POVERTY IN LONDON

1885 - 95

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by

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Preface

Poverty is a relative term. Therefore the first task in this study was to establish working definitions of "poverty" and the "poor" together with an estimate of the extent of poverty in London in our period. This task had already been done for us by Charles Booth in his great survey of the Life and Labour of the People in London. The problem was thus reduced to one of testing Booth's conclusions; this question is dealt with in Chapter I.

The rest of this work is concerned with describing the structure of poverty in London in our period. The end of that period is marked by the completion of the investigations carried out for the Industry Series of the Booth Survey, the beginning by the finish of the Royal Commission on the Housing of the Working Classes of 1884-5. The Booth Survey is the major source for our study, but the decade 1885-95 also saw a number of Royal Commissions and Select Committees on topics related to the structure of poverty. Indeed, the Parliamentary Papers of the period contain a wealth of material on our subject. It was not possible to utilize this material quite as fully as had been hoped because the microcards of the Parliamentary Papers did not arrive at Canterbury as expected. Consequently, the Papers had to be used during a somewhat extended visit to Wellington.

1 London, unless otherwise specified, means the area which was defined by the Registrar-General as London. This was almost exactly the same as the London County Council area formed in 1888.
However, it must be emphasized that this is not a thesis about the Booth Survey but a thesis about poverty in London in the decade 1885-95.

In this work there is a great deal of methodology which could scarcely be considered normal for an M.A. thesis in history. I must thank my supervisor, Dr. I.J. Catanach, not only for carrying out the normal functions of a supervisor with great helpfulness, but also for his readiness to allow me to go somewhat beyond the usual bounds of thesis methodology. Acknowledgements are also due to Professor G.W.O. Woodward for making worthwhile criticisms of the first three chapters and to Mr. G.N. von Tunzelmann for comments and suggestions on the aims and methods of Chapter I. Finally, my thanks to my mother for typing this work under great pressure in tea-breaks and other spare moments. This thesis is a "foreigner" in all senses of that word as it is used in New Zealand. Any solecisms and inaccuracies which remain are my own responsibility.
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Note on Abbreviations, etc.

The following abbreviations have been used:

GBPP: Great Britain Parliamentary Papers.

JRSS: Journal of the Royal Statistical Society.

First Series: Poverty [I]. 4 volumes [i-iv] and 1 volume of maps.
Second Series: Industry [II]. 5 volumes [i-v].

Tabulation of Statements: Condition of the Working Classes.
Rep. and Tabulation of Statements made by men living in certain selected districts in London in March, 1887; GBPP 1887 (C.5228) lxxi, 303.

The volume number of journals has been given only where there was more than one volume a year. In all other cases the year or years of the bound volume sufficiently defines the volume.
Chapter I

The Booth Survey and its Reliability.

"London, every Body knows, is a City extremely rich ... and yet the Town is crowded with Beggars."

Henri Mison, Memoires and Observations on his Travels over England, 1670-85.¹

It would not be much of an exaggeration to say that in the late nineteenth century the question of the nature and extent of poverty was, like Gladstone's understanding of his defeat in 1874, "drowned in a torrent of gin and beer". The great majority of social commentators confounded the question of poverty and the Problem of Drink to such an extent that, apart from a few "bitter cries",² the two became indistinguishable; poverty existed largely because the poor drank too much. Thus late Victorian social reform still tended to be concerned with reforming people rather than with the social conditions which had debased them.³ Some Victorians had advanced beyond such views, notably Edwin Chadwick,⁴ but it was not the least of Charles Booth's achievements that he was one of the pioneers in the formulation of new concepts concerning the origins of poverty. Booth perhaps made the most complete break with the rigidly moralistic approach to the problem of poverty and attempted to give an objective description of the causes and extent of poverty in the largest urban area in the world, London.

² The reference is to the pamphlet The Bitter Cry of Outcast London published by the London Congregational Union in 1883.
³ For a fuller discussion of this problem of drink see Chapter IV.
The paradox of the existence of poverty amidst plenty, which Missen had noted two centuries earlier, was one which concerned Booth deeply. His background was that of the Liverpool mercantile interests and hence of an essentially laissez-faire philosophy which stressed the inevitability of the existence of this paradox in a free enterprise society. Certainly the Nonconformist merchants of the north, Booth's father among them, accepted a concept of their responsibility to help the poor, but the question of the existence of poverty scarcely troubled them - every workshop, even the workshop of the world, had its waste products.

Though Booth never rejected in essence the individualist philosophy he was more conscious than most of his peers of the responsibility of wealth and more prepared to accept the logical consequences of this "doctrine of the inescapability of the responsibility of wealth and power". His experiences as a young man electioneering for the Liberals in 1865 in some of the poorest quarters of Liverpool led him to a period of self-doubt and rejection of authority which was to culminate in a complete breakdown of his health in 1872. If the religious principles of his age had led men to an acceptance of a system in which the rich man lived in his castle while the poor man nearly starved at his gate then those principles must be wrong.

Thus, out of Booth's almost self-destructive reappraisal of the assumption of his class and times, there arose what might be called

1 T.S. and M.B. Simey, Charles Booth: Social Scientist, p.16.
2 Ibid., p.29.
3 Ibid., pp.36-8.
the intellectual "predisposing factors" for the work of his pioneering survey. The occasion was to be the publication in the earlier 1880's of a number of estimates and interpretations of poverty in London. Booth considered these to be inexact and sensationalist. The most important of these publications were the London Congregational Union's *Bitter Cry of Outcast London* of 1883 (though the Simeys cast doubt on this as an influence on Booth's decision to undertake the survey)1) and the Social Democratic Federation's estimate in 1885 that as many as 25 per cent of the population were living in conditions of extreme poverty. This last was probably the decisive factor; Booth, as an opponent of socialist tendencies, was determined to undertake a more scientific survey which, he felt, would show the claim of Hyndman's group to be a gross exaggeration.2

The problem that now presented itself was, of course, how such a scientific survey was to be carried out. At preliminary meetings with some of Booth's friends, notably his wife's cousin, Beatrice Potter, it had been agreed that the task was one worthy of attention, but no tactical plan had emerged, only the overall strategy of describing poverty and its relationship to industrial conditions.3 The man who solved this problem was Joseph Chamberlain, at this time carrying on a rather strange courtship of Beatrice.4

1 Ibid., p.66. Even without documentary evidence it would seem a reasonable assumption that this pamphlet affected Booth's thinking.
2 Ibid., p.69.
3 Ibid., p.79.
4 For the story of this relationship see Peter Fraser, *Joseph Chamberlain*, pp.112-29.
Before the Royal Commission on the Housing of the Working Classes in 1885 Chamberlain had stated that he had found the School Board Visitors very useful when conducting an investigation into conditions of overcrowding in Birmingham.\(^1\) The Simeys state that the idea of using the records of these Visitors was merely conveyed to Booth by Beatrice,\(^2\) though she herself stated in her autobiography that Booth followed Chamberlain's suggestion without any mention of her own part in informing Booth of the idea.\(^3\)

Thus, unobtrusively, the great project began. It had already been decided that the East End of London should be investigated first, since this was generally agreed to be the area of greatest poverty.\(^4\) A preliminary survey of a sub-registration district containing about 20,000 people was made. The sub-registration districts were the smallest of the census districts. The largest were the ten divisions into which England and Wales were grouped; London formed a division which was split into thirty registration districts and then into 131 sub-registration districts. All these units varied greatly in size and the sub-registration district chosen was somewhat smaller than the average for such districts in London. The results and the method used in the investigation of the sub-district were submitted in October 1886 to Professor Alfred Marshall, the Cambridge economist, for criticism. Marshall's reply has been lost but "it was presumably

\(^1\) Housing of the Working Classes, R. Com. Mins. of Ev., p.443; GBPP 1884-5 (C.4402-1) xxx, 533.
\(^2\) T.S. and M.B. Simey, op. cit., p.80.
\(^3\) Beatrice Webb, My Apprenticeship, p.228.
\(^4\) T.S. and M.B. Simey, op. cit., p.80.
encouraging since Booth promptly extended his inquiry to cover the whole of the Tower Hamlets" School Board Division. Excluding the City of London there were ten School Board Divisions in London, each being the unit of administration of elementary education in its area.

The Tower Hamlets Division comprised the registration districts of Whitechapel, St. George's-in-the-East, Stepney, Mile End Old Town, and Poplar with a population estimated to be somewhat in excess of 450,000 in 1889.

By June 1887 Booth was ready to lay the results of the inquiry into the Tower Hamlets School Board Division before the Royal Statistical Society. Booth was a member of the Society and had read a paper to it the previous year. The Society had been founded in 1834 as the Statistical Society of London and it published the first volume of its Journal in 1838. It became the Royal Statistical Society in January 1887 and the Journal for that year tells us that the objects of the Society were to "collect, arrange, digest, and publish facts illustrating the condition and prospects of society in its material, social, and moral relations; these facts being for the most part arranged in tabular forms and in accordance with the principles of the numerical method". Thus Booth was very much on home ground in the Society. His paper on the Tower Hamlets was in

1 Ibid., p.86.
2 LL, I, ii, Appendix, Table II.
3 "Occupations of the People of the United Kingdom, 1841-81, being a re-statement of the figures given in the Census returns arranged to facilitate comparison", Journal of the Statistical Society, 1886, p.314.
5 "The Inhabitants of the Tower Hamlets (School Board Division), their Conditions and Occupations", JRSS, 1887, p.326.
the nature of a trial run; Booth was conscious of its imperfections but felt the time had come for his methods and aims to be submitted to more expert scrutiny.  

The discussion on the paper must have disappointed Booth to some extent. The distinguished members of the Royal Statistical Society showed themselves to have, on the whole, little more knowledge of the conditions of the poor than most of their wealthy contemporaries. Professor Leoni Levi, one of the most prominent economists and statisticians of the century, had the "impression" that "poverty proper in the district which had been described was more frequently produced by vice, extravagance, and waste, or by unfitness for work, the result in many cases of immoral habits, than by real want of employment or low wages". To be fair it must be stated that Levi also suggested that some attempt should be made to include lower class budgets, a suggestion which Booth followed with valuable results.

But Levi's criticism did scant justice to Booth and his associates and showed all the defects of that "a priori reasoning" of political economists on the subject that Booth deplored. The thirty-four School Board Visitors had been questioned for an average hours on the information that was to be found in their routine notebooks, and this information was checked, where possible, by obtaining a return

1 Ibid., pp. 327, 375, 401.
2 See JRSS, 1887, pp. 392-401.
3 Ibid., p. 394.
4 See LL, I, i, pp. 131-145.
5 "The Inhabitants of the Tower Hamlets", p. 376.
6 LL, I, i, p. 25.
from the rent collectors for the main blocks of buildings in the
area and by using the information contained in the police records
of the registered common lodging houses. 

The basis of the structure that was now beginning to be built
was the information furnished by the School Board Visitors, sometimes
known as the school attendance officers. It was the function of
these Visitors to check on absenteeism and, more significantly, to
assess the claims of particular families to a remission of the school
fees. The Visitors performed a house-to-house visitation and they
kept records of every house in every street, with details of every
family in which there were children of school age. The scheduling
of the children began two or three years before they reached school
age and records remained in the Visitors' books after the children
left school. According to Booth the Visitors had "a very considerable
knowledge of the parents of the school children, especially of the
poorest amongst them, and of the conditions under which they live". 

No doubt the Visitors varied in quality, while new men may not have
been as knowledgeable about their district as men with many years'
experience of the same area (although it seems reasonable to assume
that they would still have their predecessors' notebooks). But we
must agree that these Visitors provided the closest approximation
to the modern field worker that existed in Booth's time. Certainly
those Visitors who appeared before the Royal Commission on the Housing

1 "The Inhabitants of the Tower Hamlets", p.379.
2 Lk, I, i, p.5.
of the Working Classes of 1884-5 demonstrated their ability to answer specific questions about particular streets and houses.¹

The information provided by these men was checked in a variety of ways when the scope of the survey was widened to the whole of the metropolis. As we have already seen, each Visitor was cross-examined by Booth or one of his secretaries, a process in which neither the investigator nor the Visitor knew what the shape of the final structure would be and in which the prejudices of the various people involved tended to cancel each other out according to Beatrice Webb, who had attended some of these interviews.² Then a first draft of the famous "poverty map" was drawn up. On this the various streets, or parts of streets (if they were long and varied widely in character), were coloured in the appropriate shade to denote their social character (starting, of course, with black). This draft was revised by Booth and his secretaries, who inspected each street to judge its outward appearance, and by the Visitors themselves. Further revision was carried out by the parish relieving officers of each Poor Law Union, the members of the Charity Organisation Society, the police (for the streets coloured black), and the clergy and their district visitors "for most of the poorer part".³

To help him in the work of the survey Booth had a growing team of helpers. For the interviews with the School Board Visitors he

3 LL, I, ii, pp.16-17.
used members of his own office staff, notably Jesse Argyle and G.E. Arkell who were also to play an important part in the series of investigations on the Industries of London. For the special topics that were included in the Poverty Series a number of outside helpers were recruited. The first of these was, naturally, Beatrice Potter who wrote on the Jewish Community in East London and the organization of the docks. Another early recruit was Hubert Llewellyn Smith (1864-1945) who was one of the men from Toynbee Hall to join Booth's team. Smith, the son of a Quaker grocer, gained a first class in mathematical moderations in 1884 and a first class in the final school of mathematics in 1886 at Corpus Christi, Oxford. In 1893 he joined the Board of Trade and rose to the position of permanent secretary in 1907. He was responsible for the organization of the labour exchanges, national insurance, and, in 1915, the Ministry of Munitions. From 1928 to 1935 he was the director of the New Survey of London Life and Labour. Another Toynbee Hall man who was to play an important part, after Booth himself, was Ernest Aves (1857-1917). Aves's first piece of work in the survey was a chapter on the furniture trade in the East End. In the Industry Series he did the whole section on the building trades and wrote about half of the concluding volume. Aves had gained a first class in the Moral Sciences Tripos in 1883 at Trinity College, Cambridge. Throughout the period 1886-97 he was a resident at Toynbee Hall. He was later to become an important civil servant reporting on the Wages Boards and Industrial Conciliation and Arbitration Acts of
Australia and New Zealand for the Home Office and carrying out special enquiries for the Board of Trade. Another man who helped Booth and later rose to prominence in the civil service was T. Graham Balfour (1858-1929). Balfour carried out a survey of Battersea using the same methods that Booth had applied in the East End. Although trained as a lawyer he became a prominent leader of educational movements and became general director of education in Staffordshire.

Other persons of high ability involved in the survey were Clara Collet, G.H. Duckworth, Esme Howard, S.N. Fox and D.F. Schloss. Clara Collet was one of the first women graduates of the University of London and was later to be responsible for parliamentary returns on women's work. Duckworth, later Sir George, did much of the work in the Industry Series and afterwards "distinguished himself in the Government service in various capacities". He brought in his friend, Esme Howard, who spent much of his career in the Foreign Office and who became a Privy Councillor, Ambassador to Washington (1924-30) and first Baron Howard of Penrith. Fox and Schloss were both lawyers and both wrote chapters on the sweating trades in East London for the Poverty Series. Schloss was also a leader of the Jewish community.

Although the fact that these men and women of high talent worked on the Survey proves that the whole Survey was not a "one-man job" but a collection of possibly divergent views, the actual work of assessing the extent of poverty in London was completed by Booth and

1 The Simeys confuse Balfour with his father Dr. T. Graham Balfour (1813-91) who chaired the meetings of the Royal Statistical Society for Booth's papers on poverty (see T.S. and M.B. Simey, op.cit., p.111n).
his secretaries unaided (with the exception of Balfour's work in Battersea). The methodology and results of this great inquiry must now be examined.

Booth first had to devise some means of classifying the vast amount of information which had been collected. This he did by dividing the population into four main classes with two sub-groups in each. The classes were:

"A. The lowest class of occasional labourers, loafers, and semi-criminals.

B. Casual earnings - 'very poor'.

C. Intermittent earnings ) together the 'poor'.

D. Small regular earnings )

E. Regular standard earnings - above the line of poverty.

F. Higher class labour.

G. Lower middle class.

H. Upper middle class."

Although there was supposed to be some qualitative difference between classes A and B in that the first class was bordering on the criminal, we may take them together as the "very poor". Classes C and D form the "poor", Classes E and F the comfortable working classes and classes G and H the middle classes. Thus those "in poverty" consisted of classes A to D inclusive and Booth's famous invention, the "poverty line", was drawn between classes D and E. Booth's

1 LL, I, i, p.33.
definitions of the very poor and the poor are worth quoting in toto for they have led to some confusion.

"By the word 'poor' I mean to describe those who have a sufficiently regular though bare income, such as 18s to 21s per week for a moderate family, and by 'very poor' those who from any cause fall below this standard. The 'poor' are those whose means may be sufficient, but are barely sufficient, for decent independent life; the 'very poor' those whose means are insufficient for this according to the usual standard of life in this country. My 'poor' may be described as living under a struggle to obtain the necessaries of life and make both ends meet; while the 'very poor' live in a state of chronic want. It may be their own fault that this is so; that is another question; my first business is simply with the numbers who, from whatever cause, do live under conditions of poverty or destitution".1

Clearly Booth's definitions were flexible ones. The poverty line was not marked at 21s per week, though Booth has often been interpreted in this way. The poverty line was drawn between those who could barely manage to sustain a "decent independent life" according to the "usual standard of life" in a particular place and time (England in the 1880's and 1890's) and those who could sustain such a life with relative ease. That the line of poverty was not a rigid one (and therefore valueless) is conclusively demonstrated in the final volume of the Industry Series where Booth, after analyzing the wages returns for the eighty-nine trade groups into which he had divided the population, decided that his earlier figure of 21s was too low.2 In fact later analysis in this work will strongly suggest that it is almost impossible to give such a wage equivalent, certainly on the basis of the wages-returns that Booth and his fellow

1 Ibid.
2 Lib, II, v, p.25.
investigators obtained.\textsuperscript{1}

Of course an objection may be raised immediately: Booth's definitions may sound acceptable but did they mean anything in practice. Certainly Booth recognized that his divisions into classes would necessarily be arbitrary.\textsuperscript{2} Moreover, some such classification has to be made if one is to be able to talk in terms of anything more than the vaguest generalities. Classification may lead to some distortion; it is sometimes avoided by those nervous of the results of categorizing people, fearful that in some way it will tarnish the greatness of the individual man. But classification is frequently too useful a tool to be discarded. The a priori arguments which sometimes form a substitute for criticism in modern historiography\textsuperscript{3} must be discarded. The question is not "to categorize or not to categorize" but whether or not the given categorization is a useful and meaningful one.

Criticism which immediately carps at the definitions made by Booth is pointless but criticism which asks whether or not Booth successfully carried out his plan is not. However, we are immediately faced with the problem that the accuracy of the figures contained in the Survey is difficult to check - there is nothing comparable to the Survey which would provide us with an independent assessment of the extent of poverty in London. The vague, casual estimate provides no possible corrective but merely demonstrates the abysmal ignorance

\textsuperscript{1} See below, Chapters II and III.
\textsuperscript{2} \textit{LL}, I, i, p.33.
\textsuperscript{3} For example see Herbert Butterfield on the "Namierite method" in \textit{George III and the Historians}. 
of Booth's contemporaries and the pioneering nature of his work. Thus some of the normal methods of historical analysis, of balancing the evidence contained in various sources (or, to put it more cynically, of safely steering a via media between conflicting viewpoints), scarcely apply to the figures that Booth gives for the extent of poverty in London. It is clear that Booth's work must be approached in a different way: one must look for internal evidence which will either confirm or cast doubt upon the work's reliability. The lower hurdles have perhaps already been cleared: Booth's sources of information were probably the best available and he approached them with a critical eye, while his system of classification would seem a sensible one, in theory at least. But the high hurdles of successful achievement have yet to be attempted.

* * *

The result, meaningful or not, of the great survey was to classify the population of London as follows:

Table 1a: Charles Booth's Classification of the Population of London. 1

<table>
<thead>
<tr>
<th>Classes</th>
<th>Excluding those in institutions</th>
<th>Including those in institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>A and B</td>
<td>8.4 per cent</td>
<td>9.4 per cent</td>
</tr>
<tr>
<td>C and D</td>
<td>22.3 per cent</td>
<td>22.7 per cent</td>
</tr>
<tr>
<td>E and F</td>
<td>51.5 per cent</td>
<td>50.5 per cent</td>
</tr>
<tr>
<td>G and H</td>
<td>17.8 per cent</td>
<td>17.4 per cent</td>
</tr>
</tbody>
</table>

1 From LL, I, ii, pp.21, 24.
Thus 32.1 per cent of the total population and 30.7 per cent of the population not in institutions were classified as living in poverty. But in fact what Table 1a shows is the proportion of the population with at least one child in the age group three to thirteen which was living in poverty. For Booth had assumed, for the purposes of compiling statistics, that "as is the condition of the tested part ... so is the condition of the whole population".\(^1\) Now the tested part consisted of those families containing at least one child in the specified age-group. It could well be questioned whether or not this "tested part" was representative of the whole population.

These doubts are not in any way dispelled by the fact that Booth was unusually vague about the proportion this sample bore to the whole population. In the paper on the Tower Hamlets Division he estimated the proportion at "from half to two-thirds of the whole population"\(^2\) including the children, heads of families, their wives, and other children wholly or partly dependent on the heads of families. In the first volume of the Survey this estimate drops to "fully one half".\(^3\) The lower figure seems scarcely credible in an age of high mortality (and hence of few old people, many of whom would in any case be in institutions) and large families. It would be statistical casuistry to classify various members of the same household in different classes - the family must be taken to be the unit of poverty. Even the higher figure of two-thirds would seem a conservative estimate of the tested proportion.

\(^1\) LL, I, i, p.5.
\(^2\) "The Inhabitants of Tower Hamlets", p.328.
\(^3\) LL, I, i, p.5.
This is an important question for Booth believed, possibly correctly, that in fact the general condition of the population - including those families without any children in the three to thirteen age range - was somewhat better than that of the tested part.\(^1\) There is a worrying element of doubt introduced here - what if the condition of the untested part was substantially different from the condition of those dealt with by the School Board Visitors? This confusion is not diminished by the fact that whereas in the examples of streets given in the first volume of the Poverty Series those families without children in the specified age group had no classification assigned to them,\(^2\) those in the second volume\(^3\) and the families in the sample blocks of buildings described in the third volume\(^4\) were classified. These classifications were carried out only for the sample streets and blocks of dwellings and were ignored in the final estimate since Booth reiterates that it is upon the school children (he includes those of just pre-school age in this rather misleading term) that the final figures are based.\(^5\)

But the data on the sample streets and blocks of dwellings given in the second and third volumes make it possible to resolve these doubts. We took a count of 5822 classified persons,\(^6\) of whom 4610 (77 per cent) belonged to families in which there was at least one

1 Ibid.
2 See LL, I, i, pp.7-24.
3 See LL, I, ii, pp.46-225.
4 See LL, I, iii, pp.48-57.
5 LL, I, ii, p.16.
6 Not all the streets could be counted since some were described in greater detail by Booth, omitting the classifications and sizes of the individual families.
child aged three to thirteen. Of these 4610, 28.5 per cent were
classified by Booth as "very poor" and another 41.2 per cent as
"poor", making 69.7 per cent living in poverty. The corresponding
figures for the 1212 persons living in families with no such children
were 18.0 per cent, 39.6 per cent, and 57.6 per cent. Clearly there
is a significant difference between these two groups but the figures
for all 5822 persons were 26.5 per cent, 40.9 per cent, and 67.4 per
cent. These figures are not substantially different from those of
Booth's "tested part". Moreover, the sample is clearly not repre-
sentative and the direction of the error introduced by this fact is
undoubtedly towards exaggerating the difference between the two sets
of figures. The figures for the total number of families with
children in the three to thirteen age range in London were 8.4 per
cent, 22.3 per cent, and 30.7 per cent. Thus in the selected
streets and blocks of dwellings there was a very high over-represent-
ation of the very poor and a high over-representation of the poor.
Among these groups large families tended to be the rule and so the
picture is somewhat distorted. If the same relative reductions from
the "tested part" to the total population found in the sample streets
and blocks of buildings applied to the whole of London, then the
figure of 8.4 per cent for the very poor would be reduced to 7.8 per
cent, and the 22.3 per cent of the poor to 22.1 per cent, giving 29.9
per cent living in poverty, or a reduction of 0.8 per cent. Further-
more, the difference in wealth between those with school children and
those without seemed most marked in the poorest streets (which, it
must be repeated, were greatly over represented in the sample) and less so in Booth's "purple" and "pink" streets which better represented the general run of London's working-class streets. This analysis of sample streets and blocks, therefore, appears to show that even the small error of 0.8 per cent which Booth's method appears to have introduced is probably an over-estimate of the actual error.

The last methodological hurdle has thus been cleared but there still remains the general question of the reliability of the figures Booth presents. Booth attempted to apply a number of tests himself. The first of these was an attempt to get the teachers in the elementary schools to classify their classes according to social status. Booth was hopeful that from the "regularity or irregularity of attendance, the condition in which the children come to school, the demands for remission of fees, and in many other ways, the teachers can, and usually do, acquire a very considerable knowledge of the parents, and a fair idea of the character of the home". The results of this investigation must have alarmed him:

Table 1b: Classification of London Children by Teachers in Elementary Schools.

<table>
<thead>
<tr>
<th>Classes</th>
<th>Board Schools</th>
<th>Voluntary Schools (Protestant)</th>
<th>Voluntary Schools (Catholic)</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td>A and B</td>
<td>15.3%</td>
<td>6.5%</td>
<td>23.5%</td>
<td>13.2%</td>
</tr>
<tr>
<td>C and D</td>
<td>44.3%</td>
<td>19.6%</td>
<td>46.8%</td>
<td>37.4%</td>
</tr>
<tr>
<td>E and F</td>
<td>39.9%</td>
<td>73.9%</td>
<td>30.5%</td>
<td>49.4%</td>
</tr>
<tr>
<td>Total</td>
<td>441,609</td>
<td>175,417</td>
<td>32,525</td>
<td>649,551</td>
</tr>
</tbody>
</table>

1 LL, I, iii, p.195.
2 From LL, I, iii, p.199.
Excluding the small number of children from classes G and H present in the above sample and scaling the rest in order to total 82.2 per cent for classes A to F (the total derived from the Visitors' reports), then 45.0 per cent of the population was classified as being in poverty by the teachers, 11.8 per cent being classified as very poor.¹ These figures, especially those for the poor, were substantially in excess of those derived from the School Board Visitors. However, this is not as serious a situation as it might at first appear. Firstly, the teachers were only asked to state the proportions of the various classes to be found among their pupils. As Booth said, "in such general statements there will be a tendency to exaggeration".² This is especially likely since the teachers brought to the school a set of middle-class values which ill-fitted them to understand the working-classes.³ Clearly Booth's test had failed. The difference between the estimates based on the information supplied by the School Board Visitors, who were full-time officials working amongst the poorer classes, and the estimates of the school teachers is understandable and it would seem incorrect to doubt the accuracy of the survey on the basis of the latter estimates. On the other hand, it cannot be claimed that the accuracy of the survey was confirmed by these estimates. But certainly we do not need to introduce the large element of doubt that Booth almost unconsciously did when he stated that "the teachers in distinguishing between class

¹ From LL, I, iii, p.200.
² Ibid., p.201.
³ For a study of this problem in modern grammar schools see Brian Jackson and Dennis Marsden, Education and the Working Class, passim.
and class may have drawn the lines of demarcation somewhat above the levels we have attempted to maintain. A very little change as to this would be enough to throw large numbers down from E to D and C, or from C to B.\(^1\)

Booth's attempt to give substance to his figures by examining thirty selected families and their income and expenditure was more successful.\(^2\) The first case was a family of five - a sick dock labourer, his consumptive wife, and 18 year old son and two girls aged 8 and 6. The family lived in two rooms, neither more than 10 feet square and their diet consisted largely of bread, margarine, tea, and sugar. In five weeks only 3 lbs. of meat were bought.\(^3\) Disturbing as it was, this case was by no means the worst that could be found in class B.\(^4\) The fifth case, also from class B, was that of a less unfortunate family. Yet even here "the only luxury (?) [was] an occasional bottle of ginger beer".\(^5\) The sixth case\(^6\) Booth regarded as fairly typical of those on the dividing line between class B and classes C and D. The man was a dock labourer earning 20s to 21s a week. His wife occasionally did some work but was usually busy with their five children under 10 years of age. There was also a daughter, a domestic servant, who still received money and clothes from home. In five weeks the family consumed 40 lbs of meat,

1 LL, I, ii, p.201.
2 These family budgets are analyzed more fully in Chapter II.
3 LL, I, i, p.140.
4 Ibid., p.141.
5 Ibid., p.143.
6 Ibid., pp.143-4.
25 lbs of fish, 150 lbs of potatoes, 172 lbs of bread, 15 lbs of flour, 6 or 7 lbs of butter, and 36 lbs of sugar, "besides minor matters. This may not be choice fare, but there is something like plenty about it". It might seem so to Booth when such a long period is considered, but when broken down to the daily consumption of a family of seven (3 oz of butter, 18 oz of meat, 11 oz of fish, 69 oz of potatoes, 79 oz of bread per day) then there seems little of plenty about it except for the large consumption of bread and potatoes. The ten cases of class C and D families seem a little, thought not much, better. Bacon, eggs, and cheese were sometimes bought.¹ The proportion of the family budget spent on bread tended to fall. These tendencies increased in the ten cases of class E and the four of class F. In the six class B families 13.4 per cent of the total income was spent on bread alone, this figure dropping slightly to 11.5 per cent in the ten class C and D families and to 7.7 per cent and 7.2 per cent for the ten class E and four class F families respectively.

The general impression to be gained from the thirty budgets presented by Booth is that there existed definite differences between the classes, though with some overlapping in the various divisions of expenditure (food, rent, etc.) Most importantly, the family budgets show that the classification system used was flexible and was not merely an attempt to describe the distribution of income. Further than that it would be perhaps dangerous to go, except perhaps to state

¹ See LL, I, i, table xx, pp.135-6.
that by present day standards it would appear unlikely that the original survey overstated the amount of poverty - it is apparent that "the usual standard of life" in Booth's time was still a low one.

Booth himself was clearly dissatisfied with the tests of reliability that he was able to apply in the Poverty Series. The 1891 Census provided him with much additional information and it was this information which was to give him what he regarded as the conclusive test of the great survey. In the Census of that year the people were, for the first time, asked to state how many rooms they lived in. Although the word "room" was not defined - and therefore different people probably placed different interpretations upon it - this is not the problem that it might appear since the poor usually lived in only one or two rooms with no extra rooms such as kitchen, laundry, bathroom, or lavatory. Using the Census information Booth was able to construct the following table:

Table 1c: Accommodation Conditions in London, 1891.1

<table>
<thead>
<tr>
<th>Description</th>
<th>Percentage of the population</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 or more persons per room</td>
<td>12.0 (Crowded)</td>
</tr>
<tr>
<td>2 and under 3 persons per room</td>
<td>19.0</td>
</tr>
<tr>
<td>Common lodging houses, etc.</td>
<td>0.5 19.5 31.5</td>
</tr>
</tbody>
</table>

1 From LL, II, i, p.10.
1 and under 2 persons per room      23.4
Less than 1 person per room         3.7
Occupying more than 4 rooms        23.9
Servants                           5.0
Persons living in large shops,etc. 0.4
4 or more persons to 1 servant      5.5
3 or less persons to 1 servant      6.0
Inmates of hotels and boarding     0.6
houses where servants kept

Thus, setting the level of "crowding" at two or more persons per room, the percentage of the population, excluding those living in institutions, classified as "crowded" (31.5) was very nearly the same as that classified as living in poverty (30.7). Moreover, those living 3 and under 4 per room were divided into two by Booth, one half being added to those living 4 or more persons per room and one half to those living 2 and under 3 persons per room and an even more startling connection emerged. The lower section of the crowded then totalled 340,000 persons (compared to 354,000 previously classified very poor) and the upper section 934,000 persons (compared to 938,000 classified poor).¹

The correspondence between the poverty figures and the crowding figures was impressive, but it must be emphasized that Booth had really been very lucky. Although the crowding level that he set became accepted² it was as arbitrary as any of the definitions used in the Poverty Series. It might well have been found that the

¹ LL, II, i, p.13.
² It was, for example, used in the 1931 Census though the 1935 Housing Act set more rigorous standards (see Sir Gwilym Gibbon and Reginald W. Bell, History of the London County Council 1889-1939, pp.384-5).
percentage of the population in poverty corresponded to the percentage living more than 2.31 persons, say, to a room. It was convenient that the correspondence should come at an integer but, and Booth never realized this, no great significance could be attached to this fact by itself.

* * *

Thus criticism must be made even of the one test of reliability that it seems Booth felt was conclusive. To test his figures other methods will have to be adopted, though Booth himself provided some of the necessary data for the following analysis. This he did in the paper he read before the Royal Statistical Society in 1893.¹

In this paper Booth presented a crowding index, which was the percentage of the population living two or more to a room in each of the registration districts of London in 1891; the average birth rate in each registration district for the ten years 1881-90; the average death rate in each district for the six years 1885-90; an early marriage index, which was the number of married females under 25 per 10,000 of the population in each registration district in 1891; and the rate of natural increase in the registration districts. This last was shown to bear no relationship to the percentage of poverty in the registration districts, but the other indices appeared to bear a relationship and thus could well have provided the independent tests that Booth had been seeking.

For some reason Booth dropped all these tests, except the version of the crowding index for the whole of London which has already been examined, when he came to write the Industry Series.¹ It is possible that he felt that he could not demonstrate as adequately as he would have wished the relationships between the indices. Booth was a careful tabulator of facts but in his statistical reasoning he often showed great naivete. For example, as the percentage crowded and the percentage in poverty for the whole of London were very nearly equal Booth seems to have felt that some such neat relationship of equality should hold for all the registration districts. This apparent naivete is, of course, due to the fact that Booth did not have at his disposal the necessary statistical tools to deal with the material that he had culled from the 1891 Census. Although theoretical statistics had made some advances by Booth's time the major practical applications were yet to be made. The main interest of statisticians until the end of the nineteenth century still seems to have lain in the normal probability curve and its applications to hypothesis testing.² The principle of fitting a line to bivariate data had been discovered as far back as 1805 by the great French mathematician Legendre, but the name regression line was not given to this technique of curve-fitting for more than a century after Legendre's discovery. Moreover, correlation analysis was not developed

¹ See LL, II, i, chapter I. The Simeys do not mention the additional data that was included in the 1893 paper (see T.S. and M.B. Simey, op. cit., pp.121-3).
to any degree of sophistication until this century.

Even some of Booth's contemporaries who were professional statisticians showed themselves to possess a rather primitive ability to deal with data. Thus Robert Giffen, President of the Statistical Society 1882-4 and chief of the statistical department of the Board of Trade, was prepared to argue in 1885 that by 1985 the population of the English race would be nearly 1,000 millions, merely on the basis of the overall increase between 1788 and 1885. Booth, therefore, cannot be in any way criticized for not using the methods which were not available in his day.

However, the modern techniques of regression and correlation which have over recent years been applied by the new breed of econometric historians may also be applied to social history. Using these techniques it is possible to test Booth's figures much more adequately than has been attempted so far. Table 1d sets out the necessary data:

<table>
<thead>
<tr>
<th>District</th>
<th>Poverty per cent</th>
<th>Crowding Young per cent Married Females</th>
<th>Birth Rate</th>
<th>Death Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>St. George's East</td>
<td>48.9</td>
<td>57</td>
<td>254</td>
<td>40.2</td>
</tr>
<tr>
<td>Holborn</td>
<td>48.9</td>
<td>55</td>
<td>209</td>
<td>36.2</td>
</tr>
<tr>
<td>Whitechapel</td>
<td>39.2</td>
<td>54</td>
<td>242</td>
<td>35.1</td>
</tr>
<tr>
<td>Bethnal Green</td>
<td>44.6</td>
<td>49</td>
<td>223</td>
<td>40.1</td>
</tr>
<tr>
<td>Shoreditch</td>
<td>40.2</td>
<td>49</td>
<td>217</td>
<td>38.4</td>
</tr>
<tr>
<td>St. Saviour</td>
<td>43.4</td>
<td>42</td>
<td>213</td>
<td>36.7</td>
</tr>
<tr>
<td>St. Olave</td>
<td>42.2</td>
<td>35</td>
<td>240</td>
<td>37.8</td>
</tr>
</tbody>
</table>

2 For an attempt to explain these techniques see the Appendix.
Stepney     I     38.0  39  206  36.4  26.7  
Fulham         0  36.5  30  191  38.3  21.8  
Mile End Old Town  I     26.1  35  229  38.3  21.9  
St. Pancras    I     30.4  41  185  32.2  21.5  
Greenwich      0  36.8  19  170  34.8  20.6  
Strand, etc.    I     28.5  38  159  27.5  26.6  
Chelsea         0  24.5  30  160  34.4  22.0  
Islington      0  31.2  31  173  32.4  19.6  
Lambeth         0  26.1  26  172  34.5  20.7  
Fulham         0  24.7  24  171  35.6  20.1  
Woolwich        0  24.7  18  191  33.4  18.6  
Camberwell     0  28.5  18  151  33.8  19.2  
Wandsworth      0  27.4  17  141  33.4  18.2  
Marylebone      I  27.4  40  152  28.0  23.2  
Hackney        0  23.1  18  152  31.6  18.4  
St. George, Hanover Square     I  21.6  28  126  24.4  21.1  
Paddington      0  21.7  27  131  25.8  18.1  
Kensington      0  24.7  26  124  24.8  18.8  
Lewisham        0  18.1  7  105  27.8  14.5  
Hampstead       0  13.5  16  104  23.4  14.6  

Table 1d is a modified version of the Appendix to Booth's 1893 paper. A number of points in the Table need to be explained. Firstly, only 27 registration districts are included instead of the full 30 into which London was divided. Following Booth the City of London has been omitted as "its population is so abnormal as to yield no results useful for comparison". The population of the City was declining at such a rapid rate that all other demographic factors were likely to be thrown out of joint. Moreover, Booth did not give the number of married females under 25 per 10,000 of the population in the City; on this ground alone the City of London would have to be excluded. The other alteration that Booth made was to amalgamate the three registration districts of the Strand, St. Giles and Westminster because they were contiguous, small, and because Booth did not have...
a complete set of separate figures for each of these districts.¹

The second point that requires explanation is the fact that an I or an O has been placed by the name of each district. An I denotes that the district was in the Inner circle, an O that it was in the outer circle of London. The division of the districts into inner circle and outer circle follows that of the Registrar General in the 1891 Census. Unfortunately three districts² straddle the dividing line - Marylebone, St. Pancras, and Lambeth. The first two were classified as inner circle as most of their sub-districts lay in the inner circle and both districts showed all the characteristics of inner circle areas (for example, in the decade 1881-91 the population of St. Pancras declined by 0.8 per cent and that of Marylebone by 8.0 per cent, while the population of all London increased by 9.7 per cent). Lambeth was classified as outer circle, mainly because of its geographical position. Its characteristics were all typical of London as a whole and therefore no great error will have been introduced by a possible mistake in classification. Thus there are 14 outer and 13 inner circle districts. 62 per cent of the population lived in outer and 38 per cent in inner London.³ We may now proceed to analyze the figures contained in Table 1d.

The scatter diagrams constructed from Booth's Crowding Index (C) and the Poverty Index (P) are given in Diagrams 1.1 and 1.2. The

¹ Ibid.
³ Ibid.
Diagram 1.1 - Scatter-diagram of Booth's Poverty Index and the Crowding Index.
Diagram 1.2 - Scatter-diagram of the Crowding Index and Booth's Poverty Index.
first point to notice is that the correspondence between the inner circle registration districts (marked I on the diagrams) and high crowding is more marked than that between these districts and a high percentage of poverty. Of the 13 inner circle districts 12 have a higher crowding figure than any of the outer circle districts. For the poverty index this number drops to 8.

The equation of the regression line for diagram 1.1 is
\[ C = -2.4357 + 1.1159P \]
the correlation coefficient being .790, which is significant at the .001 level. This equation is not greatly different from the simple equation
\[ C = P \]
for which the correlation coefficient is .766. This does not demonstrate very well the fact that in the central areas the percentage crowded tended to be greater than the percentage in poverty and that in the outer areas the reverse tended to be the case. It should be noticed also that the regression line does not divide the inner and outer circles evenly; only four of the outer circle areas lie above the line and only three of the inner circle areas below it. The regression line for Diagram 1.2,
\[ P = 13.1007 + .5607C \]
demonstrates better the relationship between the poverty index and the crowding index. This equation obviously differs substantially from the simple relationship
\[ P = C \]
for which the correlation coefficient is only .478.

1 In the final presentation the coefficients in these equations have been taken to only four places of decimals.
That the relationship between the crowding index and the poverty index follows the pattern already suggested is best demonstrated by forming the linear regression for the difference between C and P and nP, where n = +1 for inner circle districts and -1 for outer circle districts:

\[ C - P = 0.3529 + 0.1568nP \]

hence \[ C = 0.3529 + P + 0.1568nP \quad n = \pm 1 \]

The last equation yields a high correlation coefficient of 0.874, substantially in excess of the ordinary linear correlation coefficient (0.790). This is probably as high a correlation as could be expected between the crowding index, which obviously is a reasonably valid measure of poverty, and the poverty index. Moreover, the relationship that has been demonstrated corresponds to the relationship which we would expect to find if the poverty index is a reliable one - that is, if it accurately measures what it purports to measure. The pressure of population in the inner areas would tend to make the crowding figures higher than might normally be predicted from the amount of poverty in the areas, and vice versa for the outer areas. Thus the first test has proved successful - a high correlation between the crowding index and the poverty index has been established.

Given this high correlation between the poverty index and the crowding index and assuming that both are valid measures of poverty, then it was considered worthwhile to test these two indices against other indices to see which of the two showed the better relationship.
The first of these indices is the early marriage index, that is the number of married females under 25 years of age per 10,000 of the population in each of the 27 registration districts.

The equation of the regression line for the poverty index and the early marriage index (see Diagram 1.3) is

$$MF = 61.4673 + 3.7234 \times P$$

the correlation coefficient being .836. For the crowding index and the early marriage index (see Diagram 1.4) the equation is

$$MF = 99.4628 + 2.4240 \times C$$

the correlation coefficient being .766. Thus the poverty index gives a substantially higher correlation than the crowding index, though both yield high correlations.

Unfortunately, when we pass to the birth rate we are faced with a number of problems. The first of these is that Booth did not make an adjustment for all the hospitals in the districts. Only in the case of Queen Charlotte's Hospital in Marylebone did he redistribute the births to their home districts; he considered that the other hospitals served only the local areas.¹ We have to rely on Booth's good judgment here and our confidence in doing so must be increased by the fact that in the case of the death rate he did carry out a complete redistribution, realizing that the deaths in hospitals and other institutions substantially distorted the picture.²

The second problem is that there is a high correlation, as one would expect, between the early marriage index and the birth rate;

¹ "First Results of an Inquiry based on the 1891 Census", p.571.
² Ibid.
Diagram 1.3 - Scatter-diagram of the Poverty Index and Married Females under 25 per 10,000 of the population.
Diagram 1.4 - Scatter-diagram of the Crowding Index and Married Females under 25 per 10,000 of the population.
in fact the coefficient is .86. This would indicate that the two
tests are not completely independent ones. This is true in only
one sense - given the high correlations between early marriage index
and the poverty index and between the early marriage index and the
birth rate one would expect at least a reasonable correlation between
the poverty index and the birth rate, though the level of that
correlation is by no means predetermined. Moreover, the high
correlation between the crowding index and the early marriage index
means that a correlation of .86 between the latter and the birth rate
does not determine, or even suggest, which will be the higher of the
two correlations poverty index - birth rate and crowding index -
birth rate. As this last is what we are mainly interested in the
two tests are in fact independent ones for our purposes.

The regression equation between poverty and the birth rate (see
Diagram 1.5) is

\[
BR = 20.7757 + .3976 P
\]

the correlation coefficient being .761. The scatter-diagram shows
a definite tendency to flatten at both ends and rise steeply in the
middle. Choosing an arbitrary origin at \( BR = 20 \) when \( P = 0 \) it is
possible to form such a regression curve, the equation being

\[
\log (BR-20) = 1.5797 - \frac{1.41420}{P}
\]

the logarithms being to base 10 and the correlation coefficient being

.814. Undoubtedly other origins could be chosen which would increase

1 It is implicit in this type of equation that an origin has to be
chosen. The origin at \( BR=20 \) was chosen by line of sight. Others
could have been tried but without the aid of a computer these
calculations are quite time-consuming and it was felt that little
could be gained.
Diagram 1.5 - Scatter-diagram of the Poverty Index and the Birth Rates.
the correlation still further, though not a great deal.

For the crowding index and the birth rate (see Diagram 1.6) the equation of the regression line is

\[ BR = 27.1829 + .1857 C. \]

The correlation coefficient is .499, or well below even the linear coefficient for the poverty index and the birth rate (.761). Thus both the early marriage index and the birth rate show high correlations with the poverty index (in excess of .800), but only the early marriage index has a high correlation with the crowding index.

The test with the death rate gives, at first sight, a slightly different picture. The death rate given in Table 1d is not the same as that given by Booth. Both allow for the redistribution of deaths in institutions to their own districts, but the index in Table 1d is also adjusted to a standard population (that of England and Wales). This was done to remove any excessive vagaries due to an unusual age-distribution of the population in a given district, thus placing the various death rates on a standard basis. Booth's figures are accurate for the redistributed crude death rate, the only exception being Marylebone whose crude death rate was given as 14.2, the correct figure being 21.4 (the possibility of a typographical error at some stage of Booth's calculations seems a very strong one).

1 The calculations are based on the Supplement to the 55th Annual Report of the Registrar General, p.xli and pp.97-126; GBPP 1895 (C.7769) xxiii Pt.I. Information was available for the six years 1885-90, but not for the full intercensal decade 1881-90.

2 "First Results of an Inquiry based on the 1891 Census", p.593.
Diagram 1.6 – Scatter-diagram of the Crowding Index and the Birth Rates.
For the poverty index and the standard redistributed death rate (see Diagram 1.7) the regression equation is
\[ DR = 11.6395 + .3201 P \]
the correlation coefficient being .805.

The regression equation for the crowding index and the death rate (see Diagram 1.8) is
\[ DR = 13.8326 + .2417 C. \]
Here the correlation coefficient is .855. Thus for the whole of London the crowding index shows a higher correlation than the poverty index with the death rate, through the latter is still a high correlation. A closer examination of Diagrams 1.7 and 1.8 suggests that this is because of the high correspondence between the upper half of the death rates and the Inner circle of London, a correspondence which it has already been noted exists for the crowding index. This correspondence of high death rates and location in the inner circle is not surprising - the high rate of human contact caused by living in crowded quarters in a small area no doubt facilitated the spread of all infectious diseases.

A final two-stage regression was carried out between the poverty index and the other four indices giving the equation
\[ P = -18.146627 + .127677C + .045368\text{MF} + .546590\text{BR} + .879686\text{DR}. \]
the correlation coefficient for this regression was .903. This was felt to be a strong indication of the reliability of the poverty index. Strictly speaking the equation demonstrates the validity of the poverty index, that is that it was a measurement of poverty, but given the
Diagram 1.7 - Scatter-diagram of the Poverty Index and the Death Rates.
Diagram 1.8 - Scatter-diagram of the Crowding Index and the Death Rates.
excellence of Booth's sources of information, the care shown in
cross-checking the information, and the fact that the percentage
in poverty for the whole of London equalled the percentage crowded,
the last term being defined at a level which became generally accepted,
then the somewhat artificial, though useful, division between
"validity" and "reliability" which statisticians make can be ignored.

Our faith in the Booth Survey is strengthened further when we
turn to an analysis of the inner and outer circles separately. We
may expect that a reduction in the number of cases will reduce the
correlations. Certainly this happens in the case of the poverty
index and the crowding index. For the whole of London the correlation
coefficient was .790. For the inner circle it remains at .783 but
drops to .445 for the outer circle. This latter correlation is not
significant at the .05 level. This should not be surprising and in
no way casts doubt upon the reliability of the poverty index. It
is in the outer areas, where space was greater and rents lower that
we would expect sometimes to find poverty unaccompanied by crowding,
though this tendency would act with greatly varying force in the
different areas. Hence the acid test of the poverty index, especially
when compared with the crowding index as a true index of poverty,
comes when we consider the inner and outer circles separately, with
the latter carrying the casting vote. The two sets of correlation
coefficients are set out below.
Table 1e: Correlation Coefficients between the Poverty Index and the Crowding Index and other indices of poverty in the inner circle.

<table>
<thead>
<tr>
<th>Poverty</th>
<th>Crowding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early marriage index</td>
<td>.748</td>
</tr>
<tr>
<td>Birth rate</td>
<td>.753</td>
</tr>
<tr>
<td>Death rate</td>
<td>.624</td>
</tr>
</tbody>
</table>

Table 1f: Correlation Coefficients between the Poverty Index and the Crowding Index and other indices of poverty in the outer circle.

<table>
<thead>
<tr>
<th>Poverty</th>
<th>Crowding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early marriage index</td>
<td>.735</td>
</tr>
<tr>
<td>Birth rate</td>
<td>.777</td>
</tr>
<tr>
<td>Death rate</td>
<td>.764</td>
</tr>
</tbody>
</table>

These tables demonstrate conclusively the greater validity of the poverty index as a measurement of poverty. Only one of its six correlations (that with the death rate in the inner circle) is not significant at the .01 level, although even this one is significant at the .05 level. On the other hand, only one of the correlation coefficients of the crowding index (that with the death rate in the outer circle) is significant at the .01 level and another four (early marriages in both circles, the birth rate in the inner circle, and the death rate in the inner circle) are only just significant at the .05 level. The correlation coefficient between the birth rate and the crowding index in the outer circle is not even significant at the .1 level. Moreover, the higher correlation for the whole of London which was shown before, in the discussion of the death rate
and the crowding index compared with the death rate and poverty index, is now more clearly seen to be the result of geographical factors; in both the inner and outer circles the poverty index shows a slightly higher correlation. Clearly the fact of where one lived was a disturbance factor in the earlier correlations with the death rate.

The conclusion to be drawn from this analysis is that the Booth Survey gives a very reliable picture of the relative poverty of the various districts of London. This leads one to suggest that we may accept the survey as giving an exceptionally good description of the extent of poverty in London in the period 1885-95. It is still possible that the line of poverty was consistently drawn too low or too high - but we may at least be sure that it was consistently so drawn. Moreover, the general correspondence between the crowding index and poverty index supports the conclusion that accurate standards were set for the latter. The level of crowding is arbitrary and by itself the correspondence between the percentage crowded and the percentage in poverty does not prove a great deal. However, to repeat a very important point, this standard won general acceptance and thus conformed to the intention of setting a level which would be meaningful "according to the usual standard of life in this country". The statistical framework of the Poverty Series must therefore be allowed to stand.

Consequently we are dealing in this work with nearly one third of the population of London, or about 1,300,000 people. We must now seek causes for the condition of this vast number of people.
Chapter II

The Family Budget.

The natural bridge between a discussion of the reliability of the Booth survey of poverty in London and a discussion of the family budgets of the poor is an attempt to assess what in fact was the wages equivalent of Booth's "poverty line". We have already noticed that Booth initially set this equivalent at about 21s a week regular earnings for a "small" family, a "small family" being one with about four members. In order to give a better indication of the true figure, Booth and his collaborators in the Industries Series collected wages returns for as many as possible of the 89 trade groups into which the working population had been divided. These groups were a rearrangement of the more numerous classifications used in the 1891 Census. The Census of that year in fact provided much of the material to be found in the Industry Series.

But Booth and his fellow-investigators had to rely on their own efforts in obtaining wages returns for the various trade groups. These returns were obtained by writing to the managers of factories mentioned in the London Directory who were told of the aims of the Booth Survey and requested to allow one of the investigators to interview them. The reactions of the factory managers varied considerably.

"Some were definitely rude, others lukewarm, a few welcomed [the]"

1 Lb, II, v, p.14n.
investigation, many never answered at all". Those who did answer were asked to supply returns which either gave figures of the numbers employed and their actual earnings for an average week or gave figures for a "busy" week and a "slack" week (from which averages could be calculated). In some cases these figures could be checked from information obtained from trade union officials and workmen.2

Booth then compared the proportions of people earning less than 25s and 30s in the groups for which he had returns with the percentage in those groups who were deemed to be crowded. Employers were excluded from these calculations, as they were all assumed to be living in uncrowded conditions.3 The crowding index was taken to be a valid indication of poverty; the analysis contained in Chapter I may lead us to think that this was a reasonable assumption to make. In fact it would appear quite likely that for the trade groups the general correlation between those crowded and those living in poverty would be at least as high as it was for the registration districts where the variations were largely caused by geographical factors. These factors would affect the trade groups only in so far as the groups were concentrated in one area or another. It is difficult to conceive of any other large disturbance factors. Thus the crowding index would seem to be a valid index of the relative concentrations of poverty in the trade groups.

2 Ibid., p.13.
3 LL, II, i, p.36n.
However, the results of this comparison between wages and (by implication) poverty must have been a little disappointing (see Table 2a). The variations in the figures in the third, fourth, and fifth columns of this table are so great that it is difficult to see any general tendency. The reasons for this are clear - the numbers and the importance of the disturbance factors were so great that Table 2a can be taken as giving merely the roughest indication of the wages equivalent, if such an equivalent can be found, of the poverty line. The quality of the firms making the returns was seldom representative of all the firms in the trade group (a point to which we will return). Moreover, the table, in making a half-hearted attempt to allow for the irregularity of earnings in the trade groups by giving the figures for an "average" week, fell between two stools - that of comparing actual earnings with poverty and that of comparing it with the nominal earnings which could normally be earned for a full week's work. These are only the two most important disturbance factors. Thus in 17 of the 43 groups listed in Table 2a the percentage returned as earning less than 30s a week was less than the percentage crowded, a fact which would seem to indicate a much higher wages equivalent than Booth's 21s a week. In no less than 34 of the 43 groups the percentage earning under 25s a week was less than the percentage crowded.

However, a little sense can be made of the table. In 16 groups the percentage earning under 25s a week approximates the percentage crowded: carriage-building; shipwrights; sundry workers in iron and
Table 2a: Earnings (for one week) in various employments, compared with conditions as to crowding.¹

<table>
<thead>
<tr>
<th>Trade Sections</th>
<th>Adult males employed (1891)</th>
<th>Numbers included in Booth's returns</th>
<th>Wages under 25s (per cent)</th>
<th>Crowded (per cent)</th>
<th>Wages under 30s (per cent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Trades</td>
<td>97,873</td>
<td>5,066</td>
<td>10½</td>
<td>45</td>
<td>40</td>
</tr>
<tr>
<td>Cabinet makers, etc.</td>
<td>29,515</td>
<td>591</td>
<td>14</td>
<td>52</td>
<td>30</td>
</tr>
<tr>
<td>Carriage-building</td>
<td>7,348</td>
<td>685</td>
<td>34</td>
<td>41</td>
<td>51</td>
</tr>
<tr>
<td>Coopers</td>
<td>2,978</td>
<td>367</td>
<td>8</td>
<td>38</td>
<td>28½</td>
</tr>
<tr>
<td>Shipwrights, etc.</td>
<td>1,813</td>
<td>140</td>
<td>18½</td>
<td>24</td>
<td>25</td>
</tr>
<tr>
<td>Sundr. workers in iron and steel</td>
<td>36,702</td>
<td>13,203</td>
<td>32</td>
<td>36</td>
<td>46</td>
</tr>
<tr>
<td>Brass, copper, tin, lead, etc.</td>
<td>11,130</td>
<td>1,402</td>
<td>24½</td>
<td>49½</td>
<td>43½</td>
</tr>
<tr>
<td>Jewellers, etc.</td>
<td>4,748</td>
<td>412</td>
<td>3½</td>
<td>28</td>
<td>16½</td>
</tr>
<tr>
<td>Watches and clocks</td>
<td>2,143</td>
<td>147</td>
<td>20</td>
<td>28</td>
<td>36</td>
</tr>
<tr>
<td>Surgical, etc., instruments</td>
<td>5,184</td>
<td>830</td>
<td>10</td>
<td>30</td>
<td>25</td>
</tr>
<tr>
<td>Musical instruments</td>
<td>5,885</td>
<td>308</td>
<td>17</td>
<td>37</td>
<td>30</td>
</tr>
<tr>
<td>and toys</td>
<td>2,973</td>
<td>743</td>
<td>18</td>
<td>48</td>
<td>32</td>
</tr>
<tr>
<td>Glass and earthenware</td>
<td>2,375</td>
<td>403</td>
<td>26½</td>
<td>32</td>
<td>46½</td>
</tr>
<tr>
<td>Chemicals</td>
<td>1,149</td>
<td>1,276</td>
<td>33</td>
<td>31</td>
<td>57½</td>
</tr>
<tr>
<td>Soap, candles, glue, etc.</td>
<td>8,281</td>
<td>665</td>
<td>27</td>
<td>39</td>
<td>44</td>
</tr>
<tr>
<td>Leather dressing, etc.</td>
<td>2,440</td>
<td>207</td>
<td>9</td>
<td>42</td>
<td>32½</td>
</tr>
<tr>
<td>Saddlery, harness, etc.</td>
<td>2,229</td>
<td>367</td>
<td>14½</td>
<td>39</td>
<td>32</td>
</tr>
<tr>
<td>Brush makers</td>
<td>25,480</td>
<td>2,164</td>
<td>14½</td>
<td>37</td>
<td>25½</td>
</tr>
<tr>
<td>Printers</td>
<td>4,621</td>
<td>781</td>
<td>16½</td>
<td>44</td>
<td>28</td>
</tr>
</tbody>
</table>

¹ LL, II, v, p.16.
<table>
<thead>
<tr>
<th>Trade Sections</th>
<th>Adult males employed (1891)</th>
<th>Numbers included in Booth's returns</th>
<th>Wages under 25s (per cent)</th>
<th>Crowded (per cent)</th>
<th>Wages under 30s (per cent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper manufacturers</td>
<td>2,459</td>
<td>270</td>
<td>19</td>
<td>24</td>
<td>42</td>
</tr>
<tr>
<td>Stationers</td>
<td>3,301</td>
<td>263</td>
<td>20</td>
<td>25</td>
<td>38</td>
</tr>
<tr>
<td>Bookellers, etc.</td>
<td>3,468</td>
<td>399</td>
<td>32½</td>
<td>21</td>
<td>56½</td>
</tr>
<tr>
<td>Silk and woollen goods</td>
<td>2,388</td>
<td>90</td>
<td>38</td>
<td>30</td>
<td>56</td>
</tr>
<tr>
<td>Dyers and cleaners</td>
<td>250</td>
<td>114</td>
<td>36</td>
<td>37</td>
<td>59½</td>
</tr>
<tr>
<td>Hemp, jute, and fibre</td>
<td>1,285</td>
<td>134</td>
<td>46½</td>
<td>51</td>
<td>71½</td>
</tr>
<tr>
<td>India-rubber, etc.</td>
<td>1,317</td>
<td>518</td>
<td>34</td>
<td>39½</td>
<td>59½</td>
</tr>
<tr>
<td>Hatters</td>
<td>2,228</td>
<td>208</td>
<td>14½</td>
<td>46</td>
<td>32½</td>
</tr>
<tr>
<td>Trimmings, etc.</td>
<td>4,062</td>
<td>170</td>
<td>25½</td>
<td>43</td>
<td>50</td>
</tr>
<tr>
<td>Drapers, etc.</td>
<td>10,873</td>
<td>911</td>
<td>38</td>
<td>15½</td>
<td>53½</td>
</tr>
<tr>
<td>Millers, etc.</td>
<td>1,377</td>
<td>909</td>
<td>46½</td>
<td>39½</td>
<td>72½</td>
</tr>
<tr>
<td>Brewers,</td>
<td>2,909</td>
<td>1,223</td>
<td>34</td>
<td>40</td>
<td>76</td>
</tr>
<tr>
<td>Mineral water makers</td>
<td>559</td>
<td>258</td>
<td>56½</td>
<td>51½</td>
<td>76</td>
</tr>
<tr>
<td>Bakers and confectioners</td>
<td>10,471</td>
<td>431</td>
<td>28</td>
<td>46½</td>
<td>58</td>
</tr>
<tr>
<td>Milkers</td>
<td>4,503</td>
<td>179</td>
<td>78</td>
<td>30</td>
<td>90½</td>
</tr>
<tr>
<td>Butchers and fishmongers</td>
<td>14,873</td>
<td>223</td>
<td>38</td>
<td>34</td>
<td>60</td>
</tr>
<tr>
<td>Grocers, etc.</td>
<td>11,542</td>
<td>770</td>
<td>33</td>
<td>39</td>
<td>64½</td>
</tr>
<tr>
<td>Cab and omnibus service</td>
<td>33,361</td>
<td>1,979</td>
<td>4</td>
<td>48</td>
<td>26½</td>
</tr>
<tr>
<td>Carmen</td>
<td>33,519</td>
<td>2,311</td>
<td>60</td>
<td>58</td>
<td>79½</td>
</tr>
<tr>
<td>Coal porters</td>
<td>4,569</td>
<td>958</td>
<td>16</td>
<td>65</td>
<td>28</td>
</tr>
<tr>
<td>Gasworks service</td>
<td>5,529</td>
<td>4,976</td>
<td>19</td>
<td>42</td>
<td>34½</td>
</tr>
<tr>
<td>Warehousemen and messengers</td>
<td>28,733</td>
<td>2,976</td>
<td>39½</td>
<td>46½</td>
<td>66</td>
</tr>
<tr>
<td>General labourers</td>
<td>70,035</td>
<td>2,335</td>
<td>43</td>
<td>59½</td>
<td>78</td>
</tr>
<tr>
<td>Engine-drivers and artisans (undefined)</td>
<td>13,626</td>
<td>690</td>
<td>16</td>
<td>39½</td>
<td>30</td>
</tr>
</tbody>
</table>
steel; chemicals; soap, candles, glue, etc; stationers; dyers and cleaners; hemp, jute, and fibre; india-rubber, etc; millers; brewers; mineral water makers; butchers and fishmongers; grocers; carmen; and warehousemen and messengers. In many cases these are the groups in which Booth's returns covered a high proportion of the total employed: nearly all the soap, candles, glue, etc. section (in fact, more were scheduled than the census total for all London because of the inclusion of certain workers from Greater London), a fifth of the dyers and cleaners, two-fifths of the india-rubber workers, and of the brewers, half the mineral water makers. This does not mean that the original figure of 2ls a week must be revised upwards as far as 25s a week since in all these trades irregularity of employment was present.

It is noticeable that 78 per cent of the milksellers were returned as earning less than 25s a week though only 30 per cent lived in crowded conditions. In this group the actual earnings would have exceeded the amounts stated in the returns because of commissions and other extras, though it is difficult to state how great the difference was. But the exceptional regularity of the trade (sales varied but the diurnal round remained the same) would indicate that the 2ls figure first suggested by Booth was not far from the correct figure for regular earnings, though perhaps a little low. For municipal labour, a very regular employment spread throughout London, the percentage crowded (53) was the same as the percentage whose wages were below 22s or 23s.²

¹ LL, II, iii, p.186.
² LL, II, v, p.25. Also see Wages paid by local Authorities and private companies to Police, and to Workpeople employed on Roads, etc., and at Gas and Water Works. Return with Rep.; GBPP 1892 (c.6715) lxviii, 768.
This figure, 22s to 23s, seems to be the best estimate of the wages equivalent of the poverty line that can be made.

Such a conclusion is supported by the tabulations made by the Superintendent of Statistics at the General Register Office of 29,451 statements by working men in four selected districts of London in March 1887. The districts chosen were the whole of St. George's-in-the-East, parts of East and West Battersea (West London), parts of Hackney and South Hackney (North London) and parts of the registration sub-districts of St. Paul and St. Nicholas, Deptford (South London, in the registration district of Greenwich). The survey was carried out by the General Register Office and the results were presented to the President of the Local Government Board, Charles T. Ritchie, the survey having been instituted by the Government. Collectors, who were, so far as possible, suited for the purpose by their local knowledge and general qualifications, were sent from house to house in order to fill in the cards of questions with which they had been supplied. 3,635 returns were obtained, but 2184 were rejected as "quite useless", mainly because the collector had failed to state whether the man was in or out of work. The remaining 29,451 statements were then tabulated.

The major problem in comparing the wages returns from these working men with the percentage classified by Booth as living in poverty in the four selected districts is that only in the case of

1 Condition of the Working Classes. Rep. and Tabulation of Statements made by men living in certain selected districts in London in March, 1887; GBPP 1887 (C.5228) lxxi, 303.
2 Ibid, i, p.1.
3 Tabulation of Statements, p.v.
4 Ibid.
St. George's-in-the-East can Booth's figure be given accurately.

For the other three selected districts we can determine only the percentage in poverty in the next smallest surrounding areas in terms of the School Board blocks. We excluded Booth's classes G and H, so that Table 2b gives an estimate of the percentage in poverty of those in his classes A to F in the four selected districts.

Table 2b: Wages of working men in four districts in London according to the statements of 29,451 working men compared with the percentage in poverty in those districts.

<table>
<thead>
<tr>
<th>District</th>
<th>Percentage earning less than</th>
<th>Percentage in poverty according to Booth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>13s</td>
<td>17s</td>
</tr>
<tr>
<td>Easter</td>
<td>14.6</td>
<td>22.2</td>
</tr>
<tr>
<td>Western</td>
<td>4.8</td>
<td>6.6</td>
</tr>
<tr>
<td>Northern</td>
<td>12.7</td>
<td>17.9</td>
</tr>
<tr>
<td>Southern</td>
<td>9.9</td>
<td>12.3</td>
</tr>
</tbody>
</table>

The first thing to be noted about this table is its possible general unreliability. Undoubtedly there was a tendency for men to understate their wages in the hope of governmental aid; many returned their wages for a normal week when in work (the basis of the returns) as less than their rent. The poverty figures given are unsatisfactory. For the northern district it was only possible to give the proportion of classes A to F in poverty for the whole of Hackney - undoubtedly the true figure in the selected part would be well in excess of the 30.5 per cent given. But, of doubtful reliability as these figures are, they tend to support the idea of the wages equivalent of the

1 From Tabulation of Statements, p.2.
2 Ibid., p.vii. 6461 statements were classified by the returning officer as "extremely unsatisfactory", one reason for this classification being a return of the above type.
poverty line being a little over 21s a week.

It is clear from this brief analysis of the most complete material available that it is extremely difficult to give such a wages equivalent. This is not surprising since there were disturbance factors of such importance that any wages equivalent was likely to be somewhat meaningless: regularity of earnings, size of family, the need or otherwise to live close to one's work, to cite a few. This fact is a further vindication of the Poverty Series and its reliance on field workers who could judge each case on its individual merits.

It is also clear that while wages were often quite high when men were in work they were to a certain extent depressed by the small-scale nature of London's industries. London was in fact the stronghold of the small-scale system of production; it would be fair to say that even by the end of the nineteenth century London had not been greatly touched by the Industrial Revolution. The industrial system of London was sometimes very much like a kind of "feudal" pyramid, the whole structure being cemented together by contract and sub-contract. In the hand-sewn bootmaking trade, for example, the archetype was the man working for himself, sometimes in a rented workshop in a "factory", but more usually at home. In the machine-sewn trade the pyramidal structure was marked. At the top were a few large factories which made the whole or part of a boot. But a large amount of work was contracted and sub-contracted out, via middlemen, to small manufacturers

1 See the description by D.F. Schloss in LL, I, iv, pp.70-80.
and the homeworkers. Schloss found that in the part of the boot trade that dealt with the finishing of a boot there was only one case in the East End where the work was performed "indoors" by men directly employed by the manufacturer; the rule was for this part of the manufacture of a boot to be done by outworkers employed on sub-contracts.

The variations on this theme of contract and small-scale production were endless though few trades played to a different tune. After discussing the variety of the East End furniture trade Aves concluded that "the typical producer is the man of small means, working with from three to six under him, and with little machinery". In the cabinet-making trade in the East End the dominance of the small system was just as marked. There were three or four large factories employing 50 to 190 men, but there were also about 1140 workshops in which the average number of employees was five. In fact, 80 per cent of the cabinet-makers in the East End were self-employed or worked in shops where there were generally four to eight men. Similarly, what remained of the ancient Spitalfields silk-weaving industry was largely carried on in the home. In the building industry, which involved one-tenth of the population of London, the tendency to break everything down into very small units was seen largely in the form of excessive specialization of skill, though there was also a good deal of sub-contracting.

1 Ibid., pp.80-6.
2 Ibid., p.103.
3 Ibid., p.164.
4 Ibid., pp.172-5.
5 Jesse Argyle in LL, I, iv, p.245.
6 Ernest Aves in LL, II, i, pp.41, 100.
7 Ibid., pp.148-153.
In the saw-mills there was a very interesting example of London's industrial structure. Superficially these were sometimes quite large factories but the bench-room was often let out. Thus at one of the largest mills there were thirty men working for the owner of the mill but another 150 men who were tenants of work-space or employees of such tenants. There were also many small saw-mills employing about six to twelve men.¹

Though we may safely conclude that the small-scale system was in fact the dominant mode of industrial production in London at the end of the nineteenth century it is difficult to quantify precisely such a statement. In the Industry Series Booth and his associates reproduced the data from the rough-sheets of the Census of 1891 in which the working population had had to describe themselves as "employer", "employed", or "neither". A summary of these figures for some of the eighty-nine trade groups is given in the last volume of the Industry Series.² With the exception of the trades in the printing industry the norm would seem to have been little more than ten employees to each employer, and in many trades there were large numbers of people working on their own account. But in a situation where men rented space in a "factory" and where contract and sub-contract were the rule rather than the exception it is difficult to see that such terms as "employed" would have the same precision that they would usually have today. Many homeworkers may have returned themselves as "employed"

¹ Ernest Aves in LL, I, iv, pp.169-70.
² See LL, II, v, pp.56, 57.
when they would more accurately be described as self-employed. Thus although the statistics presented in the Industry Series confirm the theory that London was dominated by small-scale production they may well have underestimated the extent of that domination. Before the Select Committee on the Sweating System in 1888 J.B. Lakeman, who, with one assistant, was responsible for factory inspection in the whole of the northern half of London, stated that in his area there were nearly 4,000 factories, 10,000 workshops that competed with the factories, and "innumerable smaller workshops." In addition, of course, there were many homeworkers. The industrial structure of London, even at this late date, was thus essentially pre-modern.

Consequently, we are faced with something of a paradox. Wages in London were generally higher, as always, than in the provinces while London was the stronghold of the small-scale system of production. Yet within London wages were often depressed by the activities of the workshops. Thus Aves remarked that the ease of setting up a small business as a sawyer or fret-cutter or turner meant the proliferation of such businesses and the consequent unrestrained competition and fall in wages. The East End cabinet-makers underwent a cycle of degradation of setting up on their own and then falling back again "into the ranks of the wage-earners that it would have been better if they had never left". The Alliance Cabinet-Makers Association implied

2 LL, I, iv, p.171.
3 Ernest Aves in LL, I, iv, p.177.
in its answers to the Royal Commission on Labour in 1892 that wages were twice as high in the larger workshops as in the small piece-masters' shops.¹ G.H. Duckworth stated that the returns in the Industry Series for the Watches and Clocks group undoubtedly exaggerated earnings as those working on their own account were not included.² Similar remarks were made concerning small firms in the Musical instruments, fishing-tackle and toys group;³ the Saddlery and Harness trades;⁴ the Brushmaking trades⁵ (where the average wage in the factories was estimated at 30s to 35s a week and in the small masters' shops at 20s to 25s a week⁶); and Stationers.⁷

In the East End and elsewhere in London the system of small businesses was almost synonymous with the sweating system and a great number of witnesses before the Select Committee of the House of Lords on the Sweating System in 1888-89 agreed that it was this system that lowered wages. J. Flatau, Vice-President of the Boot and Shoe Manufacturers Association, claimed that in his factory knifers earned 20 per cent more per day than they would working in the small workshops of the master-sweaters.⁸ W. Maddy, a foreman in a boot manufacturers, stated that the 280 to 300 small businesses in the East End cut down prices,⁹ hence, we may assume, wages and that many of the small

¹ Labour, R. Com. Answers to Schedules of Questions, Gr. C, p.40; GBPP 1892 (C.6725-IX) xxxvi Pt.IV.
² LL II, ii, pp.32-3.
³ Esme Howard in LL, II, ii, p.69.
⁴ G.H. Duckworth in LL, II, ii, p.162.
⁵ G.H. Duckworth in LL, II, ii, p.166.
manufacturers paid very bad wages.\textsuperscript{1}

This argument is one which could be reinforced by further examples, but perhaps the point has already been made with sufficient clarity. The system of small-scale industry which was the hall-mark of London's industrial organization led to a state of unrestrained competition in which both masters and men suffered, and, because of inefficiency, suffered more from low wages than they gained from low prices. This is the disturbance factor operating unseen in Table 2a above which concerns us in this chapter; Booth's returns usually related to larger concerns than were normal in the various trade groups and thus the true level of wages in those groups cannot be deduced from the returns. However, this was probably not the most important disturbance factor which made it impossible to obtain a high correlation between wages and poverty; this factor was the irregularity of employment which forms the subject of the next chapter. The wages of the great majority of men (when those men were in work) were sufficient to place them above the line of poverty if they had been able to obtain a full week's work throughout the year. When the dockers struck for their "tanner" in 1889 they were earning 5d an hour, which is equivalent to 25s for a 60 hour week. Thus even in this low paid work wages might have been sufficient, through for the great majority they were not.

\textsuperscript{*} \textsuperscript{*} \textsuperscript{*}

When we turn to expenditure we find ourselves confronted by a surprising unanimity as to the major and crucial item of expense in

\textsuperscript{1} Ibid., p.78.
the budgets of the poor. While it was agreed that London had the highest wage rates in the country\(^1\) this was often felt to be counterbalanced by the high rents that Londoners had to pay. Railwaymen, for example, believed that they were worse off than their provincial counterparts because of the high rents in London.\(^2\) Octavia Hill, the Florence Nightingale of philanthropy in London, stated before the Royal Commission on the Aged Poor that high rents were counterbalanced by the cheapness of food in London but agreed that rents were substantially higher than in the provinces.\(^3\) The Earl of Shaftesbury doubted whether one could get a single room anywhere in London for under 2s.3d a week\(^4\) and 2s.9d or 3s was probably a better estimate for one low-grade room. The need for a man to be close to his work in order to stand a good chance of employment, especially in casual occupations,\(^5\) was great, even, according to Shaftesbury, for skilled artisans.\(^6\)

These and other considerations (such as attachment to one's own neighbourhood) increased the pressure on accommodation and so raised rents.

The most complete source for rents that we have is the tabulation made of the statements of the 29,451 working class men in March 1887. Their types of accommodation and the rents they paid are set out in Tables 2c and 2d.\(^7\) 366 refused to state their position concerning accommodation and 955 refused to state their rents.

5 E.J. Hobsbawm, op. cit., p.9.
7 Both tables are derived from Tabulation of Statements, p.4.
Table 2c: Types of accommodation of working men in four selected districts in London, March 1887.

<table>
<thead>
<tr>
<th>District</th>
<th>Part of a room</th>
<th>1 room</th>
<th>2 rooms</th>
<th>3 or more rooms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern</td>
<td>9.3</td>
<td>39.2</td>
<td>28.5</td>
<td>27.9</td>
</tr>
<tr>
<td>Western</td>
<td>3.7</td>
<td>13.7</td>
<td>22.0</td>
<td>60.6</td>
</tr>
<tr>
<td>Northern</td>
<td>2.5</td>
<td>17.5</td>
<td>22.5</td>
<td>57.5</td>
</tr>
<tr>
<td>Southern</td>
<td>6.6</td>
<td>20.4</td>
<td>17.5</td>
<td>55.5</td>
</tr>
<tr>
<td>Total</td>
<td>5.4</td>
<td>21.8</td>
<td>21.2</td>
<td>51.6</td>
</tr>
</tbody>
</table>

Table 2d: Rents paid by working men in four selected districts in London, March 1887.

<table>
<thead>
<tr>
<th>District</th>
<th>Less than 3s</th>
<th>3s and under 4s</th>
<th>4s and under 6s</th>
<th>6s and under 8s</th>
<th>8s and more</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern</td>
<td>27.5</td>
<td>19.6</td>
<td>22.9</td>
<td>13.1</td>
<td>16.9</td>
</tr>
<tr>
<td>Western</td>
<td>9.3</td>
<td>9.0</td>
<td>30.7</td>
<td>21.9</td>
<td>29.1</td>
</tr>
<tr>
<td>Northern</td>
<td>12.3</td>
<td>14.0</td>
<td>32.3</td>
<td>23.0</td>
<td>18.4</td>
</tr>
<tr>
<td>Southern</td>
<td>19.8</td>
<td>12.2</td>
<td>34.2</td>
<td>19.3</td>
<td>14.5</td>
</tr>
<tr>
<td>Total</td>
<td>16.8</td>
<td>13.3</td>
<td>30.4</td>
<td>19.5</td>
<td>20.0</td>
</tr>
</tbody>
</table>

These two tables tell us much about the cost of rent in London.

In the Eastern district 48.6 per cent of the men lived with their families in one room or less while 47.1 per cent paid under 4s rent per week. For the Western district the corresponding figures were 17.4 per cent and 18.3 per cent; for the Northern 20.0 per cent and 26.3 per cent; and for the Southern 27.0 per cent and 32.0 per cent. This would suggest that the price of one room varied between 2s.6d and just under 4s. For two rooms one would pay 4s to 6s, for three rooms from something a little under 6s (say 5s.6d) to 8s and for more than three rooms probably over 8s. Rents were highest in the Eastern
district which was also the poorest district in London; 27.9 per cent of the men in that district lived with their families in three or more rooms while 30.0 per cent paid 6s or more rent. The corresponding figures for the Western district were 60.6 per cent and 51.0 per cent; for the Northern district 57.5 per cent and 41.4 per cent; and for the Southern district 55.5 per cent and 33.7 per cent. Thus rents were cheapest in the Southern district which was part of the registration district of Greenwich, a fact which explains the very high difference in that district between those classified by Booth as in poverty and those deemed crowded. In general it would appear that the poor could not expect any reduction in their rents, rather the reverse was true. Consequently the poor were limited to one or two rooms on the whole - to buy more would place too much strain on the family budget.

For that budget was already over-extended in purchasing that most important of all material necessities, food. While contemporaries were impressed by the amount required to rent sub-standard housing we are perhaps more surprised to find the proportion of the family income that was consumed in purchasing food which provided a diet which often consisted of little more than "bread and scrape".

The best source for prices and family budgets in London in our decade is the thirty cases presented in the first volume of the Poverty Series which have been briefly referred to in Chapter I. Six of these families belonged to Booth's class B, ten to classes C and D, ten to

1 See Table 1d above.
class E, and four to class F. For these families Booth attempted to give an equivalent in terms of the number of "full adults" per family calculated on the basis of 1.00 for each adult male in the family, 0.75 for each adult female, and .05 per year of age for each child. This undoubtedly led to an underestimate of the "size" of the families and consequently an overestimate of the amount spent per "adult" on food, rent, etc. For example, one family of eight persons - man, wife, and six children aged 13, 11, 9, 3, 2, and 1 - was equated with only 3.7 "adults".\(^1\) A recalculation has been made on the equally arbitrary but perhaps more realistic basis of 1.0 for a male adult (14 years or over), 0.75 for a female adult, 0.75 for children 7 to 13 years, and 0.5 for children 0 - 6 years of age.

Booth calculated his class B families to have an average of 3.44 "adults", the class C and D families 3.12, the class E 2.5, and the class F 2.0.\(^2\) The revised figures are 4.17, 3.90, 3.20, and 2.63.

The "small" family of four that Booth had been thinking of when he referred to a regular income of 21s a week as the wages equivalent of the poverty line would best be indicated by 1.0 \(+ 0.75 + 0.75 + 0.5\) = 3.0 adult males. Thus the families below the poverty line had about one more adult male than the model small family.

The budgets refer to a period of five weeks in February, March, and (in some cases) early April.\(^3\) The summary of income and expenditure for the four groups is given in Table 2e.

\(^1\) LL, I, i, p.136, case 4.
\(^2\) Ibid., p.138.
\(^3\) See LL, I, i, p.135 where Booth says "some ... accounts extended into April". The year cannot be determined definitely, but it was probably 1888.
Table 2e: Average income and expenditure per family of 30 families in Booth's classes B to F.

<table>
<thead>
<tr>
<th>Class</th>
<th>B</th>
<th>C and D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of full adults</td>
<td>4.17</td>
<td>3.90</td>
<td>3.20</td>
<td>2.63</td>
</tr>
<tr>
<td>Supposed income, 5 weeks</td>
<td>s d</td>
<td>s d</td>
<td>s d</td>
<td>s d</td>
</tr>
<tr>
<td>Expended in 5 weeks:</td>
<td>87</td>
<td>0</td>
<td>117</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>B</th>
<th>C and D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meals out</td>
<td>7 5(\frac{1}{2})</td>
<td>2 3(\frac{1}{2})</td>
<td>2 1</td>
<td>8 2(\frac{1}{2})</td>
</tr>
<tr>
<td>Meat</td>
<td>11 10</td>
<td>16 4</td>
<td>19 3(\frac{1}{4})</td>
<td>24 1(\frac{1}{4})</td>
</tr>
<tr>
<td>Liver, etc.</td>
<td>0 5(\frac{1}{2})</td>
<td>0 5(\frac{1}{2})</td>
<td>0 4(\frac{1}{4})</td>
<td>0 4(\frac{1}{2})</td>
</tr>
<tr>
<td>Potatoes</td>
<td>3 2</td>
<td>2 11(\frac{3}{4})</td>
<td>2 7</td>
<td>2 5(\frac{3}{4})</td>
</tr>
<tr>
<td>Vegetables</td>
<td>1 0</td>
<td>1 7(\frac{1}{2})</td>
<td>2 0</td>
<td>2 4</td>
</tr>
<tr>
<td>Fish</td>
<td>2 10(\frac{3}{4})</td>
<td>2 10(\frac{3}{4})</td>
<td>1 11(\frac{3}{4})</td>
<td>4 5(\frac{3}{4})</td>
</tr>
<tr>
<td>Bacon, etc.</td>
<td>1 7</td>
<td>2 3(\frac{1}{2})</td>
<td>1 6(\frac{3}{4})</td>
<td>1 6(\frac{3}{4})</td>
</tr>
<tr>
<td>Eggs</td>
<td>0 8</td>
<td>0 9</td>
<td>1 7(\frac{1}{4})</td>
<td>2 0(\frac{3}{4})</td>
</tr>
<tr>
<td>Cheese</td>
<td>0 1(\frac{1}{2})</td>
<td>1 0(\frac{1}{4})</td>
<td>1 10</td>
<td>1 1(\frac{1}{4})</td>
</tr>
<tr>
<td>Suet</td>
<td>0 1(\frac{1}{2})</td>
<td>0 2(\frac{3}{4})</td>
<td>0 4(\frac{3}{4})</td>
<td>0 5(\frac{3}{4})</td>
</tr>
<tr>
<td>Butter and Dripping</td>
<td>5 8</td>
<td>6 8</td>
<td>6 6</td>
<td>5 11(\frac{3}{4})</td>
</tr>
<tr>
<td>Bread</td>
<td>12 6</td>
<td>13 7(\frac{3}{4})</td>
<td>9 8(\frac{3}{4})</td>
<td>11 0(\frac{3}{4})</td>
</tr>
<tr>
<td>Flour</td>
<td>1 0</td>
<td>0 11(\frac{3}{4})</td>
<td>2 4(\frac{3}{4})</td>
<td>1 8(\frac{3}{4})</td>
</tr>
<tr>
<td>Rice, Oatmeal, etc.</td>
<td>0 1(\frac{1}{2})</td>
<td>0 5(\frac{3}{4})</td>
<td>0 3(\frac{1}{2})</td>
<td>1 10</td>
</tr>
<tr>
<td>Fruit, Jam, etc.</td>
<td>0 3(\frac{1}{2})</td>
<td>0 6(\frac{3}{4})</td>
<td>1 8(\frac{3}{4})</td>
<td>2 6(\frac{1}{2})</td>
</tr>
<tr>
<td>Sugar</td>
<td>3 5</td>
<td>3 1(\frac{3}{4})</td>
<td>3 4</td>
<td>3 1</td>
</tr>
<tr>
<td>Milk</td>
<td>3 10(\frac{3}{4})</td>
<td>2 10(\frac{3}{4})</td>
<td>4 2(\frac{3}{4})</td>
<td>7 1(\frac{3}{4})</td>
</tr>
<tr>
<td>Tea</td>
<td>3 10(\frac{3}{4})</td>
<td>4 1(\frac{3}{4})</td>
<td>3 9(\frac{1}{4})</td>
<td>3 8(\frac{3}{4})</td>
</tr>
<tr>
<td>Coffee, Cocoa, etc.</td>
<td>0 6</td>
<td>1 1(\frac{3}{4})</td>
<td>0 11(\frac{3}{4})</td>
<td>0 10(\frac{3}{4})</td>
</tr>
<tr>
<td>Pepper, Salt, etc.</td>
<td>0 2(\frac{1}{2})</td>
<td>0 3(\frac{1}{2})</td>
<td>0 5(\frac{3}{4})</td>
<td>0 6(\frac{3}{4})</td>
</tr>
<tr>
<td>Total of Food</td>
<td>60 9(\frac{1}{2})</td>
<td>64 6</td>
<td>67 2(\frac{1}{2})</td>
<td>86 7</td>
</tr>
<tr>
<td>Beer and Tobacco</td>
<td>1 11(\frac{3}{4})</td>
<td>2 4(\frac{3}{4})</td>
<td>3 6(\frac{3}{4})</td>
<td>3 7</td>
</tr>
<tr>
<td>Fire and Light</td>
<td>10 0(\frac{1}{2})</td>
<td>8 10</td>
<td>10 0</td>
<td>10 10</td>
</tr>
<tr>
<td>Rent</td>
<td>21 6</td>
<td>26 1(\frac{3}{4})</td>
<td>23 7(\frac{3}{4})</td>
<td>28 1(\frac{1}{2})</td>
</tr>
<tr>
<td>Washing and Cleaning</td>
<td>3 2(\frac{3}{4})</td>
<td>2 9</td>
<td>2 11</td>
<td>4 8(\frac{1}{4})</td>
</tr>
<tr>
<td>Clothes, etc.</td>
<td>0 11</td>
<td>3 0(\frac{3}{4})</td>
<td>10 5(\frac{3}{4})</td>
<td>17 8(\frac{3}{4})</td>
</tr>
<tr>
<td>Education, Medicine, etc.</td>
<td>0 5(\frac{3}{4})</td>
<td>2 2(\frac{3}{4})</td>
<td>2 10(\frac{3}{4})</td>
<td>3 9(\frac{3}{4})</td>
</tr>
<tr>
<td>Insurance, etc.</td>
<td>2 8(\frac{3}{4})</td>
<td>3 7(\frac{1}{2})</td>
<td>4 4(\frac{3}{4})</td>
<td>7 1</td>
</tr>
<tr>
<td>Total</td>
<td>101 8(\frac{1}{2})</td>
<td>113 6</td>
<td>125 0</td>
<td>162 4(\frac{3}{4})</td>
</tr>
</tbody>
</table>

1 This is a modified form of Table XXI on LL, I, i, p.138.
There are a number of obvious seasonal influences at work in this table. The figures refer to late winter, consequently the fire and light total presumably was high compared with the yearly average. Moreover, unemployment was at its worst in winter; thus the expenditure of the class B families was considerably in excess of the stated income since goods would be pawned and any savings used in an attempt to tide the family over till the summer. Obviously expenditure on clothes in class B and to a lesser extent in classes C and D was cut to a minimum during the lean winter months.

Rent averaged 4s. 3d per week for class B and 5s. 2½d for classes C and D which compares well with our previous estimates. This was a constant expenditure and could not be cut to fit the seasonal cloth.

But the important fact to emerge from Table 2e seems to be the impossibility of reducing the family expenditure on food to a very low level - the purchase of barely sufficient (if that) quantities of very basic foodstuffs consumed a large part of the family income (70 per cent in the case of the class B families). Booth gives us the prices paid for the major foodstuffs and these appear relatively high compared with wages and the cost of accommodation. The price of cheese per pound, for example, was no less than one seventh of the amount spent on rent per week in class B and butter cost per pound about one quarter of the amount spent on rent per week.
Table 2f: Average prices paid for certain foodstuffs by 30 families in Booth's classes B to F.

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>C and D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meat</td>
<td>6 d</td>
<td>7¼ d</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Potatoes</td>
<td>½ d</td>
<td>½ d</td>
<td>½ d</td>
<td>¼ d</td>
</tr>
<tr>
<td>Bacon</td>
<td>7¾ d</td>
<td>7½ d</td>
<td>7½ d</td>
<td>8</td>
</tr>
<tr>
<td>Eggs</td>
<td>1 d</td>
<td>3¼ d</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Cheese</td>
<td>7</td>
<td>7½ d</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Milk</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Coffee</td>
<td>1 2 d</td>
<td>1 2 d</td>
<td>1 0 d</td>
<td>1 4 d</td>
</tr>
<tr>
<td>Bread</td>
<td>4½ d</td>
<td>4½ d</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Butter</td>
<td>1 0 d</td>
<td>1 0 d</td>
<td>1 ¼ d</td>
<td>1 3 d</td>
</tr>
<tr>
<td>Tea</td>
<td>1 11 d</td>
<td>2 0½ d</td>
<td>1 1½ d</td>
<td>2 1½ d</td>
</tr>
<tr>
<td>Sugar</td>
<td>1 ¾ d</td>
<td>2 ¼ d</td>
<td>2 ¼ d</td>
<td>2 ¼ d</td>
</tr>
</tbody>
</table>

These prices are confirmed by the budget of a working cabinet-maker of London who kept careful family accounts for the years 1850-86. Drawing up a housekeeping budget for a family of six persons aged 85, 64 (himself), 57, 34, 3 and 6 years which came to 29s a week for food, light, fuel, and sundries he gave prices of 5½d per quartern for bread, 7d per pound for meat, 1s.2d per pound for butter, 8d per pound for cheese, 2s.8d per pound for tea, and 2d per pound for sugar. These prices would generally agree with those paid by the four families in class F.

From the prices and expenditure we can deduce the weekly consumption for each "full adult" of the major foodstuffs. The price of fish seems to have been about 3d per pound and fish has been included. The twelve foodstuffs thus included in Table 2g account

1 From LL, I, i, pp.138-9.
2 See Returns of Expenditure by Working Men, pp.42-3; GBPP 1889 (c.5861) lxxxiv, 138-9.
3 LL, I, i, p.144.
for 95.0 per cent of the amount spent on food (excluding meals out) in class B, 92.7 per cent in classes C and D, 89.7 per cent in class E, and 87.4 per cent in class F.

Table 28: Amount purchased per "full adult" per week of certain foodstuffs for 30 families in Booth's classes B to F.

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>C and D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meat (ounces)</td>
<td>18.2</td>
<td>22.2</td>
<td>33.0</td>
<td>43.9</td>
</tr>
<tr>
<td>Potatoes (ounces)</td>
<td>56.7</td>
<td>58.6</td>
<td>62.0</td>
<td>48.1</td>
</tr>
<tr>
<td>Fish (ounces)</td>
<td>8.9</td>
<td>9.4</td>
<td>7.9</td>
<td>25.6</td>
</tr>
<tr>
<td>Bacon (ounces)</td>
<td>1.9</td>
<td>3.1</td>
<td>2.6</td>
<td>2.8</td>
</tr>
<tr>
<td>Eggs (number)</td>
<td>0.38</td>
<td>0.61</td>
<td>1.22</td>
<td>1.88</td>
</tr>
<tr>
<td>Cheese (ounces)</td>
<td>0.16</td>
<td>1.41</td>
<td>2.75</td>
<td>2.02</td>
</tr>
<tr>
<td>Milk (pints)</td>
<td>1.12</td>
<td>0.88</td>
<td>1.58</td>
<td>3.63</td>
</tr>
<tr>
<td>Coffee (ounces)</td>
<td>0.33</td>
<td>0.79</td>
<td>0.96</td>
<td>0.81</td>
</tr>
<tr>
<td>Bread (ounces)</td>
<td>85.1</td>
<td>94.2</td>
<td>77.4</td>
<td>107.2</td>
</tr>
<tr>
<td>Butter (ounces)</td>
<td>4.35</td>
<td>5.06</td>
<td>5.88</td>
<td>5.80</td>
</tr>
<tr>
<td>Tea (ounces)</td>
<td>1.54</td>
<td>1.67</td>
<td>1.96</td>
<td>2.13</td>
</tr>
<tr>
<td>Sugar (ounces)</td>
<td>18.0</td>
<td>13.7</td>
<td>17.8</td>
<td>20.1</td>
</tr>
</tbody>
</table>

The figure given for fish for class F is undoubtedly too high; the estimate of 3d per pound as the price of fish was based on one class B family and presumably class F families would pay considerably more, thus reducing their consumption (moreover, one of the four families ate more than the other three combined¹). It must be emphasized that the figures given for fish and meat do not represent actual consumption but the amount purchased. This would include bone and other waste matter and the cheaper the meat or fish the more wastage there was likely to be. From the figures given for class F it would seem reasonable to assume that the figures in Table

¹ Ibid., p.137, case 30.
2g might have to be as much as halved if we are to translate "amount purchased" into actual consumption of meat and fish. This would still leave even the class B families having perhaps three or four meat or fish meals per week.

This fact should not be unduly surprising. England has always been a country with a "mystique of meat-eating". Britain, as Hobsbawm has pointed out, had been better fed than the peasant areas of Europe long before the Industrial Revolution. Thus the eighteenth century meat rations in the workhouses were sometimes as high as half a pound of meat per person per meal, and in 1936-7 even the poorest class ate on average 30.4 ounces of meat a week, or a little less than the average in Booth's ten class B families. Moreover, the six class B families were probably somewhat better off than most families of that class.

Thus, with this mild qualification, it seems reasonable to conclude from Table 2g that the food consumption of the poor in London in the late 1880's was based very largely on potatoes, bread, and, presumably for energy, sugar. As one ascended the social scale one was likely to eat more of nearly everything, but especially more meat, eggs, cheese, milk, butter, tea, and some of the articles not included in Table 2g such as vegetables, fruit, jam, and rice. Probably the figures are not in a satisfactory enough form to try to work out the

2 Ibid., p.87.
3 Ibid., p.95.
4 Ibid., p.97.
5 LL, I, i, p.132.
calorie intake and so on for an adult male. But to the layman Table 2g would suggest that the poor did not receive enough nutrition to maintain themselves in a state of good health, certainly not for heavy manual labour. This may well have been a relevant factor in the causation of irregularity of employment.

What Tables 2e and 2g do demonstrate conclusively is that the major problem of the poor in London in our decade with regard to expenditure was the purchase of food. A drop of two to three shillings a week in the amount spent on food would have freed that amount for the purchase of better accommodation, perhaps another room. The fact that rents were irreducible below a certain amount must therefore be seen in the context of the whole of family expenditure; the cost of accommodation might in many cases have tipped the scales below the poverty line but the pan was already heavily weighted with bread and potatoes.

The poor, especially the very poor, seemed to have been placed at a relative disadvantage with regard to one other type of expenditure, that on fire and light. Table 2e shows that class B spent as much on this as the other classes did. No doubt this was a reflection of the sub-standard nature of the living conditions: damp, draughty, ill-lit rooms had to be made bearable even though this caused a serious drain on the family's resources, if one which operated unevenly during the year.
All other expenses - education, medicine, insurance, even beer and tobacco (though not necessarily washing and cleaning since the working mother might need to put these out) - were cut to a minimum. Those who were very poor often lived hand to mouth: in the class B families there were, on average, 23 purchases of tea in the five week period.\(^1\) Thus, despite some social commentators of the time, the poor seem to have been generally frugal in their habits, though more by bad luck than good management.

* * *

In this chapter we have again relied largely on the work of Charles Booth and his associates. Where it is possible to check his figures against other fragmentary evidence, such as the Returns of Expenditure made by Working Men in 1889\(^2\) which included returns from three London workers, all of whom would have been in classes E or F, one can only remark that the figures appear consistent but that they do not have the completeness that is available in the Booth Survey.

But Booth himself had to admit that his attempt to connect wages to "apparent poverty" (crowding) had been something of a failure.\(^3\) The major reason for this lay, he believed, in irregularity of earnings and "irregularity of conduct".\(^4\) To this we may add the disturbing

1 Ibid., p.138.  
2 Returns of Expenditure by Working Men; GBPP 1889 (C.5861) lxxxiv.  
3 LL, II, v, p.25.  
4 Ibid., pp.25-6.
effect of the small system of production which dominated London's industry and caused a reduction in wages as a compensation for inefficiency. Yet even in the small workshops the main complaint of workmen was probably that they could not obtain the full week's work which would have provided them with a reasonable, steady income. Obviously irregularity of employment is a question that must be discussed in our study.

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1 Emigration and Immigration (Foreigners). Sel. Cttee. Mins. of Ev., p.117; GBPP 1888 396 xi, 545.
Chapter III

Unemployment

The problem of unemployment was one which concerned some of the leading social commentators and reformers of our period. Hyndman, referring specifically to London, stated that "it is the uncertainty of employment, however, which more than anything else weighs upon working-men of all grades. No man, even of the highest ability, can be sure of getting continuous work". Bosanquet estimated in 1887 that in winter 20,000 men were generally out of work in London. This same figure, 20,000 men, was the estimate of the average daily number of unemployed in London made by the Mansion House Committee in 1888, according to General Booth. A. White put the number of casually employed men in London at 40,000, involving 200,000.

These figures are obviously rather uninspired guesses on the part of men concerned to grapple with a monster whose strength even they did not fully appreciate. But then historians describing the nineteenth century have done little better. If only 20,000 men out of a male work force of one million were unemployed at any one time then we would in fact be dealing with a situation in which, it

1 H.M. Hyndman, "The English Workers as They Are", Contemporary Review, vol.52, 1887, p.123.
3 W. Booth, In Darkest England, p.34.
could be argued, "full employment" existed.

That such a situation did not exist is made apparent in the Booth Survey. The fourth volume of the Poverty Series dealt with the trades of East London connected with poverty and much of this volume is taken up with the question of irregularity of employment. The first group of trades discussed in the Industry Series was the building trades, notorious for their insecurity of employment and high level of seasonal unemployment in winter.\(^1\) Aves found that in these trades one hour's notice was the legal tenure of employment.

The system of tenders and contracts in the building industry led to a "parallel system by which large numbers of men are taken on for one job and discharged when it is finished" and this discontinuity of employment was intensified by the "seasonal character of the trade and the effect of the weather".\(^2\) To compensate for the seasonal unemployment in winter there was little alternative work; a few labourers found jobs in the gasworks (where casual labourers from all trades were likely to seek employment in winter\(^3\)), a few artisans managed to get some work on their own account. But for many there was little to do except wait for the return of fine weather.\(^4\)

The one hour's notice of dismissal that was the rule in the

1. It should be noted that some recent works see the state of the building trade as a sensitive indicator of the state of the economy (for example, see N.G. Butlin, Investment in Australian Economic Development, 1861-1900, pp. 411-32).

2. LL, II, i, pp. 110-1.

3. This was why the gas-workers union when it was formed in 1889 had to be the Union of Gas-workers and General Labourers (E.J. Hobsbawm, "General Labour Unions in England, 1889-1914" in Labouring Men, p. 181).

4. LL, II, i, pp. 130-1.
building trades was also to be found in the brass trades in London. Yet the trade unions in Northumberland and Durham and Birmingham for brassworkers stated that one week was the usual period of notice.¹ As an example of the insecurity of tenure which prevailed in London this case is startling.

Thus the estimates made by the Mansion House Committee and Bosanquet appear very unlikely. When we find that the Poplar (East London) branch of the Gasworkers' and General Labourers' Union of Great Britain and Ireland stated that there was 66 per cent more work in winter than in summer,² then these estimates cannot be considered as representing any kind of approximation to the correct figures. This conclusion is reinforced by a few examples from the Booth Survey. David F. Schloss, for example, considered that the large-scale unemployment of lastsers in the machine sewn bootmaking trade in East London caused the average earnings of these men to be materially lower than the 27s a week that a competent man on the regular staff of a factory could earn.³ In the clothworking section of the woollen goods trade group Jesse Argyle found that there were seven busy and five slack months, about one-quarter of the men being discharged in the slack months. They then had little to do until the busy months.⁴ Hatters were even worse off, for they could reckon on about eight months' employment in the year.⁵ Cabmen could not avoid unemployment since

² Labour, R. Com. Answers to Schedules of Questions. Gp. C, p.144; GBPP 1892 (C6795 - IX) xxxvi Pt. IV.  
³ LL, I, iv, pp.94-9.  
⁴ LL, II, ii, p.322.  
⁵ G.E. Arkell in LL, II, iii, p.38.
there were always more men than licensed cabs, the ratio in 1895
being 13.6 drivers to every 10 cabs,\(^1\) approximately the same ratio
obtaining in the years 1888-1894.\(^2\) As for the lightermen, ten per
cent were practically unemployed, another twenty per cent had
"precarious work" and at least as many more had very irregular work.\(^3\)

These examples have been given as an introduction to the more
general statistics which are to follow. The information on
unemployment provided in the Booth Survey is rather disappointingly
poor. Indeed, in the 1902 edition of the Poverty Series Booth
acknowledged that his attempt to describe unemployment had been a
failure.\(^4\) While the individual comments of the investigators (such
as those quoted above) are often illuminating, the attempt to gauge
the extent of unemployment by obtaining returns from employers was
undoubtedly a failure. The value of these returns with regard to
wages was questioned in Chapter II; an analysis of thirteen trade
groups for which full returns of wages and numbers employed in "busy"
and "slack" weeks simply reinforces our suspicions about the usefulness
of the returns. One of these trade groups, the india-rubber goods,
floorcloth, etc., group, was not used for further analysis as there
was considerable movement from factory to factory, the busy and slack
weeks in the various factories not coinciding.\(^5\) Hence the unemploy-
ment figures in this group are completely meaningless. In the other

1 Cab Service of the Metropolis, Dept. Cttee. Rep., p.3; GBPP 1895
   (C.7607) xxxv, 7.
2 LL, II, iii, pp.296-7. A cabman used his cab for the whole of a
day normally.
3 Jesse Argyle in LL, II, iii, p.375.
4 LL, I, i, p.151n.
5 Esme Howard in LL, II, iii, p.360.
the correlation between the percentage earning under 25s per week in the firms that made the returns and the percentage crowded in the trade groups those firms were supposed to represent was slightly negative ($r = -.24$), a nonsensical result indicating the unreliability of these returns and thus their lack of usefulness.

The other major source of information on unemployment in London is the Tabulation of the Statements made by men living in certain selected districts in London in March 1887. The 29,451 men were divided into 35 trade groups. The percentage in each group unemployed on the day of the inquiry was tabulated together with the percentage of those in work who stated themselves to be in regular employment and the percentage unemployed at any time since 31 October 1886. Moreover, the men, both those in and those out of work on the day of the inquiry, were asked to state how long they had been out of work during the period from 31 October to the day of the inquiry. These figures were then tabulated by two-week divisions (i.e. number unemployed less than two weeks, two weeks and under four weeks, etc.) up to twelve weeks, those unemployed for more than twelve weeks being classified together.

One might hope that this large amount of information would provide us with an excellent basis for assessing the extent and concentration of unemployment in London. But we are immediately confronted by the report of William Ogle, Superintendent of Statistics at the General Building trades; Carriage-building; All iron and steel workers; Surgical, Scientific, and Electrical Instruments; Glass and Earthenware; Leather dressing, Tanning, etc.; Printers; Bookbinding; Dyeing and Cleaning; Brewers; Coal Porters; and Gas Workers.
Register Office, which baldly concludes, "the returns are of very small statistical value". Ogle's main reason for this sweeping conclusion was that of the 8008 men who were out of work on the day of the inquiry 5964 stated that they had had no work for twelve weeks or more and only 1132 stated that they had received assistance from parish, club, or charity, while 2288 stated that they had had assistance from other members of their families. Thus, according to Ogle, at least 4588 of the men (with their families) had lived three months or more without any kind of assistance. As this was deemed to be impossible the men's statements must, Ogle thought, be false. There have usually been more paupers than princes; it might fairly be said that "must" is a word which often should not be applied to the poor.

The first point to be made is that Ogle's powers of arithmetical reasoning seem to have been sadly deficient for a man in his position. He arrives at his figure of 4588 by subtracting the sum of 1132 and 2288 (3420) from 8008 and then saying that all these were unemployed for three months or more. In fact 4588 of the 8008 either stated that they did not receive assistance or refused to furnish this information or the information was not given for other reasons. Now, 1663 of the 8008 unemployed stated that they had been unemployed for less than twelve weeks and 381 could not be certain about the length of their unemployment or refused to give the information, totalling 2044 men who may have been unemployed for less than twelve weeks. Thus Ogle's figure of 4588 must be reduced to 2544.

1 Tabulation of Statements, p.xv.
2 Ibid., p.iii.
Moreover, of the 5820 men who did not positively state that they had assistance from other members of the family 1167 gave no information as to whether or not they received such assistance.\(^1\) This reduces the minimum figure of those unemployed for twelve weeks or more who can definitely be stated to have claimed they received no assistance from 2544 to 1377. This figure should be further reduced since although 6876 men did not state that they received assistance from parish, club, or charity the Tabulation does not state how many of these 6876 furnished no information either way.\(^2\) The number of "unknowns" in this category could well be as high as 1377, thus reducing the absolute minimum to zero. Certainly the maximum level at which this minimum figure can be put\(^3\) is 1377 men, far less than Ogle's 4538.

The actual number of men who claimed to be both unemployed for more than twelve weeks and to have received no assistance could of course be higher than the minimum figure, whatever that might be, since there would have been some overlapping in all the above categories. But even this does not disprove the veracity of the men's statement. As the Rev. J.W. Lewis, an ex-curate of St. Mary's in St. George's-in-the-East and chairman of a branch of the Dock Labourers' Union, told the Royal Commission on Labour the very poor would somehow get by with a little help from their friends or run into debt.\(^4\)

\(^1\) Ibid., p.4.
\(^2\) See Tabulation of Statements, p.5.
\(^3\) This phrase may appear to be a "cold-blooded murder of the English tongue" to historians but it is quite respectable mathematically.
chairman of the Paddington Board of Guardians, S.D. Fuller, stated before the Royal Commission on the Aged Poor that the pawnbrokers knew best about the deserving poor who did not apply for relief, many of the poor being too proud to apply for relief.¹ In this respect the case of one of the six class B families whose budgets Booth examined is illuminating:

"This family live, to the greatest possible extent, from hand to mouth. Not only do they buy almost everything on credit from one shop, but if the weeks tested are a fair sample of the year, they every week put in and take out of pawn the same set of garments, on which the broker every time advances 16s, charging the, no doubt, reasonable sum of 4d for accommodation."

Thus Ogle's reasons for rejecting the material contained in the Tabulation as valueless seem invalid. This does not mean that therefore the information given by the men is reliable - this would be false logic - but we may approach the Tabulation of these men's statements with a good deal less scepticism than might at first seem warranted.

To test the Tabulation more rigorously we may look for signs of internal consistency. When there exists a large number of men answering a variety of separate questions then it seems reasonable to argue that if these answers can be shown to be consistent then there is strong presumptive proof of the reliability of those answers when taken in the mass. To say that this argument depends on circularity, in that the same set of statistics is used, is to miss

¹ Aged Poor. R. Com. Mins. of Ev., p.135; GBPP 1895 (C.7684-I) xiv, 265.
² LL, I, i, p.142.
the point; in the same way that a man can be psychoanalyzed without questioning all his relatives, certain types of historical documents can be tested internally. The Tabulation of Statements is such a document. Moreover, in the case of the Tabulation we have a yardstick in the percentages of men in the trade groups stated to be out of work on the day of the inquiry. If we are cynics we may argue that men may lie about the regularity of their employment or the amount of time they have spent out of work, but there is, on the whole, a certain finality about the fact of whether or not a man is in or out of work on a particular day.

The statements make possible one very decisive test of internal consistency. The percentage of men in each trade group in work on the day of the inquiry can be calculated, as can the percentage of those in work who stated themselves to be in regular employment. From these two figures we can predict the percentage that might be out of work at any time over any considerable period, such as that given from 31 October 1886 to March 1887.¹ We may compare this predicted figure with the percentage of men who actually stated themselves to have been out of work at any time during that period.

¹ The actual date of the inquiry is not given in the Report. The period under discussion has been assumed to be 19 weeks long - that is, it is assumed the inquiry took place in the middle of March.
Table Ja: Predicted percentage out of work in 35 trade groups at any time since 31 October 1886 compared with the percentage according to the statements of men living in four selected districts of London in March 1887.1

<table>
<thead>
<tr>
<th>Trade Group</th>
<th>Predicted percentage</th>
<th>Stated percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial Clerks and Travellers</td>
<td>22.00</td>
<td>22.35</td>
</tr>
<tr>
<td>Carmen and Carters</td>
<td>33.17</td>
<td>37.74</td>
</tr>
<tr>
<td>Cabmen, omnibus men, etc.</td>
<td>35.46</td>
<td>38.43</td>
</tr>
<tr>
<td>Domestic servants, etc.</td>
<td>39.23</td>
<td>38.83</td>
</tr>
<tr>
<td>Shopmen, warehousemen, etc.</td>
<td>29.77</td>
<td>29.51</td>
</tr>
<tr>
<td>Bakers</td>
<td>41.24</td>
<td>44.92</td>
</tr>
<tr>
<td>Butchers</td>
<td>48.53</td>
<td>48.34</td>
</tr>
<tr>
<td>Tailors</td>
<td>73.31</td>
<td>66.82</td>
</tr>
<tr>
<td>Boot and shoe makers</td>
<td>70.61</td>
<td>67.94</td>
</tr>
<tr>
<td>Watches, clocks, jewellers, etc.</td>
<td>29.06</td>
<td>37.18</td>
</tr>
<tr>
<td>Engine and machine-makers, etc.</td>
<td>33.70</td>
<td>34.53</td>
</tr>
<tr>
<td>Blacksmiths, etc.</td>
<td>47.25</td>
<td>48.75</td>
</tr>
<tr>
<td>Printers, etc.</td>
<td>27.05</td>
<td>28.37</td>
</tr>
<tr>
<td>Carpenters, etc.</td>
<td>59.58</td>
<td>58.75</td>
</tr>
<tr>
<td>Coopers</td>
<td>46.82</td>
<td>47.40</td>
</tr>
<tr>
<td>Shipwrights, etc.</td>
<td>69.61</td>
<td>65.69</td>
</tr>
<tr>
<td>Masons, bricklayers, etc.</td>
<td>69.58</td>
<td>78.68</td>
</tr>
<tr>
<td>Painters, plumbers, etc.</td>
<td>72.02</td>
<td>71.51</td>
</tr>
<tr>
<td>Wheelwrights, etc.</td>
<td>31.80</td>
<td>36.51</td>
</tr>
<tr>
<td>Cabinet-makers, etc.</td>
<td>49.82</td>
<td>61.43</td>
</tr>
<tr>
<td>Furriers, etc.</td>
<td>49.65</td>
<td>48.36</td>
</tr>
<tr>
<td>Sugar-bakers, refiners</td>
<td>14.79</td>
<td>15.65</td>
</tr>
<tr>
<td>Cigar, tobacco workers</td>
<td>60.03</td>
<td>55.65</td>
</tr>
<tr>
<td>Policemen</td>
<td>7.78</td>
<td>8.29</td>
</tr>
<tr>
<td>Seamen, lightermen, etc.</td>
<td>60.30</td>
<td>53.95</td>
</tr>
<tr>
<td>Railwaymen other than engine-drivers &amp; porters</td>
<td>3.64</td>
<td>5.09</td>
</tr>
<tr>
<td>Porters</td>
<td>8.29</td>
<td>9.35</td>
</tr>
<tr>
<td>All engine-drivers, etc.</td>
<td>22.96</td>
<td>28.72</td>
</tr>
<tr>
<td>Unskilled labourers</td>
<td>62.66</td>
<td>62.22</td>
</tr>
<tr>
<td>Dock labourers, stevedores</td>
<td>87.98</td>
<td>89.37</td>
</tr>
<tr>
<td>Hawkers and costermongers</td>
<td>78.55</td>
<td>79.87</td>
</tr>
<tr>
<td>Messengers, watchmen, etc.</td>
<td>25.58</td>
<td>24.58</td>
</tr>
<tr>
<td>Postmen, other govt. service</td>
<td>6.62</td>
<td>7.28</td>
</tr>
<tr>
<td>Artisans (undefined)</td>
<td>41.26</td>
<td>40.54</td>
</tr>
<tr>
<td>Nondescripts</td>
<td>45.42</td>
<td>41.37</td>
</tr>
<tr>
<td>Total</td>
<td>52.50</td>
<td>52.31</td>
</tr>
</tbody>
</table>

1 From Tabulation of Statements, pp.10-127.
2 See Tabulation of Statements, pp.10-127 for a full list of the occupations included in these trade groups.
The correlation coefficient between these two sets of figures is .972. Even this very high coefficient could be brought closer to 1.0 by the exclusion of one or two exceptional cases, most notably that of hawkers and costermongers. It might be doubted if questions concerning whether or not a man was in regular work and whether or not he had been out of work at any time over the last nineteen weeks would have the precise meaning for a hawker and for other self-employed workers, that it would normally have. This argument could apply, with less force, to tailors, cabinet-makers, and watchmakers and jewellers. Thus one powerful test of reliability, based on internal consistency, has shown a strongly positive reaction.

Table 3a gives some idea of the proportion of men who were out of work at any time in the winter of 1886-7. But many of these men may have been out of work for only very short periods and we must now try to construct an index of average unemployment in the 35 trade groups. The first column of Table 3b gives the percentage of the men in each group who claimed to have been out of work for more than twelve weeks out of the nineteen being considered. The second column gives an index of average unemployment. This has been calculated by assuming that those who stated that they had been out of work for more than twelve weeks were, on average, unemployed for fifteen weeks. This introduces some possible computation errors into the figures. For example, there were 645 seamen, bargemen, lightermen, etc. included in the returns. 297 stated that they had been in work throughout the
winter, 6 that they had been unemployed for 0 - 2 weeks, 19 for 2 - 4 weeks, 40 for 4 - 6 weeks, 16 for 6 - 8 weeks, 46 for 8 - 10 weeks, 27 for 10 - 12 weeks, and 177 for more than 12 weeks, while 18 could not be certain how long they had been out of work. 1

Thus the percentage of average unemployment for this trade group is

\[ \frac{100 \times \frac{297x0+6x1+12x3+40x5+16x7+46x9+27x11+177x15}{19 (645 - 18)}}{1} = 31.4 \text{ per cent} \]

We may then compare these average winter figures with those for the day of the inquiry (which occurred at the beginning of spring).

Table 3b not only furnishes us with much useful information but gives the final lie to Ogle's statements. The correlation coefficient between the last two columns of figures is .841. The average for the winter is, as would be expected, somewhat higher than the percentage out of work on the day of the inquiry, a rule which holds good for nearly all the groups. This seasonal trend is most marked in eight cases: the two building groups where the average figure is about 13 per cent higher than that on the day of the inquiry, tailors, bootmakers, carpenters, cabinet-makers, cigar and tobacco-workers, and hawkers and costermongers. No doubt the high seasonal increase in unemployment among carpenters was partially a reflection of the very high increases in the two building trades. Of the other five trades four are ones in which the small-scale system of production predominated to an unusual extent even for London, the single exception being cigar and tobacco-workers.

1 Ibid., pp.92-5.
Table 3b: Percentage stated to be out of work for more than twelve weeks (A), average percentage out of work over the nineteen week period (B) and percentage out of work on the day of the inquiry (C) compared in 35 trade groups. 1

<table>
<thead>
<tr>
<th>Trade Group</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clerks and Travellers</td>
<td>11.6</td>
<td>12.0</td>
<td>15.0</td>
</tr>
<tr>
<td>Carmen and Carters</td>
<td>18.0</td>
<td>20.8</td>
<td>17.2</td>
</tr>
<tr>
<td>Cabmen, omnibus men, etc.</td>
<td>17.6</td>
<td>20.7</td>
<td>18.8</td>
</tr>
<tr>
<td>Domestic servants, etc.</td>
<td>22.1</td>
<td>23.2</td>
<td>24.3</td>
</tr>
<tr>
<td>Shopmen, etc.</td>
<td>15.7</td>
<td>16.7</td>
<td>17.4</td>
</tr>
<tr>
<td>Bakers</td>
<td>27.2</td>
<td>27.7</td>
<td>27.3</td>
</tr>
<tr>
<td>Butchers</td>
<td>25.8</td>
<td>27.8</td>
<td>26.4</td>
</tr>
<tr>
<td>Tailors</td>
<td>33.1</td>
<td>40.5</td>
<td>21.9</td>
</tr>
<tr>
<td>Boot and shoe makers</td>
<td>30.0</td>
<td>38.4</td>
<td>17.1</td>
</tr>
<tr>
<td>Watchmakers, etc.</td>
<td>14.2</td>
<td>18.6</td>
<td>12.8</td>
</tr>
<tr>
<td>Engine and machine makers, etc.</td>
<td>21.7</td>
<td>21.4</td>
<td>20.5</td>
</tr>
<tr>
<td>Blacksmiths, etc.</td>
<td>29.6</td>
<td>29.9</td>
<td>25.9</td>
</tr>
<tr>
<td>Printers, etc.</td>
<td>11.7</td>
<td>14.9</td>
<td>11.4</td>
</tr>
<tr>
<td>Carpenters, etc.</td>
<td>30.9</td>
<td>34.0</td>
<td>27.3</td>
</tr>
<tr>
<td>Coopers, etc.</td>
<td>24.0</td>
<td>28.0</td>
<td>26.6</td>
</tr>
<tr>
<td>Shipwrights</td>
<td>43.5</td>
<td>42.4</td>
<td>43.6</td>
</tr>
<tr>
<td>Masons, bricklayers, etc.</td>
<td>46.6</td>
<td>49.2</td>
<td>36.6</td>
</tr>
<tr>
<td>Painters, plumbers, etc.</td>
<td>46.5</td>
<td>46.3</td>
<td>33.5</td>
</tr>
<tr>
<td>Wheelwrights, etc.</td>
<td>17.9</td>
<td>19.9</td>
<td>15.5</td>
</tr>
<tr>
<td>Cabinet-makers, etc.</td>
<td>27.8</td>
<td>35.0</td>
<td>20.2</td>
</tr>
<tr>
<td>Furriers, etc.</td>
<td>29.0</td>
<td>29.0</td>
<td>22.5</td>
</tr>
<tr>
<td>Sugar-bakers, refiners</td>
<td>9.6</td>
<td>9.4</td>
<td>8.7</td>
</tr>
<tr>
<td>Cigar, tobacco-workers</td>
<td>29.5</td>
<td>35.1</td>
<td>27.4</td>
</tr>
<tr>
<td>Policemen</td>
<td>3.9</td>
<td>4.0</td>
<td>6.1</td>
</tr>
<tr>
<td>Seamen, lightermen, etc.</td>
<td>28.2</td>
<td>31.4</td>
<td>30.5</td>
</tr>
<tr>
<td>Railways (excluding drivers and porters)</td>
<td>2.7</td>
<td>2.7</td>
<td>2.2</td>
</tr>
<tr>
<td>Porters</td>
<td>5.0</td>
<td>5.5</td>
<td>5.8</td>
</tr>
<tr>
<td>Engine-drivers, etc.</td>
<td>13.3</td>
<td>13.9</td>
<td>13.9</td>
</tr>
<tr>
<td>Unskilled labourers</td>
<td>39.2</td>
<td>39.8</td>
<td>36.8</td>
</tr>
<tr>
<td>Dock labourers, stevedores</td>
<td>56.5</td>
<td>58.5</td>
<td>54.8</td>
</tr>
<tr>
<td>Hawkers and costermongers</td>
<td>36.0</td>
<td>36.8</td>
<td>26.0</td>
</tr>
<tr>
<td>Messengers, watchmen, etc.</td>
<td>15.3</td>
<td>15.1</td>
<td>12.8</td>
</tr>
<tr>
<td>Postmen, other govt. service</td>
<td>2.3</td>
<td>3.8</td>
<td>3.9</td>
</tr>
<tr>
<td>Artisans (undefined)</td>
<td>21.1</td>
<td>23.6</td>
<td>17.6</td>
</tr>
<tr>
<td>Non-descripts</td>
<td>25.3</td>
<td>25.7</td>
<td>25.5</td>
</tr>
<tr>
<td>Total</td>
<td>30.1</td>
<td>32.0</td>
<td>27.4</td>
</tr>
</tbody>
</table>

1 From Tabulation of Statements, pp. 10-127.
Excluding these eight trades the correlation coefficient for the other twenty-seven between the average level of unemployment in the winter of 1886-7 (according to the men's statements) and the percentage in each trade out of work on the day of the inquiry is .972. Moreover, the average figure for the various trades was only a little higher than the day-figure. This exceptional correlation, and the closeness of the two sets of figures, with a seasonal tendency generally noticeable and exaggerated in a number of trades, means that it is difficult to doubt the general truthfulness of the men who stated that they had been out of work for more than twelve weeks. As the first column of figures in Table 3b shows, the average figure is very much dependent on these men, who might well be collectively described as a lumpenproletariat. The correlation coefficient between the first two columns is .974 and in all trades the men who had been unemployed for more than twelve weeks formed a large proportion of those who were unemployed at any time.

It must be apparent that unemployment in the winter of 1886-7 was very great indeed. Moreover, this unemployment seems to have been concentrated largely in the lowest section of the population rather than spread evenly over all the working classes. In fact the average percentage of unemployment during the nineteen week period among those who were unemployed on the day of the inquiry was 69.9 per cent, compared with 18.1 per cent among those who were employed on the day of the inquiry. The variations in this general tendency are shown in Table 3c.

1 From Tabulation of Statements, p.4.
Table 3c: Average unemployment in 35 trade groups during the winter of 1886-7 for those in work (A) compared with those out of work (B) on the day of the inquiry and the percentage of those out of work who claimed to have been out of work for more than twelve weeks out of nineteen (C).

<table>
<thead>
<tr>
<th>Trade Group</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clerks and Travellers</td>
<td>4.1</td>
<td>70.4</td>
<td>80.2</td>
</tr>
<tr>
<td>Carmen and Carters</td>
<td>11.8</td>
<td>66.2</td>
<td>72.5</td>
</tr>
<tr>
<td>Cabmen, omnibus men, etc.</td>
<td>11.4</td>
<td>62.9</td>
<td>69.5</td>
</tr>
<tr>
<td>Domestic servants, etc.</td>
<td>9.7</td>
<td>62.9</td>
<td>66.7</td>
</tr>
<tr>
<td>Shopmen, etc.</td>
<td>7.2</td>
<td>64.1</td>
<td>67.4</td>
</tr>
<tr>
<td>Bakers</td>
<td>14.3</td>
<td>69.6</td>
<td>69.2</td>
</tr>
<tr>
<td>Butchers</td>
<td>13.8</td>
<td>66.0</td>
<td>71.0</td>
</tr>
<tr>
<td>Tailors</td>
<td>22.4</td>
<td>70.3</td>
<td>75.4</td>
</tr>
<tr>
<td>Boot and shoe-makers</td>
<td>31.6</td>
<td>70.7</td>
<td>77.0</td>
</tr>
<tr>
<td>Watchmakers, etc.</td>
<td>11.1</td>
<td>64.6</td>
<td>72.2</td>
</tr>
<tr>
<td>Engine and machine-makers, etc.</td>
<td>9.4</td>
<td>70.1</td>
<td>81.0</td>
</tr>
<tr>
<td>Blacksmiths, etc.</td>
<td>15.5</td>
<td>72.8</td>
<td>84.4</td>
</tr>
<tr>
<td>Printers, etc.</td>
<td>8.7</td>
<td>61.8</td>
<td>64.7</td>
</tr>
<tr>
<td>Carpenters, etc.</td>
<td>21.3</td>
<td>68.6</td>
<td>74.4</td>
</tr>
<tr>
<td>Coopers</td>
<td>12.9</td>
<td>71.1</td>
<td>74.4</td>
</tr>
<tr>
<td>Shipwrights, etc.</td>
<td>20.9</td>
<td>72.9</td>
<td>83.8</td>
</tr>
<tr>
<td>Masons, bricklayers, etc.</td>
<td>37.2</td>
<td>70.6</td>
<td>80.0</td>
</tr>
<tr>
<td>Painters, plumbers, etc.</td>
<td>33.5</td>
<td>71.8</td>
<td>82.1</td>
</tr>
<tr>
<td>Wheelwrights</td>
<td>10.3</td>
<td>74.4</td>
<td>90.5</td>
</tr>
<tr>
<td>Cabinet-makers, etc.</td>
<td>26.7</td>
<td>69.6</td>
<td>72.5</td>
</tr>
<tr>
<td>Furriers, etc.</td>
<td>16.4</td>
<td>74.4</td>
<td>91.3</td>
</tr>
<tr>
<td>Sugar-bakers, refiners</td>
<td>4.3</td>
<td>63.2</td>
<td>70.0</td>
</tr>
<tr>
<td>Cigar, tobacco-workers</td>
<td>20.6</td>
<td>70.3</td>
<td>73.5</td>
</tr>
<tr>
<td>Policemen</td>
<td>1.2</td>
<td>64.5</td>
<td>75.0</td>
</tr>
<tr>
<td>Seamen, lightermen, etc.</td>
<td>16.7</td>
<td>67.7</td>
<td>72.9</td>
</tr>
<tr>
<td>Railways (excluding drivers and porters)</td>
<td>1.4</td>
<td>63.2</td>
<td>75.0</td>
</tr>
<tr>
<td>Porters</td>
<td>1.9</td>
<td>64.5</td>
<td>68.8</td>
</tr>
<tr>
<td>Engine-drivers, etc.</td>
<td>5.9</td>
<td>69.0</td>
<td>77.3</td>
</tr>
<tr>
<td>Unskilled labourers</td>
<td>13.3</td>
<td>71.5</td>
<td>79.9</td>
</tr>
<tr>
<td>Dock labourers, stevedores</td>
<td>27.6</td>
<td>71.9</td>
<td>78.0</td>
</tr>
<tr>
<td>Hawkers and costermongers</td>
<td>22.7</td>
<td>73.1</td>
<td>85.1</td>
</tr>
<tr>
<td>Messengers, watchmen, etc.</td>
<td>7.3</td>
<td>67.3</td>
<td>78.9</td>
</tr>
<tr>
<td>Postmen, other govt.</td>
<td>0.9</td>
<td>78.9</td>
<td>100.0</td>
</tr>
<tr>
<td>Artisans (undefined)</td>
<td>13.9</td>
<td>68.8</td>
<td>79.8</td>
</tr>
<tr>
<td>Nondescripts</td>
<td>11.1</td>
<td>65.3</td>
<td>73.0</td>
</tr>
<tr>
<td>Total</td>
<td>18.1</td>
<td>69.9</td>
<td>78.2</td>
</tr>
</tbody>
</table>

1 From Tabulation of Statements, pp.10 - 127.
Thus in none of the 35 trade groups did the average level of unemployment for those out of work on the day of the inquiry fall below 60 per cent. Moreover, the maximum figure that can be reached in the second column of Table Jb is 78.9 per cent since in constructing this "average" figure it was assumed that those who put themselves down as being out of work for more than twelve weeks were, on average, out of work for fifteen weeks. As it was also assumed that the period covered was nineteen weeks long, the maximum possible percentage of average unemployment in any trade group is \(100 \times \frac{15}{19} = 78.9\) per cent. Thus the third column of figures (c), the percentage of those out of work who stated that they had been out of work for twelve weeks or more for each trade group, gives a better indication of the importance of the lumpenproletariat. In no group does this last proportion drop below two-thirds - the proportion for all the groups being nearly four-fifths.

On the other hand, this lumpenproletariat can only be said to have existed relatively compared to the ordinary working classes who may still have suffered a high degree of unemployment, if the figures in the first column of Table Jc are any indication. Only those in government service, in the employ of the railway companies or those who were white-collar workers can be said to have enjoyed anything like real security of employment.

This picture may well be too black - if the figures given above for unemployment held true for the whole of London in normal times
then we would have to reconcile them in some way with the figures
given by Booth for the extent of poverty in London. That the two
sets of data cannot immediately be equated is obvious.

The first point that may be made is that unemployment seems to
have varied according to one's marital status, as shown by Table 3d.

Table 3d: Unemployment according to marital status from
the statements of working men in March 1887.¹

<table>
<thead>
<tr>
<th></th>
<th>Single</th>
<th>Married</th>
<th>Widowers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Out of work on the day of the inquiry</td>
<td>1,722</td>
<td>5,862</td>
<td>424</td>
</tr>
<tr>
<td>In work on the day of the inquiry</td>
<td>2,297</td>
<td>13,472</td>
<td>674</td>
</tr>
<tr>
<td>Total</td>
<td>4,019</td>
<td>24,334</td>
<td>1,098</td>
</tr>
</tbody>
</table>

Hence 42.7 per cent of the single men were unemployed on the
day of the inquiry, 24.1 per cent of the married men, and 38.6 per
cent of the widowers. As the married men had wives and children
the proportion of the population of the four selected districts
dependent on a male who was unemployed on the day of the inquiry would
be nearer 24.1 per cent than 27.4 per cent.

This is only a very minor modification. More important is the
fact that the men cannot be considered representative of the total
adult male population of London. It is difficult to state exactly
how poor these 29,451 men and their families were. But we may note
that if the proportion that the number of men in the selected Eastern
district (St. George's-in-the-East) bears to the total number of men
¹ Ibid., p.4.
in the returns holds true for the respective populations - men, women, and children - then the population of St. George's-in-the-East that was considered in the inquiry was about 30,000,\(^1\) or very close to two-thirds of the population of that area.\(^2\) It seems likely that this two-thirds would be drawn more from the lower two-thirds of the population rather than a representative sample of the whole.

Furthermore, it should be reiterated that the period referred to was winter, when the level of unemployment was at its annual peak. However, this argument must not be carried too far; it is by no means true to say that the gasworks were the only place where the busy season came in the winter. The same kind of seasonal variation affected a diverse collection of workers including undertakers (obviously), wood-choppers,\(^3\) wet coopers,\(^4\) farriers,\(^5\) smiths,\(^6\) brassworkers,\(^7\) piano manufacturers,\(^8\) brush-makers,\(^9\) printers,\(^10\) book-binders,\(^11\) and confectioners.\(^12\) It would still be true to say that unemployment, especially among casual labourers, was substantially higher in winter than in summer but it would be fallacious to argue that warmer weather can be likened to a magician waving the magic wand of full employment.

The most serious modification that must be made of the impression

1 Calculated from Tabulation of Statements, p.viii.
2 The population according to the 1891 Census was 45,795.
3 LL, II, i, p.220.
4 Ibid., p.294.
5 Ibid., p.330.
6 Ibid., p.354.
7 Ibid., p.373.
8 LL, II, ii, p.57.
9 Ibid., p.170.
10 Ibid., p.201.
11 Ibid., p.239.
gained from the Tabulation of Statements derives from the fact that the winter of 1886-7 was a cyclical peak of unemployment, not just a seasonal one. That winter saw "serious distress among the poor of London" because of a "great trade depression". 1 1886 was, of course, a cyclical low point throughout the country. 2 But the importance of this fact could also be over-emphasized - little improvement occurred during 1887 in London and the winter of 1887-8 was probably nearly as bad as the previous one.3 In fact, cyclical fluctuations were perhaps not as large in London as they were in the country as a whole. The usual index of national unemployment4 in the period is greatly influenced by the high fluctuations in the engineering, metal, and shipbuilding unions. But carpenters and joiners, woodworkers and furnishers, and printers and bookbinders do not seem to have suffered such wide fluctuations. The returns from these unions are probably a better indication of cyclical variations in London than returns from the heavy engineering industries which were practically non-existent in London.

Thus we may make sufficient modifications to reconcile the Booth Survey and the Tabulation of Statements. But it would not be correct to argue that these modifications invalidate the conclusions we have drawn from the latter; the general picture of an occasionally employed lumpenproletariat and, above it, a large section of the working classes in which there was much unemployment remains.

1 Margaret A. Tillard and Charles Booth in LL, I, i, p.220.
3 Margaret A. Tillard and Charles Booth in LL, I, i, p.231.
Moreover, it must be emphasized that the prevalence of unemployment in the trade groups had nothing to do with the wages paid in those groups. The correlation coefficient for the 35 groups between the percentage who stated that they received less than 25s as their ordinary wages per week when in work and the percentages of average unemployment was .063. The correlation coefficient between those earning under 30s per week when in work and the average unemployment was -.059. This is extremely important, for it means that wages and unemployment were completely independent of each other; hence it is legitimate to choose one almost to the exclusion of the other as the primary industrial factor associated with poverty.

That we should choose unemployment has been strongly suggested by the analysis in this chapter and by the doubts that we have expressed about the meaningfulness of any wages equivalent of the poverty line. In one of Booth's sample streets where there were nineteen families below the line of poverty we find the following cases.1

<table>
<thead>
<tr>
<th>Case Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Man, wife and five children (class A)</td>
<td>Labourer. Out of work. Sells vegetables in streets very casually.</td>
</tr>
<tr>
<td>Man, wife and seven children (class B)</td>
<td>Bricklayer. Out of work. Wife makes matchboxes.</td>
</tr>
<tr>
<td>Man, wife and seven children (class B)</td>
<td>Pastry cook. Out of work. Tin toy trade. Very poor trade probably irregular.</td>
</tr>
<tr>
<td>Man, wife and three children (class B)</td>
<td>Dock labourer. Out of work. Loafer.</td>
</tr>
<tr>
<td>Man, wife and five children (class B)</td>
<td>Labourer. Out of work twelve months. Great distress. Not fond of work.</td>
</tr>
</tbody>
</table>

1 LL, I, ii, pp.90-1.
Man, wife, and five children (class B)  Plasterer. Out of work.
Man alone  (class C)  Labourer. Out of work.
Man, wife, and three children (class B)  Casual work.

In three other cases the men were simply described as "labourers" and hence were probably dependent on casual work. The families in this street are good examples of that lumpenproletariat, the "submerged tenth", the very poor, call them what you will, who were the greatest sufferers from a society where "the fear of being turned off was the worst thing in a working man's life, and more or less acutely it was almost always, in the case of the vast majority, present to his mind". 1

* * *

Therefore we may at least half-agree with Booth when he said that "Industry will not work without some unemployed margin - some reserve of labour - but the margin in London today seems to be exaggerated in every department, and enormously so in the lowest class of labour". 2

Even if it is accepted that the existence of a certain degree of unemployment was an inevitable concomitant of the prevalent emphasis on competition, there still remains the problem of discovering why the degree of unemployment should be so large in London. Booth often saw clearly the real nature of the problem: that it was "where machinery [was] most used that employment [was] most constant and where it [was] least used that it was most precarious". 3 Unfortunately, "the tendency in London [was] distinctly against large factories, and in favour of homework and small workshops". 4 Thus Booth realized that

1 Operative brushmaker's statement to Ernest Aves (LL, II, v, p.232).
3 Ibid., p.298.
it was the essential difference between the industrial structures of London and the provinces which led in large part to the existence of great irregularity of employment in London.

In fact the competition between the provincial factory and the London workshop may often have been directly to the detriment of the latter and thus of its workers. Beatrice Potter carried out the survey of the East End tailoring trade for the Poverty Series and worked in some of the sweaters' dens, finding that the regular orders in the coat-trade were given to the provincial factories. The London workshops, on the other hand, turned out the small intermittent orders.¹ Even within London, in tailoring, the larger contractors gave the most constant employment.² Low class workshops, meeting an irregular demand, offering irregular employment, working long hours to meet rush orders and then laying off workers when the orders were filled, since there was no expensive plant to be kept in use in order to maintain an economic business: it is a common story, which applied in greater or lesser degree to nearly all London's industries.

Thus while sew-round operatives in the boot trade might earn 28s in a full week Schloss estimated that they could reckon on only six months work in the year.³ These figures were confirmed by a Jewish boot-finisher, S. Wildman. According to Wildman a very quick man could average 15s a week for the whole year but if a man could not earn 30s a week in the busy period then his annual average would have

1 Ibid., p. 323.
2 LL, I, iv, p. 53.
been about 13s or 14s per week.¹ Even for the irregular men in
the factories the average was probably higher, perhaps about 23s.6d
per week.² But the boot trade was one where the small-scale system
of production was completely dominant, with many self-employed, small
masters and, even in the factories, much sub-contracting.³

The van-building trade is another which might be taken as a good
example of the evils associated with the small workshops. The large
firms in London were able to spread their work throughout the year,
falling back on standing contracts in the slack season or work for
stock. But the small firms suffered the usual fate of having to
work long hours during the busy summer season and then being out of
work for much of the rest of the year.⁴ The same contrast was drawn
in the wire-weaving trade by G.H. Duckworth, with an additional
emphasis on the severe competition that existed among the many small
masters.⁵ In the piano-making trade Esme Howard found that the large
firms met seasonal variations in demand by short time whereas in the
smaller shops, where the variations were far greater in any case, the
men were more likely to be dismissed.⁶

Against these examples we may place an industry where there was
a large number of factories engaged in production in London. In the
big rubber factories the variety of products manufactured had differing
seasonal patterns of demand; thus it was possible to transfer the

¹ Sweating System. HL Sel. Cttee. Mins. of Ev., p.56; GBPP 1888 [261] xx
² Sweating System. HL Sel. Cttee. Mins. of Ev., p.88; GBPP 1888 [448] xxi
³ For a description of the East End boot trade see LL, I, iv, pp.69-137.
⁴ Esme Howard in LL, II, i, p.235.
⁵ LL, II, i, p.389.
workmen from one department to another which maintained a high level of regularity of employment. An interesting example of the introduction of machinery leading to an increased rather than a decreased use of labour occurred among municipal labourers. The London section of the National Municipal and Incorporated Vestry Employés Labour Union stated in 1892 that the introduction of sweeping machines instead of brooms in some areas had led to the employment of more labour since now the whole street was swept instead of just the dirtiest parts.

It is clear that the small-scale system of production increased irregularity of employment in London and the examples could be easily multiplied. But there was one very important type of labour where unemployment was extremely high and yet, at first sight, it would appear the men were employed by a mere handful of companies. We are referring, of course, to that most famous of all forms of irregular employment in London, dock labour.

The situation of the dockers is well known. For the lowest class of men, possibly the majority, there was the rush of hundreds to the gate each morning. General Booth in 1890 watched 600 "ticket men" go through the gates and then less than twenty of the remaining 500 were taken on. One unionist told the Salvation Army leader

1 Esme Howard in LL, II, ii, p. 556.
that he had once earned £3 in a week and had then had no work for a fortnight; when few ships were in port many men starved. This irregularity of demand had been greatly increased by the introduction of steamships, for although work was more evenly distributed throughout the year the steamships had increased "the day to day and hour to hour uncertainty" since they came and went with rapidity in all seasons.

Beatrice Potter came to the conclusion that of the 10,000 casual labourers employed principally at the docks who lived in the Tower Hamlets School Board Division only a fraction could expect reasonably frequent work. The three dock companies (the West and East India, the London and St. Katherine, and the Millwall Dock Companies) offered, on average, employment for approximately 2,000 "irregular" hands at about 3s.6d a day. The true professional dock labourer could expect to average only 12s to 15s a week during the year. Returning to the subject in 1891-2 Booth estimated that there was "good" work for about 16,000 men in the docks while the number competing for work was perhaps 22,000. By this time, after the 1889 strike, the amount of work given to casual labourers was being reduced and more regular work was being provided. While in the long run this may have had beneficial effects Booth observed in 1895 that it caused a great deal of hardship among the casuals in the early years of the policy.

1 Ibid., p.38.
3 Ibid., p.25.
4 Ibid., p.27.
5 LL, II, iii, p.422.
6 Ibid., p.411.
In fact it is doubtful if the position of the dockers improved much in the period 1885-95. In 1892 the Rev. J.W. Lewis told the Royal Commission on Labour that the majority of dock labourers worked about half-time.¹

The traditional view of the dock labourers in London has been attacked by G.H. Pattison in a recent article.² Accusing the dockers of often being interested merely in earning enough for the doss house and stating that many who called themselves dockers did not in fact want regular work,³ Pattison is forced to admit that the benevolence of the companies towards the labourers that he discerns in the middle decades of the century became, in the later years of the century, increasingly confined to a select body of permanent men.⁴ Pattison's article fails to carry conviction, for even the General Manager of the Millwall Docks, Colonel R.G. Birt, stated in 1883 that he entirely agreed with Ben Tillett about the difficulties of the casual men in getting work. Birt further stated that it was quite likely that there was some bribery of the foreman in order to get work.⁵

Bribery was a common complaint and brings us to the point where it becomes apparent that employment at the docks was not in fact organized by the large companies at all. The foreman was the labourer's actual boss, which was why the foremen were bribed in the

³ Ibid., p.267.
⁴ Ibid., p.269.
⁵ Sweating System, HL Sel. Cttee., p.270; CBPP 1883 448 xxi. For Ben Tillett's estimate of the irregularity of employment for the average casual see his evidence at p.133.
public houses (called "shipping offices"). The docks were organized on the basis of contract and sub-contract, as Ben Tillett pointed out. The foreman or ganger was the real employer of the men.

Thus the docks, as well as the tailoring industry or the boot trade, were in fact examples of small scale industry, but of a disguised and rather strange type. Moreover, it is true that they received much of the flotsam from the other trades which suffered heavy irregularity of employment (in this sense Pattison is justified in his views). Seasonal workers such as painters would try to obtain some work in winter at the docks as well as costers, tailors, shoemakers, and other industrial refugees from the small-scale system of production. The docks do not form an exception to the general rule that has been put forward in this chapter, but rather the focal point for the worst of London's industrial evils.

* * *

The docks show most clearly the hierarchical nature of the social structure of London's working classes. At the bottom was a quite large body of men who received little employment throughout the year, this lack of employment being emphasized by seasonal tendencies. Then there was a bigger body of men who suffered from a smaller but still large amount of unemployment. Above them were those who could expect reasonably regular employment the year round, the "labour aristocracy".

1 Ibid., pp.217-8.
2 Ibid., pp.111-5.
3 Ibid., p.121.
The roots of this widespread irregularity of employment lay in an industrial structure catering for an irregular demand by the use of small, flexible, easily dispensable units. While the provincial factories hummed away fairly constantly, turning out the great mass orders, London's workshops stopped and started in a fitful attempt to adjust supply to demand. But nobody supplied the demand of the London worker for regular employment. Gradually, therefore, he resigned himself to this fact and became one of those dissolute idlers and loafers, addicted to drink, whom his contemporaries found so easy to condemn. This completed a cycle of poverty which Clara Collet masterfully described in the Poverty Series: "the inefficient are always irregularly employed. Irregular employment causes irregular demand and irregular demand irregular employment. Each force acts with increased momentum".  

1 LL, I, iv, p. 315.
Chapter IV

Human Failure

Many middle-class Victorians undoubtedly held the view that much of the inefficiency of the lower classes could be directly attributed to the fact that the poor drank too much. Confident that the beams in their own eyes were structural necessities for society, middle-class witnesses before Royal Commissions and Select Committees agreed in asserting the importance of drunkenness as a cause of social distress. Typical of such witnesses was the Rev. N. Dawes, Vicar of St. Mary's, Charterhouse, who argued that "poverty [was] rather the result of intemperance than the cause of it since intemperance [was] not confined to the poorer classes".1 This opinion, heard so often in parliamentary committee rooms, was echoed at the discussion on Booth's paper on poverty in the Tower Hamlets School Board Division read before the Royal Statistical Society in 1887.2 Booth's para-military namesake was to go so far as to state that "nine-tenths of our poverty, squalor, vice, and crime spring from this poisonous tap-root" of drink.3

But it would not be fair to confine this viewpoint to the ordinary middle-class man's armchair expertise or the verbosity concerning the inebriated poor of over-enthusiastic reformers. Even such a discerning observer as Ernest Aves showed this over-riding concern with a single

2 For the discussion on this paper see JRSS, 1887, pp.392-401.
aspect of a complex question. Describing the workers in the building trades he wrote that, "as regards character, there is testimony to improvement on almost every hand. Among some sections there is still much drinking, but there is a consensus of opinion that temperance, especially among the younger men, is making rapid strides". A working-man's character was thus, to some extent anyway, a matter of how much alcohol he consumed. The view that the lowest classes were too often debased in their habits was put forward by Burns speaking to dockers on Tower Hill in 1889. Most of his speech was given, not to Union demands, but to exhorting the men not to beat their wives, fight, or get senselessly drunk whenever they had the money.

That there was a connection between inefficiency caused by excessive drinking and poverty caused by irregular employment cannot be doubted. The Rev. J.W. Lewis told the Royal Commission on Labour that the dock labourer became accustomed to irregular work and the habit of working irregularly "became a sort of second nature" which resulted in thriftlessness. Beatrice Potter neatly summed up the problem when she said that "the casual by misfortune tend to become the casual by inclination".

Naturally Booth tried to give some kind of statistical answer to the question of the connection between poverty and alcohol. Analyzing 4,076 families of the poor and very poor known to selected

1 LL, II, I, p.167.
4 LL, I, iv, p.29.
School Board Visitors in each district of East London, he came to the conclusion that 13.6 per cent of those families owed their poverty directly to the drinking habits of at least one of the parents. ¹ Booth thought that this was an under-estimate of the effects of drink for he qualified this figure by saying that as a "contributory cause it would no doubt be connected with a much larger proportion". ² In 1889 he analyzed the causes of the pauperism of those in the various institutions in Stepney. 12.6 per cent of the pauperism was classified as being principally due to drink, while altogether 26.0 per cent of the cases were supposed to be connected with drink as a primary or secondary cause. ³ Again Booth felt it necessary to state that "closer research into the circumstances and history of these people, if it could be made, might disclose a greater connection than here appears between pauperism and the public-house". ⁴

It might be argued that these are the kinds of statistics that have the spurious accuracy which is self-invalidating. It is doubtful whether the causes of such a phenomenon as poverty can ever be described with such mathematical precision. We must also question the possibility of describing the connection between human failings and poverty in such a linear causal fashion. The assumptions and value-judgments inherent in such tasks are so great that Booth's figures cannot be accepted as having any meaning. Rather, they are

¹ LL, I, i, pp.147-8.
⁴ Ibid., p.315.
an interesting example of what statistical methods cannot achieve.

Moreover, Booth had already drawn a very different picture of
the public-houses in the East End. He found that "actual drunkenness
was very much the exception" and that while in the worst houses many
of the patrons might show obvious signs of the effects of drink the
norm was to find "half-a-dozen people ... chatting together over their
beer ... the whole scene comfortable, quiet, and orderly".\(^1\) In the
thirty families whose budgets Booth described the amount spent on
beer and tobacco rose markedly from class \(B\) to class \(F\),\(^2\) strange
evidence for thriftlessness among the poor and very poor. One writer,
with experience of social work in the East End and in the country,
claimed that there was proportionately far less drunkenness and
immorality in the former than the latter.\(^3\) This was just an isolated
opinion of course, but at least it counteracts to some extent the
impression to be gained from such people as the members of the Charity
Organisation Society.\(^4\)

We thus return to the original problem of the nature of the
connection between drink and poverty. The most likely explanation
is that the cause-effect relationship was in some way a circular one.
But the circle was weaker on one side than on the other. The remarks
of the Rev. J.W. Lewis and Beatrice Potter both tend in the direction
of placing poverty and irregularity of employment in the position of

1 LL, I, i, pp.113-4.
2 See Table 2e above.
3 Countess Cowper, "Some Experiences of Work in an East-End District",
4 For the attitude of the Society see C.S. Loch, Charity Organisation
(London, 1890), passim.
first cause, from which sprang irregular habits which increased the
tendency towards irregular employment and hence poverty. The
arguments which emphasized the importance of the trend in the opposite
direction - drinking causes poverty which increases drinking - were
based on unsound logic. Dawes argued that poverty was rather the
result of intemperance than the cause of it since intemperance was
not confined to the lower classes. The illogicality of such a
statement is apparent.

This is a priori reasoning which would describe the relationship
between poverty and excessive drinking as a kind of snowballing
process in which poverty was the primary cause can be considered to
be reinforced by later experience. Historians are fond of condemning
hindsight as their occupational disease which must not be allowed to
contaminate their pristine arguments. Yet, without hindsight the
historian is not a historian but merely another contemporary commentator,
unaware of what light future events will cast on present actions and
opinions. If drink was the primary cause of poverty then it would
have been necessary to abolish the former before the latter could
disappear. But this has not been necessary in the affluent societies;
rather the reverse is true, that general affluence is accompanied by
widespread heavy drinking, though little drunkenness.

Alcohol would appear to have been the escape-mechanism of the
poor in London. Such a phenomenon is natural in a leisured society
such as that in which the lowest classes of London lived. Where men
had to wait for work, often through the day, they would naturally tend
to gravitate towards the public-house where companionship and a certain
degree of comfort could be found. For dock labourers the public
houses were part of the industrial structure, the "shipping offices"
where they could buy the foreman a drink and thus employment for
themselves the following day. When the tension and humiliation of
seeking work culminated in the minor windfall of some short period
of employment then the worker might be forgiven for the brief celebra-
tions which punctuated his dreary existence. These celebrations
did not help him rise from that state but in few cases could it be
said that they had "caused" it.

*     *     *

Even if the male head of the family was a drinker he was at
least alive, though he might be hastening a change in that state of
affairs by his habits. He could thus contribute to the family income.
But where the man was missing then harsh poverty came in to fill the
gap. The widow or deserted wife more often than not slipped below
the line of poverty if she had not already been below it. Table 4a
shows this fact starkly by comparing the numbers of female heads of
family and their families in Booth's four major sub-divisions with
the numbers for the whole population in East London and Hackney.
Table 4a: Booth's social classification of families with female heads and of all persons (excluding those in institutions) in East London and Hackney compared.  

<table>
<thead>
<tr>
<th>Classes</th>
<th>A and B</th>
<th>C and D</th>
<th>E and F</th>
<th>G and H</th>
</tr>
</thead>
<tbody>
<tr>
<td>Members of families with female heads (per cent)</td>
<td>11,410</td>
<td>13,325</td>
<td>8,416</td>
<td>869</td>
</tr>
<tr>
<td>All persons (per cent)</td>
<td>111,041</td>
<td>203,134</td>
<td>498,193</td>
<td>79,671</td>
</tr>
</tbody>
</table>

72.7 per cent of the members of families with female heads were thus in poverty compared with 35.2 per cent of all persons in East London and Hackney. This latter proportion is very close to the percentage of widows and their families classified as very poor.

Similarly, the proportion of widows and their families classified as poor (39.2 per cent) approximates that in class E for all persons (42.3 per cent). These figures strongly indicate the downward tendency of families that had lost the male head. The death of her husband threatened a woman who was already poor with confinement to the ranks of the very poor. A woman somewhat above the line of poverty could expect to sink quickly below it if her husband died. Moreover, such women formed a noticeable proportion of those in poverty: just over one in ten of the very poor and one in thirteen of all those below the poverty line in East London and Hackney. There is no reason to suppose that these ratios would be considerably lower for the whole of London; in fact in Booth's 75 sample streets the ratios were one

1 From LL I, i, pp.35, 61.
2 LL I, i, p.35.
in five and one in eight respectively.¹

The situation of the widow was made much worse by the fact that women could obtain only low paid and often very irregular work. George Lansbury told the Select Committee on Distress from Want of Employment in 1895 that large numbers of the many widows could not average more than 6s a week in earnings.² A glance through the sample streets Booth describes in the second volume of the Poverty Series³ would immediately show the reader that widows lived by match-box making, mangling, charing, serving, and similar low-grade occupations. Thus Mrs. Mary Hayes, a widow with two daughters at home, one of whom was sickly while the other helped with trouser-finishing, who "cleared at most 5s.6d on average" a week, was more the rule than the exception. Mrs. Hayes sometimes had meat once a week but more commonly lived on "bread and a cup of tea, and such as a bit of fish, or anything of that sort".⁴

In a few occupations a woman could expect to find employment at moderate wages. Female cigar-makers could earn 20s a week and averaged 15s to 18s,⁵ while sorters and bundlers in the same trade might earn 25s a week.⁶ But cigarette-makers had a maximum of not much more than 15s a week.⁷ Such work was still the exception and presumed the ability to attend a factory. Most widows were probably

¹ LL, I, ii, p.231. These sample streets contained proportionately over twice as much poverty as the whole of London; this would increase the ratios.
³ See LL, I, ii, pp.46-225.
⁵ S.N. Fox in LL, I, iv, p.225.
⁶ Ibid., p.228.
⁷ Ibid., p.234.
home-workers since they would have had children to care for.

The home-worker was the female counterpart of the dock labourer, the dregs of the industrial army, if not in ability then in remuneration. An average worker making matchboxes, a common employment for widows, could earn 1\(\frac{1}{2}\)d to 2d an hour if she worked hard.\(^1\) Shirt finishers might earn only 3d to 5d a day; in fact for widows this was fairly typical.\(^2\) The very occupations which widows often followed were those which Clara Collet described as having a high degree of home work: the manufacture of boxes, brushes, corsets, umbrellas, artificial flowers, ties, trimmings, furs, trousers, vests, and shirts.\(^3\) Home work and widowhood were thus to a certain degree co-extensive and it was among widows and other women who depended on their work for their living that one found the worst cases of "starvation wages".\(^4\)

Certainly many of the cases mentioned in the Booth Survey confirm the main details of the picture of poverty-stricken widows which has just been partially delineated. Mrs. Pardon was a widow with five children who kept an old-clothes shop, living in a street largely inhabited by the very poor. Her children could not go to school "for want of boots. She used to make matchboxes, but has none to do now. Is very poor".\(^5\) Another case illustrates the existence of a poor widow in reasonably comfortable surroundings. There is here a sure sign of the effect of being widowed: she "tries to let furnished

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1 C.E. Collet in *LL*, I, iv, p.281.
2 Ibid., pp.296, 301.
3 Ibid., p.299.
4 Ibid., p.300.
apartments. She is too easy, and her lodgers leave her in debt. She has a hard struggle". ¹

Most of the descriptions are briefer and more pointed:

<table>
<thead>
<tr>
<th>Class</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Widow, alone.</td>
</tr>
<tr>
<td>B</td>
<td>Widow and 3 children.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Widow by herself.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Widow and 4 children.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Widow.</td>
</tr>
<tr>
<td>B</td>
<td>Widow and 3 children.</td>
</tr>
<tr>
<td>D</td>
<td>Two widows.</td>
</tr>
<tr>
<td>D</td>
<td>Widow and 2 children.</td>
</tr>
<tr>
<td>B</td>
<td>Woman, her mother, and child.</td>
</tr>
</tbody>
</table>

All these cases are very typical of the position of widows. The significance of the low-grade nature of the work that they could perform must be emphasized. They were often self-employed or practically so in the sense that they were home-workers on piece rates. They seldom had any chance of earning enough to raise themselves above the line of poverty, or even out of the ranks of the very poor. Thus the widow lived in a tight corner of despair. There was little she could do to keep herself above the poverty level except wait for her

1 Ibid., p.216.
2 Ibid., p.109.
3 Ibid., p.112.
4 Ibid., p.113.
5 Ibid.
6 Ibid., p.117.
7 Ibid., p.119.
8 Ibid., p.152.
9 Ibid., p.155.
10 Ibid., p.185.
children to grow up and help support her. But then their experiences in childhood might well have ill-fitted them for the strain of the rampant competition in London. Again there is a circularity present, a circle no less vicious because the term is now a cliché. Poverty, unemployment, demoralisation, human failure; this Ptolemaic social universe continued its complex rotations governed by the gravitational force of unrestrained competition.

* * *

For each individual final escape from this type of situation could come only with death. But the mode and timing of that release could well increase the sum of misery present in society and inflicted upon the individual. Prolonged sickness would bring a reduction in income while old age would probably bring a complete cessation of employment.

Little information is available on the question of sickness. Booth classified 13 per cent of the very poor and 7 per cent of those in poverty in his sample streets as being "cases of sickness".¹ Again we must question the methodology and the assumptions inherent in such a classification. Many of those who were sick were probably so because they were poor. The effects of years of living on an inadequate diet would naturally manifest themselves in the form of ill-health (yet another cycle of poverty may thus be seen). In fact in this last cycle we can probably see the real effect sickness had on poverty. It would seem reasonable to surmise that a very large number of the poor were never in full health and were consequently inefficient units.

¹ Ibid., p.231.
of production, likely to be laid off at the first sign of a downward trend in trade.

However, there must also have been many cases in which the poverty of a family could be ascribed more directly to sickness. There was the case of a builder's labourer, married with six children and classified in class B, who had been a soldier and had sunstroke. He tried to keep sober but when drunk smashed everything.\(^1\) This sounds very much like a case of alcoholism. Another family in class B comprised a disabled man who worked at Billingsgate, his paralyzed wife, two children living at home, and another girl in domestic service.\(^2\) Then there was the family with five children where the man had been a gasworks labourer. As with most of Booth's case descriptions the notes on this family are terse, yet have great impact: "Met with an accident and now cannot work. Clean respectable people. Great poverty."\(^3\) Or the case of a widow and her son: "There were 2 sons who worked in docks - very steady fellows - but one has lately died of consumption and the other is suffering from the same disease. Very clean, decent, and never beg. Helped by married daughter a little."\(^4\) This family, classified very poor, was one which suffered from irregular employment, though the primary cause of poverty would appear to be sickness. In time it no doubt became a case of a poor widow. Thus it is an interesting example of the overlapping between various causes of poverty. A very clear case of sickness causing

\(^1\) Ibid., p.87.  
\(^2\) Ibid., p.89.  
\(^3\) Ibid., p.92.  
\(^4\) Ibid., p.111.
poverty was that of a man and wife with three children (class B):
"Paralyzed. Wife does mangle. Dreadful poverty".¹

Other cases of this nature can be found in the descriptions of the 75 sample streets. Yet the impression to be gained from these descriptions is that sickness and injury serious enough to totally incapacitate for work was the exception. Rather, there would be a gradual shading of ill-health from one end of a spectrum to the other; near one end lay the dockers, some of whom were so underfed that they could work for only a "couple of hours", according to a house-surgeon at Poplar Hospital (which received many accident cases from the docks).² At the other end were those men who suffered little from ill-health. The suspicion remains that the latter group was very small and that many of those in poverty suffered from general physical incapacity due to poor food and living and working conditions. But exactly how widespread or serious this general incapacity was cannot be said. Furthermore, when men were poor they would probably tend to take work when they could get it, even if their health was bad. This would increase the premature ageing that afflicted the poor.

For it would be a mistake to try to describe the problem of the connection between old age and poverty simply in terms of those who were over some arbitrary age-limit, such as sixty or sixty-five years of age. There is again a gradual shading: from increasing irregularity of employment caused by increasing age until a state of complete redundancy was reached and a man became truly "old". As Hyndman said,

¹ Ibid., p.123.
"in nearly all trades now a man with grey hairs in his head is rarely engaged, and is the first to be discharged".¹

On the whole the various trades in London seem to fall into three broad groups with regard to the age at which the workers in them became "old". In one small group of trades, including barmen and drapers, the age at which men were put off or could not gain new employment because they were too old was very low indeed: twenty-five to thirty years of age in the case of barmen ² and thirty-five for drapers.³

The second group was by far the largest. In most trades the age of the onset of incapacity seems to have been about fifty years. At one end of this group were the men employed in pottery works who could not continue at their work "later than up to forty-five".⁴ At the other end were corrugated iron workers, who lost their capacity at "sixty years or sooner",⁵ and printers, who could obtain work till they were sixty.⁶ In between these two extremes lay most of the trades. Glass bevellers suffered diminution of their earning capacity at fifty to fifty-five.⁷ Farriers were worn out at fifty ⁸ while men engaged in omnibus service were usually incapacitated at fifty-five.⁹ Those engaged in general engineering work found it "difficult ... to obtain employment ... if past fifty".¹⁰ In some trades it was possible

² LL, II, iii, p.236.
³ Ibid., p.79.
⁴ LL, II, ii, p.91.
⁵ LL, II, i, p.345.
⁶ LL, II, ii, p.211.
⁷ LL, II, i, p.189.
⁸ Ibid., p.330.
⁹ Ibid., i, p.319.
¹⁰ LL, II, i, p.303.
to continue in employment for some years past the age when it became difficult to find new employment. Thus paper-stainers could continue to work till they were sixty, even though it was hard to get a new place after fifty years of age.\(^1\) Similarly, book-binders were able to work till they were sixty-five but after fifty or fifty-five the chance of obtaining fresh employment was small.\(^2\)

The third group consisted of those trades in which employment could be found to a reasonably advanced age. Plenty of the boat-builders, for example, were past sixty\(^3\) while goldsmiths and jewellers\(^4\) and watchmakers\(^5\) could expect to be employed well past that age (though this was probably due to the fact that these were declining trades). Piano-making\(^6\) and most branches of brush-making\(^7\) were other trades where men could work on to about sixty-five. Finally, cabmen often continued to work well into their seventies.\(^8\)

But the general rule seems to have been that when a man passed the age of fifty he could expect to suffer increasing unemployment. Once he had been laid off for any reason he found it difficult to obtain new employment. Hyndman's comment thus seems to be largely justified. It is interesting to note that 38.6 per cent of the widowers who made statements in March 1887 were out of work on the day of the inquiry compared with 27.4 per cent for all the working-men

1 LL, II, ii, p.269. 
2 Ibid., p.251. 
3 LL, II, i, p.275. 
4 LL, II, ii, p.10. 
5 Ibid., p.29. 
6 LL, II, ii, p.60. 
7 Ibid., p.175. 
8 LL, II, iii, p.319.
who made statements. As widowers would normally be older men we may take these figures as indicative of the increasing irregularity of employment associated with late middle age.

At this stage the objection might be raised that it could very well be true that after fifty a man's chances of gaining employment rapidly diminished but in the nineteenth century life expectancy was so short that few would pass that age. However, life expectancy is not relevant; what is relevant is the actual proportion of the population that reached certain ages. In 1891 no less than 9.2 per cent of the population of London was over fifty-five years of age and 3.9 per cent was over sixty-five years. It is possible to interpolate from the available data that 13.2 per cent of the population was over fifty years of age. Thus the proportion of the population which reached late middle age was a by no means insignificant one. Moreover, the proportion of the population over sixty years of age was 6.0 per cent (by interpolation).

Although 6.0 per cent of the population was over sixty Booth classified only 3.3 per cent of those in poverty in his 75 sample streets as being in poverty primarily because of old age (that is, being over sixty). This might seem a surprising fact since such a connection is one that we might readily make - we would expect perhaps to find more than 6.0 per cent of those in poverty being people over sixty.

1 See Table 1 in above.
2 Calculated from Diagram IV opp. p.52 in LL, II, v.
3 The method of interpolation is discussed in the Appendix.
4 LL, I, ii, p.231.
The obvious, and incorrect, conclusion to be drawn from these figures is that the old were better off than the rest of the population and thus that there was no connection between old age and poverty, the old who were poor simply being poor people who had grown old. As the poor could be expected to die younger this would leave mainly the more wealthy alive in old age.

Though this argument has a certain coherence it must be rejected. In 1891 Booth estimated that 10.2 per cent of those in the sixty to sixty-five age group were paupers (that is, in receipt of relief of one variety or another) while 38.4 per cent of those over sixty-five were estimated to be paupers. Sir Hugh Owen, Permanent Secretary to the Local Government Board, stated in 1893 that 35.3 per cent of those over sixty-five years of age in London were paupers, compared with 27.4 per cent for the whole of England and Wales. From a table in the Report to the Royal Commission on the Aged Poor referring to the year ending 31 March 1892 it would appear three-fifths of those aged paupers were receiving indoor relief, that is, they were housed in institutions. Thus of those persons over sixty-five who were not already in institutions about sixteen per cent were paupers.

This is a very important point because Booth excluded from his survey, except in a special discussion in the fourth volume of the Industry Series, those who were in institutions. This means that we cannot gain from the survey a clear indication of the relationship

1 "Enumeration and Classification of Paupers and State Pensions for the Aged", JRSS, 1891, p.631.
2 Aged Poor. R. Com. Mins. of Ev., p.6; GBPP 1895 (C.7684-1) xiv, 136.
between poverty and old age since the greater part of the lowest section of the aged were not included. The estimates of the extent of old age pauperism made by Booth in 1891 would suggest that all the very poor and some of the poor became paupers after the age of sixty, while the rest of the poor and many of the "comfortable working classes" were likely to be pauperised after the age of sixty-five. Moreover, it must be assumed that those over sixty-five in poverty would exceed the number who were paupers by some considerable amount. Hence those who, in the middle years of their lives, had been in the more comfortable section of the working classes probably sank below the poverty level in old age - a conclusion which may seem very obvious but one which was not suggested by the statistics in the Booth Survey. This more than counterbalanced the fact that those who had been poor for most of their lives were less likely than the rest of the population to reach old age.

If they did, then they were the first to have to resort to the institutions provided under the Poor Law of 1834.¹ The workhouse was an institution to be feared and avoided if at all possible. R. Hedley, the Inspector of the Local Government Board for London, stated that accommodation for the aged poor was generally good in the London workhouses. However, working class suspicion of the "house" was so great that only those who were destitute would accept indoor relief.² This accounts for Sir Hugh Owen's statement that nine-tenths of those in

¹ The classic description of the administration of the 1834 Poor Law remains Sidney and Beatrice Webb, English Poor Law History: Part II: The Last Hundred Years, vol.I, pp.245-468.
² Aged Poor. R. Com. Mins. of Ev., p.90; GBPP 1895 (C.7684-1) xiv.
health (not just the aged) who applied for relief refused the workhouse, but many would go to infirmaries which they regarded as hospitals, even though they would never go into the sick wards of a workhouse. Yet in general the fact that more than one-fifth of those over sixty-five were prepared to accept indoor relief says a great deal about the poverty that old age all too often brought.

Before accepting indoor relief most of the aged probably tried to struggle along on their own means or with the aid of outdoor relief. But, as Sir Hugh Owen pointed out, out-relief was "usually inadequate if it were not supplemented from other sources". In many cases if other sources of income were available then out-relief would be refused since, according to Hedley, "destitution was the only ground which entitled the applicant to relief at all". The average payment on out-relief to an old person was in fact only 2s.6d to 3s per week. J.H. Allan, a member of the St. Pancras Board of Guardians, set the minimum figure on which an old person could live at 7s per week, while the maximum out-relief given was 4s per week. In an exceptionally deserving case this 4s would be given if income from other sources totalled 3s a week, but this was very unusual.

Consequently, it was only a matter of time before an old person with no great private means, if he continued to survive, was forced to go

1 Ibid., p.18.
2 Ibid., p.17.
3 Ibid., p.16.
4 Ibid., p.89.
5 Ibid., p.78.
6 Each Poor Law Union, which usually corresponded to a registration district, was administered by an elected Board of Guardians.
7 Aged Poor. R. Com. Mns. of Ev., p.130; GBPP 1895 (C.7684-I) xiv.
to the workhouse.

This course of action (placing the old in workhouses) was supported by the Charity Organisation Society which was very much involved in the administration of relief. The Society's main concern was always to prevent people from becoming improvident because of the expectation of relief. Thus T.G. Gardiner, secretary of the Society in Newington (Southwark), proudly gave the following example of the Society's rigid standards to the Royal Commission on the Aged Poor. He had received an application for relief from a hatter aged seventy-four, whose wife was aged sixty-four. The man was already receiving 4s a week in superannuation payments from the Hatters' Society. Gardiner gave 7s to the man and his wife in the interim and instituted inquiries about the man from his two previous employers. Both said he was a good worker and industrious but used to drink "a great deal". The application was therefore declined and the man and his wife were offered the workhouse. Gardiner did not know what became of them.

The aged poor had little hope therefore. Gardiner was typical of the men administering relief: well-meaning, sincere and no doubt personally humane, yet in the last analysis callous, since certain sacrifices had to be made if the general good was to be preserved.

No better summary of the fears of such men can be found than the words of another Poor Law administrator: "I think if the State intervenes on behalf of the aged, it is difficult to see in what way the

2 Aged Poor, R. Com. Mins. of Ev., p.221; GBPP 1895 (C.7684-1) xiv.
intervention of the State may not be justified in other contingencies of life". The speaker was W. Vallance, Clerk to the Guardians in the Whitechapel Poor Law Union, a man still remembered for his social work by the naming of a boys' club in Whitechapel after him. In many ways Vallance's statement was the epitome of nineteenth century thought; at once so wrong and so right. The nineteenth century provided many precedents for state intervention for the twentieth, each one being justified almost in terms of a necessary evil. The accumulation of precedents was to produce a new climate of opinion in which the State felt justified in intervening in all the 'contingencies of life'. The constant chipping away by the nineteenth century at its own myth of laissez-faire was to enable the twentieth century to demolish the truncated remnant it inherited.

* * *

The problem of old age and poverty was probably the first to be tackled in a fairly thorough fashion by the State because it was the most easy to isolate. Although opponents of old age pensions might argue that such pensions would tend to make the working classes improvident during their years of full earning capacity the idea was to carry diminishing weight. Old age was the final stage in a man's life and to help a man at that stage was not going to prejudice his future or the future of society in general.

1 Ibid., p.150.
2 I must thank Dr. I.J. Catanach for this information.
3 For some of the changes in public opinion and government policy with regard to the aged see Sidney and Beatrice Webb, op. cit., pp.352-6.
But the other types of "human failure" associated with poverty could not be so easily isolated. All were bound together in epicyclic movements causing, and being caused by, poverty. The man who was poor might take to alcohol as the drug to alleviate his misery. Thus he would come to be seen as a case of improvidence, one of the "undeserving poor". Furthermore, drinking might increase his already great susceptibility to disease, fatal or otherwise. The sick man and the widow might also see in alcohol an escape from reality, though an escape they could ill afford. Moreover, all these unfortunates were breeding more of the misery in which they themselves lived. Those reared in poverty were likely to remain in it while those who came into contact from outside might well be debased by the experience. Above all, in a society where massive underemployment was the rule the influx of fresh competition could well have been more debilitating than invigorating.
Chapter V

Population Pressure

Of all the cyclical phenomena associated with poverty the most common was (and is) the idea that poverty quite literally breeds poverty. It might almost seem that in a poor and uneducated society procreation takes the place of recreation. Certainly the large families which we associate with the Victorian period were most common among the poor. This may be conclusively and briefly demonstrated, so far as London is concerned, by an analysis of the 11,904 persons living in Booth's seventy-five sample streets. 21.7 per cent of those in classes A and B (the very poor) lived in families in which there were six or more children. This figure dropped to 12.6 per cent for those in classes C and D (the poor) and to 7.5 per cent for those in classes E and F (the comfortable working classes).¹

While it is obvious that a family with a large number of children was in a disadvantageous position compared with a small family, it is difficult to describe in any kind of statistical terms the extent to which large families were a cause of poverty. In fact, when one turns from analysis in the mass to the descriptions of the individual streets it becomes apparent that the circularity is one which cannot be broken at any point. Consider the following cases from two streets:

Class B  Man, wife, and 8 children. Coster, owns his barrow.
         2 sons at work.

¹ LL, I, ii, p.231.
² Ibid., p.112.
Class B  Man, wife, and 6 children. Metal work, irregular. One girl collar factory. Very poor.
Class B  Man, wife, and 6 little children. Both employed, brush drawing. Work is irregular and they are very poor.
Class B  Wife and 6 children. Husband lunatic, at Colney Hatch. Wife chars and waits at club. Boy and girl at work. 2 at school. 2 quite young.

These are by no means untypical cases. It would not be possible to say that any one of these families owed their poverty to the size of the family, though no doubt in all cases the poverty which was an inevitable result of other circumstances was greatly increased by the struggle to support so many people. It is therefore not possible, in the great majority of cases, to state that if a particular family was not so large then it would not have been placed below the poverty line. The conclusion to be drawn is that the existence of many large families was not an important cause of poverty but was a significant factor in the degree of poverty in some cases. Again the circularity of the problem must be emphasized; the high correlation between the poverty index and the birth-rate in the twenty-seven districts which firms the basis of the analysis in Chapter I was very much a measure of association and cannot be interpreted as an indication of causation. The children of the poor entered an already overstocked labour market

1 Ibid.
2 Ibid., p.113.
3 Ibid., p.128.
4 Ibid.
5 Ibid., p.129.
and thus were likely to become irregularly employed poor with large families themselves.

* * *

If the labour market in London was overstocked then there were some who were prepared to find an explanation for this situation in the influx of Polish and Russian Jews which began in the eighteen-eighties. This influx was due to the pogroms which began in the Russian Empire in 1881, pogroms which were followed by the oppressive May Laws of 1882. Between 1881 and 1899 450,000 Jews migrated from Eastern to Western Europe and the United States. This great migration continued until the First World War. Between 1881 and 1914 nearly a quarter of a million Jews settled in England, 65 per cent of the Jews in England living in London at the latter date. Naturally this influx greatly increased the Jewish population in the East End and therefore made more marked the coincidence between the poorest area in London and the London homeland of the Jews.

The exact size of the Jewish population in London in the period 1885-95 is difficult to ascertain. Estimates based on the death-rate and marriage-rate among Jews compared with the whole population of the metropolis are unsatisfactory. As H. Llewellyn Smith pointed out, the Jewish population was an abnormal one in that it was "continually augmented by a stream of immigrants among whom individuals of all ages are not likely to be represented in their due proportions". However, according to Llewellyn Smith, the influx of foreign Jews tended to

1 Howard M. Sachar, The Course of Modern Jewish History, p.306.
2 Ibid., p.495.
3 LL, I, iii, p.105.
act on the death-rate and marriage-rate in opposite ways. An estimate based on these two indices together placed the Jewish population in London in 1888 at 70,000 persons.¹ Llewellyn Smith also used the information obtained by the Select Committee on the Sweating System in 1888 about the number of Jewish children in London's elementary schools. There were 10,122 of these and as the elementary school population in a large district was usually one-sixth of the entire population this would place the total Jewish population in 1888 at a little more than 60,000.² In fact this argument would apply only to the native-born Jews (7,290 of the 10,122 children were native born). For foreign Jews a different mode of calculation had to be used. Llewellyn Smith noted that in the 1861 Census, the only census for which the material was available, the proportion of foreign-born children between 5 and 15 years of age to the total number of Russians and Poles living in London was nearly one to ten. Thus the proportion of foreign-born Jews who would have been attending elementary schools can best be estimated at one in twelve to one in thirteen.³ Hence we can estimate the number of foreign Jews in London in 1888 at about 34,000 and the number of native Jews at about 43,000, giving a total of 77,000 Jews in London of whom over nine-tenths would have been living in the East End. In the late eighteen-eighties there was a lull in immigration, but there was another influx from the early eighteen-nineties onwards, following a fresh outbreak of persecution in Russia.⁴ Thus

¹ Ibid. The estimate was made by a Dr. Adler and Llewellyn Smith does not explain the method in detail.
² Ibid., pp.105-6.
³ Ibid., p.107.
⁴ Ibid., p.109n.
by 1895 the Jewish population was probably well in excess of 77,000, perhaps the majority being Polish or Russian by birth.

Because there was little overt anti-Semitism in London until 1902 it has been usual to paint a "suspiciously idyllic picture" of the ability of the city to absorb this massive Jewish immigration.¹ That there was anti-Semitism cannot be doubted; it might be noted that in 1891 Llewellyn Smith wrote that "we may cry 'London for the English' if we will".² Complaints that Jewish labour was depressing the employment market were heard increasingly.³ C. Freak, Secretary to the Shoemakers' Society (a Gentile organization), put forward the most bitter complaints about Jewish workers. Working sixteen or eighteen hours a day "these Jew foreigners ... make a lot of cheap and nasty stuff that destroys the market and injures us", Freak claimed before the Select Committee on Emigration in 1888.⁴ According to Freak, the English operative worked fifty-four hours for his £0s a week, while the Jewish worker always laboured more than fourteen hours a day, yet averaged only 12s to 14s a week.⁵ Although wages had not dropped in workshops owned by non-Jews, he said, they had fallen by at least one-third in Jewish houses in the previous few years. This prevented English workers from learning their trade, as they had previously done, on the cheaper work.⁶ Before the Royal Commission

² LL, I, iii, p.111.
³ Howard M. Sachar, op.cit., p.495.
⁵ Ibid., p.125.
⁶ Ibid.
on Labour in 1893 Freak was even more trenchant. He expressed his
"wish to anglicize these foreigners a little bit and make them conform
to the custom of the people here instead of working 16 to 18 hours a
day for a mere subsistence wage and so robbing our Englishmen and
driving into the workhouse the Englishmen of the country". Freak's
usual complaint was that while wages had not been lowered in non-Jewish
shops a great deal of English labour had been displaced by the "foreign"
competition.

A.H. White, a self-appointed expert and collector of evidence on
the evils arising from the growth in the Jewish population, went even
further than Freak in his claims. According to White, if there had
been no poor foreigners in London then there would have been no sweating
system. He stated that the incidence of sub-contracting in the
cabinet trade had much increased since 1880, an increase contemporaneous
with the great wave of "pauper immigration". As Lionel Alexander,
Honorary Secretary to the Jewish Board of Guardians pointed out, the
real influx of Russian and Polish Jews had not begun until 1881. In
fact all authorities appearing before the Select Committees on the
Sweating System and Emigration were agreed that most of the immigration

1 Labour, R. Com. mins. of Ev., C. 659-19, GBPP 1893-4 (C.6894-IX) xxxiv, 549.
2 Sweating System. HL Sel. Cttee. mins. of Ev., p.335; GBPP 1888 [36] xx
3 For a brief biography of White see Who Was Who 1916-1928, p.1116. He was a prolific writer on social and imperial questions.
4 Sweating System. HL Sel. Cttee. mins. of Ev., pp.43-4; GBPP 1888 [36] xx. "Poor foreigner" was a euphemism much used by men like White. We may compare it with the modern use of the term "Commonwealth immigrant".
5 Ibid., p.209.
6 For a description of the work of the Jewish Board of Guardians see Beatrice Potter in LL, I, iii, pp.173-5.
7 Sweating System. HL Sel. Cttee. mins. of Ev., p.529; GBPP 1888 [36] xx
of foreign Jews took place in the years 1882-3 and rapidly tailed off thereafter as the government-inspired pogroms in the Russian Empire temporarily abated.

Even though it is obvious that the comments of such men as Freak and White were inspired by racial prejudice it is true that the arrival of these Jews, all of whom were poverty-stricken, had some effect on the London poor and especially on those in the East End. The statements made by certain working-men in London in March 1887\(^1\) give some information on the subject, though the interpretation of the statistical data is difficult. The difference between foreign Jews and the native-born is best shown by looking at the tailoring industry, in which so many Jews worked. The tailors born in the United Kingdom earned, on the average, 26s.5d per week when in work. Tailors born outside the United Kingdom (who formed 58 per cent of the total number) averaged 20s.6d per week when in work,\(^2\) or 6s.3d less than the native-born. Moreover, unemployment during the previous nineteen weeks had averaged 47.7 per cent among the foreign-born, compared with 29.8 per cent among the native-born.\(^3\) We may therefore conclude that the British-born tailor had a very great advantage, both in wages and regularity of employment, over the Jewish immigrant. It might be claimed that the Jewish immigrant would drag down the British-born tailor, but it seems reasonable to argue that if this process was going

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1 Condition of the Working Classes, Rep. and [Tabulation of Statements], made by men living in certain selected districts in London in March, 1887; GBPP 1887 (C.5228) lxxi, 303.
2 Ibid., p.xiii.
3 From Tabulation of Statements, pp.35, 37.
to occur then it should have taken place by the winter of 1886-7, four years after the great influx of foreign Jews.

Rather it was the Jewish immigrant who rose, though in doing so he exaggerated the weaknesses already present in certain trades in East London. The immigrants were mainly men aged twenty to forty years with a determination to increase their material assets, yet also with an ability to withstand great suffering. The luckier ones already had friends and relations in London who could look after them in the difficult early days. Those who were not so blessed, probably the majority, might well fall prey to the "runners", men who rushed towards the gangplank, took the bewildered newcomers and offered them bogus tickets to America or free lodging and guidance for those who were staying. In the bedlam at the landing-stage welfare agencies such as the Hebrew Ladies' Protective Society would try to direct people to the Poor Jews' Temporary Shelter in Leman Street, which was designed to protect the new immigrants. But these immigrants were, in the confusion, more likely to prefer the glib promises of the runner who offered immediate and personal guidance to the name of some unknown and ominously official-sounding place.

When, stripped of the few possessions he had had, the new immigrant was cast out by the runner, he would take a job as a "greener" in a small Jewish workshop, working sixteen, eighteen hours a day for his food and lodging. But once he had learned his trade (for very many the tailoring trade) he would leave and sell his labour. Working his
way up he might then achieve his great ambition: to become an employer himself.\footnote{1}

To aid him in this transition from "pauper immigrant" to respected citizen the foreign Jew appears to have had some advantages. Though the intellectual discipline the Jew underwent in his youth may have been narrow in scope, with its heavy emphasis on the study of the Talmud, it nevertheless gave him a trained mind. The Talmud is a work of great subtlety and though its study led to no widening of intellectual horizons it appears to have led to a development of the "mechanical faculties of the intellect".\footnote{2} Thus Beatrice Potter felt that "the poorest Jew has inherited through the medium of his religion a trained intellect ... In ... East London we see therefore a race of brain-workers competing with a class of manual labourers".\footnote{3}

This is the kind of argument about which it is fashionable to feel sceptical, though if we do so feel then it becomes difficult to account for the survival of the Jews despite vicious persecutions and enormous social pressures. In any case, in London in our period there was another factor at work which was to help the Jewish immigrants become independent. This factor was the Jewish Board of Guardians, an agency in no way similar to the Boards of the English Poor Law Unions. The Jewish Board spent £13,000 to £14,000 per year on actual relief. Of this, £2,000 only was spent on outdoor relief. £3,000 was lent for trade and business purposes, £1,000 spent on emigration, and

\footnote{1} The previous two paragraphs are very largely taken from Beatrice Potter in LL, I, iii, pp.182-6. 
\footnote{2} Ibid., p.188. 
\footnote{3} Ibid., pp.187-8.
£500 on sanitary inspection of the homes of the poor and a workroom for girls. Over one-half of the remainder was given in the form of business capital. Thus a total of about £6,500 was given or lent for business purposes. Undoubtedly this fact made it much easier for the Jewish tailor or bootmaker to set himself up in business, only a little capital being required.

For the Jewish immigrants had gravitated towards types of employment where the small master and the self-employed man were unusually dominant, even for London. Perhaps two-fifths of the East End Jews were tailors, "the rest were peddlers, boot-and-shoe workers, furniture makers, cigar makers, produce dealers, and petty "retailers". The process of transition from "greener" to master in such trades brought unfortunate consequences. Multiplying the already large number of small businesses and self-employed workmen it greatly increased the competition between such businesses which was the blight of London, particularly of the East End. Immigrant Jews did not invent the sweating system - it was a native growth - but through the force of circumstances they worsened the effects of that system on the London poor.

* * *

Although Jewish immigration aroused the greatest interest in the decade 1885-95 the greatest number of immigrants to London had come from within the United Kingdom itself. In 1881 37.1 per cent of

1 Ibid., pp.174-5.
2 Howard M. Sachar, op. cit., p.495.
the inhabitants of the metropolis had been born outside London but only 2.8 per cent of the population had been born outside the United Kingdom.\(^1\) The census of that year also showed that 54 per cent of the adult population had been born outside the metropolis.\(^2\) This influx is not as unusual as might at first be thought. In the whole of England and Wales 280 people in every 1000 were living outside the county of their birth and in the seven largest towns in Scotland 47.6 per cent of the inhabitants were not born in the towns in which they were living.\(^3\) Naturally in London there was an efflux as well, but in the decade 1871-81 the net balance of inward migration was about 108,000 persons.\(^4\) However, in the intercensal decade 1881-91 this surplus was transformed into a net efflux of about 115,000 persons.\(^5\)

The population of Registration London continued to grow slightly until the 1900's but in the intercensal decade 1901-11 a decrease was

\(^1\) As it was not possible to check these figures from official sources the figures have been taken from two other sources: E.G. Ravenstein, "On the Laws of Migration", Journal of the Statistical Society, 1885, pp.206-7 and H. Llewellyn Smith in LL, I, iii, pp.164-5. Llewellyn Smith gives the same percentages as those above in LL, I, iii, p.61. Both Ravenstein and Llewellyn Smith give a table of the number of inhabitants of London in 1881 divided according to the place of birth. But Llewellyn Smith built up his figures from the rough sheets for each registration district and an error of about one per cent occurred in the total. The two agree on the total population and the correct number of those born outside London; Ravenstein's figures are also internally consistent and therefore have been used where possible since they are presumably accurate.

\(^2\) H. Llewellyn Smith in LL, I, iii, p.142.


\(^4\) Llewellyn Smith in LL, I, iii, p.61.

\(^5\) N.A. Humphreys, "Results of the Recent Census and Estimates of the Population in the Largest English Towns", JRSS, 1891, p.326.
registered for the first time. The 1880's had been the real turning point; thus the County of London was outdated at the time of its formation since it did not include the most rapidly expanding areas of Greater London. The same may be said of the Greater London Region formed recently.

Even though the balance of migration was turning against Registration London there still remained the fact that nearly two-fifths of the total population and nearly one-half of the adult population had been born outside London. The migrants came from all parts of the United Kingdom. Migration in the nineteenth century is a subject over which there has not been a great deal of controversy. The final answer to the question, at least for the first half of the century, has usually been thought to have been given by A. Redford over forty years ago when he stated that "all the rising centres of industry and commerce were attracted by a process of short distance migration from the surrounding country". W.H. Chaloner says in his preface to the second edition of Redford's work that "Redford's general conclusions have never been challenged". Although Redford stated that the attractive force of the capital city was felt in every part of the United Kingdom he nevertheless concluded that "the general characteristics of the movement remained the same as for other great towns".

But the attractive force of the metropolis in the late nineteenth century was so great that the "general characteristics" were somewhat

3 Ibid., p.vii.
4 Ibid., pp.184-5.
different. Llewellyn Smith divided England and Wales into six rings of counties. He then calculated the average distance of each of these rings from London by multiplying the population of each county by the distance of its centre from London, adding the products and dividing by the total population of the ring. Using this very useful classification we may construct the following table:

Table 5a: Birth-places of migrants living in London in 1881.

<table>
<thead>
<tr>
<th>Birth-place</th>
<th>Average distance from London in miles</th>
<th>Percentage of the total of migrants living in London in 1881</th>
</tr>
</thead>
<tbody>
<tr>
<td>First ring</td>
<td>23.8</td>
<td>24.69</td>
</tr>
<tr>
<td>Second ring</td>
<td>52.5</td>
<td>22.45</td>
</tr>
<tr>
<td>Third ring</td>
<td>90.9</td>
<td>13.87</td>
</tr>
<tr>
<td>Fourth ring</td>
<td>126.0</td>
<td>7.50</td>
</tr>
<tr>
<td>Fifth ring</td>
<td>175.7</td>
<td>9.66</td>
</tr>
<tr>
<td>Sixth ring</td>
<td>236.9</td>
<td>3.09</td>
</tr>
<tr>
<td>England and Wales (county not stated)</td>
<td>-</td>
<td>1.69</td>
</tr>
<tr>
<td>Scotland, Ireland, and Islands in the British Seas</td>
<td>-</td>
<td>9.60</td>
</tr>
<tr>
<td>Abroad</td>
<td>-</td>
<td>7.51</td>
</tr>
</tbody>
</table>

1 See LL, I, iii, p.67. The first of these rings consisted of extra-Metropolitan Middlesex, Surrey, Kent, and Essex; the second of Suffolk, Cambridge, Huntingdon, Bedford, Hertford, Buckingham, Oxford, Berkshire, Hampshire, and Sussex; the third of Norfolk, Northampton, Rutland, Leicester, Warwick, Worcester, Gloucester, Wiltshire, and Dorset; the fourth of Lincoln, Nottingham, Derby, Stafford, Shropshire, Hereford, Monmouth, and Somerset; the fifth of Yorkshire, Cheshire, Lancashire, Westmoreland, Flint, Denbigh, Merioneth, Montgomery, Radnor, Brecknock, Glamorgan, and Devon; and the sixth of Northumberland, Durham, Cumberland, Carnarvon, Anglesey, Cardigan, Pembroke, Carmarthen, and Cornwall.

2 The average distance in miles of each ring from London will be found in LL, I, iii, p.62. The percentages are calculated from E.G. Ravenstein, op. cit., pp.206-7 with an adjustment to the last figure since Ravenstein included Islands in the British Seas under the heading "Abroad". The percentages do not sum to 100.00 because of rounding errors.
Thus over half of the migrants came from areas outside the first two rings and only one-quarter came from the immediately surrounding counties. Redford's thesis, thought it may be true for the rising industrial centres of the north in the first half of the century, must undergo some modification in the case of London in our period. Redford's conclusions were not in fact new, E.G. Ravenstein having anticipated them forty years earlier in the brilliant paper he read before the Statistical Society in 1885. In fact Ravenstein was perhaps more sophisticated in his arguments than Redford; while Ravenstein argued that most migration was short-distance or by stages he also realized that this argument needed some qualification with respect to London. Although it appeared that migration from most counties to London was to some extent by stages the unusual attractive influence exerted by London on such distant counties as Yorkshire and Cornwall made apparent "the fact of the metropolis exercising a preponderating attraction out of proportion to its population".

The reasons for this movement into the "Great Wen" were manifold. London had a unique combination of functions in that it was (and is) a centre of government, industry, commerce, and trade. This fact goes some way towards explaining the magnetic force exerted by the metropolis. More concretely, London wages were the highest in the country; this attracted workers who did not realize that high money-wages were often counterbalanced by a high cost of living. Though

3 H. Llewellyn Smith in LL, I, iii, p.137.
the economic motive was no doubt dominant some allowance must also be made for the attraction of the "contagion of numbers, the sense of something going on, the theatres and the music halls, the brightly lighted streets and busy crowds".¹

Naturally these attractions carried greatest weight with the youthful. The evidence is extremely clear that the great majority of the immigrants were aged between fifteen and twenty-five years of age at the time of their migration. The difference in boys' wages between London and the countryside was especially great and this must have increased the tendency of the most youthful to move to the city.² However, the most important point to note is that the influx was composed much more of females than of males. When Llewellyn Smith graphed the age-distribution figures of the 1881 census for London compared with England and Wales³ he noticed the obvious upwards displacement for the age-group fifteen to twenty-five. Booth drew the age-distribution graph of the London population from the 1891 census for the whole population and for males and females separately (see Diagram 5.1)⁴. The same age-group showed the same marked upwards tendency in numbers but the increase was much greater among females than males. This phenomenon was not confined to London: it was one of Ravenstein's seven "Laws of Migration" that "females are more migratory than males".⁵ Booth thought this migration was almost

¹ Ibid., p.75.  
² Ibid., p.138.  
³ See LL, I, iii, p.70.  
⁴ From LL, II, v, opp. p.52. The diagram shows the proportion of the population at each year of age, the base being total male population equals 10,000.  
⁵ E.G. Ravenstein, op. cit., p.199.
Diagram 5.1 - Age-distribution of the population of London in 1891.
entirely due to the movement of female domestic servants\textsuperscript{1} but Ravenstein argued powerfully that "the workshop was a formidable rival of the kitchen and scullery".\textsuperscript{2} The excess of female migrants over male migrants may be mainly accounted for by the attractions of domestic service but Ravenstein's viewpoint seems a more balanced one than Booth's.

Llewellyn Smith described this immigration from the provinces as "one of the great unsolved social problems of London".\textsuperscript{3} While many felt that the influx was a primary cause of poverty and overcrowding in that the immigrants merely joined the unemployed, the Londoner by birth felt that he was the one who was being degraded by new and more vigorous competition. Llewellyn Smith likened the Londoner's attitude to that of feeling that he was the Maori rat being driven out by the European rat.\textsuperscript{4} Other observers believed that Londoners tended to die out after the second or third generation; thus provincial immigration acted as a continual and necessary blood transfusion.\textsuperscript{5}

Certainly this was Llewellyn Smith's own view. Analyzing statistics of poor relief recipients, certain forms of low-grade employment (such as dock labour), and pointing out that the poorest areas were those in which there were the lowest proportions of Londoners by birth,\textsuperscript{6} he came to the conclusion that "the major part

\begin{tabular}{ll}
1 & LL, II, v, p.52. \\
2 & E.C. Ravenstein, op. cit., p.196. \\
3 & LL, I, iii, p.58. \\
4 & Ibid., p.59. \\
5 & Ibid., p.65. \\
6 & See LL, I, iii, pp.82-99, 122-4.
\end{tabular}
of London poverty and distress is home-made and not imported from outside". ¹

More complete statistical evidence which may be considered to be useful is rather confusing. If the percentage of the population in each of the twenty-seven registration districts ² born in the United Kingdom outside London in 1881 is compared with the percentage of poverty in those districts (see Diagram 5.2) then we find a high negative correlation of -.794. This would seem, at first sight, to confirm Llewellyn Smith's theory. The comparison between the crowding index and the same index of migration (see Diagram 5.3) gives a correlation of -.664. To look at the other side of the picture is also useful. The comparison between the poverty index and the percentage in each registration district born in London in 1881 (see Diagram 5.4) gives a correlation of .767 while that between the crowding index and the percentages born in London (see Diagram 5.5) gives a correlation coefficient of .559.

But these seemingly powerful statistical arguments must be used with great care. The first point to be made is the usual statistician's caveat: association does not of itself demonstrate causation. In the outer areas we would expect to find a higher than usual percentage of immigrants simply because such places were the easiest for newcomers to settle, the centre being already densely populated. Thus the fact that an immigrant lived in the outer suburbs did not demonstrate his

¹ Ibid., p.142.
² These are the districts used for the analysis in Chapter I.
Diagram 5.2 - Scatter-diagram of the Poverty Index and the percentage in each registration district born in the United Kingdom outside London.
Diagram 5.3 - Scatter-diagram of the Crowding Index and the percentage in each registration district born in the United Kingdom outside London.
Diagram 5.4 - Scatter-diagram of the Poverty Index and the percentage in each registration district born in London.
Diagram 5.5 - Scatter-diagram of the Crowding Index and the percentage in each registration district born in London.
affluence. On the other hand, born Londoners who lived in the outer, wealthier suburbs were likely to have been affluent since they had made the move outwards and upwards. Thus, in the outer suburbs where there were more immigrants and, usually, less poverty, it might well have been the immigrants who were on the whole poor and the born Londoners who were comfortably off. Similarly, the fact that an immigrant lived in one of the poor inner suburbs may be taken as strong evidence of the fact that he was poor, whereas the Londoner might have been one of those who was rising but had not yet moved out to suburbia.

Of equal importance to this argument is the fact that the children of the poor immigrants, numerous as they were likely to be, would have been classified as Londoners by birth. We may take a hypothetical example of two families, one consisting of migrant parents with six children all born in London, and the other of a family of four all born in London, both families being below the poverty line. By the census methods ten of these twelve persons would have been classified as Londoners by birth whereas we should in fact consider eight of them as coming from an immigrant family. This was the telling criticism made by Adna Weber in 1899.

Booth's own attempt to demonstrate the theory which he held in common with Llewellyn Smith was made by comparing the percentage of heads of families born in London, the percentage crowded, and the

percentage living in the inner circle in the eighty-nine trade groups. ¹

In these trade groups the correlation coefficient between the percentage born in London and the percentage crowded was .414. The correlation between the percentage born in London and the percentage living in the inner circle was .544 and the correlation between the percentage living in the inner circle and the percentage crowded was .485.

However, a certain number of groups tended to exaggerate these correlations and should be excluded. Lawyers, those engaged in art and amusement, merchants, architects, doctors, those engaged in literature and science, and in education, clergymen, and members of the army and navy must be excluded because all (except lawyers) showed a low percentage of born Londoners accompanied by little crowding. These are middle-class occupations (ordinary private soldiers would not be very likely to be heads of families) and in them one would expect to find many non-Londoners since London was the capital city. We are interested only in the great mass of working and lower-middle class immigrants. Publicans and lodging and coffee-house keepers must also be excluded since crowding would be a very poor test of poverty in their occupations.

The correlations for the remaining seventy-eight groups substantially differ from those for the full eighty-nine. The first coefficient, that for the correlation between the percentage born in London and the percentage living in the inner circle, drops slightly to .513 and the correlation between the percentage living in the inner circle and the percentage crowded falls to .390.

¹ For the detailed figures see II, II, v. p.29.
The full significance of these correlations becomes apparent if the linear regression equation for the crowding index (C) and the percentage born in London (BL) and the percentage living in the inner circle (LIC) is constructed:

\[ C = 17.7965 + .0640 \, BL + .3403 \, LIC. \]

Again the coefficients in the regression equation have been terminated at four decimal places for the sake of brevity and clarity. Now the correlation coefficient from this equation is .394; that is, only marginally higher than the correlation between the percentage crowded and the percentage living in the inner circle. Thus the birth-place of the heads of families in these seventy-eight groups would not appear from this analysis to have borne any significant relationship to the amount of crowding in these groups. Rather, the analysis strongly confirms the first qualification put forward to the high correlations noticed in the registration district, that born Londoners were more likely to live in the inner circle where poverty and crowding were highest, but that this did not mean that it was the Londoners who contributed more than their proportion to the poor and overcrowded. As the analysis of the trade groups is based on heads of families it must carry the greater weight since it obviates the difficulty of the children of poor immigrants.

This is not to say that there was no relationship between immigration and poverty. But the analysis we have put forward does strongly suggest that the relationship is a complex one and was not
the simple but somehow necessary process of "European" rats displacing "Maori" rats that Llewellyn Smith and Booth attempted to demonstrate. Weber's general conclusion about European, American, and Australian cities in the nineteenth century was in fact the opposite, for he was prepared to conclude that "the townsman is on the average a more efficient industrial unit than the rural immigrant". 1

It is at the very bottom of society that the competition of the rural immigrant was most strongly felt. As the lowest section of the population was that which depended on very irregular labour and had been most afflicted by poverty it was this section which could not withstand the pressure of more labourers seeking work. The poorest of the immigrants, perhaps strong of back if rather weak of mind, were themselves below the line of poverty but they pushed even further down the cockney casuals. J. Millward, a dock labourer, H. Wake, a sub-contractor, and T. McCarthy, a stevedore and Secretary of the Amalgamated Stevedores Society, all complained of the competition from the agricultural labourers at the dock gates. 2 Similar migrant competition probably occurred among other forms of casual labour. True, these trades were usually those in which there was a high proportion of the London-born but they were trades which could ill withstand any further influx of labour.

Elsewhere it is difficult to discern anything more than the vaguest general tendency. Probably the better section of the provincial immigrants fared well and improved their lot, but others

1 Adna Ferrin Weber, op. cit., p.389.
no doubt rapidly succumbed and became part of that section of the population below the line of poverty. The rural immigrant especially may have had some advantage of physical capacity for hard labour but such work almost inevitably brought poverty in its train. In most jobs requiring any degree of skill it is doubtful whether it could be shown that the immigrant had any real advantage over the native Londoner. Thus the connection between poverty and immigration was probably not a great one.

* * *

If the relationship between poverty and immigration into London is one that requires further investigation the relationship between poverty and emigration from Registration London into the suburbs of Greater London is just as complex. We have already noted that the intercensal decade 1881-91 was the first to show a net efflux of migration in Registration London. Some saw suburbia as the answer to poverty since the poor would move out of the slums, lead a better life, and thus end the idea of the stunted city-dweller. All this was to be made possible by a new means of commuting between the suburbs and the centre, the workmen's trains.

There can be no doubt that cheap means of public transport in London grew extremely rapidly in the last twenty years of the nineteenth century. Until 1880 most of the traffic on the various public transport systems serving the suburbs was middle-class traffic. The change

started in 1861 when the first special trains at low fares were introduced when the North London Railway had to agree to special workmen's trains at reduced fares as a quid pro quo for the demolition of working-class homes involved in its Broad Street extension. In 1864 the Great Eastern also had to agree to provide workmen's trains in order to obtain space for a line to Liverpool Street Station. From this date until 1883 a clause was inserted in all Bills before Parliament for railways in the London area binding the companies to run workmen's trains. In 1883 another incursion was made on the already very limited freedom of the railway companies with the passage of the Cheap Trams Act. This Act repealed the passenger duty on all penny-a-mile fares and compelled the railway companies to run workmen's trains as and when ordered by the Board of Trade.

The major reason for these restrictive measures had undoubtedly been the desire of Parliament to force the railway companies to make some kind of compensation for the displacements of working class people caused by the building of new lines. But quickly it came to appear to some that the workmen's trains, and other new forms of cheap public transport, offered a remedy for the ills of overcrowded and insanitary London. Although the omnibuses never took part in this prototype "New Towns" policy, the trams did. The North Metropolitan Tramways Company was the most prominent tramway company in this movement towards

1 Ibid.
cheap tram fares and by 1891 it was running special white-painted trams with penny fares from Aldgate to Poplar and to Stratford. ¹

But the trams were not to have a great effect on the social ecology of London until the first two decades of this century. ² Thus it was the workmen's trains which exerted the most powerful influence in the last two decades of the nineteenth century. Dyos goes so far as to state that "workmen's fares ... played perhaps the most significant role of all" in the solution of the problems which faced London at that time, problems which, according to Dyos, were largely due to the rapid rate at which London grew in the period 1850-1900.³

Certainly the number of workmen's trains increased at a rapid rate. A return made to the Board of Trade by the railway companies illustrates this fact very clearly. According to this return the number of workmen's trains required by special Acts of Parliament in 1883 was 11. The number running at that date was in fact 110, ten times the statutory requirement. By 1890 the number had increased to 307 and in 1894 no less than 476 workmen's trains were running on the metropolitan lines.⁴

Moreover, even as early as 1882 the total number of daily return workmen's tickets issued in London had been 7,152,923, or an average daily rate of 25,671.⁵ By 1900 there were 19,000 people coming in daily on workmen's trains to Liverpool Street Station alone.⁶

² Harold Pollins, op. cit., pp.44-5.
³ H.J. Dyos, op. cit., p.3.
⁴ From Railways (Workmen's Trains on the Metropolitan Lines). Statements furnished to the Board of Trade by the Railway Companies having termini in the Metropolis, p.59; GBPP 1894 (Cd.7541) lxxv, 917.
⁵ H.J. Dyos, op. cit., p.8.
⁶ T.C. Barker and Michael Robbins, op. cit., p.218.
growth of these cheap fares at 2d or 3d return (usually the former) led to a corresponding growth of working class suburbs along the lines, as at Tottenham and Edmonton, Leyton and Walthamstow.\footnote{Peter Hall, op. cit., p.65.} Rows of terrace houses, uninspiring and often of shoddy workmanship, yet far better than the central slums, were put up by speculative builders as they attempted to benefit from the increase in cheap public transport.

Walthamstow was typical of these new working class suburbs. Argyle found in 1888 that each day 2700 tickets were issued for the eight crowded workmen's trains which left between 5 and 6 a.m. Six of these trains went to Liverpool Street, the fare being 2d return, and two went to Gospel Oak (near Hampstead Heath) at 3d return. After these trains there were five half-fare trains, the last of which left at 7.36 a.m. These carried nearly 2500 passengers at 4\frac{1}{2}d. There were also about 700 to 800 season-ticket holders.\footnote{LL, I, i, pp.258-9.}

But it is doubtful whether the workmen's trains and other forms of cheap transport made any easier the lives of those in poverty. The first point to be noticed is that the original reason for the workmen's trains had been that they were the price paid by the railway companies for the demolition which new metropolitan railways required. Dyos agreed in his second article on workmen's trains that these demolitions had caused suffering but argued that the "great age of displacements of working class housing by railway building" had ended before 1885.\footnote{H.J. Dyos, "Railways and Housing in Victorian London", \textit{Journal of Transport History}, 1955-6, p.14.} But, as Dyos himself pointed out in his third article on the subject,
the projects started in the period 1885-95 involved displacing 11,099 people.\textsuperscript{1} This figure was taken from the Demolition Statements that the railway companies were required to lay before Parliament and thus is scarcely likely to be an exaggeration of the true figure. Moreover, it would be extremely difficult to state how large the displacements had been before 1885 in the "great age of displacements". The Chairman of the Metropolitan Railway Company, E.W. Watkin, admitted before the Royal Commission on the Housing of the Working Classes in 1884 that he had "forgotten" the railway companies had to make returns of the number of people that were going to be displaced by new railway schemes.\textsuperscript{2} He further admitted that no replacement dwellings had been erected to that date by any of the railway companies.\textsuperscript{3}

These facts give some weight to the Earl of Shaftesbury's claim that the widespread overcrowding in the inner areas of London was caused mainly by rapid and extensive demolitions.\textsuperscript{4} Lord William Compton, son of the Marquess of Northamptonshire, who owned most of the land in Clerkenwell, also stated that the overcrowding he had seen on his father's estates was due to the influx of persons from surrounding districts who had been displaced by demolitions.\textsuperscript{5} Admittedly some of this demolition work was slum clearance by local authorities but much of it was being done by the railway companies. This caused

\textsuperscript{2} \textit{Housing of the Working Classes. R. Com. Mins. of Ev.}, p.359; GBPP 1884-5 (C.4402-1) xxx, 449.
\textsuperscript{3} Ibid., p.352.
\textsuperscript{4} Ibid., p.13.
\textsuperscript{5} Ibid., p.38.
\textsuperscript{6} See Chapter VI for a discussion of this problem.
further overcrowding in inner London which in its turn must have helped to raise rents.

To mention rents immediately invites the objection that rents were lower on the outskirts of London and that the workmen's trains made it easier to reach these outskirts; therefore the beneficial effects of the trains far outweighed any temporary overcrowding the demolition work caused. The fault in this argument lies in the fact that the people who were displaced were those in poverty whereas the "workmen's" catered on the whole for the comfortable working classes. At the same time as he said that the "railways were often the greatest sinners in pulling down and not building up" the Earl of Shaftesbury pointed out the trains could meet the needs only of those who did not have to be near their work.¹

In general those who were in poverty may be identified with those forced to live near their work and therefore unable to become suburban commuters. In discussing labour problems in London in the nineteenth century E.J. Hobsbawm has pointed out that the worker was normally bound to his work by a "short chain of distance". This was especially so in casual occupations or irregular and jobbing work where the worker had to be "virtually 'within call' on pain of losing opportunities of employment".² As Shaftesbury put it in 1884, "those who get in first are the first employed".³ One of the London School Board Visitors

1 Housing of the Working Classes. R. Com. Mins. of Ev., p.6; GBPP 1884-5 (C.4402-I) xxx.
for Lisson Grove, an area of great poverty, stated that the men in the area had to be near their work; some had gone to the Queen's Park Estate but had had to return. Dock labourers form the extreme example of this necessity for living near their employment; no less than 77.7 per cent of them and their families lived in Poplar, Mile End Old Town, Stepney, St. George's-in-the-East, Whitechapel, and St. Olave and St. Saviour, Southwark.

Among the poor there was also a certain attachment to their neighbourhood which prevented them from leaving it even when they were able to do so, as Lord William Compton noted. While the poor were notorious for the frequency with which they changed their address they usually remained in the same small area. Graham Balfour noticed this fact in Battersea; he stated that "the moves are seldom further than three streets away, and a year or two will very probably witness the return of the exiles to within a few doors of one of their many forsaken homes". Thus of the working men born in the United Kingdom included in the returns made in March 1887 94 per cent of those who had lived in London for more than a year had lived in the same neighbourhood for more than a year.

These economic and social forces which worked to limit the mobility of the poor were reinforced by other powerful economic motives. The

1 Ibid., p.161.
2 From LL, II, iii, p.496.
3 Housing of the Working Classes. R. Com. Mins. of Ev., p.37; GBPP 1894-5 (C.4402-1) xxx. The same phenomenon has been noted in recent studies, e.g. Michael Willmott and Peter Young, Family and Kinship in East London.
4 LL, I, i, p.296.
5 Tabulation of Statements, p.ix.
first of these is the very obvious point that cheap though the workmen's fares were, they were still more than the poor could afford. 2d a day meant a shilling a week spent on fares, to which cost must be added the high cost of meals which would have to be obtained away from home. One shilling or more out of an income that might have averaged 20s a week was a great deal of money, a marginal expense which the poor would try to avoid. They could not be sure that this expense would be compensated for by reduced rents in the suburbs; apart from the fear that it would not be, there was also the solid fact that there was "little or no difference in the combined rent and cost of living index between inner and outer London". Along the lines of the workmen's trains rents quickly rose to cancel out the initial difference which attracted some to suburbia from the centre. Food was cheaper in the centre as Lord William Compton pointed out; for example, the suburban housewife was unable to purchase the cheap fish and meat available at Billingsgate and Smithfield.

The suburban housewife also could not obtain something more important than cheap fish and meat: employment. The Rev. R.C. Billing of Christ Church, Spitalfields expressly stated that the workmen's trains could not solve the problems of overcrowding and poverty since the poor had to obtain work for the women and children, work which was unobtainable in the suburbs. Lord William Compton also mentioned

2 Ibid.
the importance of these small earnings\(^1\) and Dyos has agreed that the loss of wives' extra earnings from charing and washing was one of the main disadvantages to suburban life.\(^2\) Even some of the "better artisan class" who had moved out to the suburbs were forced to return after a while, as Argyle noted in Walthamstow.\(^3\)

The general conclusion to be drawn from this survey of the impact of workmen's trains must be the same as that drawn by Octavia Hill in 1884 before the Royal Commission on the Housing of the Working Classes. Her viewpoint was that workmen's trains were useful only where the head of the family was earning "good money" and only one person in the family was working.\(^4\) As the poor did not on the whole meet these qualifications the workmen's trains did not offer any great hope for improvement in their standard of living. This is not to say that none of the poor moved to the outer suburbs, or that poverty was not to be found there, but we can conclude that there were no major economic advantages to be gained from becoming a suburban commuter. For the very poor the disadvantages probably outweighed the advantages, while for the poor they were perhaps about equal.

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Hence the conditions of working and living of those below the poverty line were, it would appear, little affected by either immigration or short distance emigration to the suburbs. To conclude our study we may now try to discover a little more about those conditions.

\(^1\) Ibid., p.38.  
\(^3\) Wl, I, i, p.258. 
Chapter VI

The Conditions of Working and Living.

It is perhaps arguable that one of the characteristics of modern industry is a tendency towards uniformity in the conditions of labour. Given that the industrial structure of London at the end of the nineteenth century was essentially pre-modern, then it is not surprising to find that massive diversity in such conditions was a characteristic of employment in London.

This diversity was especially apparent in the hours of labour. Using the information gathered in the Industry Series Aves drew up a summary of the hours of labour, overtime, and the principal methods of remuneration in London trades.¹ The "recognized hours of work" in 206 occupations were distributed as follows: 13 occupations in which 48 hours or less were worked each week, 51 in which 48 to 54 hours were worked, 84 in which 54 to 60 hours were worked, and 29 in which over 72 hours were worked each week.² Actual hours of labour were likely to vary more than this for overtime (which was not considered a desirable practice by the working classes at that time) was often worked while slackness caused a reduction in the working week. Moreover, Aves seems to have shown some tendency to classify occupations more by the lower than the upper limit of their "recognized hours of labour". Thus in the group classified as working 48 to 54 hours per week there were the cabinet-makers and upholsterers, both of whom

¹ See LL, II, v, pp.201-14.
² Ibid., pp.182-3.
worked 52 to 56 hours per week,\(^1\) hours which were also worked by
matchmakers, paper-stainers, and bill-posters,\(^2\) while drapers' wholesale
salesmen worked 45 to 61 hours a week.\(^3\) Overtime could add a great
deal to these hours; chemical workers usually worked 54 to 60 hours
per week but had to put in 20 or even 30 hours overtime when busy.\(^4\)

It is apparent that not a few workers often had to labour for a
very long period of the day, especially where the work was very
irregular. In Jewish coat shops the usual hours of labour were 13
to 14 a day, and could often go well over that limit.\(^5\) One Jewish
tailor's presser stated before the Select Committee on the Sweating
System that he received 7s for a 15 to 16 hour day. Sometimes he
had to work three hours longer for an extra shilling.\(^6\) Whatever was
true of tailoring was usually true of bootmaking. When they were in
full employment most makers worked 11 to 12 hours a day, sometimes
14 hours, "often snatching their meals without leaving their seat".
Such effort could not long be maintained and the average hours of
labour were about sixty per week.\(^7\) But the foreign finishers in the
trade sometimes worked for longer hours; in the busy season 17 to 18
hours a day for five days and 12 or 13 hours on Sunday.\(^8\) J.B. Lakeman,
Factory Inspector for the northern half of London, had known knifers
in the boot trade working 18 hours per day for wages of a pound per

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2 Ibid., p.203.
3 Ibid., p.204.
4 Ibid., p.207.
5 Beatrice Potter in LL, I, iv, p.50.
7 David F. Schloss in LL, I, iv, p.77.
8 Ibid., p.104.
In fact there was general agreement that the sweaters' workmen in the bootmaking trade often if not usually worked 18 hours per day.\(^2\)

Carmen and omnibus drivers also suffered from extremely long hours. The average week's work for a carman, according to Booth, was 96 to 100 hours per week, inclusive of the time spent in the stables.\(^3\)

This estimate was confirmed by the London Carmen's Union which told the Royal Commission on Labour in 1892 that 16 to 20 hours a day were the standard hours.\(^4\) Busmen had slightly shorter hours. T. Sutherst, a lawyer and a supporter of the short hours movement, stated in 1892 that tram and busmen worked 80 to 90 hours a week on and off and sometimes up to 95 hours.\(^5\) As busmen worked a seven day week this estimate was largely confirmed by D. Duff, Manager of the London Road Car Company, when he stated that the men employed by his company worked 9 hours one day and 15 the next.\(^6\)

Two more occupations may be mentioned in which the hours of work were very long: bakers and shop assistants. The average hours of bakers, according to Booth, were 70 to 80 per week but were sometimes 90 or even 100,\(^7\) figures confirmed by C. Lee, Secretary of the

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3 LL, II, iii, p.325.
7 LL, II, iii, p.149.
Amalgamated Society of London Bakers. This shows the danger of relying on the supposed "standard hours" in a trade - for bakers these hours were 60 per week according to the London and Chatham branch of the Amalgamated Union of Operative Bakers and Confectioners. The hours of shop assistants were just as long as the actual hours of bakers. Lakeman told the Select Committee on the Shop Hours Bill in 1892 that a survey he had taken in 1886 showed that the shops in the Islington district opened for 80 to 86 hours a week, and sometimes as many as 90 hours. There had been no change in the intervening period.

Many other trades, of course, worked far fewer hours per week. In the building trades, certainly after an agreement in 1892 between the union and the employers, 48 to 5½ hours was the normal working week. According to G. Livesey, a member of the Royal Commission on Labour and Chairman of the South Metropolitan Gas Company, gasworkers had worked 56½ hours a week from 1880 to 1889 and 5½ hours thereafter. But, even so, it would be fallacious to dismiss the cases of long working hours as a few isolated exceptions. T. O'Grady, of the Printers Labourers' Union, stated that the regular hours of work in his trade were 5½ hours per week, but the employees were forced to work two nights extra from 7 p.m. to 8 a.m. He had himself worked 36 hours at a stretch with only

4 Ernest Aves in LL, II, i, p.106.
Thus while it would be possible to conclude that the average standard working week in London in the period 1885 to 1895 was about 54 to 60 hours there were many cases where the figures were exceeded, and often exceeded by a wide margin.

In the trades where irregularity was greatest and hours often very long sanitary conditions were usually very poor. Lewis Lyons, a tailor's machinist who had written articles on the sweating system, complained in 1888 of the poor lighting and very insanitary conditions in many workshops. E. Simmons, a small employer in the dress-trimming trade, also complained of insanitary conditions in the sweaters' workshops. Simmons felt that the fault lay partly with the factory inspectors who were "mathematicians and so on". Moreover, everybody knew when they were coming.

This was scarcely fair. There were only two Factory Inspectors for the whole of London, though Lakeman did have an assistant. Lakeman himself gave strong evidence before the Select Committee on the Sweating System. Describing the East End tailoring houses he visited in 1884 he stated that there existed

"a very revolting state of things in regard to sanitation which you know little of; going into some workshops you find a filthy bed on which the garments which are made are laid; little children lying down in all forms, perfectly naked little things lying about the floor; and on the beds, frying pans and all sorts of dirty utensils with food of various descriptions on the bed, under the bed, over the bed, everywhere; clothes hanging on a line with nothing more than a large gas stove, with the ashes all flying

1 Ibid., pp.310-1.
3 Ibid., p.555.
about, and the atmosphere so dense that you get ill after a night's work there; that is the reason I am deaf now. I get into such a bath of perspiration. I have tested the atmosphere of these rooms many times and found it 95 degrees".

There may have been some improvement on the conditions in 1884 so graphically, perhaps over-graphically, described by Lakeman; A. Goodwyn, Sanitary Inspector for the Jewish Board of Guardians, said in 1889 that there had been a marked improvement since his appointment in 1884. However, many workshops were still in a "deplorable state" with damp, leaking roofs and without proper chimneys.¹

Some bootmaking shops were just as insanitary. The National Union of Boot and Shoe Operatives' North-East London branch complained that a large number of workshops were underground and dark and very unhealthy. In others the men were almost touching each other which caused "a deal of sickness".³ W. Hoffmann, a journalist and ex-foreman in a boot factory, had known many shops in which the working and sleeping quarters were in the same room.²

Bakers also are an example of an occupation in which long hours were accompanied by poor working conditions. Booth had seen underground bakeries in East London that were so low that a man could not stand upright in them and so small that there was scarcely room for three workmen to turn about.⁵ Booth claimed conditions were generally better than this and were improving all the time.⁶

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¹ Sweating System. HL Sel. Cttee. Mins. of Ev., p.453-4; GBPP 1888 [46]
² Sweating System. HL Sel. Cttee. Mins. of Ev., pp.469; GBPP 1889 [331]
⁴ Sweating System. HL Sel. Cttee. Mins. of Ev., p.95; GBPP 1888 [36]
⁵ HL. II, iii, p.155.
⁶ Ibid., p.156.
Secretary of the Amalgamated Union of London Bakers told the Royal Commission on Labour in 1893 that sanitary conditions were very bad. There were cases of water closets opening directly into the bakeries. The sewage pipes running down the inside of many bakehouses became leaky and porous while some bakehouses were flooded on occasion by the Thames (which contained sewage).¹

Apart from long hours the poor sanitary conditions in many trades produced in fact the major complaints made to the Select Committee on the Sweating System and the Royal Commission on Labour. Printing machine managers, printers labourers, mill-sawyers, cabinet-makers, upholsterers, brushmakers, even lithographic artists and designers in varying degrees argued that better sanitary conditions were required in many of London's workshops. Tailors, bootmakers, and bakers were undoubtedly the worst off but in many other trades the workshops appear often to have been, judged by the standards of the time, most unhealthy.

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The key word in the preceding discussion of sanitary conditions and the hours of labour is "workshop". In practically all trades the conditions of labour were better in the few factories than they were in the many small workshops. Only two exceptions were found to this general rule: surgical-instrument making² and in the firms employing carmen.³ In practically all other trades it would be fair to draw

³ Charles Booth in LL, II, iii, p.326.
the conclusion that Dr. G.P. Bate, a Medical Officer of Health in Bethnal Green, did in 1889 when he said that the condition of the smaller shops was "extremely unsatisfactory". 1

This point may be emphasized by a few examples from various trades. S. Plattman, a tailor's machinist from Poland, told the Select Committee on the Sweating System that larger workshops were more airy, more decent, and worked shorter hours. 2 This point was given the weight of professional opinion by Dr. E. Squire, physician to the North London Hospital for Consumption, when he stated that tailors in the factories and larger workshops were less liable to consumption, the overcrowding in the small workshops creating the preconditions for consumption. 3 In the boot factories hours, though still quite long, were much shorter than in the sweaters' workshops, the normal hours in the former being 8 a.m. to 7 p.m., Monday to Friday, with an hour and a half off for meals, and 8 a.m. to 2 p.m. on Saturdays. 4 The superiority of the factories in the boot trade was well illustrated by the example of Messrs. Pocock and Co., a large firm in South-East London employing 449 persons in 1892, twelve of whom were females. That firm worked 9½ hours per day, gave 10s a week sick pay, holidays on Saturdays, Bank Holidays and (for most men) one week's annual holiday, all with pay. 5 In the retail trade it was

4 David F. Schloss in LL, I, iv, p.85.
the little shops which had to stay open the longest. Finally, in
the infamous trade of matchmaking there was some improvement in the
period 1888 to 1895 largely, Esme Howard believed, because the
increasing concentration of the trade in the hands of a few companies
led to "large and well-ventilated rooms and all the appliances of
cleanliness necessary for health".  

Thus, as Booth said, it is clear that it was "the working for
small masters that was to be associated with the evils of sweating", these evils being "low pay, long hours, and insanitary conditions".  
Adna Weber pointed out in 1899 that the time was past when factories
produced a "morally and physically dwarfed and stunted race". The
worst conditions of labour by that date were to be found in the home
industries. It was London's unfortunate lot to have few large
factories and many small workshops.

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Before the Royal Commission on the Housing of the Working Classes
in 1884 a surveyor on the staff of the London School Board was told by
the Marquess of Salisbury that "evidence has been given of a row of
houses in one of which an Irishman leant back in his chair and pushed
the wall down". The surveyor replied: "that would be an exceptional
case, no doubt".

xxxiv. G.E. Arkell in LL, II, iii, p.79.
2  LL, II, ii, pp.104-5.
3  Labour, R. Com. (Sitting as a whole) Mins. of Ev., p.370; GBPP 1893-4
(C.7063-I) xxxix Pt.1, 384.
4  Adna Ferrin Weber, The Growth of Cities in the Nineteenth Century,
p.408.
5  Housing of the Working Classes. R. Com. Mins. of Ev., p.197; GBPP
1884-5 (C.4402-I) xxx, 287.
Certainly while housing conditions in London were often very poor there had been some improvement compared with the London which Dickens described. As the great Earl of Shaftesbury put it, "bad as we are, there has been a great improvement in London." The improvement had been largely due to the introduction of a system of house drainage which had practically eliminated the previously widespread evil of living over cess-pools or with sewage flowing through the room. Even so, when D.C. Nichols made sanitary inspections of some houses in Clerkenwell and Mile End Old Town in 1886 he found the majority had some sanitary defect, the most common being a watercloset without a water supply.

Efforts to improve the housing conditions in ways other than remedying sanitary defects very often made the housing conditions of the poor only worse. It was all very well to pull down slums and replace them with blocks of "model dwellings" but the new rooms were usually let to the better-off artisans, as a writer in the Fortnightly Review pointed out in 1890. Arkell firmly believed that good accommodation was too dear for those on or below the line of poverty. Even the blocks of model dwellings put up by such bodies as the Peabody Trustees and the Improved Industrial Dwellings Company "serve for the most part to accommodate those who are fairly well off". In fact

1 Ibid., p.3.
2 Ibid., p.5. Also see Sir Gwilym Gibbon and Reginald W. Bell, History of the London County Council 1889-1939, pp.13-16, 30-32.
4 Mary Jeune, "The Homes of the Poor", Fortnightly Review, N.S. vol.47, 1890, p.73.
5 LL, I, iii, p.28.
nearly all forms of urban improvement seem to have worsened, at least temporarily, the housing problems of the poor. Shaftesbury stated in 1884 that "the evil of overcrowding has increased very much of late years, owing to ... all the general improvements throughout London". In the period 1888 to 1899 the London County Council displaced 22,910 persons (18,029 by demolition schemes) but provided housing for only 14,358 persons and we cannot be sure that the new housing provided for even that number of those actually displaced. Thus while Shaftesbury's claim may have been somewhat exaggerated it would appear to be a reasonably valid conclusion that model dwellings and urban improvements did little to improve, but instead usually worsened, the housing conditions of the poor.

In order to gain an impression of what in fact these conditions were the sources which are available to us may be conveniently divided into two unequal parts. The first of these is the Booth Survey and the second all other sources, the former outweighing the latter in value. Some notions can be gained from other sources and these sources are useful as validating, in so far as they can, the picture that Booth drew.

One useful source is Mary Jeune's article in the *Fortnightly Review* that has already be referred to. "A specimen of a typical East-End home" was (supposedly) described. In such a house there

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1. **Housing of the Working Classes. R. Com. Mins. of Ev., p.1; CBPP 1884-5 (C.4402-I) xxx.**

2. **John F.J. Sykes, "The Results of State, Municipal, and Organized Private Action on the Housing of the Working Classes in London and in other Large Cities in the United Kingdom", JRES, 1901, p.197.** The figures were taken from a London County Council Return of October 1899.
might be eight rooms with a family in each room paying, on the average, 3s.2d a week in rent. For this sum they received a room 9 feet by 7 feet with a 7 feet 6 inch ceiling if they lived in the garrets, or 11 feet by 8 feet with a 7 feet 6 inch ceiling if they could afford the more expensive front rooms. If the family could afford only 2s.6d a week rent then they would take a back room 8 feet by 6 feet.\(^1\)

In such types of accommodation sanitary conditions were usually poor: the chairman of the sanitary committee of the vestry of Clerkenwell stated in 1884 that it was common for there to be two water-closets to eight or more families.\(^2\) This happened because when a family was described as living in one or two rooms that was usually precisely what it did. Thus, according to Sergeant J. Powell of the Metropolitan Police, the establishment at 21 Portpool Lane, Holborn was a large house of 20 rooms, each occupied by a family (sometimes with three or four children). There were two water-closets for the twenty families, all of whom drew their water from one tap on the first landing.\(^3\)

Two further cases may be mentioned. They are of special interest to us for the information concerning them comes from the same group of people as that from which Booth drew so much of his material. A number of London School Board Visitors gave evidence before the Royal Commission on the Housing of the Working Classes. One gave evidence

\(^1\) Mary Jeune, op. cit., pp.72-3.
\(^3\) Ibid., p.137.
about No.3 Derry Street in South St. Pancras. The first floor front room in this house was 13 feet by 12 feet by 9 feet. It was occupied by a family of nine, two of the children being over fourteen years of age and five under. There was one bed and the rent was 4s a week. This was the worst case on Cobden's books but there were other very bad ones.  

Another Visitor described 8 Stephen Street, off Tottenham Court Road. In this house there were 24 occupied rooms, 19 families and 97 people when Bird gave his evidence. These families shared a 6 feet square washing area and two water-closets, one of which was generally out of repair. The sewage from one of the lavatories leaked into an inhabited room. The rooms were normally 14 feet by 12 feet and the rents averaged 5s a week. Again, this house was the worst case on the Visitor's books.

This is, of course, the problem with all such evidence. Although a number of other examples can be found in the evidence before the Royal Commission on the Housing of the Working Classes there must always remain the suspicion that extreme cases have been singled out in order to strengthen an argument. Admittedly this is a problem the historian always faces but we are fortunate in this study in having the gift horse of the Booth Survey. Booth at any rate attempted to be objective, and the descriptions of the 75 sample streets in the second volume of the Poverty Series have an impressively genuine ring about them.

1 Ibid., p.157.
2 Ibid., p.162.
The 75 streets were intended to give a more detailed picture of what was meant by the various colours on the famous "poverty map". The lowest grade of streets was coloured black and Booth described five of these.\(^1\) A street marked dark blue was one in which the population was generally very poor, that is of class B. Booth described five streets that were mixed dark blue with black,\(^2\) and twenty-one that were dark blue.\(^3\) Light blue streets were those inhabited mainly by classes C and D, twenty of these being described.\(^4\) Purple streets were intermediate, containing classes C, D, E and F and even some of class B. Twenty also of these were included.\(^5\) Pink streets were largely inhabited by classes E and F and four of these were included.\(^6\) Booth did not include any descriptions of the middle class red and yellow streets.

Naturally this colouring was a shifting spectrum rather than a clear-cut division. Thus the percentage in poverty in the sample streets was 92 per cent in the dark blue and black streets, 87 per cent in the dark blue streets, 71 per cent in the light blue streets, 57 per cent in the purple streets and 33 per cent in the pink streets.

The dark blue streets consisted of 1 per cent class A, 42 per cent class B, 24 per cent class C, 20 per cent class D, 12 per cent class E, and 1 per cent class F. The light blue streets contained 1 per cent class A, 20 per cent class B, 19 per cent class C, 31 per cent class D, 19 per cent class E, and 20 per cent class F.

\(^1\) See LL, I, ii, pp.46-82.
\(^2\) See LL, I, ii, pp.53-97.
\(^3\) See LL, I, ii, pp.94-138.
\(^4\) See LL, I, ii, pp.139-71.
\(^5\) See LL, I, ii, pp.172-213.
23 per cent class E, and 6 per cent class F. Thus the dark blue and light blue streets may be taken as most representative of the physical surroundings of the poor, the former representing more the very poor and the latter those just below the line of poverty.

The description of one of the dark blue streets, "Rupert Place" (all names were changed, except for the black streets), is worth quoting verbatim for it conveys a picture which paraphrasing would only distort:

"This is a narrow street turning out of a main thoroughfare. At either end is a public-house, and between the two a row of some thirty six-roomed houses, back room and front room, three stories high. The public-house at the western end has its door in, and shares the custom of, the main road. It is quiet enough at noon, but at night it is an attractive centre of warmth and light. That at the other end is a quiet old-fashioned looking house with a little space about it whereon some cocks and hens are picking at the gravel. It aims only at local custom. In the street, equi-distant from each other and the public-houses, are the enlarged windows of two miserable looking little shops. Both of course sell sweets; one adds loaves of bread and a supply of dripping, the other tins of condensed milk and bottles of ginger beer. In the row of houses, the front of which press upon the small foot-walks, window after window, at least amongst those on the level of the street, show broken places in the glass. It may be a crack or the neat puncture of a stone, or a large piece may have broken away, and some ingenuity has been displayed to avoid paying money to the glazier. In one place a neat lump of putty fills the place and holds the splinters firmly together; in another brown paper is pasted over, or the cardboard back of a book is inserted, or some garment stuffed into the hole. Some of the lower windows have white lace hanging curtains, meeting, or almost meeting, so as to give privacy to rooms which would otherwise have none, so exposed would all within them be to the eye of every passer-by. Where there are hanging-curtains they are usually draped round a little table on which some treasures are displayed, on two or three a little pile of books. Religious books generally, with some of poetry and perhaps history-prizes most likely, trophies of school days. Or there may be, on a woolly mat, a "stand" of wax-fruit or foreign shells. In one window there is a Christmas-tree, which in spite of twelfth night come and gone, remains to remind the children

1 Ibid., p.229.
2 Ibid., pp.102-3.
of their winter festival. It is at all times a dark and dirty little street, but looks unusually desolate in a garb of grimy snow, with the outside shutters of many windows half closed for warmth and with nothing alive in the street but an itinerant vendor crying coke. This utter dulness [sic] is however only momentary. A group of children kick it away with an old hat for a football, and when I pass again have improved on that by lighting a fire in an old iron pot round which they gather in high delight. Some women stand at their doors and look out ready for a word with neighbours who may pass. A woman proceeds westwards (i.e. towards the shops) empty-handed and returns with a rasher. An ill-fed looking girl makes her way eastward with three loaves in her arms, the make-weight piece, or "jockey" as it is sometimes called, riding atop of all. So the street looks in the dead of winter; in summer it would be more lively, but at all times it is a dull street".

"Rupert Place" appears to have been typical of the streets inhabited by the very poor. The exceptional cases of appalling living conditions seem to have been confined to the black streets and the poorer dark blue streets. Thus Shelton Street, a black street, was composed of slums in which not "a room would be free from vermin, and in many life at night was unbearable. Several occupants have said that in hot weather they don't go to bed, but sit in their clothes in the least infested part of the room". In some of the houses in "Burnock Street", a dark blue mixed with black street, the banisters had gone to feed the fire, in others the iron stoves had gone "leaving nothing but an open hearth of brick below the chimney". Many dark blue streets contained much filth as well. In "Henley Street" garbage abounded, the street being occupied by costers who had to lead their donkeys or ponies through the house in order to stable them in the yard. In "Short's Place" the houses

1 Ibid., p.47.
2 Ibid., p.86.
3 Ibid., p.116.
were extremely dilapidated with broken windows stopped with paper, pieces of wood, or rags. Behind the broken windows were tattered curtains and dirty blinds. In "Latin Place South" was a collection of dark and insanitary little houses in which lived a total of 42 people. At the end of this narrow court were two broken-down closets and a dustbin which served the whole court. "Thanksgiving Place" accommodated eight families, mainly small, including 26 persons. For these families there were two small washhouses and five closets, one of which was used as a dustbin.

The light blue streets showed a greater variety of conditions. Thus in "Palmer's Place" the landlord kept the houses well painted but other streets on the same estate showed greater signs of poverty. "Braden Place" was a "clean, quiet, little place". But the next street described, "Cardinal Place", contained low, narrow-fronted houses nearly built on to the street, the whole street having a dull and murky atmosphere. In "Bradford Street" paper, straw, and refuse littered the gutters and pavements. Perhaps typical of the better streets inhabited by the poor was "Bradley Street" and "Grimthorne Street" with "decent little houses" and parlour windows showing "care and pride", the cracked panes being neatly mended.

1 Ibid., p.137.
2 Ibid., p.123.
3 Ibid., p.131.
5 Ibid., p.163.
6 Ibid., p.154.
7 Ibid., p.166.
8 Ibid., p.170.
In general, the outer appearance of poverty consisted of a basic ingredient of uninteresting and usually overcrowded terraced houses, dingy courts, or tenements, often fronting the street, in which dirt and poor sanitary conditions increased as the degree of poverty intensified. Apart from the old and very large houses of twenty rooms or so the houses conformed to a number of general patterns. The first of these was the two-roomed house, sometimes with a small hall on the ground floor, sometimes without. Usually such houses formed the sides of a court with the closets and a dustbin at one end. In many cases there was also a washhouse. The other standard types were the two-storied four-roomed house, the six rooms house with two stories above, and one below the ground level, and the eight-roomed houses which had three stories above ground. The frontages of such houses were from twelve to fifteen feet in the poorer areas.

Obviously where such houses contained only one closet and perhaps one washhouse the sanitary facilities would be unsatisfactory for the number of persons in the house. But, excluding the exceptionally bad cases, sanitary problems were made much worse by that greatest of all housing problems in London, overcrowding. Many families lived in one room, large families occupying two. These rooms varied from 12 feet by 14 feet to perhaps 8 feet square. Whole families of five, six, or seven persons would live, eat, and sleep in such a room sharing washing and toilet facilities with other families in the same house or even the same court. As we saw in Chapter I nearly one-eighth

1 Ibid., pp.234-5.
2 LL, II, v, p.3.
3 Ibid.
of the population, 12.0 per cent, lived three or more persons to a room and 31.0 per cent lived two or more to a room.¹ It was perhaps because of this competition for space that little room could be spared for such amenities as separate kitchens or sufficient sanitary facilities. Even when looking at living conditions we find ourselves reverting to the concept of competition to help explain social evils.

¹ LL, II, i, p.10.
Chapter VII

Concluding Observations

The poverty which has been studied in this work was, to state the obvious, an urban type of poverty in a complex, developed society. To find the modern equivalent we should look at the Negro ghettos in the northern cities of the U.S.A. rather than rural Mississippi or India. Many features would be found in both the London slum and the American ghetto. The same hopelessness would often be present, in fine weather there would be the unemployed lounging about. Most important of all, perhaps, is the fact that the same archetypes have been applied to the inhabitants—shiftless, lazy, immoral. The same prevalence of overcrowding, poor sanitary facilities, open doors giving glimpses of the poverty inside, the same dreariness of decaying physical surroundings; all these factors would be found to be held in common.

This common ground between poverty in developed urban societies is probably linked to the essential epicyclic nature of the problem of poverty. The four chapters in this work that are largely concerned with the causation of poverty¹ were intertwined at almost every step of each argument. Thus it was found to be somewhat artificial to discuss the income of the poor without reference to irregularity of employment. More important for its bearing on the epicyclic nature of poverty was the fact that what are now called "feed-back" processes

¹ Chapters II - V.
began to emerge. The price of basic foodstuffs was relatively high in London in the period 1885 to 1895 and thus a very large proportion of the income of the poor was spent on purchasing insufficient quantities of predominantly low-quality food. An inadequate diet for physical well-being must have increased the ill-health of many and thus increased their susceptibility to the industrial disease of irregular employment. Moreover, little income was left for expenditure on housing and thus the poor could afford to rent only one or two inadequate rooms.

Therefore irregularity of employment was partially due to these epiphenomena of poverty. But irregularity of employment was probably the single most important direct cause of poverty, certainly of the worst forms of poverty. Irregularity of employment implied irregularity of conduct which in its turn fed itself back immediately into the human mill turned by industrial conditions. Irregularity of habits no doubt also led to increasing ill-health and physical incapacity. In this way the "problem of drink" resolves itself into a simultaneous two and three stage cycle of irregularity of employment which was itself part of the large cycle of poverty.

If poverty made men more likely to die at a relatively early age then this tendency increased the number of poor widows. Widowhood was a state to be feared in the nineteenth century as much as old age or unemployment. For the great majority of women it brought an inevitable decline in their standard of living. The widows from Booth's classes C and D quickly sank to class B, while those who had already started from that low level presented some of the most pitiable
examples of poverty. The children raised in surroundings of great poverty were scarcely likely to rise above the line of poverty. Thus those lower class families where the father was dead or in poor health simply increased the sum of poverty both for the present and, probably, for the future.

The principal exception to this continuous circularity of cause and effect was the poverty of old age. No doubt those who had been poor in their "prime" and had survived to old age became very poor but there were many others who were dragged below the line of poverty by the incapacity resulting from old age. The poverty of old age, however, had at least the merit that it was not self-regenerating.

But if advancing death lay outside the rest of the social universe of poverty new life was very much a part of it. Though large families were hardly confined to the poor in Victorian times it was they who most faithfully followed the royal example that had been set earlier in the reign. Some families were no doubt brought below the line of poverty by parental fecundity but in general it seems to have been the degree of poverty that was related to the size of the family rather than poverty itself. Nevertheless, the sum of poverty was thus increased. The relationship of immigration, that other form of population pressure, to poverty is an obscure one. The prevalent theory was that the provincial immigrants were usually the more comfortable while native Londoners tended to end up below the poverty line. The evidence does not support this hypothesis.
Thus poverty in London in our period may be seen largely as a product of itself. Poverty may be likened to an epicyclic social universe or, to make the similar and more familiar mechanical analogy, a machine composed of many interlocking wheels contained within one big wheel. But no machine can run by itself: internal friction will tend to slow it down and the various incursions on the theoretically sacred property of laissez-faire made by governments in the nineteenth century would help this gradual deceleration. Above all, the growth of universal education (a vast topic which could not be covered in this work) led to new hopes which were to be translated into reality in the twentieth century.

But in London in the period 1885 to 1895 there was a powerful force at work which kept the machine running. The place that colour and lack of skills takes in the American ghetto was taken by the small-scale system of production in London. Wages were lower, irregularity of employment was greater, and the working conditions were poorer in the small businesses than in the large in almost every trade. Moreover, the whole tone of London's industrial system was set by the small workshops. Factories were sometimes not true factories at all but simply collections of small workshops in one place.

Many of those involved in London's industries at the time saw that the greatest problem lay in the existence of so many small businesses; numerous witnesses who appeared before the Select Committee on the Sweating System and the Royal Commission on Labour put forward this theory. The viewpoint of such men was best expressed by Aves in the
final volume of the Industry Series when he stated that the factory system had the advantages of more sanitary conditions of employment, increased regularity of employment, and more uniform wages (which would work to the advantage of the less efficient). These factors also made more possible the organization of the workers into trade unions for their own protection. Aves was not prepared to come down heavily in favour of the factory system for he felt that the small establishments had advantages of their own: greater adaptability, more personal contact between masters and men, and they were better training schools for workmen.\footnote{1} This last seems a doubtful point and the other supposed advantages seem to spring from an attachment to individualism on Aves's part rather than being concrete advantages to London's poor.

In the description of these poor an attempt has been made to avoid the sensational and the extreme. Great poverty was confined mainly to Booth's class B. Among this class one could find the "miserable and unsavoury" room in which the whole family lived and slept, cooked and washed, remains of food littering a floor lit by cracked sunshine.\footnote{2} Booth carefully differentiated these very poor from the poor who had a continual struggle to make ends meet, who lived in overcrowded rather than insanitary houses, and whose diet consisted of a little more than bread and potatoes. Yet these people were definitely below the line of poverty for, as we have seen, Booth set this line at a meaningful level. Winston Churchill was to appeal in 1906, in words almost

1 \footnote{\textit{LL}, II, v. pp.106-7.}
2 The description is taken from \textit{LL}, II, v, p.326.
certainly showing Booth's influence, for a "line below which we will not allow persons to live and labour". ¹ It was Booth's study of poverty in London which led to the formulation of the concept of the poverty line, a concept which has been the theoretical basis of the twentieth century's attempt to answer Churchill's appeal. The growth of modern industry, conducted in factories, has created the practical basis, the wealth, to solve the age-old problem of poverty but it has required the Welfare State to ensure that that wealth is distributed in such a way that no-one could claim today that nearly one-third of the population of London is living in poverty. The complexity of the Welfare State is an essential response to the complexity of the problem of poverty.

Appendix

Some Notes on Statistical Methods

Scatter-diagrams and regression equations

The scatter-diagram is simply a plotting of bivariate data. From this plotting one can deduce what type of relationship exists between the two variables, for example linear, exponential, parabolic, sinusoidal. Most types of relationship can be reduced to linear form.

The problem then becomes one of fitting a line to the data. All straight lines are of the form

\[ y = mx + c \]

and when fitting a line by the least squares method the sum of the squares of the deviations from such a line is minimised. The deviation of the point \((x,y)\) is

\[ mx + c - y \]

the sum of the squares of the deviations for \(N\) pairs of variables being

\[ S = \sum x^2 + \sum y^2 + 2\sum xy - 2\sum x \sum y - 2\sum y. \]

For this sum to be a minimum the partial derivatives of \(S\) with respect to \(m\) and \(c\) must equal zero. Hence two simultaneous equations in \(m\) and \(c\) are obtained:

\[ \begin{align*}
    m\sum x^2 + c\sum x &= \sum xy \\
    Nc + m\sum x &= \sum y
\end{align*} \]

The required values for \(m\) and \(c\) are therefore

\[ m = \frac{N\sum xy - \sum x\sum y}{N\sum x^2 - (\sum x)^2} \]

\[ c = \frac{N\sum x\sum y - \sum x\sum y}{N\sum x^2 - (\sum x)^2} \]

The regression equation and correlation

From the regression equation the correlation coefficient \((r)\) may be calculated. Firstly the mean of the sum of the squares of the deviations is calculated from the formula

\[ S_y^2 = \frac{\sum y^2 - \sum xy - m\sum x}{N} \]

Then the square of the standard deviation of \(y\) is calculated:

\[ s_y^2 = \frac{\sum y^2 - (\sum y/N)^2}{N} \]

The formula for the correlation coefficient is

\[ r^2 = 1 - \frac{S_y^2}{s_y^2} \]

\(r\) varies between -1 and +1. Where \(r = 0\) there is no relationship between the two variables. Where \(r = \pm 1\) there is a \((1,1)\) relationship.

Alternatively, \(r\) may be calculated independently from the formula

\[ r = \sqrt{\frac{N\sum xy - \sum x\sum y}{\sqrt{\sum x^2 - (\sum x)^2 \sum y^2 - (\sum y)^2}}} \]

Although it is common practice to calculate \(r\) in this fashion without plotting the data it is a practice which should be used with care.
since this formula gives only the linear correlation coefficient. There may be non-linear relationships which this coefficient does not reveal.

Validity and reliability

The difference between validity and reliability may be illustrated by the example of counting manors. Let us suppose that a historian took a sample of all the manors in England at a certain date and then calculated how many manors in the sample were held by certain previously defined social groups as a means of testing the relative wealth of those groups. Such a procedure would involve two questions of validity and one of reliability. The first validity question would ask whether the number of manors owned by a person was a valid description of his wealth. The second would ask whether the historian's social classification definitions were a valid description of the social structure of England at that time. The reliability question would be concerned with how far the sample could be taken as representative of all England.

In Chapter I we concentrated largely on the validity question, but an attempt was made to answer the reliability question by both quantitative and qualitative means.

Interpolation

Interpolation is the deducing of unknown facts from known facts in a statistical series. We wished to deduce the percentage of the population of London in 1891 over 60 years of age and the percentage over 50 years of age. We knew the percentages over 75, 65, 55, 45, and 35 years of age, the graph for these figures being reasonably smooth. Using the usual forward difference formula it was possible to calculate the required percentages.

General remarks

The statistical and numerical methods used in this work are all extremely basic ones. The decision to use quantitative analysis has long since been taken by historians. But, in general, historians seem determined to maintain a kind of "gentleman amateur" tradition in the use of quantitative analysis. It might be noted that the amateur golfer almost invariably has a higher handicap than the professional.

1 See Diagram 5.1 above. Smoothness is a necessary condition for reliable interpolation.
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