Potton	51.50	2	-	-	51.50	2
Ravenstone	63.00	1	-	-	63.00	1
St Albans	66.20	5	-	-	66.20	5
St Neots	65.33	3	39.00	2	54.80	5
Silsoe	62.75	4	33.00	2	52.83	6
Woburn Sands	60.50	2	-	-	60.50	2
<b>Total</b>	<b>55.89</b>	<b>62</b>	<b>52.30</b>	<b>17</b>	<b>55.13</b>	<b>79</b>

### Norwich District

	<b>Dist.</b>	<b>No.</b>	<b>Prod.</b>	<b>No.</b>	<b>All</b>	<b>No.</b>
	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>
Beccles	42.86	37	41.50	4	42.73	41
Brandon	39.00	5	50.50	2	42.29	7
Bury St Edmunds	41.15	15	57.00	2	43.27	17
Cromer	61.11	9	79.50	2	64.45	11
Diss	51.56	5	-	-	51.56	5
Downham Market	63.00	2	-	-	63.00	2
Fakenham	42.00	4	-	-	42.00	4
Great Yarmouth	54.12	20	60.44	5	55.48	25
Lakenheath	52.00	3	-	-	52.00	3
Lowestoft	40.29	71	40.43	12	40.31	83
Melton Constable	58.25	4	-	-	58.25	4
Norwich	44.07	263	43.43	56	43.96	319
Sheringham	53.06	9	68.80	3	56.64	12
Swaffham	39.60	5	-	-	39.60	5
Thetford	52.45	30	65.00	2	53.26	32
Wymondham	47.80	4	-	-	47.80	4
<b>Total</b>	<b>44.97</b>	<b>486</b>	<b>46.48</b>	<b>88</b>	<b>45.20</b>	<b>574</b>
Productive Society: Norwich Printers	-	-	52.71	7	52.71	7

### Colchester District

	<b>Dist.</b>	<b>No.</b>	<b>Prod.</b>	<b>No.</b>	<b>All</b>	<b>No.</b>
	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>
Braintree & West Essex	51.11	27	69.25	4	53.38	31
Chelmsford	54.63	64	61.22	12	55.61	76
Clacton-on-sea	76.67	1	-	-	76.67	1
Coggeshall	36.33	6	42.00	2	37.75	8
Colchester & East Essex	46.72	205	53.22	65	48.25	270
Finborough	29.33	1	-	-	29.33	1
Halstead	45.03	34	59.50	6	47.15	40
Harwich, Dovercourt & Parkestone	44.23	82	73.59	19	48.45	101
Haverhill	67.61	39	65.00	18	66.83	57
Ipswich	54.17	192	57.74	29	54.62	221
Lavenham	43.20	2	-	-	43.20	2
Leiston	48.36	12	-	-	48.36	12
Maldon & Heybridge	61.43	17	65.80	6	62.40	23

Stowmarket	59.30	11	68.50	2	60.67	13
Terling	62.00	2	-	-	62.00	2
Tiptree	71.71	10	46.86	3	65.50	13
Walton	69.08	7	58.00	3	65.58	10
Wickham Market	54.36	6	-	-	54.36	6
Witham	84.36	6	37.00	3	67.65	9
Woodbridge	61.23	8	-	-	61.23	8
<b>Total</b>	<b>51.79</b>	<b>732</b>	<b>58.31</b>	<b>172</b>	<b>52.96</b>	<b>904</b>

### Southern Section Summary

Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
<b>56.67</b>	<b>5720</b>	<b>67.17</b>	<b>1386</b>	<b>58.90</b>	<b>7106</b>

### South Western Section

#### Cornwall District

	Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
Bodmin	46.27	8	36.00	2	44.11	10
Calstock	50.00	2	-	-	50.00	2
Darite	76.00	1	-	-	76.00	1
Delabole	51.45	6	-	-	51.45	6
East Cornwall	60.00	2	-	-	60.00	2
Falmouth	34.57	3	-	-	34.57	3
Liskeard, St Cleer & district	46.94	9	-	-	46.94	9
Menheniot	55.14	3	-	-	55.14	3
Pensilva	103.00	1	-	-	103.00	1
Penzance	63.00	3	-	-	63.00	3
St Austell	52.89	4	-	-	52.89	4
St blazey	44.75	4	-	-	44.75	4
St Columb Road	52.00	1	-	-	52.00	1
Saltash	51.17	12	48.67	3	50.67	15
Tokenbury Corner Coal	60.00	1	-	-	60.00	1
Truro	39.14	3	-	-	39.14	3
Wadebridge	31.82	6	-	-	31.82	6
<b>Total</b>	<b>48.99</b>	<b>69</b>	<b>43.60</b>	<b>5</b>	<b>48.63</b>	<b>74</b>

#### Devon District

	Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
Ashburton	40.55	6	48.50	2	42.67	8
Barnstaple	45.75	8	54.50	2	47.50	10
Bideford	51.83	6	-	-	51.83	6

Bovey Tracey	51.76	9	60.00	2	53.33	11
Brixham	45.13	12	40.00	3	44.07	15
Buckfastleigh	45.50	21	78.00	3	49.40	24
Chudleigh	31.50	2	-	-	31.50	2
Colyton	51.00	1	33.00	2	39.00	3
Cullompton	42.60	5	-	-	42.60	5
Exeter	47.05	55	70.10	10	50.62	65
Exmouth	47.33	5	-	-	47.33	5
Honiton	34.80	3	-	-	34.80	3
Ilfracombe	45.20	2	-	-	45.20	2
Newton Abbot	48.59	23	70.00	5	52.56	28
North Tawton	29.00	1	-	-	29.00	1
Ottery St Mary	35.33	2	-	-	35.33	2
Paignton	48.91	34	68.00	4	51.33	38
Plymouth Mutual	55.43	747	50.16	312	54.08	1059
Princetown	64.15	7	54.00	2	62.25	9
Sidmouth	40.50	5	-	-	40.50	5
South Molton	36.00	4	-	-	36.00	4
Tavistock	37.50	4	-	-	37.50	4
Teignmouth	55.71	11	57.50	2	56.00	13
Tiverton	45.79	10	53.25	4	48.00	14
Torquay	46.61	42	71.11	5	48.96	47
Totnes	70.00	3	-	-	70.00	3
<b>Total</b>	<b>53.97</b>	<b>1028</b>	<b>52.33</b>	<b>358</b>	<b>53.60</b>	<b>1386</b>
Productive Society: Plymouth Printers	-	-	48.13	16	48.13	16

### Somerset District

	<b>Dist. Wages</b>	<b>No. Wkr's</b>	<b>Prod. Wages</b>	<b>No. Wkr's</b>	<b>All Wages</b>	<b>No. Wkr's</b>
Bridgwater	46.00	23	56.73	6	48.19	29
Bristol	56.30	297	60.27	71	57.00	368
Bruton	30.00	5	35.00	2	31.54	7
Butleigh	56.00	2	36.67	3	44.40	5
Chard	48.26	33	41.67	7	47.28	40
Cheddar	22.50	2	-	-	22.50	2
Coleford (Highbury)	56.00	7	50.00	4	53.65	11
Crewkerne	41.44	18	-	-	41.44	18
East Harptree	33.50	4	-	-	33.50	4
Frome	59.08	8	60.00	4	59.43	12
Milborne Port	55.25	3	-	-	55.25	3
Oakhill	60.80	5	48.00	2	56.86	7
Portishead	60.18	5	74.40	3	64.63	8
Radstock	73.96	49	64.15	14	71.79	63
Shepton Mallet	53.76	18	35.71	4	50.68	22
Taunton	58.34	39	-	-	58.34	39
Templecombe	78.00	1	-	-	78.00	1
Twerton-on-Avon	54.12	34	52.94	9	53.88	43
Wellington	60.21	19	72.46	6	63.33	25
Weston-super-Mare	60.33	6	58.00	3	59.56	9
Yeovil	52.05	22	54.77	7	52.69	29
<b>Total</b>	<b>56.04</b>	<b>600</b>	<b>56.12</b>	<b>145</b>	<b>56.05</b>	<b>745</b>

## South -Western Section Summary

Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
<b>54.50</b>	<b>1697</b>	<b>53.40</b>	<b>508</b>	<b>54.27</b>	<b>2205</b>

## Western section

### Gloucester & Hereford District

	Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
Aston Magna	47.33	2	-	-	47.33	2
Bream	69.00	2	22.00	1	53.33	3
Cainscross & Ebley	56.02	54	44.79	22	52.73	76
Cinderford	48.98	46	46.81	14	48.46	60
Coln Independent	32.75	4	-	-	32.75	4
Frampton Cotterell	56.84	16	54.50	4	56.36	20
Gloucester	40.16	252	51.49	38	41.61	290
Hereford	52.05	18	62.71	7	54.98	25
Kemble	62.00	2	42.00	3	50.00	5
Llanidloes	54.25	4	43.20	3	50.00	7
Lydney	59.71	7	-	-	59.71	7
Malvern Industrial	60.67	6	61.50	2	60.88	8
Newtown	56.91	11	54.67	5	56.26	16
Stroud	53.82	66	57.81	16	54.60	82
Upper Lydbrook	59.00	2	63.00	1	60.33	3
Welshpool	39.20	3	-	-	39.20	3
<b>Total</b>	<b>46.18</b>	<b>495</b>	<b>51.29</b>	<b>116</b>	<b>47.13</b>	<b>611</b>

## Brecon, Monmouth & East Glamorgan District

	Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
Aberdare Workmen's	63.06	30	77.09	6	65.18	36
Abersychan & Talywain	59.07	34	69.33	4	60.41	38

Blaenavon	61.96	46	62.60	14	62.12	60
Blaina	68.23	155	63.36	28	67.40	183
Cardiff	64.57	48	83.00	6	66.35	54
Chepstow	44.67	9	62.50	2	47.91	11
Cradoc	68.00	1	-	-	68.00	1
Cwmbach & Aberaman	74.74	141	33.81	69	59.77	210
Cwmbran & Pontynewydd	107.56	6	57.00	1	98.36	7
Cwmtillyery	61.89	19	74.50	4	64.13	23
Ebbw Vale	71.31	35	71.17	6	71.29	41
Garndiffaith	51.73	10	87.00	1	54.67	11
Llanbradach	64.77	8	-	-	64.77	8
Newport	50.88	57	61.37	20	53.53	77
New Tredegar	73.93	17	41.60	2	69.18	19
Senghenydd & Aber Valley	61.08	14	56.00	2	60.21	16
Trecynon & Cwmdare	64.00	11	45.60	3	60.71	14
Tredegar	67.19	32	90.00	4	69.47	36
Treharris	62.42	18	72.22	4	64.52	22
Troedyrhiew	73.67	14	52.50	2	71.18	16
Ynysbwl	61.08	19	56.46	6	59.92	25
<b>Total</b>	<b>65.85</b>	<b>724</b>	<b>53.64</b>	<b>184</b>	<b>63.22</b>	<b>908</b>

### Glamorgan & West Wales District

	<b>Dist.</b>	<b>No.</b>	<b>Prod.</b>	<b>No.</b>	<b>All</b>	<b>No.</b>
	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>	<b>Wages</b>	<b>Wkr's</b>
Afan Valley	39.71	4	65.00	1	45.33	5
Alltwen & Pontardawe	78.62	15	16.23	13	49.13	28
Ammanford	67.33	3	-	-	67.33	3
Barry & district	58.13	8	50.67	3	56.09	11
Barry Dock Mutual	55.50	6	72.50	2	59.75	8
Briton Ferry	51.18	10	85.67	4	58.57	14
Bryn Colliery	62.00	2	-	-	62.00	2
Burry Port	69.33	3	-	-	69.33	3
Caerau & Spelter (Maesteg)	74.59	11	-	-	74.59	11
Cwmbwria	55.57	7	-	-	55.57	7
Cwmllynfell	89.00	2	-	-	89.00	2
Cymmer	79.80	5	-	-	79.80	5
Llanelli	65.33	6	-	-	65.33	6
Mid-Rhondda	69.92	8	-	-	66.92	8
Nantymoel	74.25	29	63.17	6	72.27	35
Neath Abbey	59.13	12	-	-	59.13	12
Pantdu	24.40	5	-	-	24.40	5
Pembroke Dock	44.20	20	45.60	8	44.57	28
Penarth	57.75	23	79.67	3	60.61	26
Penygraig	65.60	8	-	-	65.60	8
Pontardulais	60.94	10	-	-	60.94	10
Pontrhydyfen	57.67	3	-	-	57.67	3
Pontyberem	53.69	7	-	-	53.69	7
Pontycymmer	65.33	13	106.67	2	69.93	15
Pontrhyl	76.00	2	-	-	76.00	2
Swansea	58.33	3	87.33	2	68.00	5
Ton	60.62	35	54.50	13	59.07	48
Treboeth	66.86	4	-	-	66.86	4

Trimsaran	57.00	2	-	-	57.00	2
Ynshir & Watts Town	62.57	24	58.59	11	61.42	35
<b>Total</b>	<b>61.91</b>	<b>290</b>	<b>52.57</b>	<b>68</b>	<b>60.20</b>	<b>358</b>

### Western Section Summary

Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
<b>58.33</b>	<b>1509</b>	<b>52.64</b>	<b>368</b>	<b>57.19</b>	<b>1877</b>

### All Productive Societies

Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
-	-	<b>54.62</b>	<b>8331</b>	<b>54.62</b>	<b>8331</b>

### All English Wholesale Societies

Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
		<b>57.76</b>	<b>12472</b>	<b>57.76</b>	<b>12472</b>

### All Scottish Wholesale Societies

Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
		<b>47.70</b>	<b>4796</b>	<b>47.70</b>	<b>4796</b>

### Insurance Society (based Manchester)

Dist. Wages	No. Wkr's	Prod. Wages	No. Wkr's	All Wages	No. Wkr's
<b>98.61</b>	<b>106</b>	-	-	<b>98.61</b>	<b>106</b>

### Appendix 3 - Lee's occupational divisions and their categorisation for table 7.3<sup>3</sup>

#### Agricultural

1. Agriculture, forestry and fishing

#### Extractive

2. Mining and quarrying

#### Industrial

4. Coal and petroleum products
5. Chemicals and allied industries
6. Metal manufacture
7. Mechanical engineering
8. Instrument engineering
9. Electrical engineering
10. Shipbuilding and marine engineering
11. Vehicles
12. Metal goods not elsewhere specified
13. Textiles

#### Manufacturing

14. Leather, leather goods and fur
15. Clothing and footwear
16. Bricks, pottery, glass, cement, etc.
17. Timber, furniture, etc.
19. Other manufacturing industries
20. Construction

#### Service

3. Food, drink and tobacco
18. Paper, printing and publishing
21. Gas, electricity and water
22. Transport and communication
23. Distributive trades
24. Insurance, banking, finance and business services
25. Professional and scientific services
26. Miscellaneous services
27. Public administration and defence
28. Not classified<sup>4</sup>

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<sup>3</sup> The switch from registration to administration counties between 1891 and 1901 is accounted for in the population calculations

<sup>4</sup> This category embraces the sub-divisions and so is not included

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