

LABOUR MIGRATION AND THE REGIONAL
PROBLEM IN BRITAIN, 1920-1939

by

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Thesis submitted to the University of Stirling
for the degree of Doctor of Philosophy,

November 1973

PREFACE

Whilst reading for my first degree at the University of Bristol I became particularly interested in two diverse fields of study. An interest in Regional Economics was motivated by the sparse coverage given to the consideration of the spatial organisation of the economy in most standard works. The other interest was in British Economic History of the inter-war years. I am indebted to Dr. B.W.E. Alford for inspiring and developing my curiosity for this subject. In choosing a subject for research, I endeavoured to combine these two interests. Virtually no work has been done on the formative years of British regional policy. I thought this to be a particularly important gap to fill in that I could closely document regional policy in these years and give some insight into the processes of government policy formulation. In addition, the inter-war years is a unique period in the history of British regional policy. It is the only period when the objective of policy was to move 'workers-to-the-work', rather than 'work-to-the-workers'. Even less information is readily available on policies encouraging labour migration, than on the better known Special Areas policy. Consequently, my own interests and the gap in interpretation suggested the examination of the role of labour migration policies in the inter-war period as the subject for my research.

The thesis is set out in three sections. The first section is an introduction. The regional problem is described, the pattern of labour flows documented and the factors influencing these flows is shown. The second section is concerned with regional policies. These are traced from the introduction of transference policy until, and including, the

introduction and development of Special Areas policy. The effects of these policies are judged at a regional level and, in Chapter 8, at the micro-economic level. The final section describes the culmination of the inter-war year's experience of regional policies with the appearance of the Barlow Report and the discrediting of transference. The conclusion shows the importance of transference in the inter-war years and the paradox of the post- World War II situation where labour migration has been ignored as a policy tool.

In preparing this thesis I have become indebted to many people for their advice and encouragement. I would first like to thank my supervisors. Dr. E.S. Richards, now of the Flinders University of South Australia, had the task of introducing me to research. He allowed me scope to develop my ideas but ensured that I did not stray too far from my central objective. Professor R.H. Campbell has been my supervisor for the greater part of my studies and I am greatly indebted to him for the advice, criticisms and encouragement that he has given from his careful reading of my work. His early insistence on my putting pen to paper ensured that ideas were not lost and that my work reached a recognizable form at an early stage.

I also acknowledge the help freely given on specific matters by Mr. J.W. McGilvray and Dr. M.A. Greig of the Economics Department of Stirling University. Mr. McGilvray read Chapters 5 and 7 and made many useful and informative comments. Dr. Greig examined Appendix 2 to Chapter 7 and gave me the benefit of his experience of work on regional multipliers. Mr. J. Travers of the Registrar-General for Scotland's office in Edinburgh was good enough to discuss the basis for some of the

work presented in Chapter 2 and its first Appendix.

I am also grateful to Mr. R. Weeden of the University of Reading for permission to cite his work on labour migration in Britain in the 1960's. Mrs. R.M. Stafford is also to be thanked for giving me permission to quote from the Steel-Maitland papers, held at the Scottish Record Office.

The staff of libraries and record offices that I have used in the course of my study have all helped me in my research. Particular mention should be made of the staff of the Public Record Office at Chancery Lane and at Portugal Street and of the staff of the National Library of Scotland in Edinburgh.

Finally, I should like to thank my wife Jean. Her assistance has ranged from general encouragement to specific aid and has been more valuable than she will have realized.

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A. LABOUR MIGRATION AND THE REGIONAL PROBLEM

CHAPTER 1

The Nature of the Regional Problem

I

A considerable literature exists on the methods of regional delineation. In the context of this study a few remarks will suffice. Generally, a set of regional boundaries will depend on the objectives and focus of policy. This will affect the total number of regions as well as their boundaries. It is not surprising to realize that regional definitions, dependent on the choice of appropriate areas for the implementation of different objectives will differ. For example, a concern with land-use planning will dictate a different and greater number of areal subdivisions than will a concern with, say, electricity generation. But a different problem is posed by the question of choosing regional boundaries for more general economic objectives. Again, the nature of the principle objectives will affect the number and delineation of the regions.

Broadly, there are three types of region: the homogeneous region, the nodal region and the planning region. The homogeneous region is internally consistent in some of its characteristics, for example, it may be an area of high unemployment, or of a concentration of slow-growth industries. A nodal region is defined in terms of its dominant node and will be characterized by complementarity between its unlike constituents, extending to the point where the sphere of influence of a neighbouring node become more important. These two types of region are operational concepts; if regions appropriate to this study were to be chosen and data

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collected relevant to these areas, at this point these two approaches would have to be discussed. However, as it is, this study is retrospective and must depend on existing data. This is available for planning regions. These are the regions that are chosen by Governments for the administration of policies. Thus the problems of choosing between the two operational approaches of regional delineation and the additional problems of drawing actual boundaries are avoided.¹ It may be the case, however, that these planning regions are designed to incorporate the concepts of either homogeneity or nodality.

The regions to be studied in this thesis are four in number: the Ministry of Labour Divisional areas, the Depressed Areas, the Special Areas and the boundaries of England, Wales and Scotland. Some statistical difficulties were encountered in collecting data appropriate to these regions. The Ministry of Labour regions were large aggregates used by the Ministry of Labour and based on local employment exchange areas. They are defined in an Appendix to Chapter 2. Statistical problems arose in this case as it was necessary to approximate these areas in the presentation of data, by aggregating information for counties approximating the Divisional boundaries. Further, the change in Divisional boundaries in 1936 and 1937 produces complications which necessitated some aggregation to reduce, but not eliminate, the resulting inconsistencies in the data in an effort to obtain continuous series for the period. The Depressed Areas were based on employment exchange areas and were introduced

1. An introduction to the subject of regional delineation is provided by A.J.Brown, The Framework of Regional Economics in the United Kingdom (Cambridge, 1972), pp.27-51; H.W.Richardson, Regional Economics (1969), pp.223-231; F.J.B.Stilwell, Regional Economic Policy (1972), pp.37-42.

with the Industrial Transference scheme. They defined the areas in which this scheme operated. Different schedules were in force at different points in time and different schedules were used for adult and juvenile labour. Another schedule of Depressed Areas defined the regions in which Government contracts were to be preferentially placed. In these cases data has had to be presented which only approximates these areas. One major difficulty, in this instance, is the lack of certain knowledge as to the definitions employed at any particular point in time. An indication of these areas is provided in the Appendix to Chapter 4. The Special Areas were introduced by the Special Areas (Development and Improvement) Act of 1934. They too were based on employment exchange areas and a listing of their geographical coverage is presented in an Appendix to Chapter 7. Statistical difficulties took the form of a necessity to adjust certain series to approximate these boundaries. Both the Special and Depressed Areas, as can be seen from their delineation, were an attempt to establish homogeneous regions with respect to unemployment experience. Finally, in some instances, data is available for England Wales and Scotland, but this is less useful than that for the areas described above. Scotland and Wales are Ministry of Labour Divisional Areas, and as such, merely duplicate the earlier definitions. To regard England as a separate region is of little interest, particularly in view of the sphere of operation of regional policies defined by the Special and Depressed Areas.

There are, in general, three types of problem region: underdeveloped regions, depressed regions and over-congested regions. The first type are now, and were in the 1920's and 1930's, a relatively small problem in Britain in comparison to other countries. They are characterized by an absence of industrial development and a backward agriculture. Such regions, as mid-Wales or the Highlands of Scotland, are not the concern of the central part of this thesis. Depressed regions are characterized by the decline of their major industries and the failure of these to be replaced by expanding industries. It is these areas of Wales, Scotland and the north of England that were the focus of interest of regional policies in the inter-war period. The regional definitions of Special and Depressed Areas were concerned with these areas. Finally, the 'over-congested regions' are areas where "economic growth has reached a scale in a given time that is bigger than the optimal from the point of view of internal environmental conditions of the over-congested region and the development of other regions of the country".² The concern of contemporaries with the growth of London in the late 1930's illustrates the recognition of the existence of this type of region. But no separate regional delineation was used to identify the range of this problem; statistics related to the county area, to Greater London and to London and the South East. The latter two areas were Ministry of Labour regions.

2. A.R.Kuklinski, 'Regional Development, Regional Policies and Regional Planning: Problems and Issues', Regional Studies, 4 (1970), 270.

In the identification of problem region types, and their delineation by contemporaries, it can be seen that regional policy was first concerned with the depressed areas and, subsequently, with the over-congested region. It now needs to be shown how contemporaries regarded these problem regions.

Dennison talks of the "social problems of localized unemployment".³ A depressed area was an area "in which national unemployment is heavily concentrated".⁴ Lieutenant-Colonel Hurst (M.P. for Manchester, Moss Side) spoke of the "short-time and underemployment from which our country, particularly the North of England is suffering".⁵ Stanley Baldwin was concerned with "the unexampled spectacle of pools of unemployed labour in the mining industry".⁶ It would be repetitious to cite more examples. Academics, politicians and the press were all concerned with the problem of localized unemployment and labour surplus to the needs of the local economies.⁷

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3. S.R.Dennison, The Location of Industry and the Depressed Areas (1939), p.101.
 4. ibid. p.123.
 5. Hansard(Commons),5th ser,136,1651,21 Dec.1920.
 6. S.Baldwin, On England (1937),p.38.
 7. For example, the terms of reference of the Board of Trade sponsored surveys of the Industrial areas, that appeared in 1932. See the bibliography for full references. Also see Industrial Transference Board. Report (Parl.Papers, 1928, X); Commissioners for the Special Areas. Reports (see bibliography); E.D.McCallum, 'The Problem of the Depressed Areas of Great Britain', International Labour Review, 30 (1934). Newspaper references to the problem of unemployment are legion. Examples are found in the Glasgow Herald, 12 Nov. 1928; The Times, 20 March 1934; The Economist, 31 Oct. 1936.

The depressed areas were, first and foremost, a problem of localized unemployment. Unemployment statistics, therefore, are the best indicator of the problem.

The over-congested areas were a more complex phenomena, less easily identified by any one index. The Barlow Report was concerned with health and housing conditions, the provision of public open spaces and playing fields, smoke and noise, traffic congestion, and the threat of aerial attack.⁸ The P.E.P. Report⁹ was similarly concerned with atmospheric pollution, local travel and dumps of industrial waste.¹⁰ A general index of such problems is more difficult to determine. Nevertheless, all may be related to the rate of population growth and the density of settlement.

III

National unemployment was continually high throughout the period. From 1920 to 1939, the average percentage of insured unemployed was 13.5 per cent.¹¹ Over a million insured workpeople were unemployed at all

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8. Royal Commission on the Distribution of the Industrial Population. Report (P.P., 1939-40, IV).
 9. Political and Economic Planning (hereafter, P.E.P.), Report on the Location of Industry (1939).
 10. Other evidence of similar concerns is widespread. For example, see M.P. Fogarty, Prospects of the Industrial Areas of Great Britain (1945).
 11. Department of Employment and Productivity, British Labour Statistics: Historical Abstract, 1886-1968 (1971), Tables 160, 162. These figures refer to Great Britain and Northern Ireland from 1922, before that date they include the Republic of Ireland. The effects of changes in the administration of the unemployment insurance schemes are noted at the source.

times and almost three million in the early 1930's.

These national figures conceal sharp regional variations. Scotland's figures were persistently above those for the whole of the U.K., ranging from 10.6 per cent in 1927 to 27.7 per cent in 1932 and averaging 17.9 per cent for the period for which these statistics are available.¹² The figures for Wales, averaged 28.3 per cent over the 11 years from 1927, never falling below 19.8 per cent, whilst reaching a height of 37.5 per cent. For England, the average was 13.9 per cent and the range 9.0 per cent to 20.7 per cent.¹³ Outstanding variations were also present between the other regions. In the Ministry of Labour regions before the cyclical downturn of 1929, whilst the national figure was 10.4 per cent, that for the various regions were as shown in column 1 of Table I. In 1932, at the bottom of the cycle, the regional breakdown of a higher national figure of 22.1 per cent was as shown in column 2. In 1937, when unemployment had recovered to pre-depression levels, the figures were as shown in column 3. Throughout, there is a clear distinction between the first three regions and the latter three; a 'North' 'South' problem was evident.

These regions were not homogeneous in unemployment experience. Statistics for pairs of labour exchange areas from within each regional division are shown in Table II. However, the other 'planning regions' -

12. London and Cambridge Economic Service, The British Economy: Key Statistics, 1900-1970 (1971), Table E.

13. M.P.Fogarty, op.cit. Table 8.

the Special Areas and the Depressed Areas - were more similar.¹⁴

Unemployment for these areas is shown in later chapters.

Although unemployment is perhaps the best indicator of the regional problem, it does not exhaust the indicators of disparities. A variety of alternatives can be suggested, for example, incomes per capita, employment growth, industrial structure and the degree of specialization, the volume of building activity, mortality rates or net migration. These alternative indicators are all related, however, to depression and unemployment. The growth of insured employment by regions is shown in Table III. This shows that while employment in London and the South East expanded by half as much again as it had been in 1923, Wales suffered an absolute as well as a relative decline. All regions suffered during the cyclical depression, as revealed in the figures for 1932, but the incidence was far from even although the relative order of the regions did not change. When the distribution of growth of the insured population is considered the figures become more revealing. Table IV shows that the greater part of the increase in insured population over the period was concentrated in the south and midlands. Nevertheless, insured population continued to increase absolutely in the other areas and whereas insured employment grew faster than insured population in southern Britain, it

14. There were some variations within these areas. For example, Newcastle, within the North East Coast area, was more favourably affected than areas of S.W. Durham. As a consequence, the Special Areas Commissioner refrained from his activities in Newcastle. Public Record Office (hereafter, P.R.O.) Cabinet Committee on the Reports of the Investigations into the Depressed Areas. Report of Inter-Departmental Committee, D.A. (34) 10, 11 Jan. 1937. CAB 27/577.

grew more slowly than insured population in northern Britain. The balance took the form of net migration and unemployment.

When these indicators are considered together, the regions can be ranked as in Table V. The correspondence between the rankings provided by the different indicators is perfect and illustrates the 'North' 'South' problem in Britain. This ranking remained virtually identical over time. Spatially, Wales and the North are consistently the worst performers whilst London and the South East and the South West fare the best. Other indicators, such as activity rates and the other variables earlier cited, would show a similar spatial pattern.¹⁵ But whilst London and the South East was a best performer by static criteria, its rate of growth resulted in problems of a different kind.

The problems of London are illustrated by the rate of growth of insured population and employed insured population. Both of these, of course, are related to the rate of growth of total population which, when set equal to 100 in 1923, has a value of 115 in 1937 and of 117 by 1939.

15. For example, Daly and Atkinson suggested that labour disputes had a similar pattern. M.Daly, E.Atkinson, 'A Regional Analysis of Strikes, 1921-36', Sociological Review, 32 (1940). Rankings of building crafts employment per capita for the three years suggests the following order for the regions: South West, Scotland, London & the South East, Midlands, North, Wales. Calculated from I.Bowen, 'Building Output and the Trade Cycle (U.K.1924-38)', Oxford Economic Papers, No.3 (1940), Table D. A.D.Campbell shows that Scottish incomes per head were less than those of the rest of the U.K. for the period 1924-1949. A.D. Campbell, 'Changes in Scottish Incomes, 1924-49', Economic Journal, 65 (1955). This is explained by lower wages, lower activity rates and higher unemployment. Comparable estimates for other regions are not available for the period.

At the same time as population increased, so did the density of settlement. These figures, and other indicators of the problems of the over-congested region, are shown in Chapter 9.

IV

The only indicator of regional problems which has been ignored so far are those detailing differences in industrial structure between regions. This major topic is not the principal subject of this thesis and it therefore makes a relatively early appearance. Variations in industrial structure underly the disparate experiences of the 'North' and 'South'. Both contemporaries and more recent commentators have been concerned with the role of differences in industrial structure in causing different experiences of unemployment.

Contemporaries were aware of this causality. Dennison noted that "some industries are declining in the employment they provide, while others are increasing in importance, and, broadly speaking, these two groups are situated in different regions of the country".¹⁶ This cleavage between the depressed and prosperous areas was thought, furthermore, to be a cumulative process. "As industries develop, population increases by migration, the market grows, further industrial development occurs and so on."¹⁷ This view, which has its parallel in the more recent theses of

16. S.R.Dennison, op.cit.p.123.

17. *ibid.*p.72.

Myrdal and Hirschman,¹⁸ sees differences in industrial structure in different parts of the country and, with the decline of certain industries and the expansion of others, so disparities between areas arise. Further, these disparities are exaggerated as success breeds success and failure leads to further failure.

Other contemporaries were equally aware of the role of differing industrial structures in leading to localized depression. But an alternative hypothesis would see the regional disparities as a product of differences in the rates of expansion of the same industries between different regions. For the aggregates of 'Inner' and 'Outer Britain', Champernowne distinguished between these components, but concluded that structure was the more important explanation, 1929-36.¹⁹ The Barlow Report also considered the relative roles of 'composition' and 'growth' effects and similarly concluded that differences in industrial structure were the major factor behind differences in the growth of different regions, 1923-37.²⁰ (See Table VI.)

Differences in industrial structure might be the explanation for

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18. G. Myrdal, Economic Theory and Underdeveloped Regions (1957); A.O. Hirschman, The Strategy of Economic Development (New Haven, 1958), Chapter 10. Also see A.P. Thirwall, 'Migration and Regional Unemployment: Some Lessons for Regional Planning', Westminster Bank Review (Nov. 1966)
 19. D.G. Champernowne, 'The Uneven Distribution of Unemployment, I', Review of Economic Studies, 5 (1937-8)
 20. Royal Commission on the Distribution of the Industrial Population, op.cit. Appendix II; Chapter 2.

the two influences. It seems that 'composition' may affect 'growth'.²¹ the differences in unemployment experience that have been noted between a region concentrating its employment in a few industries suffering from the pairs of labour exchange areas within the Ministry of Labour regions.²¹ But at once it becomes clear that whether the differences in unemployment are attributed to industry-mix or differential growth depends on the level of industrial aggregation. For example, within Wales, Merthyr Tydfil was an area in the heart of the South Wales coalfield which concentrated on producing steam coal for export. Swansea, on the other hand, as well as its greater diversity of employment resulting from its nodal functions, was an area on the west of the field producing anthracite for which demand did not fall so catastrophically.²² Simply, differential growth is the explanation if no distinction is made between types of coal industry; otherwise, different industrial structures are the explanation. There is not this difficulty when dealing with the North. The Tyneside area was "primarily concerned with coal export, ship construction, marine engineering and ship repairing"²³ and suffered more from unemployment than Middlesbrough on Teeside, where steel production's ability to maintain itself absolutely, and to improve its relative position, enabled similar industries to those found on Tyneside to be less susceptible to unemployment.²⁴

Another problem now appears and that is to disentangle the effects of

21. supra, Table II.

22. see B. Thomas, 'Labour Mobility in the South Wales & Monmouthshire Coal Mining Industry', Economic Journal, 41 (1931).

23. G.H. Daysh, 'A Distressed Industrial Region - Tyneside', Economic Geography, 11 (1935), 162.

24. J.T. Gleave, 'The Teeside Iron and Steel Industry', Geographical Journal, 91 (1938).

the two influences. It seems that 'composition' may affect 'growth'.²⁵ A region concentrating its employment in a few industries suffering from secular decline will experience repercussions on the other industries of the area from this decline. Local demand is likely to fall and a lack of alternative employment opportunities will result in out-commuting and out-migration. Ultimately, industrial growth in the area might also suffer as locational disadvantages set in, discouraging the location of expanding industries. The consideration of the diversity of local employment was thus a cause for concern. Tress showed how diversity could be measured and demonstrated that a number of towns experiencing heavy unemployment in 1931 had little changed their diversity by 1937.²⁶ Luton and Oxford within the prosperous south also had little diversity; it was suggested that lessons learnt from the depressed areas ought to be applied to the present prosperous areas.²⁷ But the lesson of the depressed areas might not have been unmistakable. Diversification is not the

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25. Mackay argues that the proportionality shift in shift-share analysis only records the minimum influence of industrial composition. This reflects both the influence of working with aggregated data and the secondary impact on growth of all industries in a region from a decline in employment in industries heavily weighted in the region. D.I.Mackay, 'Industrial Structure and Regional Growth - A Methodological Problem', Scottish Journal of Political Economy, 15 (1968). Also see G. McCrone, Regional Policy in Britain (1969), Chapter 7
26. R.C.Tress, 'Unemployment and the Diversification of Industry', Manchester School, 9 (1938). This technique has been subsequently developed. See A.Rodgers, 'Some Aspects of Industrial Diversification in the U.S.', Papers & Proceedings of the Regional Science Association, 1 (1955); W.Isard, Methods of Regional Analysis (Cambridge, Massachusetts, 1960), pp.270-9.
27. Tress, op.cit.; Survey of the Social Services of Oxford and District (1938-40), 1, pp.70,98.

appropriate policy if it is not an unfavourable structure that a region is suffering from.

It is clear that caution must be exercised before easily accepting the structural explanation of regional differentiation. This is particularly the case as it has been shown in the post-war period that a number of areas do not apparently conform with an industry-mix explanation of their disparate experiences.²⁸ However, it has been suggested above that the methodology of these investigations might lead to an underestimation of the 'composition' component in regional growth. Besides, the two influences are practically intertwined.²⁹ It must be concluded on

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28. It seems that the North, Wales and the East and West Ridings of Yorkshire suffer chiefly from an unfavourable industrial structure, whilst the South East benefits from a favourable structure. In the areas where differential growth is the major explanation - in Scotland and the North West the impact is unfavourable whereas in the Midlands, East Anglia and the South West it is favourable. For example, see A.P.Thirwall, 'A Measure of the Proper Distribution of Industry', Oxford Economic Papers, new ser. 19 (1967); A.J. Brown, op.cit, pp.131-146; F.J.B.Stilwell, 'Regional Growth and Structural Adaptation', Urban Studies, 6 (1969); C.H.Lee, Regional Economic Growth in the United Kingdom since the 1880's (Maidenhead, 1971), p.244. The Barlow Report found that in Mid-Scotland and the West Riding of Yorkshire, Nottinghamshire and Derbyshire areas that differential growth was important. Royal Commission on the Distribution of the Industrial Population, op.cit.
29. G.McCrone, op.cit.; D.I.Mackay, op.cit. The methodology of calculating the contributions of industrial structure and differential growth to disparate regional experiences is described and discussed in the references cited in footnote 28 and in H.S.Perloff, E.S. Dunn, E.E.Lampard, R.F.Muth, Regions, Resources, and Economic Growth (Baltimore, 1960); E.S.Dunn, 'A Statistical and Analytical Technique for Regional Analysis', Papers & Proceedings of the Regional Science Association, 6 (1960); T.W.Buck, 'Shift and Share Analysis - A Guide to Regional Policy?', Regional Studies, 4 (1970); F.J.B. Stilwell, 'Further Thoughts on the Shift and Share Approach', Regional Studies, 4 (1970).

the available evidence for the inter-war period that structural differences were the major explanation of regional disparities between the planning regions.

The impact of the cyclical downturn on regional disparities is another factor to be considered. A priori, capital goods industries and heavy industries will tend to experience wide fluctuations over a cycle, whereas the amplitudes of the fluctuations of consumption industries will tend to be less. The most volatile element of aggregate demand is investment; capital goods using industries can always delay renewing plant and equipment or adding to existing capital stock if economic conditions should seem to warrant it, but consumption demand can never become zero.³⁰ Additionally, when some factor leads to a revival in aggregate demand, investment demand, having declined very rapidly, is also likely to show a similarly rapid rate of increase. The rate of change in consumption is likely to be less startling. Given the distribution of industries in Britain, therefore, it would be expected that the differential impact of cyclical depression would be reflected in the appearance of greater disparities between regions in the midst of depression. This indeed seems to be the case, as is shown in Table VII.³¹ However, more recent work on regional cycles suggests that

30. Another factor is the relative 'lumpiness' of investment demand compared to consumption demand.

31. Thirwall has shown that generally it is the regions of high unemployment that exhibit the greatest sensitivity to cyclical variations in unemployment. A.P.Thirwall, 'Regional Unemployment as a Cyclical Phenomenon', Scottish Journal of Political Economy, 13 (1966).

industrial structure is not the explanation for different amplitudes of cycle, except in the North.³² This is so even though poor regional growth may be explained for some regions by industry-mix. Consequently, caution must again be exercised in accepting the explanation outlined above to account for differences in regional cycle experience. However, interregional cyclical variations are not a chief concern as it is evident that major disparities remain both before and after the cyclical depression of the early 1930's. The regional problem was one of long-standing and was primarily due to structural causes. Cyclical depression served to magnify these disparities.

32. It has been shown that interregional variations in the cyclical sensitivity to unemployment are due more to interregional differences in the cyclical sensitivity of individual industries to unemployment than to different industrial structures. C.P. Harris, A.P. Thirwall, 'Interregional Variations in Cyclical Sensitivity to Unemployment in the U.K., 1949-64', Bulletin of the Oxford University Institute of Economics and Statistics, 30 (1968). This may reflect a tendency to hoard labour by industries in regions where labour scarcity is feared or for branch plants in the regions of high unemployment to adjust their activities more readily than parent plants in the low unemployment regions. Either explanation seems inapplicable to the inter-war period.

Table I

Unemployed Insured as a Percentage of Insured Population.Ministry of Labour Regions, 1929, 1932 and 1937.

	(i)	(ii)	(iii)
	1929	1932	1937
London & South West	5.6	13.7	6.4
South West	8.1	17.1	7.8
Midlands	9.3	20.1	7.2
North ^{a/}	13.5	27.7	13.8
Wales	19.3	36.5	22.3
Scotland	12.1	27.1	15.9

a/ North, North West and North East regions.

Source: M.P. Fogarty, op.cit, Table III.

Table II.

Unemployed as a Percentage of Insured Population.Pairs of Labour Exchange Areas within Regional Divisions, 1929,
1932 and 1937.

		1929	1932	1937
London and S.E.	Southampton	9.2	22.6	9.7
	Luton	4.1	7.9	5.5
South West	Bristol	11.8	20.4	9.4
	Bath	8.7	15.4	5.4
Midlands	Wallsall	12.2	26.6	9.8
	Birmingham	6.8	15.3	4.3
North	Tyneside ^{b/}	23.0	40.5	25.2
	Middlesbrough	12.2	41.9	15.2
Wales	Merthyr Tydfil	44.7	60.9	41.6
	Swansea	22.5	37.5	23.5
Scotland	Glasgow	14.6	30.7	17.4
	Edinburgh	9.2	15.5	11.1

b/ Tyneside is composed of statistics available for Gateshead, South Shields, Newcastle and North Shields.

Source: M.P. Fogarty, op.cit, pp. 31-3.

Table III

Index Numbers of Insured Persons aged 16-64 in Employment in Certain Industries in Ministry of Labour Regions at the end of June, 1929, 1932 and 1937.

	June 1923 = 100		
	1929	1932	1937
London and South East	123.6	122.6	152.2
South West	116.6	113.6	139.0
Midlands	110.7	101.0	132.0
North	104.2	88.3	109.0
Wales	84.6	68.6	85.8
Scotland	104.8	91.0	111.6

Source: Ministry of Labour, Annual Report for the year 1938
(Parl. Papers, 1938-9, XII), Appendix XII.

Table IV

Index Numbers of Insured Population in Ministry of Labour Regions. July, 1929, 1932 and 1937.

	July 1923 = 100		
	1929	1932	1937
London and South East	117	128	146
South West	113	122	134
Midlands	110	116	127
North	104	108	110
Wales	97	103	102
Scotland	102	107	112

Source: M.P. Fogarty, op.cit, Table V.

Table V

Regions ranked by three indicators of Regional Disparity: Percentage Unemployed, Employment Growth, Net Migration as a Percentage of Population. 1929, 1932, 1937.

	Unemployment	Employment Growth	Net Migration
London and South East	1	1	1
South West	2	2	2
Midlands	3	3	3
North	5	5	5
Wales	6	6	6
Scotland	4	4	4

Note: The ranks were determined by averaging the ranks recorded in each of the three years for each of the variables and rounding to the nearest whole number.

Source: Tables I, III; Chapter 2, Appendix 2.

Table VI

Regional Distribution of Industry and Change in Employment, 1923-1937.

	G.B.	London & Home Co's.	Mid- lands	W. Rid- ing, Notts. & Derby	Mid Scot- land	Lancs.	North- umber- land, Durham	Glam- organ, Mon- mouth
% insured in 1923 in:-								
7 local industries	24	35	16	14	25	19	16	13
16 rapidly expanding basic industries	14	21	26	9	10	9	6	4
5 rapidly declining basic industries	23	1	12	43	24	36	49	50
18 other	39	43	46	33	40	36	28	24
% insured in 1937 in:-								
7 local industries	30	38	20	21	33	26	25	22
16 rapidly expanding basic industries	19	25	30	14	13	16	9	6
5 rapidly declining basic industries	14	1	7	32	15	24	33	41
18 other	37	36	42	33	39	35	32	31

Notes: Local industries - "essentially local in character" and therefore found in all communities.

Basic industries - interregional exporting industries.

Expanding industries - no. of insured persons increased as fast or faster than the total population, 1923-37.

Declining industries - no. of insured persons declined either absolutely or relatively to total population, 1923-37.

Source: Royal Commission on the Distribution of the Industrial Population, op.cit, p. 276.

Table VII

Unemployment Percentages in the 'North' and 'South', 1929, 1932 and 1937.

	1929	1932	1937
'South' *	7.7	16.9	7.1
'North' **	15.0	30.1	17.3
	<hr/>	<hr/>	<hr/>
Difference	7.3	13.2	10.2

* London and South East, South West and Midland regions of the Ministry of Labour

** Wales, Scotland and Northern regions of the Ministry of Labour

I

Gross migration statistics are the best measure of labour flows in that they yield the most information, in particular, on the origin and destination of movements and on the relative importance of in- and out-migration from a particular area. This latter advantage may be of especial importance when analysing the factors that influence labour movements. The various economic, social and psychological factors that influence migration may best be related to the actual movements rather than to an aggregate measure of movement such as net migration. However, the only information on gross migration for this period is not suitable. The comprehensive estimates of Friedlander and Roshier¹ pertain to the periods 1911-31 and 1931-51 and whilst providing valuable guidelines to the interpretation of other migration data for this period, this data itself covers too wide a time span for use in a study of the shorter inter-war period. Further, the data of this study are also subject to some errors, being based on residence and birthplace information from the Census. The failure of the 1931 Census to include such information necessitated the construction of estimates for this date.²

1. D.Friedlander and R.J.Roshier, 'A Study of Internal Migration in England and Wales, Part I: Geographical Patterns of Internal Migration 1851-1951', Population Studies, 19(1965-6).
2. Others make use of birthplace and residence data in the construction of local estimates. For example, A.E.C.Hare and M.I.Michaels, 'Migration of Population' in London School of Economics, The New Survey of London Life and Labour, VI(1934).

The other data that exists, with one exception,³ is far from comprehensive. There is the Ministry of Labour data on transference from the Depressed Areas. This information directly reflects the impact of Government policies to induce labour migration and includes totals for each calendar year and information on the origins and destinations of assisted migrants.⁴ However, useful as this is, the object of policy was to further the movement of 'spontaneous' migration by assisting potential migrants from severely depressed areas to undertake the move that they may have otherwise avoided. Consequently, from the standpoint of judging policy, such a series of data is insufficient.

Elsewhere, Brinley Thomas, in a series of articles in the late 1930's,⁵ the Ministry of Labour, and others, provide data on migration culled from analyses of unemployment books exchanged under the insurance schemes. This information may also be used as a guide in interpreting conclusions drawn from other sources, but again, it is subject to a number of errors.⁶

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3. H.Makower, J.Marschak and H.W.Robinson, 'Studies in Mobility of Labour', Oxford Economic Papers, Nos.1,2,4(1938-40).
 4. Royal Commission on the Geographical Distribution of the Industrial Population, Memorandum of Evidence of the Ministry of Labour, 3 Feb. 1938, Appendix IV. The transference scheme is described in Chapter 4.
 5. B.Thomas, 'Labour Mobility in the South Wales and Monmouthshire Coal-Mining Industry, 1920-30', Economic Journal, 41(1931); B.Thomas, 'The Movement of Labour into South-East England, 1920-32', Economica, 1(1934); B.Thomas, 'The Influx of Labour into London and the South-East, 1920-36', Economica, 4(1937); B.Thomas, 'The Influx of Labour into the Midlands, 1920-37', Economica, 5(1938); P.R.O. Supplementary Evidence submitted to the Barlow Commission by the Ministry of Labour, HLG 27/30.
 6. Ministry of Labour data for the post-World War II period was found to be subject to errors of such a magnitude that it was discredited and discontinued. See Ministry of Labour Gazette, 76(1968), p.120.

For example, the changing distribution of the insurance scheme amongst the active population is one factor hampering interpretation of the data. The implicit reliance on workplace data as an indicator of migration ignores the centrifugal movement of population to outlying districts. Further, the practice of a large number of employers to return the books of their employees to a central London office, irrespective of the location of their works, means that even this is not accurately measured. Movements in London, in particular, are likely to be overstated. Finally, the irregular timing of such estimates fails to provide data for individual years and is chiefly of value in indicating the broad direction and volume of labour flows over a long period of time.

The work of Makower, Marschak and Robinson involved the construction of net migration residuals from the population and vital statistics data of the Registrar-General for England and Wales.⁷ However, their work only resulted in the presentation of data for the periods 1927-31 and 1931-6 for the various counties and the whole of Scotland was treated as a county.

Given these sources of information on migration pertaining to varying levels of spatial and temporal aggregation it was decided that it would be valuable to compute net migration residuals for the counties of England, Wales and Scotland using a method in principle identical to that of Makower, Marschak and Robinson. Not only would this yield a comprehensive series of estimates for these areas, enabling regional figures to be obtained by

7. A.D.K.Owen, 'Social Consequences of Industrial Transference', Sociological Review, 29(1937). Similar estimates were made by Owen for the Registrar-General regions for the periods 1921-31 and 1931-5. Also see R.M.Titmuss, Poverty and Population: A Factual Study of Contemporary Social Waste(1938).

aggregation, but information for each year would be obtainable and thus could be related to changing economic circumstances. The possession of such a series would also aid the work of the following sections of the thesis as well as being of some descriptive importance in itself.

Before presenting this data and describing the patterns of labour movement it and surrogate estimates reveal, it is vital to set-out the errors and biases that such estimates are liable to. To attain this objective, the methodology of computing net migration estimates by the residual method is described. This discussion is to be found in the first Appendix to this chapter.

II

This section summarizes the principal features of the results. The detailed estimates are presented in Appendix 2.

The counties of the south of England gain population from migration whilst the northern and Welsh counties lose. The exceptions are Leicester, Nottingham and Rutland in the English midlands, London, Cornwall and a number of counties in north Wales and Cheshire. The examination of migration as a percentage of county population is more revealing. This shows that the greater part of the country experiences slight in- or out-migration, in contrast to Scotland where movements are of greater impact. The counties that lose most heavily are those of south and Mid-Wales, the extreme north and London. The declining industries of Wales led to the observed movement from that area and whilst it seems probable that these migrants went to England it is also true that a number returned to north Wales, an area from

which many came in the late nineteenth century. Cheshire and Flintshire's balance may also be attributable to a centrifugal movement of the population of the Liverpool conurbation. Similarly, the County of London shows such a movement, the principal benefactors appearing to be Middlesex, Hertfordshire, Surrey and West Sussex. Cumberland, Northumberland and Durham are, like Wales, losing population as a result of the decline in their basic heavy industries, in particular coal-mining.

The period 1929-39 illustrates a similar distribution of in- and out-migration on balance, although the number of areas gaining population has increased. The examination of the impact of movement in percentage terms illustrates a polarization of the tendencies evident in the 1920's. London is now losing more heavily whilst a greater number of the surrounding counties are gaining both from this movement and from long distance movements from elsewhere. The counties of mid- and south Wales are also losing more heavily, as is Durham.

The description of the movements aggregated to the levels of Ministry of Labour regions merely serves to make clear the 'North'-'South' pattern of losing and gaining areas, and the polarization of the 1930's.⁸ A feature to note is the apparent loss of population by Greater London in the 1920's. As can be seen in Appendix 2, this balance of out-migration is very slight and when the net movement over the decade is considered alongside the volume of annual movement it seems that a negative balance is a somewhat freak result for the 1920-29 period.

8. The aggregation of county results to the Ministry of Labour regions is an approximation. This results from the latter's regions being based on employment exchange districts, whilst the population and vital statistics data is available for local authority areas. Appendix 2 notes the discrepancies.

In the period 1920-29, it can be seen that each county of Scotland was a net loser of population by migration. The exception appears to be the County of Bute; Appendix 1 explains this discrepancy.⁹ The examination of yearly mean percentage movement shows the peripheral counties suffering the heaviest proportional movement. Stirling and Midlothian lose a smaller proportion of their population than all other counties and the heavy losses experienced by West Lothian and Berwick suggest a movement of population to adjacent counties. The decline of the shale oil industry, in particular, may account for West Lothian's predicament.

In the 1930's, the general pattern of loss by migration is not so strongly maintained. Aberdeen, with its relatively progressive agriculture, gains in the north,¹⁰ whilst Renfrew, Midlothian, Dumfries,¹¹ Roxburgh and Selkirk gain in the south. The examination of proportional migratory movements reveals that the country as a whole experiences less loss of population by migration in the period 1929-39 than in the 1920's. Only the position of Bute (already explained), Kirkcudbright¹² and Zetland worsen whilst the remainder, with the exceptions of West Lothian, Ross and Cromarty, Sutherland, Peebles, East Lothian, Fife and Stirling, improve. Midlothian probably gains from West Lothian, East Lothian and Peebles, whilst Dumfries' gain is the product of a boundary change. Renfrew is probably benefiting from a centrifugal movement of Glasgow's population whilst the border

9. infra, note 14.

10. This is also a product of a boundary change at the expense of Kincardine County.

11. This is a product of a boundary change at the expense of Kirkcudbright.

12. As a result of the boundary change to the gain of Dumfries.

counties of Selkirk and Roxburgh may have been attracting population from their neighbouring depressed counties in northern England.

The examination of regional aggregates demonstrates the overall loss of population by migration despite the gains of some counties and illustrates the relative improvement between the 1920's and the 1930's, although, of course, the 1920's data is subject to a greater degree of error than that for the 1930's.

Once the results had been computed it was decided to analyse the net movements in terms of long or short distance. For all counties, all negative movements and all positive movements were separately summed. The difference between these totals was taken to illustrate the balance of overseas migration, whilst the absolute values of the remaining totals were summed and divided by two to represent net total inter-county moves in each of the time periods involved. Similarly, a calculation was made to obtain statistics of net totals of inter-regional movements. Tables VIII and IX summarize these results for England and Wales and for Great Britain.

If inter-regional moves represent long distance movements, then the difference between this figure and that for the net total of all inter-county movements represents short distance and intra-regional movement. In the 1930's, long distance movement became more important and this seems to fit with the observed tendency towards polarization. There were also a great many more movements in the 1930's than in the 1920's.

The net migration estimates suggest two factors requiring special explanation. Firstly, why does there seem to be an increase in long

distance movements in the 1930's and secondly, why does the proportional impact of migration in Scotland appear to be less in the 1930's than in the 1920's? This contrasts with the apparent polarization of experience in England and Wales. These questions involve the analysis of factors that influence migration movements, their timing and their destination and, as such, will be left to the following chapter.

It now remains to examine whether the surrogate data mentioned at the beginning of this chapter tends to confirm or reject the conclusions that have been drawn on the patterns of labour movements. Generally, the described pattern of movement is supported. The conclusions that can be drawn from Makower, Marschak and Robinson are that London and the South-East was the principal recipient of internally migrating population in the 1920's and that this originated in the north and Scotland. In the 1930's a similar relation seems to hold, but overseas immigrants replaced Scotland as one of the main suppliers of population. Friedlander and Roshier's work suggests that out-migration from the north was high, much of it originating from districts dominated by coal-mining and heavy industry in Northumberland and Durham. They also suggest that there was a trend towards long distance migration in response to changes in economic circumstances, although Makower et al point out that long distance movement was more important in the late 1920's than in the early 1930's. This suggests that there was an interruption to the trend occasioned by the cyclical downturn of the early thirties. The conclusions offered by those whose work was based on analysing the distribution of unemployment insurance books is also not contradicted.

III

Short and long distance movements have been isolated by comparing inter-regional movement totals and inter-county movement totals. It is necessary to attempt a fuller description of labour movements and especially of intra-regional movements. Given the hypothesized relationship between migration and distance expressed in gravity models,¹³ it would be surprising if short distance movement was not predominant. This is the case in the 1920's, though not in the 1930's. Further, centrifugal movements of population from large urban agglomerations are important and these tend to be intra-regional. Intra-regional movements can be approximated by isolating those counties within a region whose balance of migration differs from the total. Other evidence may also be brought to bear. A region by region approach will be taken.

The resulting miscellany is not an ideal account of labour movements by region. But the available evidence is so thinly scattered that a more coherent account is probably impossible.

North

Within the North, only one county consistently differed from the regional aggregate. Cheshire, except in a few years, was a recipient of an inflow of labour. A total of some 53,000 moved to Cheshire over the entire period. Lincolnshire too was a slight gainer of population from migration

13. See W. Isard, Methods of Regional Analysis (Cambridge, Massachusetts, 1960), Chapter 11 for an introduction. A simple model would be,

$$M_{ij} = G \frac{P_i P_j}{d_{ij}}$$

where, migration between i and j (M_{ij}) is seen to be some function of the product of population of the two areas (P_i and P_j) divided by the distance between them (d_{ij}).

in the 1930's, though on balance it was a deficit area in the 1920's and this was also true of the North and East Ridings of Yorkshire. All other constituent counties experienced an outflow of population in both the 1920's and the 1930's. What light can supplementary evidence throw on this data?

It has been suggested that an analagous movement of population to the centrifugal movement in the London area was taking place on Merseyside. More specifically, it was suggested that areas on the Wirral peninsula were exhibiting rapid rates of population increase not attributable to natural increase. This was the growth of suburbia to the Merseyside conurbation; "the outward migration into semi-detached villas has been gathering momentum during the last twenty years," Smith observed in 1942, and "the outward migration into Bebington and Wirral has been largely of this kind."¹⁴

The examination of Lancashire as a whole reveals that just as out-migration from the county, in terms of percentages of the population, compared unfavourably with other parts of the country showing similar unemployment statistics,¹⁵ so it is also true that migration within the county from areas of high unemployment to those of relatively low unemployment was surprisingly small. It was observed that,

14. W. Smith, The Distribution of Population and the Location of Industry on Merseyside (Liverpool, 1942), pp. 22, 23. The spread of large towns during this period seems to be a general phenomenon. See G.D.A. MacDougall 'Inter-War Population Changes in Town and Country', Journal of the Royal Statistical Society, 103 (1940). A ready explanation for the East and North Ridings of Yorkshire and Lincolnshire is not available.

15. See J. Jewkes, 'The Mobility of Labour and the Localisation of Industry', Transactions of the Manchester Statistical Society (1932-3); Board of Trade, An Industrial Survey of the Lancashire Area (by the University of Manchester) (1932), pp. 83-7.

"the fine-spinning and weaving areas have not, to any appreciable extent, drawn labour from the coarse spinning towns. Accrington appears to have drawn labour from Blackburn and Burnley, but Blackburn and Burnley, in turn, have taken labour from Accrington. The movement within the industry appears not as a broad movement produced by a common economic stimulus, but as the inexplicable variety of individual action prompted by purely personal factors." 16

The only other part of the North on which supplementary evidence on labour movements is available is for the North-East Coast area comprising the counties of Durham, Northumberland and the Cleveland district of Yorkshire. The analysis of net migration on Tyneside 1921-31 reveals startling contrasts between the various local authorities concerned. The expression of net migration over the decade as a percentage of the 1921 Census population reveals that Jarrow had a net loss of 20.3 per cent, Gateshead 12.0 per cent, South Shields 13.2 per cent and Wallsend 7.0 per cent.¹⁷ Two outlying areas gained by migration over the same period, suggesting once more that all conurbations were undergoing a centrifugal movement of population. These were Gosforth (10.9 per cent) and Whitley and Monkseaton (7.0 per cent). Newcastle's loss was amongst the lowest which suggests that it was considerably more diversified in the employment it could offer than some of its close neighbours.

Migration estimates between Northumberland and Durham and other counties in England and Wales over the years 1925-37¹⁸ reveal the following order of

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16. J.Jewkes and H.Campion, 'The Mobility of Labour in the Cotton Industry', Economic Journal, 38(1928), 137.
 17. G.H.J.Daysh, 'A Distressed Industrial Region: Tyneside', Economic Geography, 11(1935), 165.
 18. H.Makower, J.Marschak and H.W.Robinson, 'Studies in Mobility of Labour: Analysis for Great Britain, Part II', Oxford Economic Papers, No.4(1940), 45.

counties with significant migratory flows.¹⁹ Cumberland is first, followed by Yorkshire, Staffordshire, Lancashire, Lincolnshire and Cheshire. These are intra-regional moves within the north except that to Staffordshire. When distance is also considered in calculating the significance of migration the order becomes Staffordshire, Cumberland, Yorkshire, Cornwall, Lincolnshire and Cheshire.²⁰ The principal conclusion that emerges is the strong link between labour movements and similar industrial structures in losing and gaining counties.

Within the North-East alone, the most notable movements over the whole period were those that resulted in the increasing concentration of population in the three large conurbations and the "movement of people from ... the western parts of the Durham coalfield, especially South-West

19. *ibid.* Significance was determined by calculating an index of mobility by the formula,

$$\lambda = \frac{M_{ub}}{(ua-ub)ab}$$

where, M = no. of migrants from Northumberland and Durham to the receiving county weighted by ub,
 ua = unemployment percentage in Northumberland and Durham,
 ub = unemployment percentage in receiving county,
 ab = product of the total insured population in the two counties.

This definition is to be found in H.Makower, J.Marschak and H.W.Robinson, 'Studies in Mobility of Labour: A Tentative Statistical Measure', Oxford Economic Papers, No.1(1938),93.

20. H.Makower et al, *op.cit.*(1940). Distance is entered into the equation as D, where D is the distance from Northumberland and Durham to the receiving county to the power (v) of the regression coefficient between the number of migrants and distance between origin and destination.

$$\therefore \lambda = \frac{M_{ub} D^v}{(ua-ub)ab}$$

Durham, where coal-mining was declining ... [to] ... the eastern parts of the county where output was increasing in the deep concealed portions of the field".²¹ The difficulties facing coalminers in seeking fresh employment once unemployed tended to result in new employment being most often found in other mining occupations, perhaps in other areas of the country. The uneven development of the Durham coalfield enabled some of the displaced miners to avoid the complications of inter-regional migration whilst still gaining new employment. The remaining intra-regional migration did not favour all three conurbations equally.²² The two main centres of attraction were Tyneside and Teeside and although the former seems to have been more important absolutely, the relative achievement of Teeside, given its smaller population, may be more significant. In particular, Stockton-on-Tees had large inflows, 1921-31, from seven of the other towns covered by the cited study and nearby Billingham's progress in the heavy chemical industry may be a partial explanation for this achievement. Out of shipbuilding, engineering, metal industries, mining and quarrying, and chemicals, the latter was the only basic industry to expand its employment 1923-38 and the greater part of this expansion was completed by 1930.²³ But with these exceptions, the greater part of total movement within the area was confined to short distance movement as can be seen from diagram I. This also shows the complexity of intra-regional movement.²⁴

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21. Northern Industrial Group, North East Coast: A Survey of Industrial Facilities (Newcastle, 1949), p.132. The Durham miners had a tradition of mobility; see A.E.Smailes, 'Population Changes in the Colliery Districts of Northumberland and Durham', Geographical Journal, 91(1938).
 22. The following is largely based on 'Labour in the North East Coast Area', Chapter XV of Board of Trade, An Industrial Survey of the North East Coast Area (by Armstrong College) (1932).
 23. Northern Industrial Group, op.cit. Table 75.
 24. Coverage does not include movements from the named towns to 'E' or 'O' or from 'E' to 'O'. The basis of unemployment book data, which is concerned with workplaces, means that the data might also include instances of commuting as well as intra-regional migration.

Wales

In Wales the annual average loss, 1920-29, was of the order of 17,000 persons and for the period 1929-39, 28,000. In percentage terms this loss was of a greater magnitude than that shown by the north. Every county but one exhibited continual out-migration on balance almost throughout the inter-war years. The one exception was Flintshire which absorbed some 4,700 persons 1920-29 and a further 5,600 in the remaining years before the outbreak of World War II. In relation to total inter-county movement these sums are insignificant and besides, it seems probable that Flintshire was not absorbing labour from the depressed parts of Wales alone but from the North-West of England, in particular from Lancashire.²⁵ Other contributing areas seem to have been Carnarvonshire, Anglesey, Merionethshire, Montgomeryshire and Cardiganshire in Wales and Shropshire and Staffordshire in England.

What other sources provide information on movements within the principality? The South Wales coalfield was ably analysed by Brinley Thomas in the 1920's. Mobility was seen to be greater than that recorded by Jewkes and Campion for Lancashire cotton workers, although it was subsequently shown that mobility in the coal industry of the North-East Coast area was higher.²⁶ The analysis of migration in ten valleys showed that the smallest proportion of migrants to total insured population was in the four valleys in the heart of the coalfield: Merthyr Vale, Aberdare,

25. Friedlander and Roshier, *op.cit.* 276,277.

26. Board of Trade, *An Industrial Survey of the North East Coast Area*, *op.cit.* p.473.

Rhondda and Port Talbot. Two valleys on the east of the field, in Monmouthshire, showed only slight improvement. However, the four valleys on the west of the field (Rhymney, Swansea, Amman, and Neath) showed a marked superiority. Labour was moving from the declining steam coal regions to the new anthracite areas.²⁷ But as University College noted in 1932,²⁸ "... the greater part of the transfer of Welsh miners is transfer from Wales to other areas of Great Britain and consists, very largely ... of transfers to relief work. Such net transfers of miners as take place within Wales is more evenly distributed over the whole of industry." But again, that intra-regional movement within Wales was not inconsiderable is shown by the prevalence of such movements in those recorded by Friedlander and Roshier who, like Makower et al, calculate an index of migration in order to consider the influence of total populations of losing and gaining areas on migration totals.²⁹ However, they do not attempt to enter distance into the equation and, consequently, their results tend to over-emphasize the significance of intra-regional migration in Wales. Makower et al have analysed the counties of Glamorganshire and Monmouthshire for the period 1925-37 and their results, analagous to those presented for Northumberland and Durham, reveal the following ranking before distance is considered. First is the rest of Wales, followed by, Carmarthenshire, Pembrokeshire, Durham, Staffordshire and Denbighshire.³⁰ The introduction

27. B.Thomas, 'Labour Mobility in the South Wales and Monmouthshire Coal-Mining Industry', op.cit. Rhymney's growth was not attributable to its geological good fortune, but rather to its situation between two very depressed districts and the location within it of the Tredegar Iron and Coal Company's villages at Blackwood.

28. Board of Trade, An Industrial Survey of South Wales (by the University College of South Wales and Monmouthshire) (1932), p.149.

29. Friedlander and Roshier, op.cit. 250,251.

30. Makower et al, op.cit. (1940).

of distance into the analysis gives the following ranking, the rest of Wales, followed by, Durham, Staffordshire, Pembrokeshire, Carmarthenshire and Denbighshire. But the aggregation of eleven counties as the 'Rest of Wales' produces misleading results and if absolute movements are examined, it remains true that inter-regional movement was much more important quantitatively.

Scotland

Scotland has already been dealt with as fully as possible in the course of introducing the estimates of net migration.

Midlands

The period 1920-29 saw a loss by migration at the rate of about 9,500 per annum. This is in contrast to a gain over the years 1929-39 at an annual rate of some 14,000. Of the regions encountered thus far, the Midlands shows the most diverse trends between its constituent counties. For example, whereas Derbyshire and Staffordshire lose population throughout the period they are dissimilar in that the former's performance is better in the 1920's, the latter in the 1930's. Leicestershire and Nottinghamshire both gain in both periods but the former fares relatively better in the 1920's whilst Nottinghamshire's performance in the 1930's is better than in the 1920's. More distinguished still are the performances of Worcestershire and Warwickshire; whereas Worcestershire lost some 9,000 persons by migration in the 1920's it gained 20,500 in the 1930's and Warwickshire converted a 1920's loss of 13,600 to a 1930's gain of 120,000. It seems most probable that these changes were the result of predominantly inter-regional labour

movements.³¹ The Midlands, being a land-locked region, facilitated such movement to a greater extent than others by reason of its geography.

Can a reasonable guess or better be made on intra-regional movement in the Midlands? It is clear that at least Herefordshire and Shropshire contributed to Warwickshire's expansion in the 1920's. It is also probable that much of this movement was the second step of a two step movement from Wales, rather than a movement by Herefordshire and Shropshire natives. More generally, it is likely that those areas with relatively high rates of unemployment were contributing labour to those areas with relatively low rates. The Potteries, the Notts/Derby coalfield and the Black country may well have been deficit areas whilst Coventry, Birmingham and Rugby, Corby and Newark were receiving labour inflows.³²

South West

The South West gained each year 8,600 persons by migration, 1920-29.

31. Friedlander and Roshier, op.cit. 276,277. Flows from various Welsh counties to Midland counties seem to have been particularly important.

32. These areas were principally concerned with the following industries:

Potteries: pottery, bricks and glass, some coal-mining and metal manufacture.

Notts/Derby coalfield: coal-mining, artificial silk, hosiery and miscellaneous metal manufacture.

Black Country: engineering, metal and electrical products, mining, textiles.

Coventry: motor vehicles, cycles, aircraft, rayon.

Birmingham: similar to Black Country.

Rugby: mechanical and electrical engineering.

Corby: iron and steel.

Newark: mechanical engineering.

See B.Thomas, 'The Influx of Labour into the Midlands, 1920-37', op.cit.

Between 1929-39 the annual average net inflow rose to 14,500. Contrary to the regional trend of the 1920's, both Cornwall and Gloucestershire showed an overall loss from net migration, whilst in the 1930's this was again true of Cornwall whilst Wiltshire replaced Gloucestershire as the other exception. The most significant inflows by greatest size were received in most years of the 1930's by the counties of Gloucestershire, Hampshire and Oxfordshire. It has been suggested that much of the inflow came from South Wales.³³ Additionally, there was some movement from the region to the South-East, in particular to Middlesex, and the adjacent counties of Warwickshire and Oxfordshire displayed some interchange of population.

Most evidence on intra-regional movements relates to Oxfordshire and so further discussion will be confined to that county. Which areas were most important in contributing population to Oxford? Using a calculation of mobility uncorrected for distance, Makower et al³⁴ were able to rank counties in importance. Of other counties in the South West region the following order emerged; Wiltshire, followed by, Somersetshire, Hampshire, Gloucestershire, Dorsetshire, Devonshire, and finally Cornwall. However, with the exception of Wiltshire, counties outside the South-West made more significant contributions to Oxford's expanding population; these included Buckinghamshire, Suffolk, Cambridgeshire and Herefordshire. If the influence of distance is also allowed on mobility, the ranking then assumes the

33. Friedlander and Roshier, op.cit. 276,277. Flows from many South Wales counties to South West counties are deemed 'significant' in this analysis.

34. Makower et al, op.cit. (1938),102.

following precedence; Westmorland, followed by, Bedfordshire, Sussex, Pembrokeshire, Wiltshire, Berkshire, Suffolk, Buckinghamshire, Cambridgeshire, and Cornwall.³⁵ There are many more contributors by this revised standard before another county from the South-West appears in the ranking. This is explained by those factors, other than close proximity, that led to in-migration to Oxford. The chief attraction of Oxford was the Pressed Steel and Morris Motor works. The automobile industry was the attracting force and the analysis of the counties in the second list above reveals that it was those counties where metal and mining industries were most important that provided the greater part of the significant labour inflows. However, when an analysis of numbers alone is considered it can be concluded that one-third of all 'foreigners' in Oxford in July 1936 were from the prosperous South-West and that, with the exception of Wales, there were few migrants from the depressed areas of the country. (See Table X.)

When very short distance movement is examined it is necessary to be aware of the analagous nature of commuting in that the latter may be a substitute for short distance migration. It was argued that "the non-existence of alternative labour markets within daily travelling distance has been a contributory cause of the dereliction of the Special Areas. In Scotland ... the basic industries ... are particularly interdependent and the sharing of prosperity or depression by the whole area is inevitable on this account."³⁶ In the South-West region, by contrast, commuting was a real alternative to migration. Table XI shows the growth

35. Suffolk, Buckinghamshire and Cambridgeshire are tied.

36. K.K.Liepmann, 'The Daily Ebb and Flow of Labour Between Home and Workplace in English Industrial Areas: A Statistical and Sociological Study', (unpublished Ph.D. thesis, London School of Economics, 1942), p.118.

of such a network about Oxford.

London and the South East

London and the South East gained population by migration at an annual average rate of 22,800, 1920-29, whilst over the same period the South East, without Greater London, benefited by migration to the extent of about 24,800 persons per year. Between 1929 and 1939 London and the South East had an increased net rate of inflow of about 101,000 per year whilst the South East raised its annual total to approximately 49,000 persons. It is true of the region as a whole that it was a centre of attraction for potential migrants throughout the country and significant contributions were made by the depressed areas, especially South Wales and the North-East. However, the tendencies within the region were by no means uni-directional and London is the most notable exception. As Foley puts it,

"in the two decades before World War II, the Conurban Ring gained 1.7 million residents and the Regional Ring gained 5.9 million, while the County of London lost nearly half a million ... the Conurban and Regional Rings with a combined population of a fifth of England and Wales in 1921 accounted for four-fifths of the total net population increase in England and Wales, 1921-1939."³⁷

Considerable population changes were taking place and the role of intra-regional migration in these changes will now be suggested.

Much of the inter-regional migration to the region was destined for the Home Counties. An examination of rates of absorption demonstrates that,

37. D.L.Foley, Controlling London's Growth: Planning the Great Wen, 1940-1960 (Berkeley, 1963), pp.9,11. The Conurban Ring is that part of Greater London not included in the County of London and the Regional Ring is that part of the South-East not in Greater London.

"the motor car industry at Dagenham has proved a particularly strong magnet and the high rates at Dover and Canterbury are explained by the rapid development of the Kent coalfield." ³⁸ Although on arrival, lodgings within the L.C.C. area may have been the first accomodation of a migrant, when more permanent accomodation was sought it was, for similar reasons as those motivating Londoners, generally found in the Conurban Ring. It was often the case that employment opportunities were to be found in the newly expanding industrial sectors and to cut down on the cost (both financial and physical) of long daily journeys to work it was to the advantage of the employee to make his home as near as possible to his place of employment. Further, the housing situation was far more favourable in the outlying areas than in London itself. Such new development as did take place in central London was of the slum clearance type and was primarily intended to re-house an already resident population. Greater activity took place, by both private and local authority builders, in suburban areas. Of the total estimated householders on L.C.C. Housing Estates in 1937, for example, only 24 per cent were to be found in block dwellings as opposed to the estates at Becontree, St. Helier and elsewhere. ³⁹

Not only were inter-regional flows destined for the areas surrounding the capital, but a considerable volume of movement took place from the county area to Greater London and beyond. The magnitude of this movement is suggested by the net migration estimates; 1920-29 London lost about

38. B.Thomas, 'The Movement of Labour into South-East England, 1920-32', op.cit.225. The rate of absorption is the number of foreign books recorded as a proportion of all books exchanged.

39. K.K.Liepmann, op.cit. Calculated from data provided in the Summary Table of L.C.C. Housing Estates.

320,000 persons by migration whilst Greater London lost 18,200.⁴⁰ In the remainder of the period the County of London lost 492,000 whilst Greater London gained 520,000. The county figures reveal that Middlesex gained, on balance, some 130,000 in the 1920's and some 540,000 in the 1930's; Essex, 134,000 and 166,000; Kent, 42,000 and 196,000; and Surrey, 118,000 and 320,000. The remaining counties of the South East displayed a much smaller magnitude of net in-migration. The major point is that most were gaining and were gaining by large amounts, the exceptions being Huntingdonshire, Norfolk and Suffolk. These exceptions are attributable to rural/urban migration outweighing any inflow arising from either long distance migration from the depressed industrial areas of the country or short distance migration out from London to a rural residence.⁴¹

Within the L.C.C. area the Outer Boroughs seem to have benefited at the expense of the Inner Boroughs in terms of population movements and this observation, coupled with those of Thomas on rates of absorption in the region, suggests that there was a succession of short distance movements radiating out from central London until the outer counties were reached. "The inner boroughs, Stepney, Bethnal Green, Bermondsey and Poplar, have all on balance lost their London-born population to the gain of the boroughs on the outskirts, particularly East Ham and West Ham."⁴² The second step postulated would then be movement by East Ham natives to other parts of Essex or to some other county. Table XII reflects out-migration from the centre of London of already moved provincial migrants and the concentration

40. This loss could be deceptive; see supra.

41. The suggestions of this paragraph are supported by the studies of B.Thomas, and Friedlander and Roshier, op.cit.

42. A.E.C.Hare and M.I.Michaels, op.cit. p.242.

of newer immigration in the Outer Boroughs.

Industrial development on the outskirts of London was an important factor in initiating these labour movements. It seems that, "at first, after the removal of the factory, most of the workers would travel to it daily from London. Later they seek either a new job nearer their home, or another dwelling nearer to the new factory."⁴³ It was found that "there has been an appreciable outward movement of the London furniture trades to parts of Greater London beyond the county boundary. ... When furniture factories are thus transferred from East and Central London to the suburbs they do not in the main carry their operatives with them ... their places being filled by labour locally recruited."⁴⁴ In contrast was the movement of Carrera's Ltd. in 1929 from premises in City Road E.C.1 to Hampstead Road N.W.1. Although this resulted in an increase in labour recruited in the northern and north-western postal districts, even as late as October 1936 almost a third of its labour force still faced a daily journey to work of an hour or more. It is reasonable to assume that a good deal of its labour force moved in the same direction as the factory in the intervening years.⁴⁵ Of the factory migration recorded by Smith⁴⁶ it seems unlikely that the example of the furniture trades would be universally repeated and, consequently, labour movements would be expected to tie in with factory movements. The

43. *ibid.* p.250.

44. London School of Economics, The New Survey of London Life and Labour, II (1931), p.213.

45. Based on Tables 2 and 3 of data on Carreras Ltd. in K.K.Liepmann, *op.cit.* See Tables XIII and XIV.

46. D.H.Smith, The Industries of Greater London(1933). See Table XV.

result was the growth of communities, especially in the north-west, at Edmonton, Enfield, Southall, Uxbridge, Hayes, Hendon and Greenfield.

Finally, although the location of employment opportunities may have dictated part of both inter-regional and intra-regional labour flows, there was also the purely residential motive. As Hare and Michaels put it, although "the major part of the stream of labour from places other than London flowed into the industrial districts of Middlesex and Essex, Surrey and Kent received relatively many more Londoners into their purely residential suburbs." ⁴⁷

IV

This examination of labour movements has suggested a number of interesting conclusions. Firstly, inter-regional or long distance movement was more important in the 1930's than in the 1920's. Secondly, the proportional impact of migration varied between different counties and, in England and Wales, polarized in the 1930's. Thirdly, the detailed analysis of movements by region has illustrated the shortcomings of the available information but, nevertheless, has highlighted the importance of inter-regional and intra-regional movements for each region. Explanations for these observations must be sought in the following chapter.

47. A.E.C.Hare and M.I.Michaels, op.cit. p.253.

Table VIII

Migration Balances by Distance, 1920-1929 and 1929-1939

	(1) Net inter- county moves	(2) Net inter- regional moves	(3) Short Distance moves Col. (1) - Col. (2)	(4) External Balance
England and Wales				
1920-29	684,166	282,994	401,173	-299,480
1929-39	1,302,541	653,837	648,703	619,768
Great Britain				
1920-29	686,958	282,994	403,965	-634,582 (-650,694)
1929-39	1,481,327	772,292	709,035	501,452 (501,313)

The figures in brackets represent alternative residuals of external migration. The divergence results from the fact that the county data for Scotland does not exactly sum to the results from the population and vital statistics data for the country as a whole. The latter were used in determining the regional figures.

Table IX

Ratios of Long to Short Distance Movement, 1920-1929 and 1929-1939

England and Wales	
1920-29	0.71
1929-39	1.01
Great Britain	
1920-29	0.71
1929-39	1.09

Table X

Origin of Migrants in Oxford C.B., July 1936

Region	Total	Miles from Oxford		
		less than 50	51-100	over 100
South West	4058	3480	431	147
Wales	1195	-	689	506
London	1178	40	1138	-
South East	995	373	428	194
Midlands	911	261	606	44
North	1157	-	-	1157
Scotland	158	-	-	158

Source: Survey of the Social Services of Oxford and District (1938-40), I, Appendix I.

Table XI

Residential Distribution of Workers Employed by Morris Motors Ltd. in their Cowley and Radiator Works, and by Pressed Steel Company 1931 and 1936.

Area	1931	1936	% Increase
Oxford (including Cowley, Summertown Botley)	4278	6148	43
Suburbs of Oxford	473	1627	244
Villages within 6-7 miles	392	893	128
Villages and Towns, 7-15 miles	594	784	32
Larger Towns, 20-40 miles	252	415	65
Miscellaneous: mainly small villages	135	323	140

Source: Survey of the Social Services of Oxford and District (1938-40), I, Appendix IV.

Table XII

Percentage of Population of Certain Boroughs Born Outside London in England and Wales, 1931.

Borough	%
Bethnal Green	6.9
Stepney	8.6
Shoreditch	8.8
Paddington	37.8
Hampstead	37.9
Westminster	39.7

Source: London School of Economics, The New Survey of London Life and Labour (1934), VI, p.263.

Table XIII

Residential Distribution of Employees of Carreras Ltd. 1935 and 1936.

Postal District	November 1935		October 1936	
	No.	%	No.	%
N.W.	193	7.8	223	8.6
N.	753	30.5	789	30.5
East	933	37.7	867	33.5
S.E.	141	5.7	155	6.0
S.W.	69	2.8	70	2.7
W.	45	1.8	47	1.8
E. Central	83	3.4	89	3.5
W. Central	27	1.1	39	1.5
Outside London	<u>228</u>	<u>9.2</u>	<u>305</u>	<u>11.9</u>
	<u>2472</u>	<u>100.0</u>	<u>2584</u>	<u>100.0</u>

Table XIV

Duration of Journey Time By Minutes of Carreras' Employees Replying to Questionnaire.

Minutes	%	No.
under 30	34.4	287
31-59	30.8	257
60	25.3	211
over 60	9.5	79

Source: K.K.Liepmann, 'The Daily Ebb and Flow of Labour Between Home and Workplace in English Industrial Areas: A Statistical and Sociological Study', (unpublished Ph.D. thesis, London School of Economics, 1942), Carreras Ltd., Tables 2, 3.

Table XV

Factory Growth in Certain Outlying Districts of London, 1900-1932.

Area ¹	New Firms	Movement from London	Others
Lea Valley	36	55	29
Western	85	99	51
Western: Hendon	22	28	15
Park Royal	37	39	10
Hayes & Southall	12	9	10
Chiswick, etc. ²	14	23	16

¹ Lea Valley Area includes Tottenham, Edmonton, Enfield.

² Chiswick, Brentford, Heston and Isleworth.

Source: D.H.Smith, The Industries of Greater London (1933),

pp. 41, 106-9.

Intra-Regional Migration: Northumberland and Durham to 1931

APPENDIX I

Methodology of Net Migration Research

I The Residual Technique

Net migration for a period is defined as

Theoretical change in population (from the

and actual change. In symbols -

$N = P - I - E$

where,

N = net migration during the period

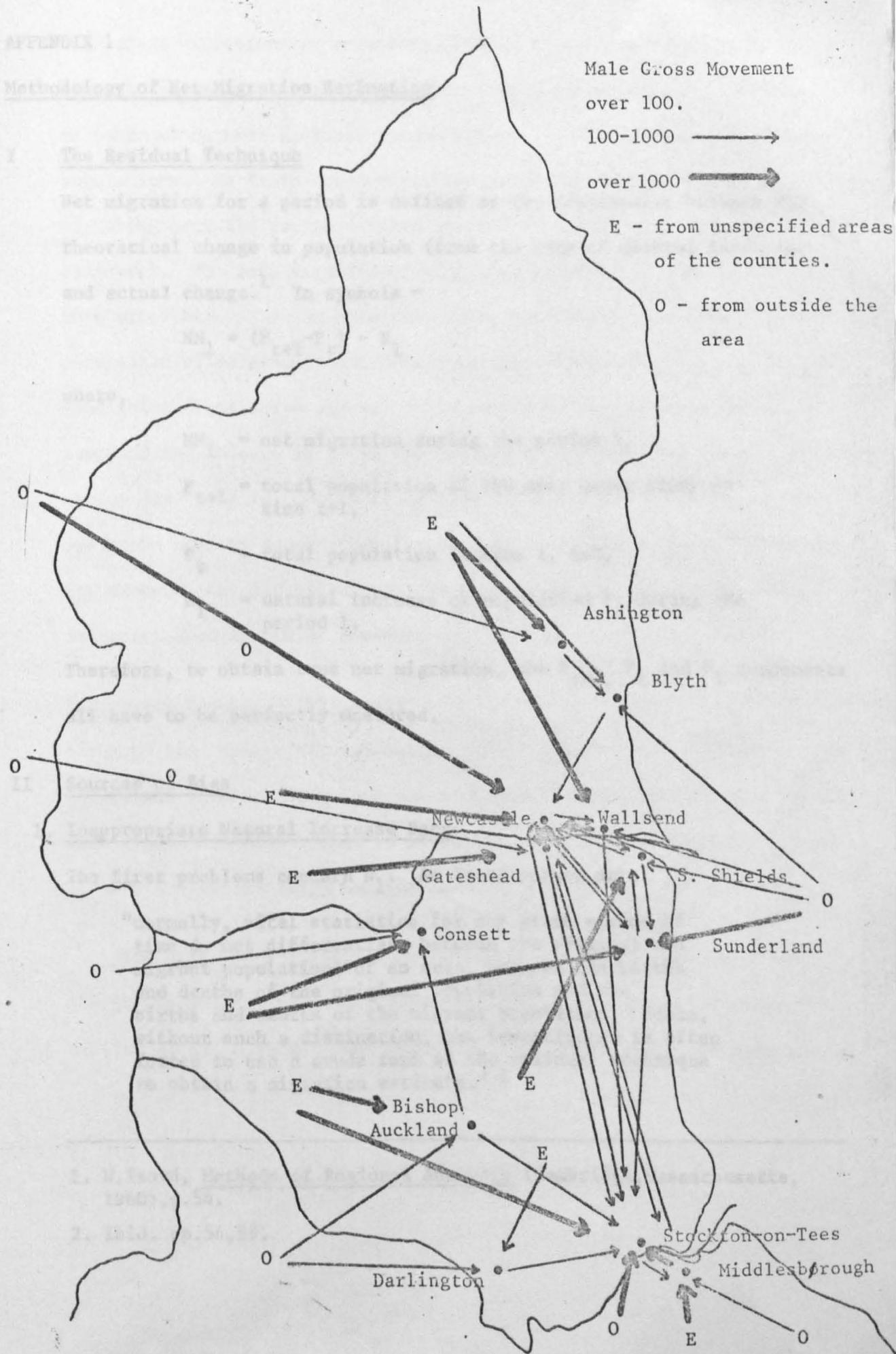
P = total population at the end of the

I = total population at the beginning of the

E = emigration during the period

Therefore, to obtain net migration

there have to be perfectly



Source: Board of Trade, An Industrial Survey of the North East Coast Area (by Armstrong College) (1932), pp. 468-488,502.

APPENDIX 1

Methodology of Net Migration Estimation

I The Residual Technique

Net migration for a period is defined as the discrepancy between the theoretical change in population (from the rate of natural increase) and actual change.¹ In symbols -

$$NM_1 = (P_{t+1} - P_t) - N_1$$

where,

NM_1 = net migration during the period 1,

P_{t+1} = total population of the area under study in time t+1,

P_t = total population in time t, and,

N_1 = natural increase of population P_t during the period 1.

Therefore, to obtain true net migration, the P_{t+1} , P_t and N_1 components all have to be perfectly measured.

II Sources of Bias

1. Inappropriate Natural Increase Data

The first problems concern N_1 . As Isard points out,

"normally, vital statistics for any given period of time do not differentiate between the original and migrant populations of an area, between the births and deaths of the original population and the births and deaths of the migrant population. Hence, without such a distinction, the investigator is often forced to use a crude form of the residual technique to obtain a migration estimate."²

1. W. Isard, Methods of Regional Analysis (Cambridge, Massachusetts, 1960), p. 54.

2. *ibid.* pp. 54, 55.

This crude variation was necessary for the data for Great Britain. From the increase in total population over a period it was necessary to subtract natural increase attributable to the total and the migrant populations. As Isard concludes, "the resulting figure on net migration over the period (either in or out) tends to be an underestimate". The more significant migration actually is, the greater this error becomes as in this case natural increase of the total population of an area is not likely to approximate that for the original population alone. The age-selective nature of migration tends to compound this bias. As it is the younger age groups that find it possible and/or desirable to move so it is that natural increase rates for this age group tend to exceed that for the population as a whole. Therefore, for example, net migration into the Greater London area tends to be underestimated for these reasons.

2. Inaccurate Population Estimates

Although the registration of births and deaths in Great Britain in this period was accurate (although not broken down to be attributable to a base population rather than an area) the population estimates P_{t+1} and P_t were subject to large margins of error.

The basis of all population estimates in England and Wales was the census population. Intercensal estimates of population were arrived at by estimating net migration and natural increase over the

intercensal period and adding this to the census population.³ This procedure continued over the decade until the next census provided a check on the accuracy of this procedure. A new basis might then be taken depending on this latter judgement. There is "some circularity in using the Registrar-General's population estimates to derive net migration since the population estimates are themselves derived, in part, from a judgement about the volume of movement to and from each area. Thus the residual technique is merely a re-working of the original estimation procedure - backwards."⁴

This 'judgement' about the volume of migration was on a basis that varied between England and Wales and Scotland and also changed in different periods. The level of accuracy of population estimates

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3. This point was made clear in 1928 in reply to criticisms from local authorities. "Local Authorities", it was noted, "have occasionally questioned the difference between one annual estimate and that for preceeding year as insufficiently justified by population movements in the interval, on the assumption that each estimate is strictly based upon the preceeding estimate and takes account of subsequent changes only. This is not, however, the official practice. If this course had been adopted, any imperfection in any annual estimate would be confirmed, and the consequent error would be cumulative over a succession of years. The practice of the Department, on the contrary, has been not to exclude any evidence of population movement even though received later than the publication of the estimate for the period in which it occurred. Thus each annual process of estimation involves, in a sense, a fresh review of the whole period which has elapsed since the previous census, advantage being taken of any new material which has come to light to promote the progressive correction and perfection of the figures." Therefore, the problem arises that not too much reliance may be put on the data for individual years, nor on aggregations of data that do not use census years as their terminal dates. See The Registrar-General's Statistical Review of England and Wales for the year 1928, Text, p.147.
 4. R.L.Welch, Migration in Britain: Data Sources and Estimation Techniques (Birmingham, 1971), p. 59.

similarly varied. To rework the Registrar-General's estimation procedure to obtain net migration estimates it is necessary to take account of these variations in the population estimates.

a) Population estimates for England and Wales

In England and Wales, population projections were arrived at as detailed in the Annual Report of the Registrar-General for 1920 and the Statistical Reviews for the years 1921-39. The 1920 mid-year population was based on a projection from the 1911 Census with some adjustments in the light of the Preliminary Returns from the 1921 Census. The 1921 mid-year populations were taken from these Preliminary Returns; the estimate from the 1911 Census of the 1921 population being found to be in excess of the Census population by 0.1 per cent. Some adjustment was made to these figures in view of the fact that the census date was the 19th June and the distribution of the enumerated population between localities was influenced by those counted whilst on holiday. An allowance for migration became necessary for an estimate of the 1922 population. Two conditions were satisfied:

"(1) that the several individual estimates shall aggregate to the far more reliably calculated figure of the total national population, and

(2) that the method shall be capable of impartial application throughout the whole of the country restricting in its scope therefore to evidences of movement which are available for all areas."⁵

5. The Registrar-General's Statistical Review of England and Wales for the year 1922, Text, p.113.

Principally, changes in registers of local Government electors were employed. This source was open to a number of defects as reported by the Registrar-General.⁶ These defects are bound to be inherent in any reworking of the Registrar-General's estimates. In 1923 this method was revised slightly and then continued without substantial modification until 1928.⁷

The 1928 estimates were to "form a principal factor in the basis of the distribution of large exchequer monies under the local Government Act, 1929", and were thus subject to the "utmost care in their preparation."⁸ Firstly, the Parliamentary Electoral Registers were used to calculate migration movements from the 1921 Census to mid-1928. Secondly, "all local authorities were ... circularized

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6. "It is not claimed that the results are other than experimental in character, for while it is reasonable to suppose that any marked migration, either inwards or outwards, would duly make its impression upon the electoral figures, it does not follow that changes in the register are all attributable to migration ... the mere attainment of franchise age of the existing population, so far as this is not counter-balanced by the deaths of persons already on the register, affects the electorate and falls with varying weight in areas of different age constitution ... again, persons admitted to the franchise are restricted ... numbering only about ~~70~~ per cent/ of the total population and the assumption has to be made that movements within the franchise qualifications correspond to similar movements in the whole population. Finally, electoral registration can only take place after six months residence in an area, and such migration change as is reflected is that of a period at least six months prior to the period to which the records relate." Ibid. The exception to this procedure was London whose population was based on estimates compiled for the purposes of the Equalization of Rates Act, 1894. This continued to be true until 1928.
 7. An allowance was included to take account of the differing expected rates of growth of electorates between populations of differing age constitutions. From 1927 onwards the qualifying period for inclusion in the Electoral Register was reduced to three months from six.
 8. The Registrar-General's Statistical Review of England and Wales for the year 1928, Text, p.147.

with a view to securing any statistical data bearing on the question, which had been incidentally compiled in the course of local administration".⁹

In 1929 another technique was necessitated.

"In respect of movements between 1928 and 1929 ... the value of the electoral material as an indicator of migration has been destroyed by the alteration in electoral qualifications and the consequent addition of large numbers of individuals enfranchised for the first time under the Representation of the People (Equal Franchise) Act of 1928. The newly enfranchised are mainly women ... continuity ... has been broken and the differences between the 1928 and 1929 registers rendered useless as indexes of population movement." ¹⁰

Therefore,

(1) a projection from the 1928 estimate on the assumption that the trend in movement 1921-8 was maintained was made, and

(2) figures based on the new electoral returns and supplemented for juvenile population with reference to the 1921 age distribution of the population were compared and where the differences were not negligible, a compromise was reached after the consideration of housing and other incidental information. The 1930 estimates were made by "simple arithmetical interpolation between the published 1929 estimates and the provisional 1931 figures".¹¹ These latter were the preliminary census populations adjusted to a residential basis by the subtraction of visitors and their redistribution partly to areas with boarding schools with

9. *ibid.*

10. The Registrar-General's Statistical Review of England and Wales for the year 1929, Text, p.97.

11. The Registrar-General's Statistical Review of England and Wales for the year 1930, Text, p.102. The projection of the mid-year national estimate to the month of the Census compared well.

absent boarders and partly in accordance with the distribution of population between areas. Similarly, the 1931 estimates were adjusted to a mid-year date from the basis of the provisional census estimates.

In 1932 the same basic method as used in most of the previous intercensal period was reinstated. Additional tests and special measures were instituted in order that the errors, inherently inseparable from computed estimates, should fall within the lowest attainable limits. In particular, statistics on new dwellings were found to give the most reasonable checks on migration estimates incorporated in the population estimates and derived from the register of electors. This method continued in operation until the National Register was used to modify the population estimates in 1939.¹²

b) Population Estimates for Scotland

In Scotland the basis of population estimates was as detailed below.¹³ For the period 1921-8, to the previous years population was added a natural increase component and an allowance for migration. The latter was an arithmetic progression of previous intercensal periods' migration for each county. This method was not very accurate for the greater part of the 1920's given the change in migration trends after

12. The Registrar-General's Statistical Review of England and Wales for the years 1938 and 1939, Text, p.160.

13. I should like to thank James Travers of the Registrar-General for Scotland's office for his assistance in providing information on the Scottish methodology.

World War I, and is subject to similar criticisms as the English and Welsh data. From 1929 and the Local Government (Scotland) Act the distribution of central government monies depended upon population estimates and estimation procedures were revised accordingly. The new estimates used returns for local areas showing the number of inhabited houses and the number of local government electors. Given this information and the natural increase data for the period 1921-9, an estimate for 1929 was arrived at. Similar methods were then used through the remainder of the period. In contrast to England and Wales, in Scotland the basis of each year's estimate was not the previous census but the previous year's population. However, these estimates may contain revisions and thus artificially inflate or deflate any residual migration estimate that might be derived. Hence, the same problems exist which affect the English and Welsh residuals.¹⁴

III Data Problems in the Application of the Residual Technique

1. Population Definitions

Problems arise in reworking the population and natural increase data to obtain net migration. Firstly, there is the question of the definition of the population. The Registrar-General's population estimates refer to the home population; which is population, of all

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14. The 1921 Census of Scotland also had the disadvantage, from the point of view of estimating the resident population, of having been conducted in mid-summer. In particular, the County of Bute's population was greatly inflated and, as a result, the inclusion of the years 1920-21 in the time series results in Bute apparently gaining population at a prodigious rate over the decade 1920-29. The shortcomings of the arithmetic mean as a measure of central tendency are thus illustrated. Further, Bute's population was an estimated constant 1922-28 and thus no weight whatsoever can be put on the net migration estimates for this county.

types, actually in Britain, distributed by area according to residence. However, in some cases before 1932, in England and Wales, death rates refer to the civilian population only. The latter is defined as the total population minus members of H.M.Forces at home or overseas. A rough method of adjustment was necessitated to make these data compatible which took the following form.

If, BR_j = birth rate per 1000 of home population in area j,
 DR_j = death rate per 1000 of civilian population in area j,
 HP_j = home population in j'th area,
 CP_j = civilian population in area j, and,
 \hat{N}_j = estimated natural increase per 1000 of home population in area j, then,

$$\hat{N}_j = BR_j - \frac{(DR_j \cdot HP_j)}{CP_j} .$$

2. Time Periods Involved

Secondly, vital statistics in both Scotland and England and Wales referred to calendar years, whereas the population estimates were for mid-year periods. It was necessary to adjust the vital statistics to refer to the mid-year to mid-year periods and the assumption was made that the birth and death rates were constant throughout the year and thus proportional in their impact on population over time. The rates per 1000 were halved so as to apply to the relevant six monthly periods and then applied to the population estimate of the beginning of the mid-year period.

3. Boundary Changes

The last of the major problems involves boundary changes. In England and Wales the following procedure was invoked by the Registrar-General until 1933. In the year that a boundary change took place, the recorded population estimate referred to the area as defined on the 30th June of that year. Consequently, the migration residual is inflated or deflated, depending on the direction of the boundary change in the mid-year period involving the occurrence of the revision. The tables of Appendix 2 note where a change affected county boundaries and in the earlier years note the 1921 Census population involved and in later years note the actual population involved. From 1934 onwards the "statistics of areas whose boundaries have been altered are composite figures combining the 'before change' and 'after change' position for the respective periods involved ... The population shewn [is] a constructed figure appropriate for use with the partial or mixed records of births and deaths for the current year." ¹⁵ Thus the boundary change is gradually incorporated into the population and vital statistics estimates and may affect the migration residual, as compared with previous years, in more than one mid-year to mid-year period. Again, the tables of Appendix 2 note where a change affecting county areas took place and indicates the actual population involved in the change.

In Scotland, the Annual Reports contain estimates of the population involved in boundary changes and where these affect county aggregates the tables of Appendix 2 again include details. The impact of these

15. The Registrar-General's Statistical Review of England and Wales for the year 1934, Tables, Part I, Medical, p.70A.

revisions on the migration residuals is unclear as it is not known how the vital statistics estimates were adjusted in such circumstances, if at all. Nevertheless, it is at least clear that the mid-year period involving the boundary change will include the influence of the change in the migration residual for that period.

IV Interpreting the Results: Some Cautionary Remarks

It may be agreed, as Isard said, that the "methods for estimating migration are not nearly as good as we might like them to be. Nevertheless, these methods are useful and yield estimates that are worth the effort involved provided the results are used with discretion."¹⁶

Some general observations relating to the interpretation of the results need to be made in conclusion. Firstly, these estimates do not reveal the direction of movement, although they may suggest a direction. Surrogate data may be used to aid interpretation in this sphere. Secondly, movements will be missed if there is return migration within the time period considered and thus the total net movement of population will be understated. It will also be understated as intra-county movements are excluded. Thirdly, more movements will be included as inter-county movements, the smaller the counties involved. For example, a movement from Manchester to Liverpool, a distance of some 35 miles will not be included. However, a movement from Peterborough to Leicester, a similar distance, will. Fourthly, the shape of the geographical area will have some relevance. More migrations are likely to be included in

16. Isard, op.cit. p.52.

inter-county movements if a county has an elongated geographical shape. Finally, the distribution of the population within a county is also important. Large concentrations of population on a county boundary are also likely to lead to short distance movements, especially movements to suburbia, being included as inter-county moves. The proximity of Liverpool to the Cheshire border and of London to the surrounding Home Counties are cases in point.

APPENDIX 2

Net Migration Estimates for the Counties and Ministry of Labour Regions*
of Britain, 1920-1939

Population refers to mid-year points.

Net Migration refers to mid-year to mid-year periods.

Boundary Changes are indicated at the foot of each area's data. For the interpretation of these figures see Appendix 1.

* Registrar-General region aggregates can also be derived from the county data.

The Counties of England

BEDFORDSHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	205,387	-307	-0.15
1921	207,040	1,006	0.49
1922	209,387	567	0.27
1923	211,250	303	0.14
1924	212,700	-971	-0.46
1925	212,580	912	0.43
1926	214,330	-186	-0.09
1927	214,830	-1,696	-0.79
1928	213,770	1,075	0.50
Totals, 1920-9		703	0.34
Means, 1920-9		78	0.04
1929	215,380	2,391	1.11
1930	218,300	1,766	0.81
1931	220,680	2,153	0.98
1932	223,330	1,964	0.88
1933	225,730	3,146	1.39
1934	229,350	4,650	2.03
1935	234,700	12,148	5.18
1936	247,670	5,260	2.12
1937	253,860	6,951	2.74
1938	261,980	2,265	0.86
1939	265,540		
Totals, 1929-39		42,694	19.82
Means, 1929-39		4,269	1.81
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

BERKSHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	289,990	-595	-0.21
1921	292,473	-177	-0.06
1922	294,313	-249	-0.08
1923	295,780	-162	-0.05
1924	297,240	-777	-0.26
1925	297,870	600	0.20
1926	299,830	2,778	0.93
1927	303,660	8,872	2.92
1928	313,500	-628	-0.20
Totals, 1920-9		9,661	3.33
Means, 1920-9		1,073	0.35
1929	313,580	-2,178	-0.69
1930	312,080	-1,696	-0.54
1931	311,430	3,701	1.19
1932	315,910	1,359	0.43
1933	317,800	2,037	0.64
1934	320,350	1,675	0.52
1935	322,800	892	0.28
1936	324,520	1,431	0.44
1937	326,660	705	0.22
1938	328,250	1,495	0.46
1939	330,800		
Totals, 1929-39		9,420	3.00
Means, 1929-39		942	0.29
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

BUCKINGHAMSHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	232,728	-510	-0.22
1921	234,547	453	0.19
1922	236,651	320	0.14
1923	238,400	3,099	1.30
1924	242,900	671	0.28
1925	244,800	2,595	1.06
1926	248,600	2,376	0.96
1927	252,000	5,015	1.99
1928	257,910	2,476	0.96
Totals, 1920-9		16,497	7.09
Means, 1920-9		1,833	0.74
1929	261,170	4,970	1.90
1930	267,000	3,703	1.39
1931	271,760	4,690	1.73
1932	277,300	1,972	0.71
1933	279,980	2,372	0.85
1934	283,150	4,015	1.42
1935	288,100	5,849	2.03
1936	294,900	8,182	2.77
1937	304,100	4,252	1.40
1938	309,600	3,066	0.99
1939	314,200		
Totals, 1929-39		43,070	16.49
Means, 1929-39		4,307	1.52
Boundary Change.			
Year(s)		1933	
Population involved		-40	
Other area(s)		Oxfordshire	

CAMBRIDGESHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	128,295	-255	-0.20
1921	129,094	-136	-0.11
1922	129,591	-384	-0.30
1923	129,770	-210	-0.16
1924	130,070	-659	-0.51
1925	129,810	-1,219	-0.94
1926	129,020	200	0.15
1927	129,530	3,732	2.88
1928	133,510	-107	-0.08
Totals, 1920-9		961	0.75
Means, 1920-9		107	0.08
1929	133,540	3,516	2.63
1930	137,200	2,546	1.86
1931	139,990	2,071	1.48
1932	142,200	1,580	1.11
1933	143,780	1,434	1.00
1934	145,200	1,091	0.75
1935	146,400	1,317	0.90
1936	147,790	581	0.39
1937	148,460	1,004	0.68
1938	149,650	1,545	1.03
1939	151,350		
Totals, 1929-39		16,686	12.50
Means, 1929-39		1,669	1.18
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

CHESHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	1,025,045	-1,947	-0.19
1921	1,033,572	-2,108	-0.20
1922	1,039,296	-1,073	-0.10
1923	1,044,810	5,012	0.48
1924	1,055,920	-67	-0.01
1925	1,060,990	6,481	0.61
1926	1,072,660	5,587	0.52
1927	1,082,960	5,000	0.46
1928	1,092,010	1,195	0.11
Totals, 1920-9		18,079	1.76
Means, 1920-9		2,009	0.19
1929	1,096,410	-3,051	-0.28
1930	1,096,500	-7,733	-0.71
1931	1,092,310	-1,327	-0.12
1932	1,093,660	3,345	0.31
1933	1,098,660	7,088	0.65
1934	1,107,650	8,718	0.79
1935	1,119,000	8,464	0.76
1936	1,129,717	8,065	0.71
1937	1,139,820	4,832	0.42
1938	1,147,180	6,583	0.57
1939	1,156,670		
Totals, 1929-39		34,984	3.19
Means, 1929-39		3,498	0.31
Boundary Change.			
Year(s)		1931;1933;1936	
Population involved		-1,810;-180;173	
Other area(s)		Lancashire;Lancashire;Derbyshire	

CORNWALL

Year	Population	Net Migration	Net Migration as a % of population
1920	313,549	-584	-0.19
1921	315,325	-258	-0.08
1922	316,617	-304	-0.10
1923	317,500	-508	-0.16
1924	318,100	-1,905	-0.60
1925	317,100	-1,927	-0.61
1926	315,900	-698	-0.22
1927	315,800	1,625	0.51
1928	317,960	-454	-0.14
Totals, 1920-9		-5,013	-1.60
Means, 1920-9		-557	-0.18
1929	317,710	-3,166	-1.00
1930	314,700	-2,483	-0.79
1931	312,450	1,452	0.46
1932	313,900	-12	-0.00
1933	313,700	423	0.13
1934	313,950	-172	-0.05
1935	313,700	-1,290	-0.41
1936	312,300	-1,388	-0.44
1937	310,600	-327	-0.11
1938	309,900	576	0.19
1939	310,100		
Totals, 1929-39		-6,387	-2.01
Means, 1929-39		-639	-0.20
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

CUMBERLAND

Year	Population	Net Migration	Net Migration as a % of population
1920	267,021	-474	-0.18
1921	269,891	-535	-0.20
1922	271,989	-453	-0.17
1923	273,730	265	0.10
1924	276,100	-2,427	-0.88
1925	275,390	-3,397	-1.23
1926	273,720	-2,372	-0.87
1927	272,850	-7,162	-2.62
1928	266,980	-3,166	-1.19
Totals, 1920-9		-19,720	-7.39
Means, 1920-9		-2,191	-0.80
1929	265,100	-2,512	-0.95
1930	263,790	-2,210	-0.84
1931	262,780	-245	-0.09
1932	263,470	-1,528	-0.58
1933	262,570	-2,227	-0.85
1934	260,900	-1,833	-0.70
1935	259,800	-1,897	-0.73
1936	258,620	-3,603	-1.39
1937	255,590	-1,066	-0.42
1938	255,120	-554	-0.22
1939	255,280		
Totals, 1929-39		-17,676	-6.67
Means, 1929-39		-1,768	-0.68
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

DERBYSHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	712,074	-1,585	-0.22
1921	720,432	-528	-0.07
1922	728,380	-3,056	-0.42
1923	732,800	1,721	0.23
1924	741,500	-1,640	-0.22
1925	746,400	-27	-0.00
1926	752,600	-345	-0.05
1927	757,600	551	0.07
1928	763,200	-2,838	-0.37
Totals, 1920-9		-7,746	-1.09
Means, 1920-9		-861	-0.12
1929	765,000	-6,454	-0.84
1930	762,900	-5,406	-0.71
1931	762,100	-4,398	-0.58
1932	761,600	-535	-0.07
1933	764,300	-9,791	-1.28
1934	757,641	-1,044	-0.14
1935	759,800	141	0.02
1936	762,583	-728	-0.10
1937	764,400	-793	-0.10
1938	766,800	-1,203	-0.16
1939	768,900		
Totals, 1929-39		-30,211	-3.95
Means, 1929-39		-3,021	-0.40
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

DEVONSHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	684,875	-1,442	-0.21
1921	688,843	-762	-0.11
1922	691,332	1,770	0.26
1923	695,760	1,024	0.15
1924	699,260	-2,997	-0.43
1925	698,210	2,288	0.33
1926	702,390	1,603	0.23
1927	705,520	6,650	0.94
1928	713,480	7,399	1.04
Totals, 1920-9		15,534	2.27
Means, 1920-9		1,726	0.24
1929	721,560	-2,264	-0.31
1930	719,870	706	0.10
1931	721,140	6,473	0.90
1932	727,740	965	0.13
1933	728,900	-1,875	-0.26
1934	727,350	2,775	0.38
1935	730,500	4,190	0.57
1936	734,850	4,909	0.67
1937	739,500	2,211	0.30
1938	741,660	4,872	0.66
1939	746,790		
Totals, 1929-39		22,961	3.18
Means, 1929-39		2,296	0.31
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

DORSETSHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	220,345	-369	-0.17
1921	221,924	-442	-0.20
1922	222,886	558	0.25
1923	224,600	2,735	1.22
1924	228,400	-514	-0.22
1925	228,900	2,555	1.12
1926	232,500	1,938	0.83
1927	235,300	3,573	1.52
1928	239,660	-53	-0.02
Totals, 1920-9		9,981	4.53
Means, 1920-9		1,109	0.48
1929	240,340	4,434	1.84
1930	245,340	-6,402	-2.61
1931	239,400	-909	-0.38
1932	238,900	2,558	1.07
1933	241,900	1,052	0.44
1934	243,400	2,337	0.96
1935	246,200	1,919	0.78
1936	248,550	954	0.38
1937	249,840	2,050	0.82
1938	252,240	1,490	0.59
1939	254,170		
Totals, 1929-39		9,484	3.95
Means, 1929-39		948	0.39
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

DURHAM

Year	Population	Net Migration	Net Migration as a % of population
1920	1,476,146	-4,040	-0.27
1921	1,497,574	-1,253	-0.08
1922	1,517,617	-6,571	-0.43
1923	1,530,620	-389	-0.03
1924	1,549,310	-11,580	-0.75
1925	1,555,120	-17,959	-1.15
1926	1,553,860	-15,249	-0.98
1927	1,552,930	-52,308	-3.37
1928	1,513,660	-17,144	-1.13
Totals, 1920-9		-126,492	-8.57
Means, 1920-9		-14,055	-0.91
1929	1,508,260	-18,120	-1.20
1930	1,501,960	-16,745	-1.11
1931	1,497,380	-15,621	-1.04
1932	1,492,270	-14,165	-0.95
1933	1,487,630	-13,141	-0.88
1934	1,483,000	-17,991	-1.21
1935	1,473,400	-22,779	-1.55
1936	1,458,520	-22,221	-1.52
1937	1,443,420	-10,449	-0.72
1938	1,440,090	-9,278	-0.64
1939	1,437,860		
Totals, 1929-39		-160,510	-10.64
Means, 1929-39		-16,051	-1.08
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

ELY

Year	Population	Net Migration	Net Migration as a % of population
1920	73,034	-220	-0.30
1921	73,642	313	0.43
1922	74,653	-31	-0.04
1923	75,250	251	0.33
1924	76,070	-108	-0.14
1925	76,480	23	0.03
1926	77,070	38	0.05
1927	77,660	-405	-0.52
1928	77,780	-122	-0.16
Totals, 1920-9		-261	-0.36
Means, 1920-9		-29	-0.04
1929	78,180	-919	-1.17
1930	77,790	-787	-1.01
1931	77,580	528	0.68
1932	78,590	-6	-0.01
1933	78,950	2,420	3.07
1934	81,686	442	0.54
1935	82,500	-1,172	-1.42
1936	81,700	-433	-0.53
1937	81,590	-449	-0.55
1938	81,480	-190	-0.23
1939	81,620		
Totals, 1929-39		-565	-0.72
Means, 1929-39		-57	-0.06
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

ESSEX

Year	Population	Net Migration	Net Migration as a % of population
1920	1,440,260	-2,837	-0.20
1921	1,455,605	-2,718	-0.19
1922	1,467,184	5,628	0.38
1923	1,486,390	15,322	1.03
1924	1,514,450	2,051	0.14
1925	1,527,760	25,203	1.65
1926	1,564,400	24,868	1.59
1927	1,599,500	44,359	2.77
1928	1,653,430	22,814	1.38
Totals, 1920-9		134,691	9.35
Means, 1920-9		14,966	0.95
1929	1,685,370	29,895	1.77
1930	1,724,600	23,916	1.39
1931	1,758,470	25,900	1.47
1932	1,793,200	23,562	1.31
1933	1,824,300	11,589	0.64
1934	1,842,550	8,907	0.48
1935	1,858,900	12,998	0.70
1936	1,879,760	18,397	0.98
1937	1,905,700	3,903	0.20
1938	1,917,600	7,806	0.41
1939	1,933,300		
Totals, 1929-39		166,873	9.90
Means, 1929-39		16,687	0.94
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

GLOUCESTERSHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	755,346	-1,540	-0.20
1921	762,272	-2,178	-0.29
1922	766,057	-843	-0.11
1923	770,270	-1,097	-0.14
1924	773,890	-4,455	-0.58
1925	773,060	-6,553	-0.85
1926	770,350	1,422	0.18
1927	775,060	4,911	0.63
1928	782,510	-2,137	-0.27
Totals, 1920-9		-12,471	-1.65
Means, 1920-9		-1,386	-0.18
1929	782,630	2,216	0.28
1930	787,050	550	0.07
1931	789,940	3,303	0.42
1932	795,090	3,685	0.46
1933	800,100	-117	-0.01
1934	801,250	-1	-0.00
1935	803,125	1,778	0.22
1936	806,610	2,447	0.30
1937	810,670	2,835	0.35
1938	815,620	8,488	1.04
1939	826,590		
Totals, 1929-39		25,188	3.22
Means, 1929-39		2,519	0.31
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

HEREFORDSHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	110,936	-236	-0.21
1921	111,829	-449	-0.40
1922	112,192	338	0.30
1923	113,260	143	0.13
1924	114,140	-577	-0.51
1925	114,180	210	0.18
1926	114,990	-995	-0.86
1927	114,450	-2,811	-2.46
1928	112,000	-1,633	-1.46
Totals, 1920-9		-6,010	-5.42
Means, 1920-9		-668	-0.59
1929	110,670	-203	-0.18
1930	110,700	-118	-0.11
1931	110,770	347	0.31
1932	111,200	42	0.04
1933	111,320	-676	-0.61
1934	110,800	-383	-0.35
1935	110,600	-953	-0.86
1936	109,780	-734	-0.67
1937	109,150	-659	-0.60
1938	108,660	19	0.02
1939	108,930		
Totals, 1929-39		-3,318	-3.00
Means, 1929-39		-332	-0.30
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

HERTFORDSHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	329,350	-682	-0.21
1921	332,220	-27	-0.01
1922	334,706	747	0.22
1923	337,800	4,218	1.25
1924	344,200	556	0.16
1925	346,600	6,861	1.98
1926	355,300	7,164	2.02
1927	364,100	12,533	3.44
1928	378,200	4,500	1.19
Totals, 1920-9		35,869	10.89
Means, 1920-9		3,985	1.12
1929	384,100	8,120	2.11
1930	393,700	6,367	1.62
1931	401,900	10,032	2.50
1932	413,400	6,600	1.60
1933	421,200	6,843	1.62
1934	429,350	10,738	2.50
1935	441,700	16,571	3.75
1936	460,150	12,500	2.72
1937	474,700	8,471	1.78
1938	485,500	11,097	2.29
1939	499,200		
Totals, 1929-39		97,340	25.34
Means, 1929-39		9,734	2.25
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

HUNTINGDONSHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	54,298	-140	-0.26
1921	54,670	-44	-0.08
1922	55,031	5	0.01
1923	55,430	-71	-0.13
1924	55,700	-434	-0.78
1925	55,550	-208	-0.37
1926	55,640	9	0.02
1927	55,880	236	0.42
1928	56,320	227	0.40
Totals, 1920-9		-421	-0.78
Means, 1920-9		-47	-0.09
1929	56,730	-574	-1.01
1930	56,360	-451	-0.80
1931	56,140	-123	-0.22
1932	56,180	-73	-0.13
1933	56,250	-502	-0.89
1934	55,900	-373	-0.67
1935	55,700	-331	-0.59
1936	55,500	808	1.46
1937	56,380	56	0.10
1938	56,560	517	0.91
1939	57,210		
Totals, 1929-39		-1,047	-1.85
Means, 1929-39		-105	-0.18
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

KENT

Year	Population	Net Migration	Net Migration as a % of population
1920	1,091,513	-1,918	-0.18
1921	1,101,208	-1,937	-0.18
1922	1,107,645	-281	-0.03
1923	1,115,280	9,506	0.85
1924	1,131,880	-2,740	-0.24
1925	1,134,800	4,717	0.42
1926	1,145,050	5,126	0.45
1927	1,154,790	16,402	1.42
1928	1,175,100	13,302	1.13
Totals, 1920-9		42,177	3.86
Means, 1920-9		4,686	0.41
1929	1,191,880	4,734	0.40
1930	1,200,400	4,595	0.38
1931	1,209,260	30,979	2.56
1932	1,243,870	26,859	2.16
1933	1,273,970	24,089	1.89
1934	1,301,450	22,937	1.76
1935	1,328,700	28,389	2.14
1936	1,361,700	25,826	1.90
1937	1,392,130	14,185	1.02
1938	1,411,550	14,021	0.99
1939	1,431,100		
Totals, 1929-39		196,614	16.50
Means, 1929-39		19,661	1.52
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

LANCASHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	4,926,936	-10,017	-0.20
1921	4,969,147	-11,329	-0.23
1922	4,998,235	-9,483	-0.19
1923	5,021,610	932	0.02
1924	5,052,800	-16,460	-0.33
1925	5,061,730	-19,862	-0.39
1926	5,065,960	10,981	0.22
1927	5,097,750	-8,069	-0.16
1928	5,108,150	-32,455	-0.64
Totals, 1920-9		-95,762	-1.94
Means, 1920-9		-10,640	-0.21
1929	5,089,580	-27,246	-0.54
1930	5,075,290	-17,118	-0.34
1931	5,072,870	-41,221	-0.81
1932	5,043,640	-11,587	-0.23
1933	5,040,640	-7,669	-0.15
1934	5,041,150	-11,989	-0.24
1935	5,036,700	-10,644	-0.21
1936	5,031,630	-25,579	-0.51
1937	5,013,180	-7,573	-0.15
1938	5,014,520	-10,028	-0.20
1939	5,013,830		
Totals, 1929-39		-170,655	-3.35
Means, 1929-39		-17,066	-0.34
Boundary Change.			
Year(s)		1931;1933	
Population involved		1,810;180	
Other area(s)		Cheshire;Cheshire	

LEICESTERSHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	496,011	-1,069	-0.22
1921	500,621	-549	-0.11
1922	504,613	-513	-0.10
1923	508,300	3,015	0.59
1924	515,100	-1,291	-0.25
1925	516,900	1,768	0.34
1926	521,600	4,510	0.86
1927	528,900	6,243	1.18
1928	538,000	206	0.04
Totals, 1920-9		12,319	2.48
Means, 1920-9		1,369	0.26
1929	540,690	-69	-0.01
1930	543,000	-161	-0.03
1931	545,510	-43	-0.01
1932	547,600	1,487	0.27
1933	550,600	1,002	0.18
1934	553,250	1,117	0.20
1935	556,300	1,383	0.25
1936	559,400	2,590	0.46
1937	563,600	402	0.07
1938	565,900	963	0.17
1939	569,000		
Totals, 1929-39		8,671	1.60
Means, 1929-39		867	0.16
Boundary Change.			
Year(s)		1935	
Population involved		-70	
Other area(s)		Warwickshire	

LINCOLNSHIRE (HOLLAND)

Year	Population	Net Migration	Net Migration as a % of population
1920	85,138	-757	-0.89
1921	85,461	-362	-0.42
1922	86,051	-241	-0.28
1923	86,660	-94	-0.11
1924	87,400	-539	-0.62
1925	87,680	-985	-1.12
1926	87,460	-31	-0.04
1927	88,060	94	0.11
1928	88,860	-159	-0.18
Totals, 1920-9		-3,072	-3.61
Means, 1920-9		-341	-0.39
1929	89,400	896	1.00
1930	90,950	321	0.35
1931	92,000	414	0.45
1932	93,110	-122	-0.13
1933	93,590	-418	-0.45
1934	93,725	-171	-0.18
1935	94,155	-41	-0.04
1936	94,680	317	0.33
1937	95,490	-413	-0.43
1938	95,560	-579	-0.61
1939	95,520		
Totals, 1929-39		206	0.23
Means, 1929-39		21	0.03
Boundary Change.			
Year(s)	1930;1934		
Population involved	-170;-25		
Other area(s)	Lincolnshire(Kesteven);Ely		

LINCOLNSHIRE (KESTEVEN)

Year	Population	Net Migration	Net Migration as a % of population
1920	111,757	-4,800	-4.29
1921	108,008	141	0.13
1922	108,947	-539	-0.49
1923	109,190	228	0.21
1924	110,170	-603	-0.55
1925	110,240	-1,589	-1.44
1926	109,310	-2,038	-1.86
1927	107,940	1,080	1.00
1928	109,600	0	0.00
Totals, 1920-9		-8,118	-7.26
Means, 1920-9		-902	-0.81
1929	110,010	-746	-0.68
1930	109,670	-431	-0.39
1931	109,660	277	0.25
1932	110,320	-727	-0.66
1933	109,880	-883	-0.80
1934	109,200	936	0.86
1935	110,360	2,203	2.00
1936	112,800	449	0.40
1937	113,520	585	0.52
1938	114,400	1,506	1.32
1939	116,230		
Totals, 1929-39		3,169	2.88
Means, 1929-39		317	0.28
Boundary Change.			
Year(s)	1930		
Population involved	170		
Other area(s)	Lincolnshire(Holland)		

LINCOLNSHIRE (LINDSEY)

Year	Population	Net Migration	Net Migration as a % of population
1920	392,886	2,476	0.63
1921	400,400	1,558	0.39
1922	406,147	-553	-0.14
1923	409,130	1,213	0.30
1924	413,770	-2,518	-0.61
1925	414,380	-1,166	-0.28
1926	416,160	-1,161	-0.28
1927	417,430	-4,578	-1.10
1928	415,260	-3,828	-0.92
Totals, 1920-9		-8,557	-2.18
Means, 1920-9		-951	-0.22
1929	413,380	2,943	0.71
1930	418,020	-38	-0.01
1931	419,980	1,167	0.28
1932	422,790	-105	-0.02
1933	424,110	-506	-0.12
1934	425,150	-1,061	-0.25
1935	425,885	-742	-0.17
1936	426,790	-1,962	-0.46
1937	426,540	-784	-0.18
1938	427,570	2,169	0.51
1939	431,330		
Totals, 1929-39		1,082	0.26
Means, 1929-39		108	0.03
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

LONDON

Year	Population	Net Migration	Net Migration as a % of population
1920	4,479,730	-8,845	-0.20
1921	4,524,000	-21,690	-0.48
1922	4,540,740	-7,179	-0.16
1923	4,570,109	-18,585	-0.41
1924	4,586,000	-2,360	-0.05
1925	4,612,000	-23,039	-0.50
1926	4,615,400	-87,235	-1.89
1927	4,550,000	-99,325	-2.18
1928	4,469,000	-51,591	-1.15
Totals, 1920-9		-319,847	-7.14
Means, 1920-9		-35,539	-0.78
1929	4,430,000	-43,704	-0.99
1930	4,399,000	-39,539	-0.90
1931	4,374,300	-26,501	-0.61
1932	4,357,800	-65,085	-1.49
1933	4,298,600	-72,485	-1.69
1934	4,230,200	-51,559	-1.22
1935	4,185,200	-50,799	-1.21
1936	4,141,100	-51,156	-1.24
1937	4,094,500	-37,639	-0.92
1938	4,062,800	-53,347	-1.31
1939	4,013,400		
Totals, 1929-39		-491,813	-11.10
Means, 1929-39		-49,181	-1.16
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

MIDDLESEX

Year	Population	Net Migration	Net Migration as a % of population
1920	1,248,428	-3,069	-0.25
1921	1,260,364	-2,605	-0.21
1922	1,269,100	-1,607	-0.13
1923	1,278,080	5,233	0.41
1924	1,293,010	5,039	0.39
1925	1,306,430	14,799	1.13
1926	1,329,630	19,158	1.44
1927	1,356,400	56,764	4.18
1928	1,420,660	34,493	2.43
Totals, 1920-9		128,205	10.27
Means, 1920-9		14,245	1.05
1929	1,462,650	93,435	6.39
1930	1,564,100	70,174	4.49
1931	1,643,790	49,791	3.03
1932	1,702,530	46,279	2.72
1933	1,756,820	45,289	2.58
1934	1,810,200	46,993	2.60
1935	1,866,800	63,412	3.40
1936	1,940,400	63,705	3.28
1937	2,014,500	31,998	1.59
1938	2,058,300	32,751	1.59
1939	2,103,300		
Totals, 1929-39		543,828	37.18
Means, 1929-39		54,383	3.17
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

NORFOLK

Year	Population	Net Migration	Net Migration as a % of population
1920	489,921	-1,285	-0.26
1921	494,094	-249	-0.05
1922	497,816	-48	-0.01
1923	501,250	378	0.08
1924	504,900	-3,080	-0.61
1925	504,480	-2,037	-0.40
1926	504,910	-1,003	-0.20
1927	506,040	-1,770	-0.35
1928	506,240	-937	-0.19
Totals, 1920-9		-10,031	-2.05
Means, 1920-9		-1,115	-0.22
1929	506,870	-3,505	-0.69
1930	504,790	-2,993	-0.59
1931	503,530	565	0.11
1932	505,410	-1,882	-0.37
1933	504,420	-2,878	-0.57
1934	502,589	-2,386	-0.47
1935	501,500	-829	-0.17
1936	501,730	-526	-0.10
1937	502,170	-1,652	-0.33
1938	501,660	-276	-0.05
1939	502,540		
Totals, 1929-39		-16,362	-3.23
Means, 1929-39		-1,636	-0.32
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

NORTHAMPTONSHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	302,414	-477	-0.16
1921	305,069	-529	-0.17
1922	306,790	-601	-0.20
1923	308,050	-695	-0.23
1924	309,000	-1,145	-0.37
1925	309,270	-2,583	-0.84
1926	307,940	-632	-0.21
1927	308,260	367	0.12
1928	309,440	540	0.17
Totals, 1920-9		-5,756	-1.90
Means, 1920-9		-640	-0.21
1929	310,730	-304	-0.10
1930	311,060	-375	-0.12
1931	311,320	-1,195	-0.38
1932	310,630	16	0.01
1933	310,930	60	0.02
1934	311,100	1,643	0.53
1935	312,900	660	0.21
1936	313,900	2,461	0.78
1937	316,760	603	0.19
1938	317,940	-197	-0.06
1939	318,540		
Totals, 1929-39		3,371	1.08
Means, 1929-39		337	0.11
Boundary Change .			
Year(s)			
Population involved			
Other area(s)			

NORTHUMBERLAND

Year	Population	Net Migration	Net Migration as a % of population
1920	731,846	-1,922	-0.26
1921	740,134	-450	-0.06
1922	748,200	-980	-0.13
1923	755,030	925	0.12
1924	763,540	-3,812	-0.50
1925	766,680	-4,603	-0.60
1926	768,660	-874	-0.11
1927	773,480	-22,917	-2.96
1928	755,530	262	0.03
Totals, 1920-9		-34,371	-4.70
Means, 1920-9		-3,819	-0.50
1929	759,960	-5,883	-0.77
1930	758,120	-4,961	-0.65
1931	757,240	-110	-0.01
1932	760,730	-1,467	-0.19
1933	762,470	-188	-0.02
1934	765,100	-1,628	-0.21
1935	766,400	-5,358	-0.70
1936	763,750	-2,876	-0.38
1937	763,180	-1,450	-0.19
1938	763,710	4,311	0.56
1939	770,040		
Totals, 1929-39		-19,609	-2.58
Means, 1929-39		-1,961	-0.26
Boundary Change .			
Year(s)			
Population involved			
Other area(s)			

NOTTINGHAMSHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	641,095	-974	-0.15
1921	648,369	-1,272	-0.20
1922	654,030	-2,277	-0.35
1923	657,900	-1,199	-0.18
1924	662,300	-3,398	-0.51
1925	664,000	-1,866	-0.28
1926	666,900	2,612	0.39
1927	673,800	11,197	1.66
1928	689,300	2,978	0.43
Totals, 1920-9		5,802	0.90
Means, 1920-9		645	0.09
1929	696,100	8,941	1.28
1930	708,600	6,234	0.88
1931	718,800	-255	-0.04
1932	722,300	2,413	0.33
1933	728,000	-645	-0.09
1934	730,350	73	0.01
1935	733,700	1,798	0.25
1936	738,400	3,449	0.47
1937	744,600	1,334	0.18
1938	749,200	4,418	0.59
1939	757,000		
Totals, 1929-39		27,759	3.99
Means, 1929-39		2,776	0.39
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

OXFORDSHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	186,687	-525	-0.28
1921	187,910	-257	-0.14
1922	188,812	268	0.14
1923	190,100	765	0.40
1924	191,720	-1,243	-0.65
1925	191,160	-578	-0.30
1926	191,350	1,394	0.73
1927	193,360	4,612	2.39
1928	198,600	518	0.26
Totals, 1920-9		4,953	2.65
Means, 1920-9		550	0.28
1929	199,680	4,810	2.41
1930	205,000	3,601	1.76
1931	209,300	1,990	0.95
1932	211,840	2,042	0.96
1933	214,320	2,285	1.07
1934	217,100	1,816	0.84
1935	219,600	2,317	1.05
1936	222,690	2,685	1.21
1937	226,100	2,296	1.02
1938	229,290	2,953	1.29
1939	233,260		
Totals, 1929-39		26,794	13.42
Means, 1929-39		2,679	1.25
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

PETERBOROUGH

Year	Population	Net Migration	Net Migration as a % of population
1920	46,574	-54	-0.12
1921	47,057	-11	-0.02
1922	47,442	160	0.34
1923	47,930	184	0.38
1924	48,400	-110	-0.23
1925	48,520	343	0.71
1926	49,060	503	1.02
1927	49,710	1,160	2.33
1928	51,040	-113	-0.22
Totals, 1920-9		2,062	4.43
Means, 1920-9		229	0.47
1929	51,090	484	0.95
1930	51,750	94	0.18
1931	52,040	-1	-0.00
1932	52,170	161	0.31
1933	52,370	764	1.46
1934	53,150	338	0.64
1935	53,600	862	1.61
1936	54,650	537	0.98
1937	55,340	357	0.64
1938	55,860	603	1.08
1939	56,660		
Totals, 1929-39		4,199	8.22
Means, 1929-39		420	0.78
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

RUTLANDSHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	18,060	-48	-0.27
1921	18,172	-7	-0.04
1922	18,292	-26	-0.14
1923	18,382	-79	-0.43
1924	18,400	-224	-1.22
1925	18,240	-270	-1.48
1926	18,020	-20	-0.11
1927	18,060	-155	-0.86
1928	17,960	111	0.62
Totals, 1920-9		-720	-3.98
Means, 1920-9		-80	-0.44
1929	18,100	-114	-0.63
1930	18,020	-111	-0.62
1931	17,960	119	0.66
1932	18,120	-197	-1.09
1933	17,930	-112	-0.63
1934	17,800	-119	-0.67
1935	17,700	-53	-0.30
1936	17,670	-62	-0.35
1937	17,610	221	1.25
1938	17,860	-69	-0.39
1939	17,860		
Totals, 1929-39		-498	-2.75
Means, 1929-39		-50	-0.27
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

SHROPSHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	240,487	-599	-0.25
1921	242,528	-428	-0.18
1922	244,056	-192	-0.08
1923	245,600	-381	-0.16
1924	246,900	-1,612	-0.65
1925	246,800	-3,235	-1.31
1926	245,100	-1,391	-0.57
1927	245,000	-1,680	-0.69
1928	244,440	-1,570	-0.64
Totals, 1920-9		-11,089	-4.61
Means, 1920-9		-1,232	-0.50
1929	243,840	-884	-0.36
1930	243,900	-814	-0.33
1931	244,080	-372	-0.15
1932	244,400	-1,001	-0.41
1933	243,900	-1,713	-0.70
1934	242,700	-1,371	-0.56
1935	241,900	-620	-0.26
1936	241,800	-1,508	-0.62
1937	240,800	10	0.00
1938	241,400	2,843	1.18
1939	244,900		
Totals, 1929-39		-5,430	-2.23
Means, 1929-39		-543	-0.22
Boundary Change .			
Year(s)			
Population involved			
Other area(s)			

SOMERSETSHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	452,840	-1,148	-0.25
1921	455,399	-296	-0.07
1922	457,676	1,196	0.26
1923	461,060	4,492	0.97
1924	467,570	-1,955	-0.42
1925	467,050	115	0.02
1926	468,500	1,945	0.42
1927	471,420	3,287	0.70
1928	475,530	-386	-0.08
Totals, 1920-9		7,248	1.60
Means, 1920-9		805	0.17
1929	475,800	-2,955	-0.62
1930	473,460	-2,093	-0.44
1931	471,970	4,965	1.05
1932	477,160	-3,449	-0.72
1933	473,700	-1,668	-0.35
1934	472,000	-217	-0.05
1935	471,900	-491	-0.10
1936	471,370	643	0.14
1937	471,803	1,224	0.26
1938	472,900	5,494	1.16
1939	478,740		
Totals, 1929-39		1,453	0.31
Means, 1929-39		145	0.03
Boundary Change .			
Year(s)			
Population involved			
Other area(s)			
1930;1935;1937			
-170;-1,470;47			
Gloucestershire;Gloucestershire;Wiltshire			

SOUTHAMPTON (HAMPSHIRE)

Year	Population	Net Migration	Net Migration as a % of population
1920	888,368	-1,467	-0.17
1921	897,004	1,798	0.20
1922	906,583	2,385	0.26
1923	915,800	9,165	1.00
1924	921,150	2,451	0.26
1925	939,140	-672	-0.07
1926	943,700	6,260	0.66
1927	953,950	23,724	2.49
1928	981,310	9,656	0.98
Totals, 1920-9		53,299	6.00
Means, 1920-9		5,922	0.62
1929	994,130	-6,224	-0.63
1930	990,860	4,940	0.50
1931	999,440	16,685	1.67
1932	1,019,670	3,496	0.34
1933	1,026,500	3,070	0.30
1934	1,032,750	5,721	0.55
1935	1,041,900	6,831	0.66
1936	1,052,100	10,653	1.01
1937	1,066,100	11,234	1.05
1938	1,080,900	14,707	1.36
1939	1,099,200		
Totals, 1929-39		71,112	7.15
Means, 1929-39		7,111	0.68
Boundary Change.			
Year(s)	1931		
Population involved	2,130		
Other area(s)	Dorsetshire		

STAFFORDSHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	1,354,650	-2,748	-0.20
1921	1,372,876	-1,495	-0.11
1922	1,388,616	-3,711	-0.27
1923	1,399,820	721	0.05
1924	1,414,980	-6,701	-0.47
1925	1,421,560	-12,602	-0.89
1926	1,421,620	-869	-0.06
1927	1,432,340	-4,312	-0.30
1928	1,439,310	-8,971	-0.62
Totals, 1920-9		-40,687	-3.00
Means, 1920-9		-4,521	-0.32
1929	1,440,080	-6,375	-0.44
1930	1,442,950	-7,059	-0.49
1931	1,446,030	-9,937	-0.69
1932	1,444,770	-2,315	-0.16
1933	1,449,680	-3,288	-0.23
1934	1,453,534	-1,527	-0.11
1935	1,459,900	-2,905	-0.20
1936	1,464,740	3,052	0.21
1937	1,475,310	283	0.02
1938	1,483,650	3,311	0.22
1939	1,495,530		
Totals, 1929-39		-26,761	-1.86
Means, 1929-39		-2,676	-0.19
Boundary Change.			
Year(s)	1928;1929;1931;1932;1934		
Population involved	2,220;-50;-70;630;11		
Other area(s)	Worcester;Worcester;Warwick;Warwick;Derby		

SUFFOLK EAST

Year	Population	Net Migration	Net Migration as a % of population
1920	285,327	-811	-0.28
1921	288,009	-66	-0.02
1922	290,544	-290	-0.10
1923	292,600	894	0.31
1924	295,730	-1,654	-0.56
1925	295,770	-1,715	-0.58
1926	295,550	1,198	0.41
1927	298,090	-1,414	-0.47
1928	297,970	-1,236	-0.41
Totals, 1920-9		-5,093	-1.79
Means, 1920-9		-566	-0.19
1929	297,920	-3,758	-1.26
1930	295,460	-2,765	-0.94
1931	293,960	2,616	0.89
1932	297,440	200	0.07
1933	298,390	241	0.08
1934	299,300	2	0.00
1935	299,900	-861	-0.29
1936	299,570	-557	-0.19
1937	299,550	615	0.21
1938	300,770	248	0.08
1939	301,710		
Totals, 1929-39		-4,020	-1.35
Means, 1929-39		-402	-0.13
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

SUFFOLK WEST

Year	Population	Net Migration	Net Migration as a % of population
1920	108,387	-332	-0.31
1921	109,196	-501	-0.46
1922	109,406	-305	-0.28
1923	109,720	-267	-0.24
1924	110,040	-485	-0.44
1925	110,010	-2,139	-1.94
1926	108,260	142	0.13
1927	108,660	-323	-0.30
1928	108,520	275	0.25
Totals, 1920-9		-3,933	-3.63
Means, 1920-9		-437	-0.40
1929	108,890	-2,206	-2.03
1930	106,800	-1,674	-1.57
1931	105,240	91	0.09
1932	105,340	-424	-0.40
1933	104,900	-629	-0.60
1934	104,250	-366	-0.35
1935	103,900	-274	-0.26
1936	103,610	-715	-0.69
1937	102,890	354	0.34
1938	103,290	386	0.37
1939	103,730		
Totals, 1929-39		-5,458	-5.01
Means, 1929-39		-546	-0.51
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

SURREY

Year	Population	Net Migration	Net Migration as a % of population
1920	917,845	-1,923	-0.21
1921	924,838	-956	-0.10
1922	931,065	-3,462	-0.37
1923	934,200	7,668	0.82
1924	947,000	5,844	0.62
1925	957,300	25,383	2.65
1926	987,300	17,136	1.74
1927	1,008,500	45,697	4.53
1928	1,057,990	22,597	2.14
Totals, 1920-9		117,984	12.85
Means, 1920-9		13,109	1.31
1929	1,084,150	47,254	4.36
1930	1,135,500	36,550	3.22
1931	1,176,840	40,412	3.43
1932	1,221,400	30,353	2.49
1933	1,255,500	29,193	2.33
1934	1,288,350	37,452	2.91
1935	1,330,500	33,187	2.49
1936	1,368,800	29,652	2.17
1937	1,403,300	18,200	1.30
1938	1,427,200	18,210	1.28
1939	1,451,600		
Totals, 1929-39		320,462	29.56
Means, 1929-39		32,046	2.60
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

SUSSEX EAST

Year	Population	Net Migration	Net Migration as a % of population
1920	497,403	-1,015	-0.20
1921	499,751	-181	-0.04
1922	501,446	2,824	0.56
1923	505,840	4,846	0.96
1924	511,840	1,462	0.29
1925	513,930	7,216	1.40
1926	521,800	5,472	1.05
1927	527,570	10,347	1.96
1928	537,900	1,646	0.31
Totals, 1920-9		32,617	6.56
Means, 1920-9		3,624	0.70
1929	539,190	-2,115	-0.39
1930	536,760	-879	-0.16
1931	535,730	11,195	2.09
1932	546,350	5,384	0.99
1933	550,840	4,885	0.89
1934	554,950	4,782	0.86
1935	559,100	4,177	0.75
1936	562,420	2,979	0.53
1937	564,460	3,034	0.54
1938	566,680	4,160	0.73
1939	570,200		
Totals, 1929-39		37,600	6.97
Means, 1929-39		3,760	0.68
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

SUSSEX WEST

Year	Population	Net Migration	Net Migration as a % of population
1920	183,924	-474	-0.26
1921	184,874	63	0.03
1922	185,803	737	0.40
1923	187,310	2,775	1.48
1924	190,730	2,297	1.20
1925	193,540	7,701	3.98
1926	201,800	5,239	2.60
1927	207,550	2,998	1.44
1928	211,010	2,082	0.99
Totals, 1920-9		23,418	12.73
Means, 1920-9		2,602	1.32
1929	213,360	1,411	0.66
1930	215,000	1,411	0.66
1931	216,760	8,338	3.85
1932	225,300	5,766	2.56
1933	231,100	7,058	3.05
1934	238,250	6,212	2.61
1935	244,700	5,580	2.28
1936	250,500	9,200	3.67
1937	259,900	4,714	1.81
1938	264,900	6,644	2.51
1939	272,000		
Totals, 1929-39		56,333	26.40
Means, 1929-39		5,633	2.37
Boundary Change -			
Year(s)			
Population involved			
Other area(s)			

WARWICKSHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	1,394,456	-3,661	-0.26
1921	1,409,633	-394	-0.03
1922	1,424,591	-8,501	-0.60
1923	1,429,400	-6,886	-0.48
1924	1,434,580	-8,188	-0.57
1925	1,436,900	-14,116	-0.98
1926	1,433,000	16,054	1.12
1927	1,458,700	16,298	1.12
1928	1,484,380	-4,291	-0.29
Totals, 1920-9		-13,684	-0.98
Means, 1920-9		-1,521	-0.11
1929	1,487,740	24,983	1.68
1930	1,520,100	19,263	1.27
1931	1,548,070	-8,133	-0.53
1932	1,547,530	2,742	0.18
1933	1,556,500	1,700	0.11
1934	1,564,050	6,032	0.39
1935	1,576,675	10,672	0.68
1936	1,594,250	23,872	1.50
1937	1,625,100	18,030	1.11
1938	1,651,600	20,002	1.21
1939	1,681,300		
Totals, 1929-39		119,162	8.01
Means, 1929-39		11,916	0.76
Boundary Change -			
Year(s)			
Population involved			
Other area(s)			

WESTMORLAND

Year	Population	Net Migration	Net Migration as a % of population
1920	61,355	-65	-0.11
1921	61,686	-46	-0.07
1922	61,992	-82	-0.13
1923	62,230	-70	-0.11
1924	62,390	-100	-0.16
1925	62,440	-598	-0.96
1926	62,080	-410	-0.66
1927	61,900	763	1.23
1928	62,830	203	0.32
Totals, 1920-9		-405	-0.66
Means, 1920-9		-45	-0.07
1929	63,190	448	0.71
1930	63,780	368	0.58
1931	64,250	201	0.31
1932	64,480	-91	-0.14
1933	64,360	19	0.03
1934	64,350	-156	-0.24
1935	64,200	-109	-0.17
1936	64,120	-29	-0.04
1937	64,120	-389	-0.61
1938	63,770	-431	-0.68
1939	63,450		
Totals, 1929-39		-169	-0.27
Means, 1929-39		-17	-0.03
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

ISLE OF WIGHT

Year	Population	Net Migration	Net Migration as a % of population
1920	84,759	-173	-0.20
1921	85,172	-365	-0.43
1922	85,152	298	0.35
1923	85,710	587	0.68
1924	86,460	-225	-0.26
1925	86,300	440	0.51
1926	86,790	-677	-0.78
1927	86,090	247	0.29
1928	86,350	351	0.41
Totals, 1920-9		482	0.57
Means, 1920-9		54	0.06
1929	86,680	-720	-0.83
1930	85,930	-492	-0.57
1931	85,400	1,004	1.18
1932	86,280	-55	-0.06
1933	86,040	-55	-0.06
1934	85,800	120	0.14
1935	85,800	263	0.31
1936	85,930	-64	-0.07
1937	85,690	206	0.24
1938	85,750	120	0.14
1939	85,800		
Totals, 1929-39		327	0.38
Means, 1929-39		33	0.04
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

WILTSHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	289,844	-557	-0.19
1921	292,266	-103	-0.04
1922	294,371	267	0.09
1923	296,600	8,469	2.86
1924	306,900	-1,586	-0.52
1925	306,900	2,206	0.72
1926	310,600	-1,652	-0.53
1927	310,100	-1,673	-0.54
1928	309,570	-1,649	-0.53
Totals, 1920-9		3,723	1.28
Means, 1920-9		414	0.15
1929	308,950	-4,532	-1.47
1930	305,300	-3,256	-1.07
1931	302,960	1,163	0.38
1932	304,900	168	0.06
1933	305,800	-1,458	-0.48
1934	305,000	-155	-0.05
1935	305,700	-2,557	-0.84
1936	304,000	257	0.08
1937	304,957	211	0.07
1938	305,900	3,713	1.21
1939	310,500		
Totals, 1929-39		-6,445	-2.09
Means, 1929-39		-645	-0.21
Boundary Change			
Year(s)		1930;1937	
Population involved		-100;-47	
Other area(s)		Gloucestershire;Somersetshire	

WORCESTERSHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	403,489	-880	-0.22
1921	407,293	-227	-0.06
1922	410,814	-393	-0.10
1923	413,610	107	0.03
1924	416,720	-2,590	-0.62
1925	416,840	-1,135	-0.27
1926	418,390	93	0.02
1927	420,660	-1,370	-0.33
1928	421,170	-2,983	-0.71
Totals, 1920-9		-9,379	-2.32
Means, 1920-9		-1,042	-0.25
1929	419,800	543	0.13
1930	421,910	-1,132	-0.27
1931	422,610	364	0.09
1932	424,510	2,332	0.55
1933	428,100	2,845	0.66
1934	432,100	3,635	0.84
1935	437,100	2,254	0.52
1936	440,920	3,219	0.73
1937	445,670	2,341	0.53
1938	449,670	4,122	0.92
1939	455,850		
Totals, 1929-39		20,523	4.89
Means, 1929-39		2,052	0.47
Boundary Change.			
Year(s)		1928;1929;1931	
Population involved		-2,800;50;-380	
Other area(s)		Staffordshire;Warwickshire;Staffs;Warwick	

YORKSHIRE (EAST RIDING)

Year	Population	Net Migration	Net Migration as a % of population
1920	450,080	-1,175	-0.26
1921	454,717	-1,170	-0.26
1922	458,094	-410	-0.09
1923	462,070	-3,380	-0.73
1924	462,920	-2,570	-0.56
1925	463,990	-4,051	-0.87
1926	463,420	630	0.14
1927	467,180	1,863	0.40
1928	472,060	1,683	0.36
Totals, 1920-9		-8,580	-1.91
Means, 1920-9		-953	-0.21
1929	476,320	1,290	0.27
1930	480,200	470	0.10
1931	483,400	2,491	0.52
1932	488,450	677	0.14
1933	491,470	181	0.04
1934	493,950	-692	-0.14
1935	495,800	854	0.17
1936	498,940	46	0.01
1937	501,240	-435	-0.09
1938	503,330	251	0.05
1939	505,980		
Totals, 1929-39		5,132	1.08
Means, 1929-39		513	0.11
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

YORKSHIRE (NORTH RIDING)

Year	Population	Net Migration	Net Migration as a % of Population
1920	439,205	-1,000	-0.23
1921	443,999	-668	-0.15
1922	448,305	-2,559	-0.57
1923	450,200	1,103	0.25
1924	455,100	-3,224	-0.71
1925	455,200	-2,333	-0.51
1926	456,400	-4,327	-0.95
1927	455,200	-3,802	-0.84
1928	454,260	-276	-0.06
Totals, 1920-9		-17,086	-3.89
Means, 1920-9		-1,898	-0.42
1929	456,440	6,382	1.40
1930	465,100	1,821	0.39
1931	469,240	2,173	0.46
1932	473,400	-908	-0.19
1933	474,400	-4,657	-0.98
1934	471,525	-1,306	-0.28
1935	472,100	-5,155	-1.09
1936	468,750	2,140	0.46
1937	472,700	-1,440	-0.30
1938	473,300	1,152	0.24
1939	476,500		
Totals, 1929-39		204	0.04
Means, 1929-39		20	0.01
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

1934
-1,325
Yorkshire (West Riding)

YORKSHIRE (WEST RIDING)

Year	Population	Net Migration	Net Migration as a % of population
1920	3,275,980	-5,538	-0.17
1921	3,305,163	-9,811	-0.30
1922	3,323,863	-10,364	-0.31
1923	3,338,220	-3,401	-0.10
1924	3,356,990	-5,327	-0.16
1925	3,372,040	-10,595	-0.31
1926	3,382,190	21,204	0.63
1927	3,420,410	-23,908	-0.70
1928	3,411,470	1,869	0.05
Totals, 1920-9		-45,870	-1.40
Means, 1920-9		-5,097	-0.15
1929	3,424,860	10,908	0.32
1930	3,446,510	6,110	0.18
1931	3,464,920	-27,188	-0.78
1932	3,446,980	-9,078	-0.26
1933	3,445,000	2,238	0.06
1934	3,454,750	-3,860	-0.11
1935	3,459,800	-11,822	-0.34
1936	3,455,490	-7,229	-0.21
1937	3,455,100	-3,714	-0.11
1938	3,460,400	15	0.00
1939	3,469,700		
Totals, 1929-39		-43,620	-1.27
Means, 1929-39		-4,362	-0.13
Boundary Change.			
Year(s) 1934			
Population involved 3,750			
Other area(s) Derbyshire, Yorkshire (North Riding)			

The Counties of Wales

ANGLESEY

Year	Population	Net Migration	Net Migration as a % of population
1920	50,952	-146	-0.29
1921	51,202	37	0.07
1922	51,493	236	0.46
1923	51,940	173	0.33
1924	52,290	-99	-0.19
1925	52,290	90	0.17
1926	52,500	-529	-1.01
1927	52,060	-759	-1.46
1928	51,340	-15	-0.03
Totals, 1920-9		-1,013	-1.99
Means, 1920-9		-113	-0.22
1929	51,330	-1,718	-3.35
1930	49,620	-1,282	-2.58
1931	48,350	252	0.52
1932	48,590	-318	-0.66
1933	48,240	-254	-0.53
1934	47,950	-305	-0.63
1935	47,600	-272	-0.57
1936	47,280	-487	-1.03
1937	46,720	-129	-0.28
1938	46,530	11	0.02
1939	46,500		
Totals, 1929-39		-4,502	-8.77
Means, 1929-39		-450	-0.91
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

BRECKNOCKSHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	60,472	-42	-0.07
1921	61,069	61	0.10
1922	61,644	-217	-0.35
1923	61,900	-40	-0.06
1924	62,320	-498	-0.80
1925	62,260	-1,111	-1.78
1926	61,580	-552	-0.90
1927	61,340	-1,437	-2.34
1928	60,180	-990	-1.64
Totals, 1920-9		-4,825	-7.98
Means, 1920-9		-536	-0.87
1929	59,450	-1,439	-2.42
1930	58,220	-1,114	-1.91
1931	57,270	-322	-0.56
1932	57,030	-458	-0.80
1933	56,660	-669	-1.18
1934	56,150	-876	-1.56
1935	55,400	-883	-1.59
1936	54,600	-1,160	-2.12
1937	53,500	-480	-0.90
1938	53,060	-594	-1.12
1939	52,540		
Totals, 1929-39		-7,995	-13.45
Means, 1929-39		-800	-1.42
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

CARDIGANSHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	57,666	-136	-0.24
1921	57,654	24	0.04
1922	57,704	169	0.29
1923	57,830	524	0.91
1924	58,290	-209	-0.36
1925	57,970	510	0.88
1926	58,410	-416	-0.71
1927	57,860	-1,627	-2.81
1928	56,060	175	0.31
Totals, 1920-9		-986	-1.71
Means, 1920-9		-110	-0.19
1929	56,070	-526	-0.94
1930	55,340	-388	-0.70
1931	54,750	298	0.54
1932	54,840	-557	-1.02
1933	54,080	92	0.17
1934	53,950	93	0.17
1935	53,800	133	0.25
1936	53,680	-639	-1.19
1937	52,770	-408	-0.77
1938	52,120	-274	-0.53
1939	51,650		
Totals, 1929-39		-2,177	-3.88
Means, 1929-39		-218	-0.40
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

CARMARTHENSHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	174,999	-315	-0.18
1921	176,667	314	0.18
1922	178,743	-322	-0.18
1923	180,060	-26	-0.01
1924	181,550	-948	-0.52
1925	181,930	-763	-0.42
1926	182,470	-1,367	-0.75
1927	182,190	-2,966	-1.63
1928	180,100	414	0.23
Totals, 1920-9		-5,979	-3.42
Means, 1920-9		-664	-0.37
1929	181,280	-1,297	-0.72
1930	180,600	-990	-0.55
1931	180,080	-1,123	-0.62
1932	179,290	-1,609	-0.90
1933	177,950	-1,001	-0.56
1934	177,350	-894	-0.50
1935	176,900	-740	-0.42
1936	176,390	-2,485	-1.41
1937	174,090	-1,669	-0.96
1938	172,700	-947	-0.55
1939	171,980		
Totals, 1929-39		-12,755	-7.04
Means, 1929-39		-1,276	-0.72
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

CARNARVONSHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	121,812	-335	-0.28
1921	121,989	-163	-0.13
1922	122,088	-2,125	-1.74
1923	120,213	-161	-0.13
1924	120,250	-280	-0.23
1925	119,970	-142	-0.12
1926	119,810	280	0.23
1927	120,150	3,744	3.12
1928	123,900	-100	-0.08
Totals, 1920-9		717	0.59
Means, 1920-9		80	0.07
1929	123,670	-2,990	-2.42
1930	120,600	-1,987	-1.65
1931	118,480	1,331	1.12
1932	119,580	69	0.06
1933	119,500	20	0.02
1934	119,400	149	0.12
1935	119,400	359	0.30
1936	119,520	-383	-0.32
1937	118,880	-70	-0.06
1938	118,590	501	0.42
1939	118,950		
Totals, 1929-39		-3,001	-2.43
Means, 1929-39		-300	-0.24
Boundary Change.			
Year(s) 1923			
Population involved -2,792(1921 Census Population)			
Other area(s) Denbighshire			

DENBIGHSHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	150,515	-285	-0.19
1921	151,716	-274	-0.18
1922	152,552	2,238	1.47
1923	155,737	1,372	0.88
1924	158,160	-531	-0.34
1925	158,640	-237	-0.15
1926	159,290	-393	-0.25
1927	159,580	-148	-0.09
1928	160,020	-1,014	-0.63
Totals, 1920-9		728	0.48
Means, 1920-9		81	0.06
1929	159,540	-1,948	-1.22
1930	158,100	-1,333	-0.84
1931	157,230	-251	-0.16
1932	157,300	-1,028	-0.65
1933	156,500	20	0.01
1934	156,700	-488	-0.31
1935	156,400	526	0.34
1936	157,090	-274	-0.17
1937	156,950	-283	-0.18
1938	156,840	-98	-0.06
1939	156,920		
Totals, 1929-39		-5,157	-3.23
Means, 1929-39		-516	-0.33
Boundary Change.			
Year(s) 1923			
Population involved 2,792(1921 Census Population)			
Other area(s) Carnarvonshire			

FLINTSHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	101,218	-269	-0.27
1921	102,077	-330	-0.32
1922	102,572	137	0.13
1923	103,380	783	0.76
1924	104,900	-110	-0.10
1925	105,460	830	0.79
1926	106,970	1,111	1.04
1927	108,750	1,973	1.81
1928	111,300	573	0.51
Totals, 1920-9		4,699	4.64
Means, 1920-9		522	0.48
1929	112,390	-635	-0.57
1930	112,300	-354	-0.32
1931	112,480	85	0.08
1932	112,900	624	0.55
1933	113,750	961	0.84
1934	114,950	751	0.65
1935	116,000	1,433	1.24
1936	117,770	1,369	1.16
1937	119,540	995	0.83
1938	121,020	383	0.32
1939	121,900		
Totals, 1929-39		5,613	4.99
Means, 1929-39		561	0.48
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

GLAMORGANSHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	1,254,555	-2,680	-0.21
1921	1,271,758	-43	-0.00
1922	1,288,367	-4,244	-0.33
1923	1,298,560	-1,386	-0.11
1924	1,312,040	-8,864	-0.68
1925	1,316,820	-16,644	-1.26
1926	1,312,690	-17,706	-1.35
1927	1,305,000	-32,783	-2.51
1928	1,280,400	-13,994	-1.09
Totals, 1920-9		-98,343	-7.84
Means, 1920-9		-10,927	-0.84
1929	1,273,890	-31,832	-2.50
1930	1,249,020	-25,004	-2.00
1931	1,230,480	-14,539	-1.18
1932	1,221,190	+10,006	-0.82
1933	1,215,340	-12,721	-1.05
1934	1,206,950	-14,541	-1.20
1935	1,197,200	-18,559	-1.55
1936	1,182,590	-26,323	-2.23
1937	1,159,400	-7,501	-0.65
1938	1,154,960	-402	-0.03
1939	1,157,640		
Totals, 1929-39		-161,487	-12.68
Means, 1929-39		-16,149	-1.32
Boundary Change.			
Year(s) 1938			
Population involved 1,170			
Other area(s) Monmouthshire			

MERIONETHSHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	41,740	-137	-0.33
1921	41,783	76	0.18
1922	41,951	315	0.75
1923	42,320	1,305	3.08
1924	43,710	-812	-1.86
1925	42,950	668	1.56
1926	43,640	325	0.74
1927	43,980	-32	-0.07
1928	44,000	52	0.12
Totals, 1920-9		1,760	4.22
Means, 1920-9		196	0.46
1929	44,110	-1,019	-2.31
1930	43,090	-711	-1.65
1931	42,370	-226	-0.53
1932	42,120	-307	-0.73
1933	41,760	-218	-0.52
1934	41,500	-144	-0.35
1935	41,300	-177	-0.43
1936	41,030	-579	-1.41
1937	40,330	-235	-0.58
1938	39,970	-18	-0.05
1939	39,860		
Totals, 1929-39		-3,636	-8.24
Means, 1929-39		-364	-0.86
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

MONMOUTHSHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	450,936	-981	-0.22
1921	457,658	-42	-0.01
1922	464,085	-3,197	-0.69
1923	466,590	-2,104	-0.45
1924	470,150	-3,351	-0.71
1925	471,980	-7,946	-1.68
1926	469,030	-4,319	-0.92
1927	468,700	-13,385	-2.86
1928	458,520	-5,757	-1.26
Totals, 1920-9		-41,083	-9.11
Means, 1920-9		-4,565	-0.98
1929	455,870	-13,887	-3.05
1930	445,100	-10,965	-2.46
1931	437,010	-5,880	-1.35
1932	433,590	-5,737	-1.32
1933	430,050	-5,482	-1.27
1934	426,550	-6,662	-1.56
1935	421,900	-6,546	-1.55
1936	417,140	-10,091	-2.42
1937	408,510	-7,589	-1.86
1938	402,380	-4,162	-1.03
1939	399,640		
Totals, 1929-39		-77,001	-16.89
Means, 1929-39		-7,700	-1.79
Boundary Change.			
Year(s) 1938			
Population involved -1,170			
Other area(s) Glamorganshire			

MONTGOMERYSHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	50,714	-109	-0.22
1921	50,950	-139	-0.27
1922	51,087	-121	-0.24
1923	51,240	115	0.22
1924	51,640	20	0.04
1925	51,900	-100	-0.19
1926	52,070	-205	-0.39
1927	52,120	-1,298	-2.49
1928	50,960	-930	-1.82
Totals, 1920-9		-2,767	-5.46
Means, 1920-9		-308	-0.60
1929	50,140	-1,350	-2.69
1930	48,920	-1,055	-2.16
1931	47,980	-114	-0.24
1932	47,950	-628	-1.31
1933	47,380	-704	-1.49
1934	46,700	-551	-1.18
1935	46,200	-296	-0.64
1936	45,950	-675	-1.47
1937	45,270	-414	-0.91
1938	44,890	-118	-0.26
1939	44,830		
Totals, 1929-39		-5,906	-11.78
Means, 1929-39		-591	-1.24
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

PEMBROKESHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	90,717	-167	-0.18
1921	91,480	-205	-0.22
1922	91,978	-443	-0.48
1923	92,140	14	0.02
1924	92,670	-764	-0.82
1925	92,290	-2,280	-2.47
1926	90,430	-1,166	-1.29
1927	89,630	-1,333	-1.49
1928	88,610	-1,085	-1.22
Totals, 1920-9		-7,428	-8.19
Means, 1920-9		-825	-0.91
1929	87,790	-1,203	-1.37
1930	86,820	-983	-1.13
1931	86,020	332	0.39
1932	86,490	-588	-0.68
1933	86,040	-511	-0.59
1934	85,650	-739	-0.86
1935	85,100	-1,536	-1.81
1936	83,700	-438	-0.52
1937	83,270	-145	-0.17
1938	83,200	-117	-0.14
1939	83,270		
Totals, 1929-39		-5,926	-6.75
Means, 1929-39		-593	-0.69
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

RADNORSHIRE

Year	Population	Net Migration	Net Migration as a % of population
1920	21,530	-70	-0.33
1921	21,656	50	0.23
1922	21,857	106	0.49
1923	22,089	-11	-0.05
1924	22,200	-9	-0.04
1925	22,290	-78	-0.35
1926	22,330	-259	-1.16
1927	22,200	-364	-1.64
1928	21,920	-414	-1.89
Totals, 1920-9		-1,048	-4.87
Means, 1920-9		-117	-0.53
1929	21,570	-498	-2.31
1930	21,140	-372	-1.76
1931	20,820	83	0.40
1932	20,970	-202	-0.96
1933	20,850	-306	-1.47
1934	20,600	-132	-0.64
1935	20,500	-377	-1.84
1936	20,140	-376	-1.87
1937	19,770	-234	-1.18
1938	19,540	-32	-0.16
1939	19,520		
Totals, 1929-39		-2,446	-11.34
Means, 1929-39		-245	-1.18
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

The Counties of Scotland

ABERDEEN

Year	Population	Net Migration	Net Migration as a % of population
1920	301,703	-4,688	-1.55
1921	300,980	-4,006	-1.33
1922	300,158	-5,747	-1.91
1923	297,390	-6,701	-2.25
1924	293,431	-2,308	-0.79
1925	293,549	-3,211	-1.09
1926	292,912	-3,995	-1.36
1927	291,221	-3,253	-1.12
1928	290,083	2,633	0.91
Totals, 1920-9		-31,276	-10.37
Means, 1920-9		-3,475	-1.17
1929	294,590	4,195	1.42
1930	300,703	-2,460	-0.82
1931	300,231	1,359	0.45
1932	303,424	171	0.06
1933	305,464	12,874	4.21
1934	320,128	233	0.07
1935	322,124	36	0.01
1936	323,821	-1,213	-0.37
1937	324,229	-670	-0.21
1938	325,231	-1,046	-0.32
1939	326,042		
Totals, 1929-39		13,480	4.58
Means, 1929-39		1,348	0.45
Boundary Change.			
Year(s)		1934	
Population involved		n.a.*	
Other area(s)		Kincardine	

ANGUS (FORFAR) *not available

Year	Population	Net Migration	Net Migration as a % of population
1920	271,639	-3,576	-1.32
1921	270,950	1,192	0.44
1922	274,355	-4,884	-1.78
1923	271,519	-3,736	-1.38
1924	269,632	-1,598	-0.59
1925	269,357	-1,155	-0.43
1926	269,550	88	0.03
1927	270,771	-2,307	-0.85
1928	269,372	-5,765	-2.14
Totals, 1920-9		-21,741	-8.00
Means, 1920-9		-2,416	-0.89
1929	264,618	4,911	1.86
1930	270,469	-1,268	-0.47
1931	270,216	444	0.16
1932	271,674	-1	-0.00
1933	272,475	-427	-0.16
1934	272,866	-249	-0.09
1935	273,573	-276	-0.10
1936	274,105	-1,904	-0.69
1937	272,763	-448	-0.16
1938	272,847	-953	-0.35
1939	272,467		
Totals, 1929-39		-172	-0.06
Means, 1929-39		-17	-0.00
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

ARGYLL

Year	Population	Net Migration	Net Migration as a % of population
1920	76,179	452	0.59
1921	76,856	407	0.53
1922	77,390	-382	-0.49
1923	77,116	-894	-1.16
1924	76,268	2,209	2.90
1925	78,477	489	0.62
1926	79,001	-23	-0.03
1927	78,990	-0	-0.00
1928	78,970	-15,385	-19.48
Totals, 1920-9		-13,128	-17.23
Means, 1920-9		-1,459	-1.84
1929	63,498	131	0.21
1930	63,518	-2,758	-4.34
1931	60,697	478	0.79
1932	61,093	285	0.47
1933	61,268	723	1.18
1934	61,936	-66	-0.11
1935	61,786	995	1.61
1936	62,682	-757	-1.21
1937	61,800	-43	-0.07
1938	61,600	316	0.51
1939	61,830		
Totals, 1929-39		-695	-1.09
Means, 1929-39		-70	-0.10
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

AYR

Year	Population	Net Migration	Net Migration as a % of population
1920	295,862	-750	-0.25
1921	299,254	-1,009	-0.34
1922	301,666	-3,024	-1.00
1923	301,757	-4,374	-1.45
1924	300,165	3,872	1.29
1925	306,458	844	0.28
1926	309,866	-1,582	-0.51
1927	310,643	-1,014	-0.33
1928	311,823	-21,335	-6.84
Totals, 1920-9		-28,373	-9.59
Means, 1920-9		-3,153	-1.02
1929	292,549	-8,630	-2.95
1930	285,838	-6,360	-2.23
1931	281,525	1,565	0.56
1932	284,993	72	0.03
1933	286,806	243	0.08
1934	288,686	-805	-0.28
1935	289,442	687	0.24
1936	291,694	-852	-0.29
1937	292,200	402	0.14
1938	294,050	849	0.29
1939	296,622		
Totals, 1929-39		-12,830	-4.39
Means, 1929-39		-1,283	-0.44
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

BANFF

Year	Population	Net Migration	Net Migration as a % of population
1920	57,624	-1,111	-1.93
1921	57,293	-1,171	-2.04
1922	56,719	-1,719	-3.03
1923	55,577	-2,083	-3.75
1924	54,051	102	0.19
1925	54,692	-1,118	-2.04
1926	54,144	-1,359	-2.51
1927	53,238	-1,308	-2.46
1928	52,341	2,249	4.30
Totals, 1920-9		-7,519	-13.05
Means, 1920-9		-836	-1.48
1929	55,033	-321	-0.58
1930	55,120	-369	-0.67
1931	55,126	-110	-0.20
1932	55,389	217	0.39
1933	55,939	-865	-1.55
1934	55,402	-531	-0.96
1935	55,218	-1,341	-2.43
1936	54,159	-536	-0.99
1937	53,886	-619	-1.15
1938	53,567	-465	-0.87
1939	53,405		
Totals, 1929-39		-4,939	-8.97
Means, 1929-39		-494	-0.90
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

BERWICK

Year	Population	Net Migration	Net Migration as a % of population
1920	28,842	-649	-2.25
1921	28,395	-487	-1.71
1922	28,022	-632	-2.26
1923	27,516	-839	-3.05
1924	26,824	252	0.94
1925	27,202	-335	-1.23
1926	26,992	-476	-1.77
1927	26,602	-428	-1.61
1928	26,215	540	2.06
Totals, 1920-9		-3,056	-10.60
Means, 1920-9		-340	-1.21
1929	26,790	-29	-0.11
1930	26,785	-258	-0.96
1931	26,518	182	0.68
1932	26,689	-81	-0.30
1933	26,612	145	0.55
1934	26,760	137	0.51
1935	26,882	-189	-0.70
1936	26,649	-202	-0.76
1937	26,402	-58	-0.22
1938	26,295	-169	-0.64
1939	26,089		
Totals, 1929-39		-522	-1.95
Means, 1929-39		-52	-0.20
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

BUTE

Year	Population	Net Migration	Net Migration as a % of population
1920	16,522	17,156	103.84
1921	33,711	-15,614	-46.32
1922	18,100	13	0.07
1923	18,100	10	0.05
1924	18,100	6	0.03
1925	18,100	-11	-0.06
1926	18,100	-15	-0.08
1927	18,100	10	0.05
1928	18,100	1,237	6.83
Totals, 1920-9		2,792	16.90
Means, 1920-9		310	7.16
1929	19,258	-319	-1.66
1930	18,835	-2,570	-13.64
1931	16,207	161	0.99
1932	16,319	8	0.05
1933	16,258	175	1.08
1934	16,365	-20	-0.12
1935	16,302	142	0.87
1936	16,371	-47	-0.29
1937	16,231	398	2.45
1938	16,560	-179	-1.08
1939	16,302		
Totals, 1929-39		-2,251	-11.69
Means, 1929-39		-225	-1.14
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

CAITHNESS

Year	Population	Net Migration	Net Migration as a % of population
1920	28,614	-574	-2.01
1921	28,284	-633	-2.24
1922	27,834	-867	-3.11
1923	27,108	-968	-3.57
1924	26,201	76	0.29
1925	26,345	-554	-2.10
1926	25,914	-708	-2.73
1927	25,314	-681	-2.69
1928	24,720	1,389	5.62
Totals, 1920-9		-3,519	-12.30
Means, 1920-9		-391	-1.39
1929	26,147	-256	-0.98
1930	25,937	-444	-1.71
1931	25,535	33	0.13
1932	25,606	-122	-0.48
1933	25,556	330	1.29
1934	25,945	-21	-0.08
1935	25,969	65	0.25
1936	26,092	-233	-0.89
1937	25,889	-201	-0.78
1938	25,742	-128	-0.50
1939	25,693		
Totals, 1929-39		-977	-3.74
Means, 1929-39		-98	-0.37
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

CLACKMANNAN

Year	Population	Net Migration	Net Migration as a % of population
1920	32,364	-238	-0.74
1921	32,543	-257	-0.79
1922	32,583	-569	-1.75
1923	32,290	-812	-2.51
1924	31,758	519	1.63
1925	32,504	-168	-0.52
1926	32,548	-376	-1.16
1927	32,374	-346	-1.07
1928	32,195	-153	-0.48
Totals, 1920-9		-2,400	-7.42
Means, 1920-9		-267	-0.82
1929	32,174	-273	-0.85
1930	32,030	-156	-0.49
1931	31,996	44	0.14
1932	32,155	-7	-0.02
1933	32,237	-83	-0.26
1934	32,220	68	0.21
1935	32,388	-50	-0.16
1936	32,464	211	0.65
1937	32,807	184	0.56
1938	33,117	-178	-0.54
1939	33,073		
Totals, 1929-39		-240	-0.75
Means, 1929-39		-24	-0.07
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

DUMFRIES

Year	Population	Net Migration	Net Migration as a % of population
1920	75,023	-459	-0.61
1921	75,365	-547	-0.73
1922	75,388	-1,315	-1.74
1923	74,636	-1,823	-2.44
1924	73,344	1,252	1.71
1925	74,993	-482	-0.64
1926	75,029	-982	-1.31
1927	74,558	-844	-1.13
1928	74,076	-1,507	-2.03
Totals, 1920-9		-6,707	-8.94
Means, 1920-9		-745	-0.99
1929	72,795	8,123	11.16
1930	81,158	-634	-0.78
1931	80,886	334	0.41
1932	81,524	103	0.13
1933	81,839	-60	-0.07
1934	81,963	-301	-0.37
1935	81,883	-151	-0.18
1936	81,945	-120	-0.15
1937	81,973	-278	-0.34
1938	81,818	-608	-0.74
1939	81,357		
Totals, 1929-39		6,408	8.80
Means, 1929-39		641	0.91
Boundary Change.			
Year(s) 1930			
Population involved 6,000			
Other area(s) Kirkcudbright			

DUNBARTON

Year	Population	Net Migration	Net Migration as a % of population
1920	149,251	-593	-0.40
1921	150,868	-1,317	-0.87
1922	151,435	-2,521	-1.66
1923	150,546	-2,275	-1.51
1924	149,674	157	0.10
1925	151,106	-1,385	-0.92
1926	151,084	-676	-0.45
1927	151,672	-1,476	-0.97
1928	151,374	1,285	0.85
Totals, 1920-9		-8,801	-5.90
Means, 1920-9		-978	-0.65
1929	153,675	-6,642	-4.32
1930	148,010	-1,506	-1.02
1931	147,542	693	0.47
1932	149,173	770	0.52
1933	150,750	1,006	0.67
1934	152,450	318	0.21
1935	153,516	934	0.61
1936	155,242	178	0.11
1937	156,073	-1,541	-0.99
1938	155,243	1,232	0.79
1939	157,299		
Totals, 1929-39		-4,557	-2.97
Means, 1929-39		-456	-0.29
Boundary Change.			
Year(s) 1926; 1938			
Population involved α -291; α - 1,000			
Other area(s) Lanark; Lanark			

EAST LoTHIAN (HADDINGTON)

Year	Population	Net Migration	Net Migration as a % of population
1920	47,015	-113	-0.24
1921	47,487	-173	-0.36
1922	47,757	-667	-1.40
1923	47,535	-1,009	-2.12
1924	46,957	944	2.01
1925	48,261	-139	-0.29
1926	48,531	-459	-0.95
1927	48,471	-398	-0.82
1928	48,401	-1,225	-2.53
Totals, 1920-9		-3,237	-6.89
Means, 1920-9		-360	-0.74
1929	47,494	-512	-1.08
1930	47,263	-1,271	-2.69
1931	46,288	233	0.50
1932	46,836	222	0.47
1933	47,384	-303	-0.64
1934	47,411	242	0.51
1935	47,935	-270	-0.56
1936	47,922	-535	-1.12
1937	47,644	-149	-0.31
1938	47,753	-299	-0.63
1939	47,722		
Totals, 1929-39		-2,641	-5.56
Means, 1929-39		-264	-0.55
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

FIFE

Year	Population	Net Migration	Net Migration as a % of population
1920	290,080	-1,414	-0.49
1921	292,902	-1,617	-0.55
1922	294,545	-3,771	-1.28
1923	293,608	-5,222	-1.78
1924	291,315	2,062	0.71
1925	295,990	-3,193	-1.08
1926	295,452	-3,062	-1.04
1927	294,684	-2,528	-0.86
1928	293,986	-4,469	-1.52
Totals, 1920-9		-23,214	-8.00
Means, 1920-9		-2,579	-0.88
1929	291,077	-14,859	-5.10
1930	277,821	-3,784	-1.36
1931	275,790	1,319	0.48
1932	278,656	755	0.27
1933	280,764	-968	-0.34
1934	281,103	-327	-0.12
1935	282,169	-553	-0.20
1936	282,972	-954	-0.34
1937	283,194	-359	-0.13
1938	284,082	-256	-0.09
1939	285,206		
Totals, 1929-39		-19,985	-6.87
Means, 1929-39		-1,999	-0.69
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

INVERNESS

Year	Population	Net Migration	Net Migration as a % of population
1920	82,816	-731	-0.88
1921	82,446	-938	-1.14
1922	81,731	-1,785	-2.18
1923	80,187	-2,333	-2.91
1924	78,091	854	1.09
1925	79,121	-883	-1.12
1926	78,440	-1,341	-1.71
1927	77,236	-1,331	-1.72
1928	76,036	4,176	5.49
Totals, 1920-9		-4,311	-5.21
Means, 1920-9		-479	-0.56
1929	80,353	1,737	2.16
1930	82,178	-875	-1.06
1931	81,410	106	0.13
1932	81,646	-30	-0.04
1933	81,718	163	0.20
1934	81,975	-238	-0.29
1935	81,790	871	1.07
1936	82,698	-1,276	-1.54
1937	81,472	-199	-0.24
1938	81,342	-457	-0.56
1939	80,999		
Totals, 1929-39		-199	-0.25
Means, 1929-39		-20	-0.02
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

KINCARDINE

Year	Population	Net Migration	Net Migration as a % of population
1920	41,652	-448	-1.07
1921	41,779	-110	-0.26
1922	42,155	-482	-1.14
1923	42,127	-959	-2.28
1924	41,601	99	0.24
1925	42,073	-142	-0.34
1926	42,262	-465	-1.10
1927	42,093	-467	-1.11
1928	41,919	-1,087	-2.59
Totals, 1920-9		-4,062	-9.75
Means, 1920-9		-451	-1.07
1929	41,111	-1,275	-3.10
1930	40,085	-566	-1.41
1931	39,772	95	0.24
1932	40,112	371	0.92
1933	40,714	-13,154	-32.31
1934	27,748	-946	-3.41
1935	26,894	-211	-0.78
1936	26,765	-394	-1.47
1937	26,455	-88	-0.33
1938	26,443	-672	-2.54
1939	25,853		
Totals, 1929-39		-16,839	-40.96
Means, 1929-39		-1,684	-4.42
Boundary Change.			
Year(s) 1934			
Population involved n.a.*			
Other area(s) Aberdeen			

* not available

KINROSS

Year	Population	Net Migration	Net Migration as a % of population
1920	7,910	-9	-0.11
1921	7,963	-31	-0.39
1922	7,981	-119	-1.49
1923	7,916	-175	-2.21
1924	7,796	144	1.84
1925	7,988	-24	-0.30
1926	8,007	-70	-0.88
1927	7,973	-68	-0.85
1928	7,937	-251	-3.16
Totals, 1920-9		-603	-7.62
Means, 1920-9		-67	-0.84
1929	7,700	-204	-2.64
1930	7,510	-251	-3.34
1931	7,275	-11	-0.15
1932	7,269	20	0.28
1933	7,284	25	0.34
1934	7,318	-37	-0.50
1935	7,306	-148	-2.03
1936	7,173	-97	-1.36
1937	7,079	-44	-0.62
1938	7,028	4	0.05
1939	7,029		
Totals, 1929-39		-743	-9.64
Means, 1929-39		-74	-1.00
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

KIRKCUDBRIGHT

Year	Population	Net Migration	Net Migration as a % of population
1920	37,229	-358	-0.96
1921	37,156	-482	-1.30
1922	36,922	-856	-2.32
1923	36,318	-1,069	-2.94
1924	35,460	410	1.16
1925	36,021	-421	-1.17
1926	35,804	-631	-1.76
1927	35,352	-592	-1.67
1928	34,893	1,031	2.95
Totals, 1920-9		-2,967	-7.97
Means, 1920-9		-330	-0.89
1929	36,025	-5,714	-15.86
1930	30,435	-540	-1.78
1931	30,050	157	0.52
1932	30,321	-40	-0.13
1933	30,381	-45	-0.15
1934	30,470	-116	-0.38
1935	30,487	565	1.85
1936	31,162	-891	-2.86
1937	30,358	-72	-0.24
1938	30,359	-244	-0.80
1939	30,202		
Totals, 1929-39		-6,940	-19.27
Means, 1929-39		-694	-1.98
Boundary Change.			
Year(s) 1930			
Population involved c. - 6,000			
Other area(s) Dumfries			

LANARK

Year	Population	Net Migration	Net Migration as a % of population
1920	1,532,208	-17,283	-1.13
1921	1,539,307	-8,088	-0.53
1922	1,551,293	-2,210	-0.14
1923	1,567,208	-3,270	-0.21
1924	1,581,066	-38,041	-2.41
1925	1,559,113	-4,404	-0.28
1926	1,570,888	-11,797	-0.75
1927	1,573,734	-3,003	-0.19
1928	1,584,373	6,683	0.42
Totals, 1920-9		-81,413	-5.31
Means, 1920-9		-9,046	-0.58
1929	1,602,563	-30,346	-1.89
1930	1,583,695	-872	-0.06
1931	1,595,597	-471	-0.03
1932	1,606,715	-2,791	-0.17
1933	1,614,626	-6,605	-0.41
1934	1,618,857	-3,760	-0.23
1935	1,625,880	-14,928	-0.92
1936	1,621,211	-3,069	-0.19
1937	1,627,803	-2,219	-0.14
1938	1,635,937	-8,694	-0.53
1939	1,638,058		
Totals, 1929-39		-73,756	-4.60
Means, 1929-39		-7,376	-0.46
Boundary Change.			
Year(s) 1926; 1935; 1938			
Population involved. c. 12,500; c. - 15; c. 1,600			
Other area(s) Dunbarton, Renfrew; Renfrew; Dunbarton, Renfrew			

MIDLOTHIAN (EDINBURGH)

Year	Population	Net Migration	Net Migration as a % of population
1920	505,879	-4,750	-0.94
1921	506,378	-827	-0.16
1922	509,229	-2,307	-0.45
1923	510,493	-3,959	-0.78
1924	509,986	-5,277	-1.03
1925	507,492	-664	-0.13
1926	509,547	-2,057	-0.40
1927	510,092	504	0.10
1928	512,817	1,639	0.32
Totals, 1920-9		-17,697	-3.50
Means, 1920-9		-1,966	-0.39
1929	516,252	6,704	1.30
1930	524,661	3,912	0.75
1931	530,306	4,358	0.82
1932	536,123	4,910	0.92
1933	542,455	2,637	0.49
1934	546,721	2,311	0.42
1935	550,646	1,686	0.31
1936	553,792	970	0.18
1937	556,203	1,329	0.24
1938	559,202	745	0.13
1939	561,738		
Totals, 1929-39		29,563	5.73
Means, 1929-39		2,956	0.55
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

MORAY (ELGIN)

Year	Population	Net Migration	Net Migration as a % of population
1920	41,692	-585	-1.40
1921	41,561	-648	-1.56
1922	41,257	-1,051	-2.55
1923	40,522	-1,311	-3.23
1924	39,516	289	0.73
1925	40,094	-587	-1.46
1926	39,800	-785	-1.97
1927	39,246	-720	-1.83
1928	38,691	900	2.33
Totals, 1920-9		-4,497	-10.79
Means, 1920-9		-500	-1.22
1929	39,752	924	2.32
1930	40,909	-418	-1.02
1931	40,692	209	0.51
1932	41,058	-82	-0.20
1933	41,171	-159	-0.39
1934	41,185	-294	-0.71
1935	41,058	-117	-0.28
1936	41,083	-227	-0.55
1937	41,002	-320	-0.78
1938	40,844	-111	-0.27
1939	40,911		
Totals, 1929-39		-594	-1.49
Means, 1929-39		-59	-0.14
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

NAIRN

Year	Population	Net Migration	Net Migration as a % of population
1920	8,831	-118	-1.34
1921	8,790	-136	-1.54
1922	8,712	-238	-2.74
1923	8,547	-277	-3.24
1924	8,320	74	0.89
1925	8,427	-112	-1.33
1926	8,355	-150	-1.79
1927	8,226	-146	-1.78
1928	8,096	197	2.43
Totals, 1920-9		-907	-10.27
Means, 1920-9		-101	-1.16
1929	8,317	20	0.24
1930	8,352	-137	-1.64
1931	8,231	-25	-0.30
1932	8,234	15	0.19
1933	8,277	-12	-0.15
1934	8,276	-55	-0.66
1935	8,227	59	0.71
1936	8,317	-60	-0.72
1937	8,292	-9	-0.11
1938	8,303	-59	-0.71
1939	8,275		
Totals, 1929-39		-263	-3.16
Means, 1929-39		-26	-0.32
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

ORKNEY

Year	Population	Net Migration	Net Migration as a % of population
1920	24,254	-228	-0.94
1921	24,109	-249	-1.03
1922	23,870	-489	-2.05
1923	23,379	-652	-2.79
1924	22,729	275	1.21
1925	22,991	-231	-1.01
1926	22,754	-360	-1.58
1927	22,368	-355	-1.59
1928	21,982	40	0.18
Totals, 1920-9		-2,248	-9.27
Means, 1920-9		-250	-1.07
1929	22,020	286	1.30
1930	22,285	-253	-1.13
1931	22,028	92	0.42
1932	22,106	-139	-0.63
1933	21,942	157	0.72
1934	22,086	-21	-0.10
1935	22,056	-192	-0.87
1936	21,811	-0	-0.00
1937	21,730	106	0.49
1938	21,799	-154	-0.70
1939	21,641		
Totals, 1929-39		-117	-0.53
Means, 1929-39		-12	-0.05
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

PEEBLES

Year	Population	Net Migration	Net Migration as a % of population
1920	15,304	-56	-0.37
1921	15,330	-81	-0.53
1922	15,292	-232	-1.52
1923	15,096	-352	-2.33
1924	14,795	255	1.72
1925	15,085	-80	-0.53
1926	15,051	-181	-1.21
1927	14,914	-167	-1.12
1928	14,777	198	1.34
Totals, 1920-9		-697	-4.56
Means, 1920-9		-78	-0.50
1929	14,989	67	0.45
1930	15,089	-529	-3.50
1931	14,607	29	0.20
1932	14,644	56	0.38
1933	14,699	-41	-0.28
1934	14,644	-83	-0.57
1935	14,541	79	0.54
1936	14,606	-83	-0.57
1937	14,501	-32	-0.22
1938	14,471	-344	-2.37
1939	14,121		
Totals, 1929-39		-881	-5.88
Means, 1929-39		-88	-0.59
Boundary Change Year(s)			
Population involved			
Other area(s)			

PERTH

Year	Population	Net Migration	Net Migration as a % of population
1920	125,245	-470	-0.38
1921	125,515	-411	-0.33
1922	125,594	-1,369	-1.09
1923	124,722	-1,893	-1.52
1924	123,266	1,368	1.11
1925	124,905	1	0.00
1926	125,231	-435	-0.35
1927	125,072	-1,198	-0.96
1928	124,093	-4,247	-3.42
Totals, 1920-9		-8,654	-6.91
Means, 1920-9		-962	-0.77
1929	119,976	1,169	0.97
1930	121,301	-2,405	-1.98
1931	119,175	726	0.61
1932	120,044	-14	-0.01
1933	120,000	651	0.54
1934	120,669	-33	-0.03
1935	120,799	-760	-0.63
1936	120,148	-329	-0.27
1937	119,729	-24	-0.02
1938	119,657	408	0.34
1939	120,137		
Totals, 1929-39		-611	-0.51
Means, 1929-39		-61	-0.05
Boundary Change Year(s)			
Population involved			
Other area(s)			

RENFREW

Year	Population	Net Migration	Net Migration as a % of population
1920	296,581	-2,040	-0.69
1921	298,887	-1,973	-0.66
1922	300,571	-3,093	-1.03
1923	300,929	-3,226	-1.07
1924	300,659	-293	-0.10
1925	302,897	-13,856	-4.57
1926	291,773	-2,129	-0.73
1927	291,998	-2,728	-0.93
1928	291,391	3,566	1.22
Totals, 1920-9		-25,772	-8.69
Means, 1920-9		-2,864	-0.95
1929	296,752	-10,148	-3.42
1930	288,462	-1,068	-0.37
1931	289,547	1,714	0.59
1932	293,160	1,258	0.43
1933	295,900	1,223	0.41
1934	298,708	1,321	0.44
1935	301,704	6,107	2.02
1936	309,382	3,251	1.05
1937	314,244	1,126	0.36
1938	317,179	3,589	1.13
1939	322,642		
Totals, 1929-39		8,372	2.82
Means, 1929-39		837	0.27
Boundary Change.			
Year(s)		1926;1935;1938	
Population involved		c. -12,211;c. 15;c. -600	
Other area(s)		Lanark;Lanark;Lanark	

ROSS AND CROMARTY

Year	Population	Net Migration	Net Migration as a % of population
1920	71,345	-1,062	-1.49
1921	70,790	-761	-1.08
1922	70,351	-1,426	-2.03
1923	69,175	-1,899	-2.75
1924	67,518	871	1.29
1925	68,565	-547	-0.80
1926	68,128	-927	-1.36
1927	67,239	-917	-1.36
1928	66,352	948	1.43
Totals, 1920-9		-5,720	-8.02
Means, 1920-9		-636	-0.90
1929	67,360	-3,725	-5.53
1930	63,649	-719	-1.13
1931	62,917	-331	-0.53
1932	62,580	-493	-0.79
1933	62,031	501	0.81
1934	62,507	-426	-0.68
1935	62,047	134	0.22
1936	62,094	703	1.13
1937	62,704	233	0.37
1938	62,846	-865	-1.38
1939	61,956		
Totals, 1929-39		-4,987	-7.40
Means, 1929-39		-499	-0.75
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

ROXBURGH

Year	Population	Net Migration	Net Migration as a % of population
1920	45,149	-465	-1.03
1921	44,989	-493	-1.09
1922	44,636	-959	-2.15
1923	43,833	-1,260	-2.87
1924	42,727	520	1.22
1925	43,335	-375	-0.87
1926	43,001	-644	-1.50
1927	42,383	-651	-1.54
1928	41,768	1,453	3.48
Totals, 1920-9		-2,874	-6.37
Means, 1920-9		-319	-0.71
1929	43,256	2,471	5.71
1930	45,740	-16	-0.03
1931	45,729	315	0.69
1932	46,083	150	0.33
1933	46,240	117	0.25
1934	46,373	-153	-0.33
1935	46,294	-45	-0.10
1936	46,258	-301	-0.65
1937	45,908	-104	-0.23
1938	45,783	-359	-0.78
1939	45,410		
Totals, 1929-39		2,074	4.79
Means, 1929-39		207	0.49
Boundary Change.			
Year(s) 1939			
Population involved c.-100			
Other area(s) Selkirk			

SELKIRK

Year	Population	Net Migration	Net Migration as a % of population
1920	22,773	-300	-1.32
1921	22,606	-362	-1.60
1922	22,342	-554	-2.48
1923	21,857	-696	-3.18
1924	21,219	176	0.83
1925	21,433	-274	-1.28
1926	21,182	-403	-1.90
1927	20,792	-420	-2.02
1928	20,403	1,371	6.72
Totals, 1920-9		-1,463	-6.42
Means, 1920-9		-163	-0.69
1929	21,786	841	3.86
1930	22,624	-178	-0.79
1931	22,440	218	0.97
1932	22,651	89	0.39
1933	22,698	-1	-0.01
1934	22,649	-14	-0.06
1935	22,611	-263	-1.16
1936	22,279	-226	-1.02
1937	21,967	11	0.05
1938	21,923	98	0.45
1939	21,996		
Totals, 1929-39		574	2.63
Means, 1929-39		57	0.27
Boundary Change.			
Year(s) 1939			
Population involved c.100			
Other area(s) Roxburgh			

STIRLING

Year	Population	Net Migration	Net Migration as a % of population
1920	161,454	-2,167	-1.34
1921	161,726	-1,733	-1.07
1922	162,029	-3,229	-1.99
1923	160,669	-4,157	-2.59
1924	158,276	665	0.42
1925	160,512	-1,723	-1.07
1926	160,471	-1,883	-1.17
1927	160,221	-1,609	-1.00
1928	160,098	8,771	5.48
Totals, 1920-9		-7,064	-4.37
Means, 1920-9		-785	-0.48
1929	170,096	-5,291	-3.11
1930	166,092	-1,386	-0.83
1931	166,138	602	0.36
1932	168,022	517	0.31
1933	169,591	635	0.37
1934	171,279	-836	-0.49
1935	171,532	-579	-0.34
1936	172,001	-410	-0.24
1937	172,659	-425	-0.25
1938	173,410	-323	-0.19
1939	174,277		
Totals, 1929-39		-7,495	-4.41
Means, 1929-39		-750	-0.44
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

SUTHERLAND

Year	Population	Net Migration	Net Migration as a % of population
1920	18,011	-229	-1.27
1921	17,800	-290	-1.63
1922	17,517	-486	-2.78
1923	17,057	-541	-3.17
1924	16,481	138	0.84
1925	16,568	-266	-1.60
1926	16,294	-376	-2.31
1927	15,912	-370	-2.33
1928	15,536	1,292	8.31
Totals, 1920-9		-1,129	-6.27
Means, 1920-9		-126	-0.66
1929	16,809	-485	-2.89
1930	16,282	-281	-1.73
1931	15,951	-82	-0.51
1932	15,810	30	0.19
1933	15,796	177	1.12
1934	15,931	-146	-0.92
1935	15,745	42	0.26
1936	15,770	-310	-1.96
1937	15,442	-128	-0.83
1938	15,293	-11	-0.07
1939	15,271		
Totals, 1929-39		-1,195	-7.11
Means, 1929-39		-120	-0.73
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

WEST LOTHIAN (LINLITHGOW)

Year	Population	Net Migration	Net Migration as a % of population
1920	83,491	-1,144	-1.37
1921	83,966	-1,098	-1.31
1922	84,221	-1,855	-2.20
1923	83,617	-2,499	-2.99
1924	82,406	880	1.07
1925	84,493	-843	-1.00
1926	84,765	-1,270	-1.50
1927	84,464	-1,153	-1.37
1928	84,149	1,357	1.61
Totals, 1920-9		-7,626	-9.13
Means, 1920-9		-847	-1.01
1929	86,265	-5,354	-6.21
1930	81,737	-984	-1.20
1931	81,593	-371	-0.46
1932	82,015	130	0.16
1933	82,831	-709	-0.86
1934	82,815	-636	-0.77
1935	82,893	-618	-0.75
1936	82,960	-174	-0.21
1937	83,484	-650	-0.78
1938	83,524	-634	-0.76
1939	83,564		
Totals, 1929-39		-10,001	-11.59
Means, 1929-39		-1,000	-1.18
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

WIGTOWN

Year	Population	Net Migration	Net Migration as a % of population
1920	30,863	-380	-1.23
1921	30,782	-474	-1.54
1922	30,570	-783	-2.56
1923	30,049	-969	-3.23
1924	29,319	270	0.92
1925	29,761	-361	-1.21
1926	29,564	-596	-2.02
1927	29,165	-570	-1.95
1928	28,772	1	0.00
Totals, 1920-9		-3,862	-12.51
Means, 1920-9		-429	-1.42
1929	28,885	449	1.55
1930	29,468	-433	-1.47
1931	29,209	84	0.29
1932	29,452	-61	-0.21
1933	29,556	-59	-0.20
1934	29,672	-85	-0.29
1935	29,770	33	0.11
1936	29,973	-328	-1.09
1937	29,783	-233	-0.78
1938	29,723	-272	-0.92
1939	29,634		
Totals, 1929-39		-906	-3.13
Means, 1929-39		-91	-0.30
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

ZETLAND

Year	Population	Net Migration	Net Migration as a % of population
1920	25,722	-229	-0.89
1921	25,520	-312	-1.22
1922	25,208	-558	-2.21
1923	24,646	-670	-2.72
1924	23,914	284	1.19
1925	24,142	-287	-1.19
1926	23,845	-428	-1.79
1927	23,392	-369	-1.58
1928	22,941	1,211	5.28
Totals, 1920-9		-1,359	-5.28
Means, 1920-9		-151	-0.57
1929	24,067	-2,183	-9.07
1930	21,837	-438	-2.01
1931	21,330	260	1.22
1932	21,493	-281	-1.30
1933	21,117	149	0.70
1934	21,173	-50	-0.23
1935	21,043	-282	-1.34
1936	20,701	72	0.35
1937	20,704	-474	-2.29
1938	20,155	-226	-1.12
1939	19,868		
Totals, 1929-39		-3,452	-14.34
Means, 1929-39		-345	-1.51
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

The Ministry of Labour Regions

(In contrast to the actual Ministry of Labour regions, which were based on local employment exchange areas, the following aggregates are based on county data. Where the resulting aggregate differs from the actual Ministry of Labour Region, the differences are noted, in brackets, below.)

Greater London

City of London and Metropolitan Police District

London & South East

Greater London plus South East

South East

Areas in Essex, Hertfordshire, Kent and Surrey which are outside the Greater London area plus Bedfordshire, Berkshire, Buckinghamshire, Cambridgeshire, Ely, Huntingdonshire, Norfolk, Suffolk, Sussex, and the Soke of Peterborough

(Includes Camberley, Surrey and Abingdon and Faringdon, Berkshire)

South West

Cornwall, Devonshire, Dorsetshire, Gloucestershire, Oxfordshire, Somersetshire, Southampton (Hampshire), Wiltshire, and Isle of Wight

(Excludes Camberley, Surrey and the Abingdon and Faringdon districts of Berkshire)

Midlands

Derbyshire, Herefordshire, Leicestershire, Northamptonshire, Nottinghamshire, Rutlandshire, Shropshire, Staffordshire, Warwickshire, and Worcestershire.

(Includes Buxton, Chapel-en-le-Frith, Glossop, Hadfield, and New Mills, all of Derbyshire)

North East

Lincolnshire, Yorkshire

(Includes Barnoldswick, Bentham, Saddleworth, and Cleveland, all of Yorkshire)

North West

Cheshire, Lancashire

(Excludes districts of Derbyshire and Yorkshire noted as being included in the Midlands and North East areas, with the exception of Cleveland, Yorkshire)

North

Northumberland, Durham, Cumberland and Westmorland
(Excludes Cleveland district of Yorkshire. Includes
Berwick district of Northumberland)

Wales

All the Welsh Counties

Scotland

All the Scottish Counties
(Excludes the Berwick district of Northumberland)

GREATER LONDON

Year	Population	Net Migration	Net Migration as a % of population
1920	7,452,825	-6,479	-0.09
1921	7,535,582	-28,063	-0.37
1922	7,573,469	-10,507	-0.14
1923	7,625,461	-4,943	-0.06
1924	7,679,218	4,222	0.05
1925	7,733,282	24,723	0.32
1926	7,805,870	-36,782	-0.47
1927	7,809,963	17,580	0.23
1928	7,864,130	22,042	0.28
Totals, 1920-9		-18,207	-0.24
Means, 1920-9		-2,023	-0.03
1929	7,916,680	121,910	1.54
1930	8,070,100	85,951	1.07
1931	8,192,240	79,836	0.97
1932	8,302,329	34,078	0.41
1933	8,360,500	18,749	0.22
1934	8,401,000	46,575	0.55
1935	8,474,900	71,961	0.85
1936	8,575,700	52,265	0.61
1937	8,655,000	13,815	0.16
1938	8,700,000	-1,801	-0.02
1939	8,728,000		
Totals, 1929-39		523,338	6.61
Means, 1929-39		52,334	0.64
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

LONDON & SOUTH EAST

Year	Population	Net Migration	Net Migration as a % of population
1920	12,102,494	-25,268	-0.21
1921	12,212,682	-29,462	-0.24
1922	12,282,523	-2,846	-0.02
1923	12,372,389	35,380	0.29
1924	12,492,860	4,542	0.04
1925	12,568,230	65,995	0.53
1926	12,702,950	2,983	0.02
1927	12,764,470	103,180	0.81
1928	12,919,850	50,752	0.39
Totals, 1920-9		205,257	1.70
Means, 1920-9		22,806	0.18
1929	13,014,050	137,251	1.05
1930	13,196,590	100,340	0.76
1931	13,349,400	166,435	1.25
1932	13,557,720	84,570	0.62
1933	13,674,900	64,865	0.47
1934	13,770,225	95,550	0.69
1935	13,904,700	131,113	0.94
1936	14,076,470	125,670	0.89
1937	14,240,190	59,058	0.41
1938	14,343,630	51,001	0.36
1939	14,439,460		
Totals, 1929-39		1,015,853	7.81
Means, 1929-39		101,585	0.75
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

SOUTH EAST

Year	Population	Net Migration	Net Migration as a % of population
1920	4,649,669	-18,790	-0.40
1921	4,677,100	-1,399	-0.03
1922	4,709,054	7,661	0.16
1923	4,746,928	40,324	0.85
1924	4,813,642	320	0.01
1925	4,834,948	41,272	0.85
1926	4,897,080	39,765	0.81
1927	4,954,507	85,600	1.73
1928	5,055,720	28,710	0.57
Totals, 1920-28		223,463	4.81
Means, 1920-28		24,829	0.51
1929	5,097,370	15,341	0.30
1930	5,126,490	14,389	0.28
1931	5,157,160	86,599	1.68
1932	5,255,391	50,492	0.96
1933	5,314,400	46,117	0.87
1934	5,369,225	48,975	0.91
1935	5,429,800	59,153	1.09
1936	5,500,770	73,405	1.33
1937	5,585,190	45,244	0.81
1938	5,643,630	52,802	0.94
1939	5,711,460		
Totals, 1929-39		492,515	9.66
Means, 1929-39		49,252	0.92
Boundary Change.			
Year(s)		1934	
Population involved		-15	
Other area(s)		South West	

SOUTH WEST

Year	Population	Net Migration	Net Migration as a % of population
1920	3,876,613	-7,805	-0.20
1921	3,906,115	-2,864	-0.07
1922	3,929,486	5,595	0.14
1923	3,957,400	25,632	0.65
1924	4,003,450	-12,429	-0.31
1925	4,007,820	-2,126	-0.05
1926	4,022,080	11,535	0.29
1927	4,046,600	46,953	1.16
1928	4,104,970	13,246	0.32
Totals, 1920-28		77,737	2.01
Means, 1920-28		8,637	0.21
1929	4,127,480	-8,403	-0.20
1930	4,127,510	-4,922	-0.12
1931	4,132,000	36,125	0.87
1932	4,175,480	9,398	0.23
1933	4,190,960	1,657	0.04
1934	4,198,600	12,225	0.29
1935	4,218,425	12,959	0.31
1936	4,238,400	21,096	0.50
1937	4,265,260	21,938	0.51
1938	4,294,160	42,413	0.99
1939	4,345,150		
Totals, 1929-39		144,486	3.50
Means, 1929-39		14,449	0.34
Boundary Change.			
Year(s)		1931;1934;1935	
Population involved		-330;40;-125	
Other area(s)		Midlands;Midlands,London & S.E.;Midlands	

MIDLANDS

Year	Population	Net Migration	Net Migration as a % of population
1920	5,673,672	-12,277	-0.22
1921	5,736,822	-5,879	-0.10
1922	5,792,374	-18,932	-0.33
1923	5,827,122	-3,533	-0.06
1924	5,873,620	-27,366	-0.47
1925	5,891,090	-33,857	-0.57
1926	5,900,160	19,016	0.32
1927	5,957,770	24,328	0.41
1928	6,019,200	-18,451	-0.31
Totals, 1920-9		-76,950	-1.36
Means, 1920-9		-8,550	-0.15
1929	6,032,750	20,063	0.33
1930	6,083,140	10,320	0.17
1931	6,127,250	-23,503	-0.38
1932	6,132,660	4,982	0.08
1933	6,161,260	-10,619	-0.17
1934	6,173,325	8,056	0.13
1935	6,206,575	12,376	0.20
1936	6,243,443	35,611	0.57
1937	6,303,000	21,771	0.35
1938	6,352,680	34,210	0.54
1939	6,417,810		
Totals, 1929-39		113,267	1.88
Means, 1929-39		11,327	0.18
Boundary Change.			
Year(s)	1931;1934;1935;1936		
Population involved	330;-2,425;125;-173		
Other area(s)	South West;North East;S.W.;S.W.;North West		

NORTH EAST

Year	Population	Net Migration	Net Migration as a % of population
1920	4,755,046	-10,794	-0.23
1921	4,797,748	-10,311	-0.21
1922	4,831,407	-14,665	-0.30
1923	4,855,470	-4,331	-0.09
1924	4,886,350	-14,781	-0.30
1925	4,903,530	-20,717	-0.42
1926	4,914,940	14,278	0.29
1927	4,956,220	-29,251	-0.59
1928	4,951,510	-710	-0.01
Totals, 1920-9		-91,284	-1.92
Means, 1920-9		-10,143	-0.21
1929	4,970,410	21,674	0.44
1930	5,010,450	8,253	0.16
1931	5,039,200	-20,665	-0.41
1932	5,035,050	-10,264	-0.20
1933	5,038,450	-4,046	-0.08
1934	5,048,300	-6,153	-0.12
1935	5,058,100	-14,703	-0.29
1936	5,057,450	-6,238	-0.12
1937	5,064,590	-6,201	-0.12
1938	5,074,560	4,515	0.09
1939	5,095,260		
Totals, 1929-39		-33,828	-0.68
Means, 1929-39		-3,383	-0.07
Boundary Change.			
Year(s)	1934		
Population involved	2,400		
Other area(s)	Midlands		

NORTH WEST

Year	Population	Net Migration	Net Migration as a % of population
1920	5,951,981	-11,964	-0.20
1921	6,002,719	-13,437	-0.22
1922	6,037,531	-10,556	-0.17
1923	6,066,420	5,944	0.10
1924	6,108,720	-16,528	-0.27
1925	6,122,720	-13,380	-0.22
1926	6,138,620	16,567	0.27
1927	6,180,710	-3,069	-0.05
1928	6,200,160	-31,260	-0.50
Totals, 1920-9		-77,683	-1.31
Means, 1920-9		-8,631	-0.14
1929	6,185,990	-30,297	-0.49
1930	6,171,790	-24,851	-0.40
1931	6,165,180	-42,548	-0.69
1932	6,137,300	-8,243	-0.13
1933	6,139,300	-581	-0.01
1934	6,148,800	-3,272	-0.05
1935	6,155,700	-2,181	-0.04
1936	6,161,347	-17,514	-0.28
1937	6,153,000	-2,741	-0.04
1938	6,161,700	-3,445	-0.06
1939	6,170,500		
Totals, 1929-39		-135,671	-2.19
Means, 1929-39		-13,567	-0.22
Boundary Change.			
Year(s)	1936		
Population involved	173		
Other area(s)	Midlands		

NORTH

Year	Population	Net Migration	Net Migration as a % of population
1920	2,536,368	-6,501	-0.26
1921	2,569,285	-2,284	-0.09
1922	2,599,798	-8,085	-0.31
1923	2,621,610	730	0.03
1924	2,651,340	-17,919	-0.68
1925	2,659,630	-26,555	-1.00
1926	2,658,320	-18,905	-0.71
1927	2,661,160	-81,624	-3.07
1928	2,599,000	-19,845	-0.76
Totals, 1920-9		-180,987	-7.14
Means, 1920-9		-20,110	-0.76
1929	2,596,510	-26,067	-1.00
1930	2,587,650	-23,548	-0.91
1931	2,581,650	-15,774	-0.61
1932	2,580,950	-17,251	-0.67
1933	2,577,030	-15,537	-0.60
1934	2,573,350	-21,608	-0.84
1935	2,563,800	-30,143	-1.18
1936	2,545,010	-28,729	-1.13
1937	2,526,310	-13,354	-0.53
1938	2,522,690	-5,951	-0.24
1939	2,526,630		
Totals, 1929-39		-197,963	-7.62
Means, 1929-39		-19,796	-0.77
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

WALES

Year	Population	Net Migration	Net Migration as a % of population
1920	2,627,826	-5,672	-0.22
1921	2,657,659	-632	-0.02
1922	2,686,121	-7,469	-0.28
1923	2,703,999	559	0.02
1924	2,730,170	-16,455	-0.60
1925	2,736,750	-27,204	-0.99
1926	2,731,220	-25,196	-0.92
1927	2,723,560	-50,415	-1.85
1928	2,687,310	-23,085	-0.86
Totals, 1920-9		-155,570	-5.92
Means, 1920-9		-17,286	-0.64
1929	2,677,100	-60,341	-2.25
1930	2,628,870	-46,538	-1.77
1931	2,593,320	-20,072	-0.77
1932	2,581,840	-20,806	-0.81
1933	2,568,100	-20,773	-0.81
1934	2,554,400	-24,338	-0.95
1935	2,537,700	-26,937	-1.06
1936	2,516,880	-42,541	-1.69
1937	2,479,000	-18,161	-0.73
1938	2,465,800	-5,867	-0.24
1939	2,465,200		
Totals, 1929-39		-286,375	-10.70
Means, 1929-39		-28,638	-1.11
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

SCOTLAND

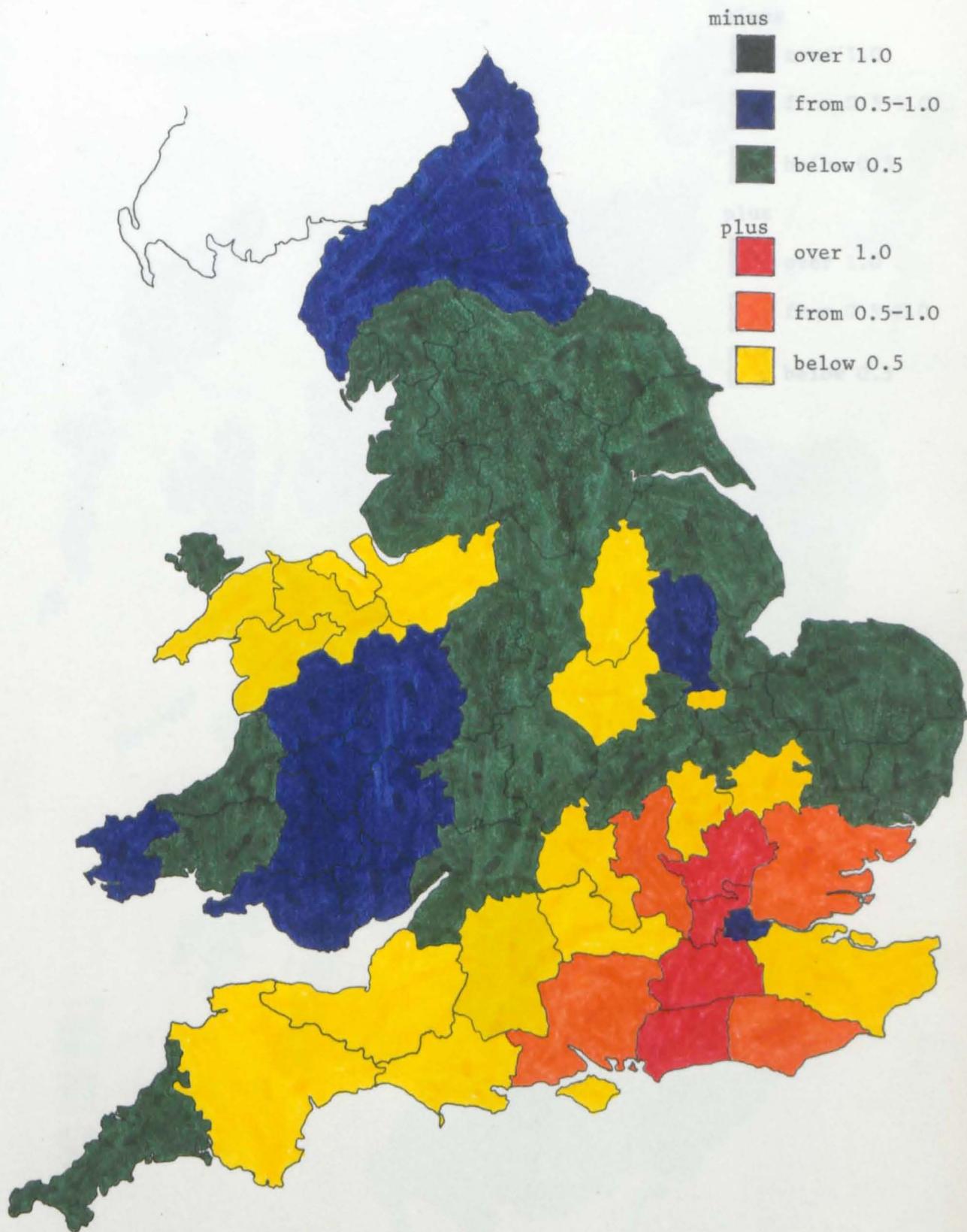
Year	Population	Net Migration	Net Migration as a % of population
1920	4,864,396	-44,814	-0.92
1921	4,882,288	-27,265	-0.56
1922	4,904,456	-49,073	-1.00
1923	4,901,100	-62,440	-1.27
1924	4,881,637	-26,266	-0.54
1925	4,893,032	-35,371	-0.72
1926	4,896,638	-39,758	-0.81
1927	4,891,953	-30,130	-0.62
1928	4,893,182	-36,098	-0.74
Totals, 1920-9		-351,214	-7.22
Means, 1920-9		-39,024	-0.80
1929	4,884,032	-64,554	-1.32
1930	4,845,886	-32,451	-0.67
1931	4,842,554	14,261	0.29
1932	4,883,000	5,778	0.12
1933	4,912,000	-1,069	-0.02
1934	4,934,291	-5,741	-0.12
1935	4,952,510	-8,768	-0.18
1936	4,966,302	-10,075	-0.20
1937	4,976,610	-5,405	-0.11
1938	4,993,126	-10,433	-0.21
1939	5,006,689		
Totals, 1929-39		-118,455	-2.43
Means, 1929-39		-11,846	-0.24
Boundary Change.			
Year(s)			
Population involved			
Other area(s)			

APPENDIX 3

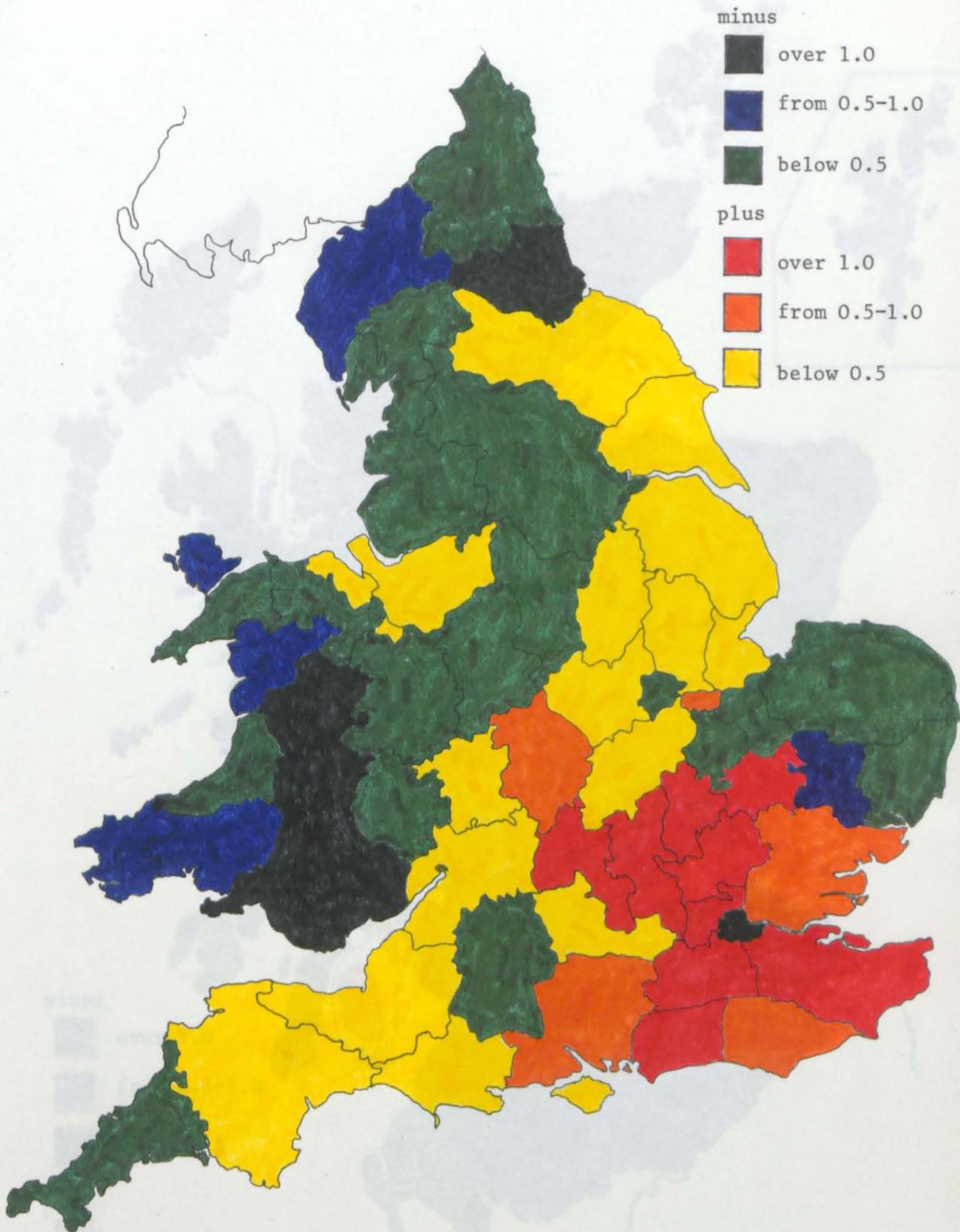
Maps showing Net Migration

These are based on the data tables found in Appendix 2. A number of other maps could be presented on this basis, for example, for regional aggregates or for different time periods. It was felt, however, that only the most instructive maps should be included in the thesis. There is also a risk that the inclusion of a plethora of maps would destroy the impact of the more notable ones, shown here.

- Map 1 Net Migration as a Percentage of County Population.
 England & Wales, Yearly Mean, 1920-1929
- Map 2 Net Migration as a Percentage of County Population.
 England & Wales, Yearly Mean, 1929-1939
- Map 3 Net Migration as a Percentage of County Population.
 Scotland, Yearly Mean, 1920-1929
- Map 4 Net Migration as a Percentage of County Population.
 Scotland, Yearly Mean, 1929-1939

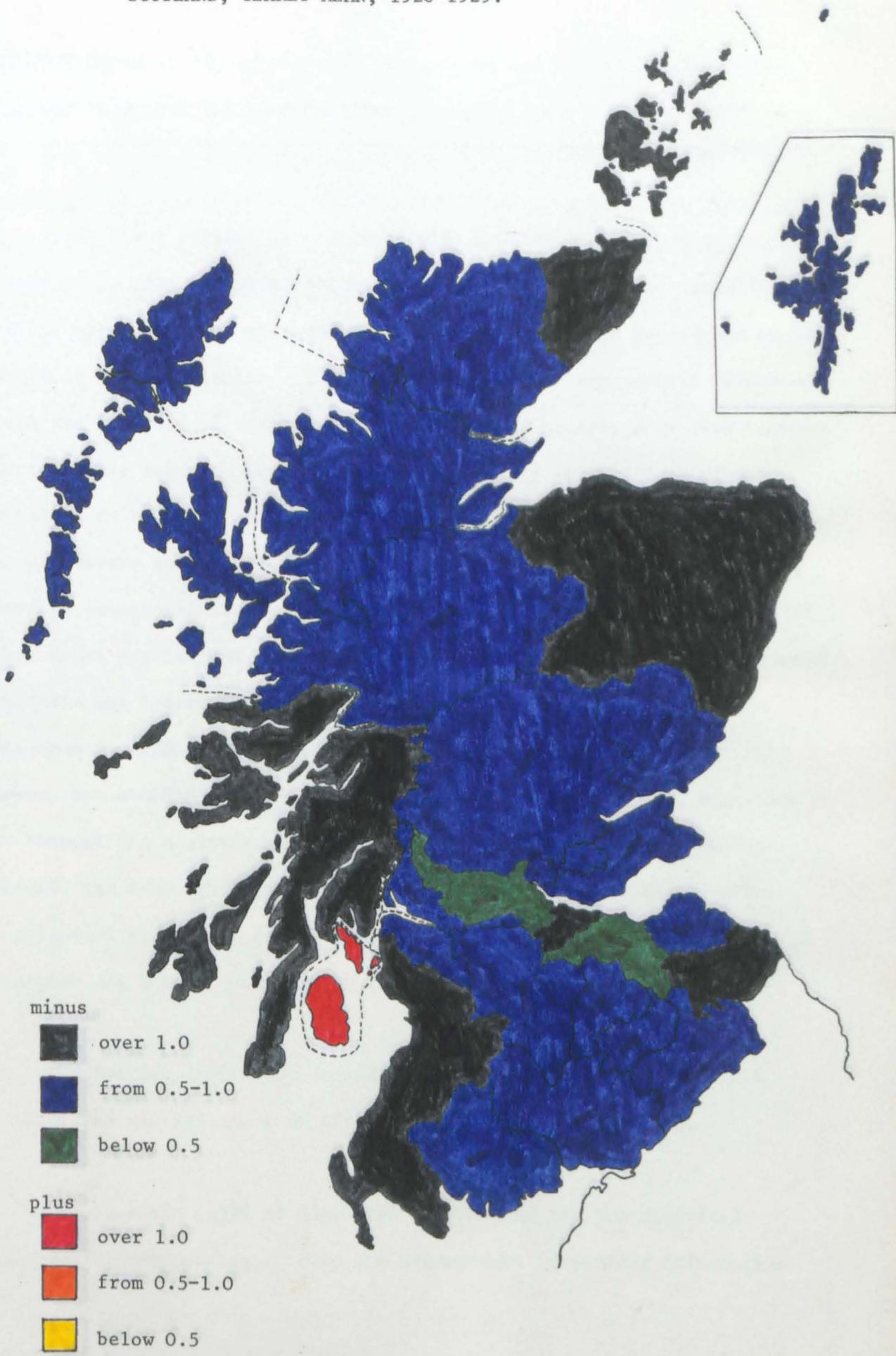


Source: Calculated from the Annual Statistical Reviews of the Registrar-General for England & Wales.

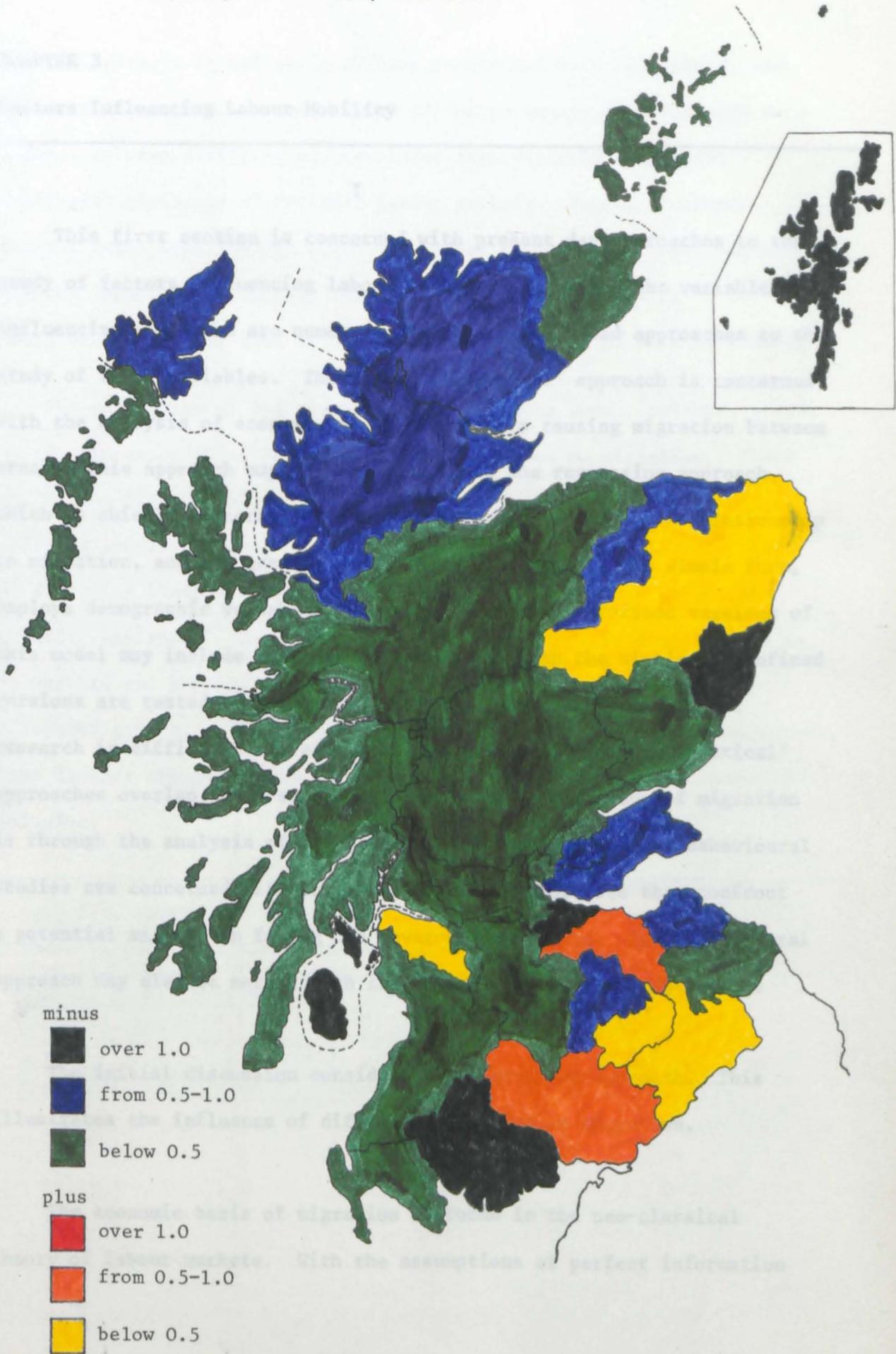


Source: Calculated from the Annual Statistical Reviews of the Registrar-General for England & Wales.

NET MIGRATION AS A PERCENTAGE OF COUNTY POPULATION,
SCOTLAND, YEARLY MEAN, 1920-1929.



Source: Calculated from the Annual Reports of the Registrar-General
for Scotland.



Source: Calculated from the Annual Reports of the Registrar-General for Scotland.

CHAPTER 3

Factors Influencing Labour Mobility

I

This first section is concerned with present day approaches to the study of factors influencing labour mobility. Although the variables influencing migration are numerous, there are two broad approaches to the study of these variables. The 'macro-theoretical' approach is concerned with the analysis of economic and other factors causing migration between areas. This approach may be subdivided into the regression approach, which is chiefly concerned with economic variables and their relationship to migration, and the gravity model approach, which in its simple form, employs demographic variables to explain migration. Refined versions of this model may include economic variables and both the simple and refined versions are tested by regression analysis. The categorization of research is difficult, therefore, as the different 'macro-theoretical' approaches overlap. The second main approach to the study of migration is through the analysis of the behaviour of the individual. Behavioural studies are concerned with the decision-making processes that confront a potential migrant on facing the mover-stayer choice. This behavioural approach may also be merged with the 'macro-theoretical' approaches.

The initial discussion considers the regression approach. This illustrates the influence of different variables on migration.

The economic basis of migration is found in the neo-classical theory of labour markets. With the assumptions of perfect information

about all markets in all regions, homogeneous and rational labour, and zero migration costs, inter-regional labour movements may be viewed as a response to wage differentials resulting from disturbances in the equilibrium positions of regional labour markets. Hence, the basic economic model sees the direction and volume of migration dependent upon wage and income differences. Indices of employment growth or unemployment might be used as a proxy for the absence of data on income.

The relaxation of the restrictive assumptions above, however, allows the consideration of other variables as influences on migration. These include the flow of information on opportunities in different areas, the differing industrial (and socio-cultural) structures of the areas, and the differing elasticities of response of the multifarious groups of potential migrants.¹ They also include various other influences such as the psychic and physical costs of moving, the attraction of rapid employment growth, of favourable climate or of relatively low unemployment. These factors are not exhaustive, neither are they necessarily mutually exclusive.²

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1. Age, sex, skill, family size, occupational grouping, etc..
 2. These introductory paragraphs are indebted to many accounts, among them, T.P.Lianos, 'The Migration Process and Time Lags', Journal of Regional Science, 12 (1972); H.W.Richardson, Regional Economics (1969), pp.295-304; R.A.Hart, 'The Economic Influences on Internal Labour Force Migration', Scottish Journal of Political Economy, 19 (1972); R.L.Welch, Migration Research and Migration in Britain (Birmingham, 1970).

There are a number of studies that see migration as a function of income differences between areas.³ With this explanatory variable, as with others, the common approach is to incorporate an income variable in a regression equation of migration on explanatory variables. Other variables, such as employment growth, relative unemployment or migrant stock may be analysed in a similar manner.⁴

Current British research in this framework reveals a number of important influences on migration. A recent study based on gross migration data suggests that new industrial building per capita and the proportion of service industry employment in each region are important predictors of those gross migration flows not accounted for by the simple gravity model at the regional level.⁵ Another study using the same data finds that the most significant variable in a regression analysis is a 'job availability component'.⁶ Elsewhere, Oliver concluded on the basis of the now

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3. For example, R.L. Raimon, 'Interstate Migration and Wage Theory', Review of Economics and Statistics, 44 (1962); T.P.Lianos, op.cit.; L.A. Sjaastad, 'The Relationship between Migration and Income in the United States', Papers and Proceedings of the Regional Science Association, 6 (1960). Many models include an income variable amongst the independent variables, for example, A.Rogers, 'A Regression Analysis of Interregional Migration in California', Review of Economics and Statistics, 49 (1967) and I.S.Lowry, Migration and Metropolitan Growth: Two Analytical Models (San Francisco, 1966).
 4. For example, see R.A.Hart, op.cit.; F.R.Oliver, 'Interregional Migration and Unemployment, 1951-61', Journal of the Royal Statistical Society, Series A, 127 (1964); M.J.Greenwood, 'An Analysis of the Determinants of Geographic Labour Mobility in the U.S.', Review of Economics and Statistics, 51 (1969); M.J.Greenwood, 'Lagged Response in the Decision to Migrate', Journal of Regional Science, 10 (1970).
 5. See R.A.Hart, 'A Model of Inter-regional migration in England and Wales', Regional Studies, 4 (1970). Most movement was between prosperous regions. The concept of the gravity model was introduced in Chapter 2.
 6. A.B.Jack, 'Inter-regional Migration in Great Britain: Some Cross-Sectional Evidence', Scottish Journal of Political Economy, 18(1971).

discredited⁷ National Insurance data, that total migration was best explained by relative unemployment and a regional dummy variable.⁸ The more recent work of Hart, again using census data, finds that net migration (aggregated from gross figures) is best explained at the county level by relative employment growth.⁹ Finally, Weeden finds from the same data that net migration at the regional level is best explained by the availability of job opportunities as reflected in observed unemployment rates.¹⁰ Current British research settles for some measure of relative job opportunities as the paramount influence on migration within a regression analysis framework. At the regional level, unemployment may be taken as a proxy for employment opportunities, whilst at the county level, unemployment is less suitable than employment growth.

Apart from the simple regression of migration on various economic variables, this approach can be combined with the gravity model, as evidenced by some of the recent British research. A simple form of this

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7. See Ministry of Labour Gazette, 76(1968), 120.
 8. Oliver, op.cit. A.B.Jack also used this data to examine regional migration. A.B.Jack, 'A Short-Run Model of Inter-regional Migration', Manchester School, 38(1970). For a definition of the term 'dummy variable', see J.Johnston, Econometric Methods (New York, 1972), pp.176,7.
 9. R.A.Hart, 'The Economic Influences on Internal Labour Force Migration', op.cit.
 10. R. Weeden, 'Inter-regional Migration in Britain'. Paper presented to the Urban Studies Conference, Oxford, 14-16 Sept.1972. (This paper is summarized in A.J.Brown, The Framework of Regional Economics in the United Kingdom (Cambridge, 1972), pp.261-3.)

model was noted in Chapter 2.¹¹ The evolution of this concept has been described by Carrothers.¹² A general expression of this model would be,

$$M_{ij} = \lambda \frac{w_i (P_i)^\alpha \cdot w_j (P_j)^\beta}{D_{ij}^v}$$

where, M_{ij} = gross migration from region i to region j,

P_i, P_j = some measure of mass in regions i and j,

for example, population,

w_i, w_j = regional weights, for example, unemployment rates,

D_{ij} = distance between i and j.

The many non-demographic influences on migration may be incorporated in the regional weights or in the exponents. Some obvious possibilities of an economic character have been suggested in the definitions of the algebraic components of the model. The alternatives for the denominator require a brief elaboration. Physical distance between the two regions is one value that might be used, representing travel and removal costs of the migrant and his family or the flow of information about opportunities in distant areas. Other factors to be considered are the role of 'social' or 'psychic' distance, reflecting the different socio-cultural characteristics of different areas and the strength of

11. supra, fn.13.

12. G.A.P. Carrothers, 'An Historical Review of the Gravity and Potential Concepts of Human Interaction', Journal of the American Institute of Planners, 22(1956). Also see, W. Isard, Methods of Regional Analysis (Cambridge, Massachusetts, 1960), pp.67-9, 493-544.

immediate environmental and family ties, or of Stouffer's 'intervening opportunities'.¹³ It seems that whatever indicator of distance is used, it is bound to represent a variety of influences of distance on mobility. The choice of one index rather than another would depend on the objectives of the investigator.

Once the gravity model has been quantified it can be transformed to log-linear form and incorporated in a regression analysis, either in whole, as in Hart's earlier study which is concerned to explain the variance in migration that the unweighted gravity model fails to pick up, or so that the coefficients of each of its components can be determined. For example, the latter course would give us,

$$\log M_{ij} = \log \lambda + \alpha \log w_i(P_i) + \beta \log w_j(P_j) - \nu \log D_{ij} \quad (2).$$

So far migration has been seen as a function of the various characteristics of particular areas in a static framework. The constants of the various models express the elasticity of movement with respect to particular variables. This will suggest the volume and direction of migratory flows but not the timing of response. That is, it may be the case that the greater the unemployment difference between region i and region j, the greater the expected migration. However, this is not

13. S.A. Stouffer, 'Intervening Opportunities: A Theory Relating Mobility and Distance', American Sociological Review, 5(1940). This states that, "the number of persons going a given distance is directly proportional to the number of opportunities at that distance and inversely proportional to the number of intervening opportunities". Some empirical support has been found for this hypothesis, for example, see Isard, op.cit. pp. 538-41, and most recently, E. Miller, 'A Note on the Role of Distance in Migration: Costs of Mobility versus Intervening Opportunities', Journal of Regional Science, 12(1972).

to say that this migration ought to be expected within the same time-span as is under consideration. There are a number of lags to consider. If a 'push-pull' distinction is made then it might be hypothesized that in a region i , suffering severe structural depression, there is created a group of potential migrants. Potential migrants will then become actual migrants when conditions in the potential receiving areas become favourable and they have broken down the barriers to the realization of their movement potential. Such barriers might include the various costs of moving or the flow of information.¹⁴ Thus, the trade cycle will combine with lagged responses to affect the timing of movements.

The influence of cyclical variations is recognized by the inclusion in models of variables measuring employment opportunity. Lagged responses may be measured by the denominator, D_{ij} , in the gravity model. Specific allowances have also been made for response lags. Ruth Fabricant postulates that movements are a function of the expected excess demand for labour gap between regions and introduces a barrier function to allow for the relative slowness of response to an incentive to migrate.¹⁵ Lianos constructs a model where current migration is seen to be a function of a stock of potential migrants which is in turn a product of past wage differentials between regions.¹⁶

14. Of course, as conditions improve in the potential receiving areas, so it is probable that conditions would also improve in the region of origin. Thus, there will be leakages out of the group of potential migrants.

15. R.A. Fabricant, 'An Expectational Model of Migration', Journal of Regional Science, 10(1970).

16. Lianos, op.cit.

The flow of information and the reduction of uncertainty concerning potential locations is a principal factor in causing these delays.¹⁷ One source of information flows is the stock of previous migrants in a potential receiving area. Greenwood argues that a failure to include a migrant stock variable in a regression analysis results in the direct influences of other variables being biased by picking up the influence of these past flows. Return migration is another source of such information. Return migrants, themselves, will be differently affected by these factors that elsewhere lead to uncertainty and lags in response. For them, the cost of movement is likely to be less, both in real and other terms. Perceived opportunities are likely to more closely approximate actual opportunities as information flows are superior.¹⁸

The discussion of the timing of migration has introduced an approach to migration analysis where the 'macro-theoretical' and behavioural approaches overlap. The consideration of social networks at the level of the individual lead to macro-models incorporating the influences of such factors. The failure of a macro-model to be an efficient predictor may lead the investigator to analyse influences at a disaggregated level to account for the disparity between his expectations and observations of reality. However, before leaving the consideration of lags the more common practice in research should be noted. This conceals lag structures in the quantification of the variables. In Hart's study of

17. M.J.Greenwood, 'An Analysis of the Determinants of Geographic Labour Mobility in the U.S.', op.cit.; M.J.Greenwood, 'Lagged Response in the Decision to Migrate', op.cit. Also see, P.Nelson, 'Migration, Real Income and Information', Journal of Regional Science, 1(1959).

18. These effects have been incorporated into a model of Canadian migration. See, J.Vanderkamp, 'Interregional Mobility in Canada: A Study of the Time Pattern of Migration', Canadian Journal of Economics, 1 (1968).

inter-regional migration, for example, explanatory variables are taken for the ten year period preceding the migration. A similar course was taken in Hart's study of county migration. From such a practice it can be concluded that past experience is a significant factor in migration decisions, yet it does hide the lagged structure of the push-pull interaction.¹⁹

Another field of particular interest is the differentiation of migration by categories of sex, age or skill. Again, the behavioural and 'macro-theoretical' approaches intertwine. The 'macro-theoretical' approach may be applied to various groups of the population but such attempts are rare, possibly because of data difficulties.²⁰ The only differentiation of any frequency is to analyse regions independently, perhaps after the formulation of a national model and with the objective

19. Lags in the migration process may also be hidden by estimating migration over a period as a function of explanatory variables at the beginning of the period, for example, P.Drewe, 'Steps Towards Action-Oriented Migration Research', Papers and Proceedings of the Regional Science Association, 26 (1971). Weeden's data are averages for the period 1961-6.

Of course, the failure to include lagged relationships between variables over time, may be a result of the difficulty in specifying such interrelationships and the least squares bias inherent in postulating migration as a function of unemployment or income. For example, see J. Johnston's comments on Oliver, op.cit. and W.F.Mazek, 'Unemployment and the Efficacy of Migration: The Case of Laborers', Journal of Regional Science, 9(1969). However, the use of average values may lessen the forecasting value of a model. See, A.Rogers, op.cit.

20. Oliver, op.cit. does differentiate between male and female migration. Weeden confines himself to the male population aged 15-64. For a recent study on U.S. data see, C.E.Trott, 'Differential Responses in the Decision to Migrate', Papers and Proceedings of the Regional Science Association, 28(1972) cf. Rogers, op.cit. and A.Rogers, Matrix Analysis of Interregional Population Growth and Distribution (California, 1968), pp.92-110.

of examining divergencies in terms of local characteristics of the population and economy.²¹

Behavioural studies are now examined. Given the variety of influences on migration, macro-models cannot hope to achieve generality. Further, they do not reveal very much about the actual process of decision-making and migration. Consequently, a number of studies have begun at this end of the spectrum. One means is to view migration as an investment, arguing that the higher the expected rate of return on a move, the more likely that move will be made.²² Another deals with the 'friends and relatives effects', which has been discussed in analysing the time-pattern of migration. There are also a number of probability approaches to migration that lead on to the construction of simulation models.²³ One attempt in this area has concerned the interaction of duration of residence and age in influencing the likelihood of migration.²⁴ These latter approaches are relatively recent and promise a better explanation of the actual processes underlying the aggregates that are generally

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21. See Oliver, op.cit.; R.A.Hart, 'The Economic Influences on Internal Labour Force Migration', op.cit.
 22. L.A.Sjaastad, 'The Costs and Returns of Human Migration', Journal of Political Economy, 70 (1962); S.Bowles, 'Migration as Investment: Empirical Tests of the Human Investment approach to Geographic Mobility', Review of Economics and Statistics, 52(1970); Vanderkamp, op.cit.
 23. J.Wolpert, 'Behavioral Aspects of the Decision to Migrate', Papers and Proceedings of the Regional Science Association, 15(1965), 159-60.
 24. P.A.Morrison, 'Duration of Residence and Prospective Migration: The Evaluation of a Stochastic Model', Demography, 4(1967); K.C.Land, 'Duration of Residence and Prospective Migration: Further Evidence', Demography, 6(1969).

described by gravity models and various socio-economic variables. A better synthesis of the 'macro-theoretical' and behavioural approaches is the next objective of current work in this field.

Finally, a postscript on the interdependence of commuting and migration is necessary.²⁵ The net migration data of Chapter 2 is based on changes of residence, and so at the sub-regional level many counted migration moves will have been motivated by factors not covered in the previous discussion. For example, suburban migration may be motivated by the desire for a better environment, a suburban home or greater access to open space. Such a move may not involve a change in employment location and will not be related to the variables suggested such as income, employment growth or relative unemployment. Similarly, communities suffering from relatively high unemployment may experience 'out-commuting' as well as out-migration and thus any model that ignores these influences will over-predict migration movements.

II

Contemporary research is now examined. Section I has shown that not only are there a number of separate and complementary approaches to the analysis of factors leading to migration, but that there are a great number of possible influences. Such influences are evident in this historical context. Some contemporary comments will be presented before proceeding to describe the principal model-building attempts of the period.

25. L.Yapa, M.Polese, J.Wolpert, 'Interdependencies of Commuting, Migration and Job Site Relocation', Economic Geography, 47 (1971); J.H.Holmes, 'Linkages between External Commuting and Out-Migration: Evidence from Middle-Eastern Pennsylvania', Economic Geography, 48(1972).

Jewkes and Winterbottom observed that out-migration from Cumberland and Furness was heaviest where unemployment percentages were high.²⁶ In South Wales in the 1920's, rates of population loss by migration varied with the severity of depression within the area which in turn was determined by the geographical distribution of various coal resources.²⁷ In Lancashire, migration loss also varied with the severity of unemployment.²⁸ It was widely accepted that unemployment was a 'push' factor, or at least was acting as a proxy for the effects of economic depression.²⁹ "In general, the more depressed the region the greater the tendency to emigrate."³⁰

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26. J.Jewkes and A.Winterbottom, An Industrial Survey of Cumberland and Furness (Manchester,1933),p.27.
 27. Board of Trade, An Industrial Survey of South Wales, (by the University College of South Wales and Monmouthshire) (1932), Appendix 2,p.7.
 28. Board of Trade, An Industrial Survey of Lancashire, (by the University of Manchester) (1932),p.85 cf. J.Jewkes, 'Mobility of Labour and the Localisation of Industry', Transactions of the Manchester Statistical Society (1932-3),114.
 29. See also, North East Development Association, Migration: A Study of Movement of Population and its effects on the North East (Newcastle,1950),p.13 ; A.D.K. Owen, 'Social Consequencies of Industrial Transference', Sociological Review, 29 (1937),333 ; J.Jewkes, op.cit. p.112.
 30. R.M.Titmuss,Poverty and Population: A Factual Study of Contemporary Social Waste (1938),p.281.

The attractive power of the receiving regions was thus seen in terms of the relative absence of depression and unemployment. A more favourable industrial structure and faster growth provided expanding opportunities for employment. Movement was also related to the trade cycle; neither spontaneous migration nor the Government's Transference policy³¹ could be pursued when cyclical depression had the effect of making absorption into the active labour force of the receiving areas more difficult. For example, Jewkes and Winterbottom noted that a general improvement of conditions in the country would enable transference policy to make inroads on the problems of surplus labour.³² There was less inclination to move southwards when depression was widespread, but with differing regional rates of recovery, the volume of inter-regional migration increased.³³ As Owen put it, "in times of general depression most people tend to stay at home even though they may be living in particularly distressed areas. In times of returning general 'prosperity' many people living in areas which are still relatively depressed tend to seek their fortunes elsewhere".³⁴ Such observations applied to assisted migrants in particular as the Government's scheme was dominated by movements to definite vacancies.³⁵

31. infra, Chapter 4.

32. Jewkes and Winterbottom, *op.cit.* p.39.

33. Titmuss, *op.cit.* p.282.

34. Owen, *op.cit.* p.336

35. infra, Chapters 4,5.

If the respective attractive and repelling forces seemed clear to contemporaries, this was even more true of their appreciation of the factors which lessened the flow of migrants between areas. It was in response to these inhibitory factors to migration that the Government's transference scheme was initiated.³⁶ If the volume of movement could be made greater, then more progress towards the elimination of disparities in regional unemployment would be achieved. Thus, assistance in the form of loans and grants towards travelling and removal expenses, assistance in finding employment and lodgings, subsidies towards juvenile wage rates and various training schemes all represented attempts to overcome particular factors that deterred migration at the margin. These forms of encouragement might all be related to the sorts of influences that were discussed in section I. Assistance with the costs of movement did something to reduce the strength of the inverse relation between migration and distance. The facilities of the Employment Exchange service did much to remove uncertainty, at least in respect of employment opportunities. Further, training schemes could adapt workers to new occupations and remove the deteriorating effects of long unemployment on the individual which made him less suitable for employment and less willing to consider such opportunities.

Distance, age, sex, family ties, skill and the distribution of alternative opportunities were all seen as influences on migration. The importance of the distance factor is illustrated by the fact that of the in-migrants to Oxford by July 1936, 4,154 had originated within

36. infra, Chapter 4.

50 miles of the city, 3,292 between 50 and 100 miles and 2,222 from areas over 100 miles away.³⁷ In other cases, occupational similarities linked areas together despite the distance between them. One such instance was the migration of coal miners from various northern pits to the Kent coalfield. The University College of South Wales and Monmouthshire noted a number of inhibitory factors to migration.³⁸

"It is clear that since so great a volume of migration and transfer has already taken place, the surplus which still remains within the region must consist largely of persons whom it is especially difficult to transfer. Married men with dependents; men who own their own houses; men and women who do not possess the youth and energy or the robust self-confidence which would help them to uproot themselves from familiar surroundings and settle among strangers; Welsh speaking persons who would find themselves in an alien environment in England; men whom prolonged unemployment has rendered physically unfit to take up regular work . . ."

Brinley Thomas also listed impediments to migration within the South Wales coalfield and contrasted this to mobility in Lancashire.³⁹

Unemployment benefit was found to be a common factor. Generally, poor relief and unemployment benefit were thought to be factors contributing to immobility.⁴⁰ Another general influence was the housing shortage in the non-depressed areas, which by putting prices and rents up, operated

37. Survey of the Social Services of Oxford and District (1938-40) 1,p.55,pp.290-4.

38. Board of Trade, An Industrial Survey of S.Wales,op.cit. pp.152-3.

39. B.Thomas, 'Labour Mobility in the South Wales and Monmouthshire Coal Mining Industry, 1920-30', Economic Journal,41 (1931); J.Jewkes and H.Campion, 'The Mobility of Labour in the Cotton Industry', Economic Journal, 38 (1928).

40. For example, Industrial Transference Board. Report (Parl. Papers, 1928, X),p.18 ; S.R.Dennison, The Location of Industry and the Depressed Areas (1939),p.186.

against the likelihood of more permanent transfer, that of families.⁴¹ Higher rents in Kent than in older mining areas was one factor amongst those inhibiting transfer between coalfields.⁴² House ownership was another impediment.⁴³ However, the Ministry of Labour doubted whether the housing shortage was an obstacle to the success of its schemes, except in a few cases. It observed that "the great majority of the families we transfer are able to find accommodation without special difficulty".⁴⁴

A variety of factors tended to make migration difficult. A factor that tended on occasion to make it easier were influences of the 'friends and relatives type', affecting information flows and the degree of certainty.⁴⁵ In Chapter 9 information flows are illustrated where the net result for migration was, in the first cases, to inhibit it, and in the second, to encourage it. Uncertainty may be diminished with the flow of information, but that information may not be in favour of migration. For example, the following is a letter from a trainee in a Government Training Centre in the south to a member of the sample population covered by the Pilgrim Trust Unemployment Inquiry.

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41. P.R.O. Industrial Transference Scheme - General Review 1938 LAB 8/218.
 42. P.R.O. East Kent Coalfield. Recruitment of Labour and Conditions in the Coalfield. LAB 2/1298/ITB 120.
 43. House ownership was not found to be an impediment in Crook. Pilgrim Trust, Men Without Work (Cambridge, 1938), p.79.
 44. P.R.O. Scheme for body to build or acquire houses for purpose of assisting family transference. LAB 23/139.
 45. P.R.O. Industrial Transference Scheme - General Review, op.cit. Of course, such information flows might also deter migration, for example, the case of the Snowdown Colliery in Kent.

"You'll think I've been a long time writing but I've had a lot to write home. I hope you are keeping well and having a bit better luck. Don't think of coming down here, its lousy. The bloke who came down with me has gone home, I am supposed to be learning sheet metal work, and I've been here 6 weeks and I can't make a blacking tin yet. You'd be surprised if you were down here. They say they can get a 3 quid a week job any time, but don't believe it, one chap went after a job to a brick ground and they offered him 30s. a week to work 12 hours a day. We get decent food at our digs but we haven't much room to eat it, there are 11 of us round a table made for 6. Well, Jim, I've been wondering how you going on at . . . , have they won the cup. There are 800 men down here and I haven't seen one from . . . yet. I have been teetotal here, the beer's wicked we go to the pictures nearly every night. Well Jim don't advise anyone to come. When a chap has done his 6 months they find some of them jobs but there isn't one out of ten lasts a month and then they only get ten pence an hour. Well Jim, I can't find any more to say, so I will close wishing you, the best of luck, and hoping you give Littlewoods a tanning."⁴⁶

Returnees could be similarly discouraging. A Liverpool mother reported to the Inquiry that, "my girl was offered a post as canteen worker in London but I did not dare let her go because a girl from the neighbouring house went there, was seduced, and is now home with the baby".⁴⁷

In contrast, the information flow might be conducive to further migration. Hare and Michaels noted that "when a person moves to London from the country, the part of London to which he goes seems very often to be determined by the fact that relatives or friends already live there".⁴⁸ Again, the Ministry of Labour were aware of this sort of connection.

46. Pilgrim Trust, op.cit. p.226.

47. ibid. p.262.

48. London School of Economics, The New Survey of London Life and Labour (1934), 6, p.239.

"For example, it was stated that one family which had been removed from Cwmaman . . . had been responsible for the removal of 36 other families from Cwmaman to that district."

"An applicant from Heywood, Lancs. who had been placed on a job in Birmingham, was stated to have been promoted foreman of that job and to have been instrumental in securing the transfer of from 80 to 100 men from Heywood to that job during the course of a year."⁴⁹

Contemporaries were aware of the principal factors encouraging migration and of those influences which inhibited migratory flows. Both 'macro-theoretical' and behavioural influences on migration were acknowledged. The attempts to incorporate these influences in models of migration such as those shown in section I were carried out predominantly at the Institute of Statistics at Oxford. This work needs to be described at some length. Its conclusions are important as they suggest the factors underlying the differing patterns of labour movement described in Chapter 2. Even if an explanation of the factors influencing labour mobility were the principal objective of this thesis, then the existence of this work would tend to make an involvement in model-building to explain past labour movements unnecessary.

A study based on migration into Oxford was the starting point of this important work.⁵⁰ It was expected, ceteris paribus, that migration into Oxford would be greater, the greater the difference in

49. P.R.O. Industrial Transference Scheme - General Review, op.cit.

50. H.Makower, J.Marschak, H.W.Robinson, 'Studies in Mobility of Labour: A Tentative Statistical Measure', Oxford Economic Papers, No.1 (1938).

prosperity between Oxford and other areas. Unemployment rates were selected as an index of prosperity.⁵¹ But an allowance had to be made for differences in "potential migrants" between areas; a more complex relation than one simply relating differences in unemployment with differences in migration was necessitated.⁵²

Thus where,

M = no. of in-migrants from a given county to Oxford each year,

a = no. of insured workers in the county,

b = no. of insured workers in Oxford,

ua = annual average unemployed amongst county's insured workforce,
and,

ub = annual average unemployment amongst Oxford's insured workforce,

then, a

$$\text{coefficient of mobility, } \lambda = \frac{M ub}{(ua-ub)ab} \dots (3).$$

This may be rearranged to give migration as the left-hand term of the equation. That is,

$$M = \lambda \frac{(ua-ub)ab}{ub} \dots (3a).$$

Further, an attempt was made to include a distance variable in the model as it was clear that the mobility coefficient varied with distance from Oxford.⁵³ Thus where,

51. Other indices were considered. *ibid.* pp.89-92, including earnings disparities.

52. For example, equal unemployment rates in Rutland and Lancashire would not lead us to expect equal migration. *ibid.*p.93.

53. The correlation coefficients on the basis of different data on migration were 0.82 and 0.72 and the regression coefficients, measuring the influence of distance on mobility, were between 1.6 and 2.1, showing that the influence was not very different from year to year or as between types of labour. H.Makower et al, *op.cit.*pp.100,106.

D^V = distance of the county from Oxford with the exponent equal to the regression coefficient of mobility on distance, then,

$$\mu = \frac{M \text{ ub } D^V}{(ua-ub) ab} \quad . . . (4)$$

In terms of migration this expression becomes,

$$M = \mu \frac{(ua-ub) ab}{ub D^V} \quad . . . (4a),$$

which is a variant of the simple gravity model discussed in section I.

This model was fitted with data on migration to Oxford. Women were less mobile than men,⁵⁴ but not necessarily any more deterred by the influence of distance.⁵⁵ The mobility of those unemployed for over twelve months amongst Welshmen was about half that of the rest of the unemployed.⁵⁶ It was shown that Owen's hypothesis on the impact of the trade cycle on migration could be supported.⁵⁷ The introduction of lags into the models of mobility suggested that the appropriate time-lag between the incentive to move and migration was less than six months. The examination of abnormally high or low mobilities revealed that counties with low mobilities had a high proportion of textile workers,

54. *ibid.* pp.107,109. This conclusion only held if female movement was compared with total unemployment rates; the justification being that women's decisions were based on family considerations.

55. *ibid.* p.109.

56. *ibid.* p.110.

57. *supra*, fn.34.

of workers in metal industries or mining and a low proportion of workers in agriculture, personal service, building and public administration.⁵⁸ Generally, the analysis of occupational structures suggested that migration was less likely from groups with highly specific skills and more likely from other groups to whom Oxford's motor industry offered an attraction with its automation and process-construction.⁵⁹

Armed with this methodology and conclusions specific to migration into Oxford, a national study was then made.⁶⁰ The terms of model (3) were redefined in accordance with a study of net migration between counties and divisions.⁶¹ A relationship was found between moves and the incentive term for each year, 1927-36. At the county level it was concluded "that long period variations in relative unemployment over time do lead to similar variations in percentage migration, but that for most counties this relation does not always hold good for year-to-

58. *ibid.* pp.114,116.

59. *ibid.* p.116. Also see the comments on migration to the State of Michigan in B.Okun and R.W.Richardson, 'Regional Income Inequality and Internal Population Migration', Economic Development and Cultural Change, 9 (1961), reprinted in J. Friedmann and W.Alonso (eds), Regional Development and Planning: A Reader (Cambridge, Massachusetts, 1964), p.316.

60. H.Makower, J.Marschak, H.W.Robinson, 'Studies in Mobility of Labour: Analysis for Great Britain, Part I', Oxford Economic Papers, No.2 (1939); H.Makower, J.Marschak, H.W.Robinson, 'Studies in Mobility of Labour: Analysis for Great Britain, Part II', Oxford Economic Papers, No. 4 (1940). (referred to subsequently as OEP 1939 and OEP 1940).

61. OEP 1939, p.80. For example, M now becomes net migration and this is related to unemployment within the county and unemployment in the rest of the country. Because of the inability to specify origins and destinations, a distance variable was not incorporated in this model.

year fluctuations".⁶² A similar relationship was found at the Ministry of Labour Divisional Area level. The best relationship was found when a six month lag was introduced between the incentive and migration.⁶³ The analysis of movements for given periods of time showed, in the case of county movements, that migration was proportional to the incentive to move and that average mobility was slightly less 1931-6 than 1927-31. In contrast, in the case of Ministry of Labour regions, a threshold existed where in spite of some incentive to move, no migration occurred. It was thought that "for 'long distance' movements a large initial push is necessary to start migration, whereas for 'short distance' movements migration starts more easily".⁶⁴ The examination of the impact of distance at the national level revealed that it was the major influence on differing mobilities between regions.⁶⁵ The impact of differing industrial structures was examined and it was shown that Northumberland and Durham men had higher mobilities for areas with a high percentage of the workforce engaged in mining and metal industries.⁶⁶ Coal miners most easily moved to other types of mining, brick and tile and metal industries.⁶⁷ Thus,

62. *ibid.*p.83.

63. *ibid.* pp.83-5. The character of the data involves a possible lag of between six and eighteen months as the incentive statistics are annual averages.

64. *ibid.* p.90.

65. OEP 1940, p.41.

66. *ibid.*p.47.

67. *ibid.*pp.49,50.

relative unemployment was found to be an influence on migration, as was distance. As with the Oxford study, migration varied with the trade cycle so that the impact of depression was to lessen mobility, particularly over long distances. The significance of industrial structures for spatial movement patterns was again seen, but nothing could be added on the influence of age and sex on migration, although the direction of impact was well known.

A number of complementary studies expanded and reinforced these conclusions. Daniel examined Welshmen in Oxford to determine the impact of various factors on the delay that occurred between becoming unemployed and finding new employment.⁶⁸ The same author also analysed the influence of age on migration.⁶⁹ A variety of accounts dealt with the question of lags between a given incentive to migrate and the actual movement and its variation over the trade cycle.⁷⁰

68. G.H.Daniel, 'Some Factors Affecting the Movement of Labour', Oxford Economic Papers, No. 3 (1940).

69. G.H.Daniel, 'Labour Migration and Age Composition', Sociological Review, 31 (1939). The Industrial Transference Board had considered that older workers were likely to be less mobile. Industrial Transference Board. Report, op.cit.p.32. Also see R.Titmuss, op.cit. pp.284-5; North East Development Association, op.cit.p.11.

70. R.S.Walshaw, Migration to and from Merseyside (Liverpool, 1938); Owen, op.cit. p.336 ; R.S.Walshaw, 'Time Lag in the Recent Migration Movements within Great Britain', Sociological Review, 30 (1938) ; OEP 1939, op.cit. p.85 ; G.H.Daniel, 'Some Factors Affecting the Movement of Labour', op.cit. p.158. The weight of opinion seemed to favour a short lag of well under six months. This contrasts with Makower et al's conclusions on a national basis but can be reconciled given that the migration statistics depended on the electoral register and some delay between movement and registration seemed likely. This concensus differs from Walshaw's views, perhaps for this reason and because only one member of a family may move with employment opportunities, the remainder following at a later date.

To conclude this section, a further postscript deals with the factors that influence out-migration from a central city residence to the suburbs. In section I these general influences have been mentioned. In the previous chapter, an indication of the relevant factors in connection with the Greater London area were described. Broadly, a move may have reflected a desire for a suburban environment, the job location remaining the same and commuting distance increasing, or, labour migration might be following factory migration or suburban employment growth with the objective of reducing the journey to work. It seemed that the former case was more typical and Hare and Michaels saw "migration out of London . . . [as] . . . largely of short distance movements in search of a new milieu".⁷¹ Herbert Morrison thought,

"the main motive for the movement of population from the county outwards is quite simple. On the whole it is in most cases that people are seeking to live under conditions that they conceive to be more pleasant, with greater amenity and with more space and light and air about them, and to get rather more modern than the older-fashioned conditions that exist in a very large proportion of the County of London".⁷²

This comment might well be taken as holding for the other conurbations.

III

In conclusion, and in the absence of a statistical analysis to determine the influences on the migration data of Chapter 2, the answers to the questions raised by that Chapter must be suggested. Migration was selective with respect to age, sex and skill because,

71. London School of Economics, op.cit.p.260.

72. Royal Commission on the Geographical Distribution of the Industrial Population. Minutes of Evidence of London County Council, 16 Feb. 1938, Q.3201.

the Ministry of Labour's Transference scheme was selective in its choice of transferees for particular vacancies. To ensure a greater likelihood of success, a younger worker would be selected. In turn, this may have also resulted in the transferee being unmarried, with no dependents, without a house of his own, and possibly one of the shorter unemployed. Such factors would also operate in the case of spontaneous migration. Selectivity with respect to sex would operate in favour of men, in particular on works schemes. The migration of older women would tend to be linked with that of their husbands and, besides, the vacancies for female labour in the expanding factory and distributive trades could be filled by drawing local labour into the workforce. There was also a particular reluctance on the behalf of parents to allow young single girls to move away from home and, consequently, most such moves were to domestic service. Skill would be a less important factor, given the nature of most vacancies. Adaptability was the chief requirement, although a highly specific skill might be coupled with a reluctance or inability to take a semi- or unskilled position.

The timing of labour movements was related to the timing of push-pull factors. Potential migrants would result from differences in prosperity between areas and the actual move would take place after a certain lag, dependent on the speed of information flows, the breakdown of inertia, and the accumulation of sufficient funds to enable the move to be made. In turn, this would be related to the

trade cycle, representing the supply of employment opportunities. Chapter 4 shows that the official transference scheme was deliberately pursued with less vigour at the bottom of the cycle.

By implication, the greater volume of flows after 1929 must represent the influence of the combination of push and pull factors. Similarly, the higher proportion of long distance moves in this period reflects the greater incentive for such moves.⁷³ The apparent absence of a polarization of labour movements in Scotland in the 1930's may be a product of errors in the statistics,⁷⁴ or a reflection of the importance of the border. Great Britain may not be the relevant unit in which to examine internal population flows, but rather England and Wales as one group, and Scotland as another. The absence of a unit of attraction as important as London and the South East within Scotland may provide the explanation.

However, in the absence of a statistical analysis, these conclusions must be tentative. The fact that they might remain tentative even after such an analysis was undertaken is one defence for not following such a course.

73. This suggests that the impact of the general depression was to breakdown inertia that had restricted movements in the 1920's, perhaps by destroying the hope that the export trades could be restored to their former prosperity. However, the depression itself did not allow such movements to take place until the later years of the decade.

74. supra, Chapter 2. The 1920's estimates are very unreliable.

B. GOVERNMENT POLICY AND THE REGIONAL PROBLEM

CHAPTER 4

The Introduction of Industrial Transference.

I

A chronological account of the introduction and development of transference policy is the subject of this section.

Sir Arthur Steel-Maitland, the Minister of Labour, referred to the problem of unemployment in the coal mining industry in a memorandum to the Cabinet in November 1927.¹ He argued that,

"the seriousness of the unemployment position in coal mining lies in its concentration rather than its extent. Out of 223,000 registered as unemployed, approximately 90,000 are on short time . . . The wholly unemployed are approximately 130,000. Proportionately to the insured population in the industry this rate of unemployment is not higher than other industries have experienced and if the unemployment were more evenly distributed over the coalfields the situation would not arouse the same comment."²

Therefore, "the chief hope of relieving unemployment in the industry lies

1. P.R.O. Unemployment in the Coal Mining Industry. Memorandum by the Minister of Labour. CP 295(27). 23 Nov.1927. CAB 24/189. A leader in the Glasgow Herald, 12 Nov.1927, argued for "special schemes to develop the mobility of labour" and Sir A.Mond had, on the 21 Nov.1927, suggested "a scheme for increasing the mobility of personnel in the coal industry . . to encourage . . . the worker leaving a district where he cannot find work for one where he might . . . to other industries and to other parts of the Empire". Letter to The Times, 21 Nov.1927. The Ministry of Labour had also argued for transfer in 1926. Ministry of Labour, Annual Report for the year 1926 (Parl.Papers,1927,X),p.23.
2. My emphasis.

in the absorptive power of other industries. For this power to operate, however, two conditions are necessary. First, the other industries must themselves be in a fairly prosperous state, and, second, the miners must be brought into touch with those other industries."³ This policy had already begun. Transfers of men from the northern coalfields to other coalfields had commenced and there was also a drift from coal mining into other industries. The Minister proposed to use the Employment Exchange machinery to facilitate this transfer, especially of juveniles from the worst-off areas.⁴ Concentrated unemployment was politically embarrassing to the Government and this was the motivation behind Steel-Maitland's proposals.

The Cabinet agreed to set up a committee "to consider the general question of unemployment in the coal trade, including the problem of migrating miners".⁵ At the committee's first meeting on the 2 December 1927, the Minister of Health (Neville Chamberlain) outlined the method to be adopted in implementing the policy proposed by the Minister of Labour.⁶

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3. P.R.O. Unemployment in the Coal Mining Industry. op.cit. This suggests that perhaps the spread of unemployment was not the objective, cf. fn.2.
 4. *ibid.* The establishment of more training centres was hoped to speed up the process of disintegration of concentrated unemployment. Overseas migration was another instrument.
 5. P.R.O. Cabinet Conclusions. Cabinet 59(27)4, 30 Nov.1927. CAB 23/55.
 6. *ibid.* Report, Proceedings and Memoranda of the Cabinet Committee on Unemployment in the Coal Trade. 1927. CAB 27/358.

"The Minister of Health said that the plan which he now proposed to outline would have a certain dramatic effect in political circles. He proposed to treat the situation in the coalfields as an emergency problem, and to give power to the Ministry of Labour to schedule black spots in special areas, and set up a new ad hoc central authority of three commissioners whose sole business it should be to try and transfer redundant labour from those areas. Such a body could not make work, but it would have some practical advantages. It would have nothing else to do; it would be new and attract attention; it would be independent of any one Department but could enlist the help of all; it would have a better jumping-off ground for approaching the captains of industry and enlisting their co-operation than would the Ministry of Labour. It should perhaps have a business man at its head; it would be appointed for a limited period; it would need some funds; it would act through the machinery of the Ministry of Labour in transferring people and applying the necessary safeguards; it could be set up quickly and start dealing with the problem at once."⁷

An Interim Report was drafted incorporating these proposals. The only reservation was from the President of the Board of Education who considered that some action should also be taken to encourage the location of new industries in the coalfield areas. He thought that rating relief would be a sufficient inducement; Chamberlain disagreed.⁸

The Report aimed at the dispersal of the surplus labour to areas where employment was available. It favoured some measure "which will have the double effect of convincing the country that the Government is earnestly grappling with the problem of surplus labour in congested areas, and at the same time of enlisting the active co-operation of the public departments, of employers and of voluntary agencies in the task of

7. Original emphasis.

8. P.R.O. Report, Proceedings . . .etc. CAB 27/358.

training and transferring it elsewhere".⁹ Hence, the King's speech announced that "a Board is to be appointed to recommend the executive action to be taken by the Departments concerned"¹⁰ and on 6 January 1928 Sir Warren Fisher, Sir John Cadman and Sir David Shackleton were appointed to the Board "for the purposes of facilitating the transfer of workers and in particular of miners, for whom opportunities of employment in their own district or occupation are no longer available".¹¹ No longer were miners only to be considered. However, the aims of policy had already been decided and the Board were only to recommend methods of implementing and popularizing those aims. As they stated in their Report, "we have accepted as a fact the existence of a problem of surplus labour in certain industries, requiring to be dealt with by transfer".¹²

The Board chose to concentrate on the problem in the coal mining industry. They estimated a permanent surplus of 200,000 and guessed that this figure would have to be increased to account for the surplus in shipbuilding, iron and steel and heavy engineering. They also confirmed the localized character of the surplus. Large blocks of unemployed existed in the coalfields of Northumberland and Durham, South Wales and Scotland. Serious local problems from 'pockets' of unemployment arose

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9. *ibid.* Committee on Unemployment in the Coal Trade. Interim Report. CP 302(27). 5 Dec.1927. CAB 24/190.
 10. *ibid.* King's speech. CP 315(27). 22 Dec 1927. CAB 24/190. This was previously announced by Sir P.Cunliffe-Lister in a debate in the House of Commons on 7 Dec.1927. The Times, 8 Dec.1927.
 11. Industrial Transference Board. Report. (P.P.,1928,X),p.2.
 12. *ibid.* p.5.

in East Lancashire, the Forest of Dean, Cannock Chase in the Midlands and elsewhere. The remedy for this situation "should be the dispersal of the heavy concentrations of unemployment by the active encouragement of movement from the depressed areas to other areas, both in this country and overseas",¹³ but certain difficulties stood in the way of this aim.

Coal miners were strongly tied to their local communities. No industry that required heavy labour was expanding fast enough to absorb the surplus and those industries that were expanding, such as electrical engineering, artificial silk, printing and publishing or motor manufacture, had a low labour-output ratio. Neither was there an area of Britain that was completely free from unemployment.

Several recommendations were nevertheless advanced.

Firstly, "grants of assistance such as those made by the Unemployment Grants Committee /the Board noted/ . . . are a negation of the policy which ought in our opinion to be pursued . . . we are clear that the continuance or stimulation of their activities would merely retain the unemployed in the depressed areas and put further financial burdens on local authorities already very hard hit. If works of this kind are to be undertaken at all, they should be undertaken in areas where employment generally is good, so that they might provide work for unemployed from the depressed areas, with ultimate chances of permanent absorption into industry."¹⁴

This recommendation was subsequently adopted. Secondly, the work of the Employment Exchanges in the sphere of placing rather than insurance was to be publicised with the hope that a greater proportion of employers

13. *ibid.* p.16.

14. *ibid.* p.18. On the Unemployment Grants Committee, see *infra* fn.25.

would be encouraged to use these facilities. Thirdly, Training Centres were to be increased in number, although direct transfer was thought to be vital if an impact on the surplus was to be made. Fourthly, a variety of financial aids were also commended, including the advance of fares, advances towards the cost of removal expenses of families and towards the maintenance of families of married men who temporarily took up residence in other areas. Finally, land settlement schemes were advocated for the older men who might not be susceptible to training or migration.¹⁵

Generally, a transfer policy "can be made to produce the absorption of many, to open up more chances, and to distribute more equally the incidence and burden of unemployment".¹⁶ The measures outlined above were one means of encouraging such results, but the chief emphasis seems to have been on appeals for co-operation. As the Board put it, "State agencies and State action can help, but the problem of unemployment in the depressed industries is one which can only be solved if the whole community realises its existence and consciously resolves to grapple with it".¹⁷ The Report was endorsed by the Minister of Labour who agreed

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15. The Board's recommendations for encouraging overseas migration included the reduction of shipping rates, governmental assistance, the simplification of formalities and the co-operation of Empire Governments. This topic is outside the scope of this thesis.
 16. Industrial Transference Board, op.cit.p.20. The Minister of Labour noted that the Board "do not boggle at the fact that complete absorption of the surplus in the immediate future cannot be hoped for, and that a transfer policy will mean to some extent a redistribution of unemployment. They regard this as on balance a gain." P.R.O. Report of Industrial Transference Board. Memorandum by the Minister of Labour. CP 206(28). 29 June 1928. CAB 24/196.
 17. Industrial Transference Board, op.cit.p.28. Original emphasis.

that "the first function of the State is to ensure free play for the forces making for transfer".¹⁸

Reaction to the Board's Report was generally favourable. The Glasgow Herald thought it "dolorous in respect of facts, but far from depressing in tone".¹⁹ It agreed that "ordinary remedies will not suffice, and heroic measures must be adopted. Even the transfer of a whole community may be imposed by circumstances, and no one will seek to minimise the implications; labour has always been most difficult to move, despite the asserverations of the early political economists . . .".²⁰ Opposition to such possibilities was foreshadowed when it was noted that although the proposals were "in every case scientific . . . they may appear to the sentimental to be at times almost callous".²¹ The President of the Glasgow Chamber of Commerce at a quarterly meeting "made no objection to the study of the question of transference of population, but he believed that for them here to accept the position indicated in the report and do no more was not a solution but a confession of defeat".²²

18. P.R.O. Report of Industrial Transference Board, op.cit.

19. Glasgow Herald, 24 July 1928. Also see The Times, 24 July 1928 - "Taken altogether the Board's report has the great merits of candour and courage. It advances no heroic proposals, for there is none to make; but all its suggestions are simple and immediately possible." - and The Economist, 28 July 1928. Critical Parliamentary reaction saw the report as a condemnation of the Government's past policy. Looking forward, some critics centred on the fact that it did not appear to propose an employment policy and hence there was pressure for works schemes. See the reports in The Times, 25 & 26 July, 1928.

20. Glasgow Herald, op.cit.

21. *ibid.*

22. *ibid.* 31 July, 1928.

He wanted heavy industry restored to its former prosperity. The Government's simultaneous announcement of the forthcoming rating reforms were designed to meet this point.²³

Following the compilation of the Report, policy was to be pursued on the following lines. The Report was to be published, including the appeal for the co-operation of employers in the scheme. Press support came next and then a House of Commons statement giving the Government's backing to the appeal. A letter from the Prime Minister was to be sent to employers in each employment exchange area asking that employment be given to Depressed Area men and was to be followed up by letters from the employment exchanges urging employers to take note of the Prime Minister's appeal.²⁴ This covered the effort to be made on behalf of direct transference. It was recognised that transfer would take some time to become operative and the proposed rating relief scheme could have no immediate effects. Thus, public works as a means of relief could not be ruled out. Given the need to avoid contradiction in policy, relief works were to be located in prosperous areas and supplied with labour from the Depressed Areas. Relief works in the Depressed Areas would retard out-migration.²⁵

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23. The difficulties of overseas migration are illustrated by the reaction of the Australian Prime Minister, Mr. Bruce, who was reported to have declared that he "is not prepared for the transfer from Great Britain to Australia of the problem of unemployment which Great Britain is unable to solve". *ibid.*
24. P.R.O. Unemployment Policy. Appeal to Employers. CP 245(28). July 1928. CAB 24/196.
25. The Unemployment Grants Committee (hereafter, the UGC) had been set up in 1920 to provide temporary relief by way of public works in localities where unemployment was severe. This policy was now to be changed. This change was considered and recommended by an Inter-Departmental Committee on Unemployment (Scottish Record Office, hereafter, S.R.O., DD 10/184) and the Cabinet Unemployment Policy Committee. P.R.O. CP 325(28). CP 334(28). CAB 24/198.

The policy instrument of Transfer Relief Works was announced on the 8 November 1928 and a circular letter to local authorities laid down the conditions under which they would be eligible for 'transfer grants'. Such grants were more favourable than the grants towards schemes undertaken in areas of exceptional unemployment. Generally, 50 per cent of the labour employed was to be from the Depressed Areas.²⁶ The Unemployment Grants Committee (hereafter, the UGC) wrote to the Scottish Board of Health stating "that the idea lying behind this suggested transfer of men is that some of the men should 'stick' once the relief works have been completed, and so return no more to the impoverished districts whence they came".²⁷

Meanwhile, the Ministry of Labour wrote to the First Lord of the Admiralty, the Secretary of State for War, the Secretary of State for Air, the Postmaster-General and the First Commissioner of Works, urging them to appeal to government contractors to comply with the Industrial Transference Board's recommendation. Subsequently a slip was attached to all contracts urging the employment of Depressed Area men and the use of employment exchange facilities for recruitment.²⁸

In December 1928, the schemes were further extended. It was recognised that the break up of families was an obstacle to transfer and so the

26. The acceleration provisions were also to be relaxed and road works on non-classified roads towards which the Ministry of Transport was not making grants became eligible for assistance. See P.R.O. Correspondence with Ministry of Labour in Connection with Schemes Promoted Subsequent to Issue of UGC Circular, 9 Nov.1928. LAB 4/183.

27. *ibid.* Letter of 19 Nov.1928.

28. P.R.O. Adoption of Industrial Transference Board's Report by various Government Departments. LAB 2/493/ET 2784.

Household Removal Scheme was initiated. A free grant was to be paid towards lodging and incidental expenses of the transferred male and towards the costs of the removal of his family.²⁹ But a shortage of accommodation in the receiving areas was to limit the progress of this scheme and most transferees were young single men. This scheme was limited to the depressed mining areas, whilst the existing facilities, although operating mainly in respect of miners, included within its scope a limited number of areas where the main industry was iron and steel or shipbuilding. These areas were not to be included in the Household Removal Scheme as a maximum return from any effort was thought to depend upon the concentration of that effort. Besides, there was a desire to restrict expenditure.³⁰

This was the position in respect of transference policy in its early maturity. The principal recommendations of the Industrial Transference Board had been adopted and the policy had evolved to a wide-ranging attack on the surplus of the Depressed Areas by encouraging out-migration. The underlying principle of these efforts was approved by the incoming Labour Government in 1929.³¹

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29. Ministry of Labour Gazette, 37(1929), p.7. A number of conditions were attached to these facilities, for example, they were reserved to the insured unemployed from the depressed mining areas who had the intention of permanent removal and twelve weeks was allowed in which the family was to be moved.
 30. P.R.O. Distressed Mining Areas. Memorandum by the Minister of Labour. CP 409(28). 18 Dec.1928. CAB 24/199.
 31. *ibid.* Transfer of Miners. Memorandum by the Minister of Labour. CP 187(29). 1 July 1929. CAB 24/204; Cabinet Transference Committee. Report, Proceedings, Memoranda. 1929. CAB 27/400.

Subsequent changes in the scheme were a result of three factors. Firstly, the supply of easily transferred labour was deteriorating as the 'cream' of the surplus was transferred. Secondly, the receiving areas had a growing need for labour, particularly because of the demands of the Transfer Relief Works. Thirdly, there was the onset of the general depression. These pressures led to a number of changes. Changes consequent on the first two pressures are discussed initially. Transfer Relief Works began to be used as a source of labour for ordinary vacancies in the receiving areas. The rate of transfer, therefore, came to depend on the vitality of such programmes and in an effort to increase this total, a norm of two months was set after which labour was to be discharged from relief works to make way for fresh transfers.³² Another means of increasing the supply of labour was to extend the areas covered by the transference schemes. Transfer Instruction Centres (T.I.C.s) had provided 'hardening' courses from May 1929 in an attempt to forestall the decline in the quality of labour.³³ Labour in the 'grey areas' (in which special loan facilities were available to unemployed workers other than miners) had become eligible for recruitment to the T.I.C.s. These areas were the whole counties of Northumberland, Durham, Glamorgan, Monmouth and Lanark. But still the supply was insufficient and so proposals to revise the scheduled catchment area of the transference schemes were discussed. Depressed cotton areas in Lancashire, Cheshire,

32. P.R.O. Labour Migration. Refusals of Offers of other employment by men employed on Relief Works. LAB 2/1324/ED 23733.

33. Ministry of Labour, Annual Report for the year 1929. (P.P., 1929-30, XV), p.17.

Yorkshire and Derbyshire were brought within the ambit of the juvenile transference scheme in March 1930 and of the adult scheme in June 1930, but these facilities were not used to any extent because, it was thought, of the character of unemployment in these areas. Short time working was very evident and the family income was the relevant consideration for the potential migrant rather than personal income. Later the same year, these areas were also proposed as recruitment areas for the T.I.C.s, but with the cessation of Transfer Relief Works these proposals were abandoned.³⁴

Other methods of increasing the labour supply were more specific in character. The grants of the Household Removal Scheme were extended to employed married workpeople provided that labour was available in the area to take up the resulting vacancy. These people were to have been largely unemployed in the four months preceding transfer. The idea was to make eligible for assistance people on short-time or in temporary employment.³⁵ In June 1930, the period for which these grants were payable was extended. The extension allowed a longer search for accommodation in the new area by the transferred individual and was intended to prevent return migration on the expiry of assistance.³⁶ Finally, grants in aid of wages from the Lord Mayor's Fund to juvenile labour were to be paid for an extended period, from October 1929, in the case of boys in the South East area, if on transfer

34. See P.R.O. Revision of schedule of depressed areas and extension of field of recruitment for Transfer Instructional Centres. LAB 2/1273/ET 725; Transfer of Juveniles from depressed cotton areas in N.W. Division. Treasury sanction for free fares to include Lancashire and adjoining counties. LAB 2/1293/ETJ 462; Board of Trade, An Industrial Survey of the Lancashire Area (by the University of Manchester) (1932), p.14.

35. P.R.O. Household Removal Grants. LAB 2/1325/ED 39540.

36. *ibid.* Household Removal Scheme. LAB 2/1326/ET 5160.

they were under 16 years of age. This was designed to facilitate the migration of younger boys than the schemes had hitherto concentrated on.³⁷

The third factor affecting the evolution of the schemes was the onset of the general depression. Growing unemployment in the potential receiving areas lead to an increased antipathy towards transference. It also forced the Government to relax its preferences on works schemes and the UGC policy was amended. From July 1929, the requirement that 50 per cent of the labour on works schemes in the prosperous areas must come from the Depressed Areas was not rigidly enforced.³⁸ In the case of Birmingham, for example, following representations in October 1929 by the council, the transfer rate of grant was allowed from the UGC and only 25 per cent of the labour was required to be from the Depressed Areas.³⁹ Later, the condition that half of the labour employed on a transfer scheme must come from the Depressed Areas was waived. The preferential rate of grant to the prosperous areas works schemes was, however, continued. The apparent illogic of this policy was not lost to the Depressed Areas. Lanark County Council wrote to the UGC,⁴⁰

37. P.R.O. Labour Migration of Welsh boys to S.E. LAB 2/1293/ETJ 922.

38. Final Report of the Unemployment Grants Committee. December 1920-August 1932(P.P., 1932-3,XV), p.8.

39. P.R.O. Birmingham Town Council. Works for the Relief of Unemployment. Correspondence with Treasury on Conditions of Transfer. LAB 2/737/ED 694/87.

40. Scottish Record Office. Transfer Policy and UGC. DD 10/215. Letter dated 30 July 1929.

"As your Committee are aware, a large part of Lanarkshire . . . is suffering from serious unemployment, and the proposal to give better financial terms to the prosperous districts is one that is not only viewed here with the greatest concern but, if I may respectfully say so, connotes a policy that is very difficult to understand."

Similar complaints were made by other authorities, among them Dunfermline.⁴¹

The worsening unemployment situation, and such opposition, led to further changes. In June 1930, the Prime Minister presided at a conference of local authorities to consider what further measure could be taken in dealing with unemployment. Modifications of terms and conditions of grants were announced that would be more favourable to local authorities. All authorities became eligible for the award of the maximum 'transfer grants' and the employment of labour from the Depressed Areas was waived as a condition. Total employment on such schemes increased as a result, whilst the proportion of labour from the Depressed Areas fell drastically.⁴²

Nevertheless, "it was realised that . . . not only were such schemes making little impression on the unemployment figures, but the maximum results had been attained",⁴³ Consequently, the UGC's powers were limited to the consideration of schemes submitted by June 1931 and on which work could start by October of the same year. The May Committee recommended a substantial cut in grants and, effectively, the activities of the UGC were severely constrained, prior to its dissolution in 1932.

41. *ibid.* Letter of 2 August 1929.

42. Final Report of UGC, *op.cit.* pp.9-10.

43. *ibid.* p.10.

From 1930, the importance of the UGC schemes for encouraging transfer had ceased. At the same time, the factors which resulted in this policy change made the vigorous pursuit of the transference policy less acceptable and more difficult in practice. Henceforth, unemployment policy ignored regional policy in favour of attempts to revitalise employment nationally. It was not until 1934, with the re-emergence of regional disparities with partial recovery from general depression, that attempts to operate a regional policy were again evident.⁴⁴ These fluctuations in economic conditions and in policy reflect themselves in the numbers transferred.⁴⁵

II

This section supplements the chronological account of section I with an examination of the pressures on policy formulation and amendment. It is evident that the general principle of moving labour away from the Depressed Areas was early decided upon. Subsequent changes in policy were merely designed to increase the likelihood of achieving this objective, sometimes in the face of changing circumstances, for example, the decrease in supply of easily placed labour. Thus, although changes from 1928 onwards can be seen as pragmatic in character, the point of central interest is the origin of the initial objective.

It might be argued that the introduction of transference policy was designed to smooth migration between regional labour markets in an attempt to bring the economy nearer to the laissez-faire position of the neo-

44. This echoes the verdict found in C. Goodrich et al, Migration and Economic Opportunity: The Report of the Study of Population Redistribution (Philadelphia, 1936), pp. 590-1.

45. infra, Chapter 6.

classicists. With migration flows responding perfectly to wage differentials, the supply equals demand identity would be true in all regional labour markets. However, abandoning Say's Law in favour of a recognition of the existence of unemployment of a cyclical and frictional kind, and accepting the existence of wage rigidities, Beveridge put this case in 1909.

"Unemployment arises because, while the supply of labour grows steadily, the demand for labour, in growing, varies incessantly in volume, distribution and character . . . Fluctuations of demand are now provided for by the maintenance of huge stagnant reserves of labour in varying extremities of distress. To be able to follow the demand men must possess greater powers of intelligent movement from place to place . . . To be able to wait for demand men must have a reserve for emergencies."

"It is a policy of making reality correspond with the assumptions of economic theory. Assuming the demand for labour to be single and the supply perfectly fluid, it is not hard to show that unemployment must always be in process of disappearance - that demand and supply are constantly tending to an equilibrium. The ideal for practical reform, must be to concentrate the demand, and to give the right fluidity to the supply."⁴⁶

Hence, Beveridge argued for unemployment insurance and the Employment Exchange system. Transference was an accentuated element of the work carried out under the latter head. Beveridge's case for migration was to reduce aggregate unemployment.

However, it is clear on considering policy proposals and discussions amongst politicians and civil servants that policy was the result of a reaction to a particular set of circumstances and that this reaction was

46. W.H. Beveridge, Unemployment: A Problem of Industry (1930^{edn}), pp.235-7. There are some parallels here with the Ministry of Labour's Annual Report for 1926, op.cit.

not necessarily informed by the tenets of contemporary economic thinking.

On 8 December 1928, the Ministry of Labour received a request from Senator Indri of the Italian National Social Insurance Department for information on "internal migration as a means of prevention of or remedy for crises of unemployment".⁴⁷ The Ministry's handling of this request is instructive. A minute dated the 26 January 1929 observed that,

"there are two possible forms of article:-

(a) a theoretical discussion - which is probably what is expected

(b) a thesis on transference in Great Britain with reference to the concrete facts. I am inclined to think that it is too early to make a considered pronouncement in a foreign journal on this.

I should like to reply that it is presumed that (b) is what is wanted; that it is difficult at this stage in the working out of the transference policy to write such an article but that we shall be happy to do so later."⁴⁸

A letter to this effect was dispatched in February 1929. A draft reply (which was never sent) on the lines of (b) above, summarized the origin of transference policy. In recognition of the localized unemployment in the heavy export industries and the specialized character of these localities, the memorandum observed that,

"whole communities have lost their source of livelihood on which they and their forefathers depended. There is no alternative livelihood available in the localities; these areas offer few advantages for new industries and the only permanent solution of the position lies in the migration of the surplus population to other districts."⁴⁹

47. P.R.O. Senator Indri. National Social Insurance Department, Italy. Requests information on 'internal migration as a means of prevention of or remedy for crises of unemployment' for publication in Italian Bulletin. LAB 2/1577/STATS 955.

48. *ibid.*

49. *ibid.*

If the origins of policy were pragmatic then there must have been a place for pressure groups in the formulation and subsequent refinements of policy. The coal miners were the most obviously interested party. On 9 November 1928, A.J.Cook wrote to the Secretary for Mines. "The transfer of unemployed mineworkers in derelict districts to areas where a reasonable prospect of employment exists, and the speeding up of the necessary housing schemes in the areas concerned would, with other policies, result in the volume of mining unemployment being substantially reduced."⁵⁰ The T.U.C., the Labour Party and the Miners Federation of Great Britain agreed "that there is a surplus of 250,000 workers in the mining industry . . . the transfer of labour from over-manned districts to developing areas is essential".⁵¹ The Executive Committee of the Miners Federation stated in 1929 that,

"this policy . . . the transfer and settlement of our unemployed mineworkers in other trades and callings . . . together with the provision of training centres, formed an integral part of the measures which the Federation urged upon the Government in 1927, and such a policy is entirely consistent with our view as to the economic trend of the industry".⁵²

Clearly, at the national level the miners advocated and approved of transference.⁵³

50. S.R.O. Cabinet Papers, 1926-9. GD 193/433 (Steel-Maitland Papers).

51. *ibid.* 'The Mining Situation: An Immediate Programme'.

52. P.R.O. Cabinet Transference Committee. Report, Proceedings, Memoranda. CAB 27/400. Extract from Report of Executive Committee of the Miners Federation of Great Britain, June 1929.

53. Locally, there were some exceptions. For example, the opposition of the Kent Mineworkers Association to the transfer of labour to the Snowdown Colliery motivated principally by the temperature of the pit and the butty system. See P.R.O. Recruitment of men for Kentish coalfields from the Depressed Areas. LAB 2/1298/ED 17902; East Kent Coalfield. Recruitment of Labour and Conditions in the coalfield. LAB 2/1298/ITB 120.

Approval was also expressed by the Labour and Liberal parties. In 'Labour and the Nation', it was argued that, "the pressure of unemployment on the coalfields must be relieved . . . by a system of migration of miners into other districts and other suitable occupations".⁵⁴ The Liberal Yellow Book, recognizing structural depression in many industries, argued that "considerable numbers of workers may have to be transferred from the localities and trades in which they have been brought up to new places and engage in fresh occupations which produce either new classes of exports or goods for the home market".⁵⁵ On the coal mining industry in particular,

"when everything possible has been done to increase the efficiency of the coal mining industry, to concentrate employment and to reduce costs, there is little doubt we shall still have to deal with a large surplus of labour in the coal mining industry . . . The measures proposed fall under three heads:

- (a) Limitation of recruiting.
- (b) Pensioning of older workers.
- (c) Transfer of existing workers into other industries."⁵⁶

Either by expressing approval or disapproval, the Press and local authorities are the other groups which influenced policy. The long-standing problems of the Necessitous Areas were continually represented before the Government by local authorities. Because of the burden of unemployment, these areas campaigned for Government assistance towards local expenditures. Any policy that alleviated local unemployment would deal with these complaints. Local representations were made to secure inclusion

54. S.R.O. Cabinet Papers, op.cit.

55. Report of the Liberal Industrial Inquiry, Britain's Industrial Future (1928) p. 44.

56. *ibid.* pp. 358, 361.

in the scheduled areas. Attempts were also made for the right to receive UGC transfer grants without the employment of 50 per cent Depressed Area labour.⁵⁷ However, the longer run effects of out-migration posed problems for local finances. The receiving areas also put pressure on the Government to restrict the transference scheme when the general depression deepened and unemployment amongst native labour became severe.⁵⁸ In the case of local authorities, then, some influence on the administration of policy is clearly discernible. But on the initial formulation of policy aims, there is nothing to suggest a particular role for the local authorities.

The Press only had an influence on the administration of policy when, as the depression worsened, the anomalies of the transference scheme became more apparent. Occasional support or occasional criticism had little effect.

The central objective of transference policy, of moving labour out of areas of high unemployment emerged with the need to appear to act decisively in respect of concentrated unemployment in certain coal mining localities. Economic theory was not the basis of this policy, although it did justify the Employment Exchange system. Further, the influences of various groups on the evolution of policy, though at times significant, never did change this central objective, but merely the

57. supra; P.R.O. Distressed Mining Areas. Memorandum by the Minister of Labour. CP 409(28). 18 Dec.1928. CAB 24/199.

58. infra, Chapter 5.

methods of achieving it. The lack of emphasis on transference policy, 1930-1934, was a dual result of the Government's response to changing conditions in realising that transference could less easily be pursued and the general opposition to the pursual of the policy that these changed conditions brought about.⁵⁹

III

This final section deals with the expected short-run consequences of transference policy in the north and south. The actual consequences of policy are dealt with in the following chapter.

The aim of the transference schemes was to stimulate migration at the margin. The existence of spontaneous, unassisted movement was recognized by the Government; the objective was to increase this total.

"It was evident . . . that . . . a considerable movement southwards from the depressed areas had taken place: the policy advocated by the Board was to oil the wheels of the movement in order to stimulate the flow of workpeople from the depressed areas and further to direct this movement into those trade channels where it could most readily be absorbed."⁶⁰

Consequently, it is inappropriate to dismiss transference policy as inefficient by pointing to the fact that, in the absence of assistance, migration would have occurred anyway.

59. It is noteworthy that the Surveys of conditions in various depressed areas by University Departments on behalf of the Board of Trade seem to have been ignored at the time of their publication. Their suggestions on regional remedies were inappropriate in 1932.

60. P.R.O. Senator Indri op.cit.

Given this important preliminary, the task of this section is to establish whether transference was an 'economic' or 'social' policy. The two extreme standpoints are, respectively, that transference was designed to increase employment by moving labour from areas of excess supply to areas of excess demand, or that it was merely intended to dissipate concentrations of unemployment thus reducing any threatening political tension. Snowden argued the latter whilst commenting on UGC transfer grants.

"If there happens to be no unemployment in the district where the work is to be carried out there might be something to be said for that policy . . . Have they [the Government] considered the animosity that might be created between the unemployed men in that district and those men who are transferred? . . . This particular proposal and all the proposals of the Government will not make the slightest impression upon the magnitude of the unemployment problem."⁶¹

Ramsay MacDonald concluded that the object of transference was to spread unemployment.

"The one thought which seems to have been uppermost in their minds has been this: 'Where unemployment is most pronounced, if we can take it up and scatter it abroad a little, we are solving unemployment. If we can take 20 or 30 miners from South Wales and put them down as builders' labourers in Camberwell, although builders' labourers in Camberwell are out of work, well, they will be lost,⁶² Segregated they are seen, but scattered they are lost'."

The Government's refutation of this argument took the following form.

The 1927 Annual Report of the Ministry of Labour commented that,

61. Hansard(Commons), 5th ser.222,392-3,9 Nov.1928

62. ibid.585,12 Nov.1928.

"It may be urged that there is in most areas some local unemployment and that the method of transfer does not add to the volume of employment, but puts one man in while it keeps another out. But this is to misunderstand the working of the employment market and the problem of transfer . . . There may be in an area some unemployment and at the same time an unsatisfied demand for labour, because the labour available locally does not fit the requirements of the vacancies. Moreover, in addition to the existing and known demands for labour there are often potential vacancies which materialise upon the presentation of a suitable applicant."⁶³

Besides, "no exchange would try to flood any particular place with transferred men, nor would it succeed, if it were so foolish as to try. Transfer is unpopular enough, even without the kind attentions of the Daily Herald and of critics in high places, and to overdo it is the surest way of making it impracticable."⁶⁴ Steel-Maitland added some specific evidence on this point in the Birmingham Post in 1928.⁶⁵

"In the eighteen weeks since June 15, the number of men brought in from the depressed areas was 156, whereas the total of other men placed by the Birmingham Exchanges was 3,024, or nearly twenty times as many. How unjustified is the hubbub is shown by the fact that the total of labour engagements in the same area during that time was probably about 15,000."

However, from the expectations of the Industrial Transference Board, it is clear that neither of the extremes was expected. In some areas, it might be the case that local labour would be displaced and aggregate unemployment would not change. In other places, and at times when general unemployment was not high, transferees might be absorbed without prejudice

63. Ministry of Labour, Annual Report for the year 1927 (P.P., 1928, XI), p.18.

64. P.R.O. Birmingham Town Council. Works for the Relief of Unemployment, op.cit. Letter from J.A. Barlow at the Treasury to the Lord Privy Seal, dated 19 Dec. 1929.

65. S.R.O. Bundle of Sir Arthur's Papers whilst Minister of Labour. GD 193/94/2.

to local labour and aggregate unemployment would be reduced. Although Steel-Maitland was prepared to agree with the Government's critics that "the policy does not profess to be a 'cure for unemployment'",⁶⁶ it is clear that in some circumstances it could have been just that. It is the task of the next chapter to establish the short-run impact of transference policy and to determine to what extent the extreme views presented above were realized. At the same time, the long-run consequences of transference policy will be investigated.⁶⁷

66. P.R.O. Industrial Transference Scheme. Memorandum by the Minister of Labour. CP 324(28). 1 Nov.1928. CAB 24/198.

67. Given the short-run objectives of transference policy, the long-run objectives are implicit. That is, unemployment in the depressed areas was to be reduced. In the receiving areas, these transferees were to be absorbed into the economy with expansion, perhaps to the temporary cost of local labour.

APPENDIX

The Depressed Areas

I Schedule of Depressed Areas for the Adult Transference Scheme in 1929.

South West

Cinderford, Coleford.

Midlands

Biddulph, Chesterfield, Eckington, Kidsgrave.

North

Barnsley, Birtley, Bishop Auckland, Blaydon, Blyth, Chester-le-Street, Chopwell, Chorley, Cleator Moor, Cockfield, Crook, Dalton-in-Furness, Durham, Falstone, Farnworth, Felling, Fence Houses, Haltwhistle, Hebburn, Hindley, Hoyland, Lanchester, Leigh, Maryport, Morpeth, Newburn, Pontefract, St. Helens, Seaton Burn, Shildon, Shiremoor, Southwick-on-Wear, South Shields, Spennymoor, Standish, Stanley, Ulverston, Wallsend, Westhoughton, West Moor, Whitehaven, Wigan, Workington.

Scotland

Airdrie, Carlisle, Coatbridge, Cowdenbeath, Hamilton, Kilwinning, Larkhall, Lesmahagow, Motherwell, Wishaw.

Wales

Aberdare, Aberkenfig, Abertillery, Ammanford, Bargoed, Blackwood, Blaenavon, Blaina, Bridgend, Brynmawr, Burry Port, Caerphilly, Clydach, Crumlin, Cymmer, Dowlais, Ebbw Vale, Ferndale, Garnant, Gorseinon, Kidwelly, Llanelly, Maesteg, Methyr Tydfil, Morriston, Mountain Ash, Neath, Ogmore Vale, Pontardawe, Pontardulais, Pontlottyn, Pontnewydd, Pontyclun, Pontycymer, Pontypool, Pontypridd, Porth, Port Talbot, Resolven, Risca, Taff's Well, Tonypany, Tonyrefail, Tredegar, Treorchy, Ystalyfera.

Source: P.R.O. Cabinet Transference Committee. Report, Proceedings and Memoranda, 1929. Memorandum of Minister of Labour.

CAB 27/400.

II Changes in the Schedule by October 1934

a) Additions

Midlands

Audley, Clay Cross, Cleobury Mortimer, Heanor, Newcastle-under-Lyme.

North

Asparatia, Cockermouth, Dunston-on-Tyne, Harrington, Jarrow, Millom, Pallion, Penistone, Rotherham, Upholland, Walker, Willington Quay.

Scotland

Bowling, Cambuslang, Dumbarton.

Wales

Brymbo, Buckley, Shotton, Treharris.

Scheduled Cotton Districts

North

Accrington, Ashton-under-Lyme, Bacup, Blackburn, Bolton, Burnley, Bury, Chadderton, Clitheroe, Colne (including Barnoldswick), Darwen, Failsworth, Glossop, Great Harwood, Hadfield, Haslingden, Heywood, Hyde, Kirkham, Marple, Middleton, Mossley, Nelson, Oldham, Padiham, Pendlebury, Preston, Rochdale, Royton, Shaw, Stalybridge, Todmorden, Whitworth.

b) Deletions

North

Falstone, Fence Houses, Seaton Burn, West Moor.

Scotland

Cowdenbeath, Kilwinning.

Wales

Resolven.

Source: P.R.O. Special and Distressed Areas. T 172/1827.

III Changes in the Schedule by February 1938

a) Additions

South West

Camborne, Lydney, Newnham, Redruth.

Midlands

Chesterton, Eastward, Hucknell.

North

Ambleside, Alston, Ashton-in-Makerfield, Aspill, Bamber Bridge, Barnard Castle, Bentham, Castleford, Clayton-le-Moor, Congleton, Conistone, Consett, East Boldon, Elswick, Featherstone, Gainford, Gateshead, Golborne, Guisborough, Hartlepool, Haswell, Heaton, Horden, Houghton-le-Spring, Haveton Hill, Keswick, Littleborough, Middleton-in-Teesdale, Newcastle, North Shields, Ormskirk, Oswaldthistle, Pemberton, Prudhoe, Radcliffe, Rawtenstall, Saltburn, Seaton Harbour, Seaton Darval, Sedgefield, Silloth, Stanhope, Stockton, Sunderland, Thorne, Walkden, Washington Station, West Hartlepool, West Moor, Widnes, Wigton, Wingate, Wombwell, Wolsingham.

Scotland

Alexandria, Ardrossan, Barrhead, Bathgate, Broxburn, Campbeltown, Clydebank, Dalry, East Calder, East Kilbride, Falkirk, Grangemouth, Greenock, Helensburgh, Irvine, Johnstone, Kilbirnie, Kilmarnock, Kilwinning, Kirkintilloch, Lanark, Linlithgow, New Milns, Paisley, Port Glasgow, Renfrew, Rutherglen, Sanquhar, Shotts, South Queensferry, Stevenston, Stewarton, Strathaven, Uddingston, West Calder.

Wales

Abersychan, Barry, Caerau, Cardiff, Cefnmawr, Crickhowell, Cymaman, Kenfig Hill, Llantwit Major, Methyr Vale, Mold, Newbridge, Newport, New Tredegar, Pembroke Dock, Penarth, Resolven, Rhosllanerchrugog, Senghenydd, Swansea, Ton Pentre, Tumble, Usk, Wrexham, Ystrad Mynach.

b) Deletions

North

Marple, Pendlebury.

Wales

Crumlin, Shotton.

Source: Royal Commission on the Geographical Distribution of the Industrial Population. Memorandum of Evidence submitted by the Ministry of Labour, 3 Feb.1938. Appendix LV.

(The areas scheduled under the Juvenile Transference Scheme are also shown here. Appendix VI of this evidence indicates the scheduled areas to be preferred in the placing of government contracts.)

CHAPTER 5

The Contribution of Transference

I

The numbers transferred from the Depressed Areas to employment, through the employment exchanges, in the years 1928-34 is shown in Chapter 6.¹ The total number of individuals transferred is taken in this Chapter as an indicator of transference. This covers the greater part of all those transferred, although by excluding Household Removals the most permanent element of transfer might be ignored.² Totalling this series for the years 1928-34 reveals that 149,907 individuals were transferred from the Depressed Areas to work in the non-depressed areas.³ The first difficulty is encountered when the next step, of examining the change in unemployment in the Depressed Areas, is taken. The Appendix to Chapter 4 has shown that the Depressed Areas varied in coverage between 1928-34. The lack of more frequent schedules of Depressed Areas makes it impossible to determine when changes took place. The simplest course, which is unlikely to introduce any great errors, is to consider an aggregate of county employment exchange areas that approximates to the Depressed Areas.⁴

1. infra, Chapter 6, Table XXI.
2. i.e. The Household Removal Scheme was designed to achieve, and probably resulted in, transference of a permanent character. 'Wastage' was a more likely result if a household was split up by the transference of an individual. For the magnitude of 'wastage rates', see infra, Chapter 7.
3. A further 1,500 transfers were made to prospective vacancies in 1928. The Scheme then lapsed until 1935.
4. The criteria of a Depressed Area varied, although it seems that areas once on the schedule were seldom removed. supra, Chapter 4, Appendix.

Unemployment in the counties of Durham, Northumberland, Cumberland, Glamorgan, Monmouth and Lanark is shown in Table XVI. This Table shows unemployment in selected non-depressed counties for the same period. These counties are London, Surrey, Essex, Middlesex, Kent, Hertfordshire, Staffordshire, Warwickshire and Leicestershire.⁵ Whilst transference totalled some 150,000 over the period, unemployment in the Depressed Areas increased by 209,835 and in the non-depressed areas increased by 150,317. What conclusions can be drawn from this evidence?

At first sight, it seems little has been learnt. The impact of the cyclical downturn and the differing regional rates of recovery can be clearly seen but, consequently, the impact of transference is masked. It can only be stated that had it not been for transference, unemployment in the northern Depressed Areas would have been worse. In the southern areas, it is not clear whether transference added to unemployment or not⁶ and so its impact on the unemployment figures is uncertain both in magnitude and direction.

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5. The counties selected were the areas where the transference schemes had their greatest effect. The North-East area of the Ministry of Labour was also an important destination for transferees as well as being an important origin. It was thought that to include this area would obscure the inter-regional relationship between the north and south. Besides, the London area was by far the most important destination. The depressed cotton areas that were added to the ambit of the schemes in 1930 were not included as little use was initially made of the facilities offered under the schemes in these areas. The importance of areas as origins and destinations is shown in Royal Commission on the Geographical Distribution of the Industrial Population. Memorandum of Evidence of the Ministry of Labour. 3 Feb. 1938. Appendix IV.
 6. Although transfers were to definite vacancies, this employment might not last very long. This would be especially so where transfer was to a UGC works programme. Additionally, it was shown in H. Makower, J. Marschak, H.W. Robinson, 'Studies in Mobility of Labour: A Tentative Statistical Measure', Oxford Economic Papers, No.1(1938), 68, that the average lag between arrival in Oxford and unemployment was one and two-thirds months. After two years, 90 per cent of in-migrants had experienced unemployment. Consequently, the direction of impact of transference on unemployment in the receiving areas is uncertain.

Transference policy was designed to encourage migration amongst those who were not moving of their own free will. That is, examination ought to be made of the impact of total migration and not just that part assisted by the Ministry of Labour. Net migration statistics are shown for counties and Ministry of Labour Divisional areas in Chapter 2.⁷ For the purposes of this chapter, the data for Ministry of Labour Regions will be used. Unemployment statistics for these areas were obtained from the Ministry of Labour Gazette and are shown in Table XVII. The net balance of migration for these years is also shown. Again, the impact of the cyclical downturn makes the results difficult to interpret. In the North, Scotland and Wales it might be hypothesized that unemployment would have been more severe had it not been for migration. In the remaining regions the impact is not clear.

Consequently, an attempt was made to refine and improve these conclusions via the vehicle of regression analysis. How important was transference in explaining changes in unemployment and what was the direction of its impact? A priori unemployment would be expected to fall in the Depressed Areas as out-migration increased. In the receiving areas the relationship might be in either direction, depending on whether migrants found work or simply added to the unemployment totals of these areas. That is, was transference simply a

7. supra, Chapter 2, Appendix 2.

redistribution of the unemployed such that unemployment percentages would be equalized over the country, or was it, in effect, an employment policy?

A regression of the form,

$$Y_{1i} = \alpha + \beta_2 X_{2i} + \beta_3 X_{3i} + E_i$$

was run, where, when dealing with transference and its impact on selected countries,

Y_{1i} = Unemployment in the Selected Counties in
December of the i'th year,

X_{2i} = Unemployment in Britain in June minus that part
of unemployment originating in the Depressed or
non-depressed areas in each of the i years,

X_{3i} = Transference from the Depressed Areas in the
i'th year, and,

E_i = error term.

Where net migration and unemployment in Ministry of Labour Regions was examined,

Y_{1i} = Unemployment in Ministry of Labour Regions in
June of the i'th year,

X_{2i} = as X_{2i} above,

X_{3i} = Net migration by region in the i'th year, and,

E_i = error term,

The X_{2i} variable was included in both cases as a proxy for those

factors of national impact which led to changes in regional unemployment.⁸
These results are presented in Table XVIII.

It can be seen that the level of explanation is uniformly high, but that the contribution of the migration variable is consistently low. Although the addition of new independent variables into the equation will always result in a higher R^2 , it may be that the precision of the response deteriorates. This is true of equations 1/ and 9/ where the mean square of the residuals increases with the inclusion of the X_3 variable. However, all equations are significant at the 5 per cent level indicating that they are good predictors. Of the individual regression coefficients, however, only that for X_2 is significantly different from zero.⁹ These relatively large standard errors are partially explicable by collinearity in the independent variables. The signs of coefficients are as expected. The constant in each equation demonstrates the value of the dependent variable when the independent variables are equal to 0. The value is positive in the case of the depressed areas, and negative elsewhere. The national unemployment variable is positively related to regional unemployment throughout. Although the signs of β_3 coefficients cannot all be accepted with confidence, they indicate that in the north unemployment fell as out-migration increased and in the south unemployment

8. It will be noticed that this variable was identically quantified whether transference in selected counties in December of each year, or net migration by regions in June was being analysed. It was not possible in the former case to obtain a better indicator.

9. Autocorrelation in the disturbance terms may invalidate these significance tests. n was too small to test for such disturbances.

increased as in-migration increased. This suggests that migrants added to southern unemployment, even if they initially transferred to certain vacancies, as was true of the transfers under the Ministry of Labour's scheme. The exception seems to be London, where many of the migrants went. Here it seems unemployment declined as in-migration increased, suggesting that migrants were taken into the working labour force and, through the impact of their increased personal incomes and other demands on the regional economy, created further employment opportunities.

An attempt was then made to refine the migration variable such that a unit change in it would result in a unit change in regional unemployment. That is, the expected regression coefficient ought to be 1.0. Firstly, 'wastage' has to be accounted for.¹⁰ Secondly, the multiplier effects of the regional redistribution of personal incomes had to be considered. The value of this latter adjustment is discussed in Chapter 7.¹¹ A few comments are, however, in order. In dealing with the areas losing population by migration, it is enough to deflate the value of migration by the calculated r , where this represents the number of persons who have to move from a region before one more man loses his

10. This was taken as 30 per cent. See infra, Chapter 7.

11. infra, Chapter 7, Appendix 2. The values arrived at are adequate for dealing with this slightly earlier period.

employment.¹² Similarly, in the regions where in-migrants add to unemployment it will take r (equal to 5) men to move in and become unemployed before regional income is increased sufficiently to provide one new job. The difference is in that area where it seems that in-migration reduced local unemployment, that is London. In this case, regional income increased as factor earnings increased. The gain was that part of this increase that was spent locally, (λ) .¹³ Thus where,

k = income multiplier,

y_0 = average weekly earnings,

and r = the number of in-migrants who have to move in and obtain employment before one more man gains employment,

$$\text{then, } r = \frac{y_0}{k \lambda y_0}.$$

From the Appendix to Chapter 7 it can be seen that this may be taken as 2.77 or, in other words, each in-migrant created 0.36 of a job through his personal expenditure. As the migrant himself has no direct impact

12. i.e.
$$r = \frac{1}{s k \alpha}$$

where, s = ratio of unemployment benefit to average weekly earnings,

k = income multiplier,

α = local expenditure coefficient of the unemployed.

No allowance is made for the impact of remittances from the migrant back to his region of origin in this case, or in the case of the receiving areas. It was thought that such remittances were negligible and spasmodic by one observer. See A.D.K.Owen, 'Social Consequences of Industrial Transference', Sociological Review, 29(1937), 343.

13. λ = local expenditure coefficient of the employed. c, m and t are likely to vary between the unemployed and the employed such that $\alpha > \lambda$. See infra, Chapter 7, Appendix 2.

on the unemployment figures, only the fractional part of the employment multiplier, (k_e) was taken.¹⁴ The regression coefficients resulting from these adjusted series are presented in Table XIX.¹⁵

Generally, the comments made on Table XVIII are again applicable. The point of specific interest is the magnitude of the coefficients attached to the X_3 variable. These were expected to be close to 1.0. However, the standard errors remain high and the null hypothesis that $\beta_3 = 0$ cannot be rejected.¹⁶

Therefore the regressions do not enable more positive conclusions on the impact of migration on losing and receiving areas. It can only be suggested from Tables XVI and XVII, that if it were not for transference policy, unemployment in the Depressed Areas might have been worse than it was by 1934. Similarly, it seems that unemployment in the receiving

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14. It may be that there is an indirect impact, in that local labour would have taken the job in the absence of in-migration.
 15. It must be remembered that the k values used are concerned with the income of employees only. Linkage effects are not allowed for. For example, the resulting increase or decrease in demand for inputs and its effects on employment generation is ignored. Again, changes in public service employment are ignored as are those in public services and in private industry that result from induced investment. The alleged congestion of social capital in the southern regions make this an important omission. On the different multipliers see A.J.Brown, The Framework of Regional Economics in the United Kingdom (Cambridge, 1972), pp.176-202, 274-277 and the works cited in Chapter 7, Appendix 2.
 16. As discussed in Chapter 7 one reason for the insignificant coefficients of migration variables and the uncertainty concerning their direction of impact on local unemployment rates is the interrelated nature of the variables. For example, high net out-migration may lead to lower unemployment and lower unemployment will lead to lower net out-migration. This problem is outlined in W.F.Mazek, 'Unemployment and the Efficacy of Migration: The Case of Laborers', Journal of Regional Science, 9(1969). A single equation model can only be used if the appropriate lags are incorporated in the system. Thus errors in model specification or in measurement of the variables will bias β .

areas was worse than it would have been in the absence of in-migration, with the possible exception of London. What is now required is some evidence from other sources.

There is little doubt that the magnitude of the impact of transference was generally small in either the north or the south. Depression was so deep in the basic heavy industries of south Wales that despite the outflow of population, unemployment remained severe.¹⁷ In Cumberland and Furness out-migration did vary with the intensity of depression, but was of an insufficient magnitude to remove the labour surplus of the area.¹⁸ This was true of all areas losing population, as is shown in Table XVI. Consequently, the impact on areas receiving population was also slight.¹⁹

The chief doubt does not concern the degree of impact but the direction of impact of in-migration in the receiving areas. It seems that two factors had influence on the direction of this impact. Firstly, the trade cycle and secondly, the role of the Unemployment Grants

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17. Board of Trade, An Industrial Survey of South Wales (by the University College of South Wales and Monmouthshire) (1932), p.11.
 18. J. Jewkes and A. Winterbottom, An Industrial Survey of Cumberland and Furness (Manchester, 1933), p.27.
 19. Numerically, after adjustment for wastage and multiplier effects the yearly mean transference for the Depressed Areas was 11,993 which compared with an unemployment series that was at its lowest at 286,276. Again, for the Ministry of Labour regions of North, Scotland and Wales, the adjusted out-migration had a mean of 60,944 whereas unemployment was never below 784,626 and was generally well above that. Similar figures for the south are:-
Adjusted transference, 11,993
Unemployment in selected counties in lowest year, 237,029
Adjusted net migration, 47,579
Unemployment in regional aggregates in lowest year, 357,756.

Committee (hereafter, the UGC). The trade cycle is dealt with first.

Chapter 6 shows that as the unemployment situation worsened nationally, so prospective vacancies in the principal receiving areas of London and the South-East became fewer.²⁰ This resulted in a decline in the number of transfers. It also resulted in a keener competition between previously transferred labour and 'native' labour for existing vacancies. There are several instances of complaint that support this conclusion. Two cases may be cited.²¹ Firstly, the Mayor of Poplar wrote to the Minister of Labour in July 1929.²²

"As Mayor of the Borough of Poplar I venture to approach you on a matter which is causing considerable agitation and some bitterness among the unemployed of the District. As you will be aware abnormal unemployment in London is confined to the Boroughs of Bermondsey, Deptford and Poplar.

At the present time there are reconstruction works proceeding at the West India Docks and the Lee Conservancy Board are carrying out extensive works in the northern portion of the Borough. The undertakers of these works in order to qualify for the Government subsidy are compelled to employ 50 per cent of workers, the majority of whom are unskilled from other depressed areas. I think you will readily agree with me that the transference of men from depressed areas to a distressed area such as Poplar gives rise to a justifiable complaint from Poplar's unemployed."²³

This and further representations were to have some effect. The UGC were instructed to "henceforth ... regard relief works in the areas of

20. infra, Chapter 6, Diagram III.

21. Also, see the representations by the Amalgamated Engineering Union to the Ministry of Labour. P.R.O. LAB 2/1396/ET 1275.

22. P.R.O. Metropolitan Borough of Poplar protesting against the importation of workers from distressed areas, in regard to work being undertaken by the Lee Conservancy Board. LAB 2/1212/ET 5085.

23. ibid. Letter dated 9 July 1929.

Shoreditch, Bermondsey and Poplar as unsuitable for the introduction of men from the depressed mining areas".²⁴ Nevertheless, there was still the problem of Depressed Area men previously transferred to UGC works schemes in the non-depressed areas who, on completion of this work, would look for further employment. Indeed the objective of the policy was to encourage labour once transferred, to gain permanent employment in the receiving area. This may have had severe effects in particular localities where the cessation of a large UGC works scheme and the coincidence of high local unemployment was found. However, the extent of this friction ought not to be overestimated. Of the 23,018 men who transferred to work on schemes that were completed by August 1932, only 5,178 secured work in the new area and a further 2,730 transferred to other works schemes.²⁵ It can only be presumed that the remainder represented wastage.

Secondly, with the formation of the Labour Government, the preference given by government departments to the employment of civilian labour from the Depressed Areas came into question. Lansbury wrote to Bondfield in August 1929 pointing out that "vacancies in the industrial grades, wherever possible, are filled by labour transferred from the depressed areas, to the exclusion of local men. I am not at all anxious to continue this policy and consider that we can no longer refuse to engage men who are unemployed in London".²⁶ Later the same

24. *ibid.* Draft letter dated 31 Aug. 1929.

25. Final Report of the Unemployment Grants Committee. December 1920-August 1932. (Parliamentary Papers, 1932-3, XV), p. 26.

26. P.R.O. Adoption of Industrial Transference Board Report by various Government Departments. Employment of Civilian Labour from depressed mining areas by Government contractors. LAB/2/493/ET 2784. Letter of 9 Aug. 1929.

month he wrote again. "I enclose you a sample letter from hundreds which I receive at home and here addressed to me from London men wanting work. I also receive at my door each morning many verbal applications. My desire is that for ordinary employment - not relief work - London men shall be eligible."²⁷ As a result, vacancies in the industrial grades of the Office of Works were to be divided equally between local labour and those from the Depressed Areas. By 1931, Lansbury was questioning whether this arrangement ought to continue in the case of building employees and, subsequently, the condition was waived.²⁸

These two instances suggest that, although as depression deepened, transferred labour might gain employment at the expense of the local unemployed, in total, unemployment would tend to fall slightly. Transferees were gaining employment and through the multiplier effects of their expenditure out of their incomes, some other labour could be employed. This is the conclusion suggested by the regression analysis of Greater London. However the reservation must again be made that transferred labour, although initially finding work, might not retain it for any length of time. In so far as return migration was not encouraged (and it seems it often was) then

27. *ibid.* Letter of 26 Aug. 1929

28. *ibid.* Letters of 5 May 1931, 10 July 1931.

unemployment in the receiving areas would worsen.²⁹

The policies of the UGC were the other major influence on the direction of impact of in-migration on unemployment in the receiving areas. After July 1930, all local authorities were eligible for the award of maximum grants, hitherto only awarded to 'transfer' schemes. The employment of a certain proportion of transferred labour was waived as a condition of grant, although still thought desirable.³⁰ The result was a large increase in the total employment on such schemes, but a corresponding fall in the importance of transferred labour in this employment.³¹ Assistance for works could be obtained without employing Depressed Area men whereas before this alteration it was in the interests of local authorities to

29. A departmental survey of transference in 1938 found that at most non-depressed area offices a number of Depressed Area men were registered as unemployed. A local surplus of unskilled labour prevented the absorption of such labour and, besides, many employed were in temporary posts. Further, of some 330 returnees the following reasons were given (and considered typical) for their decision.

(a) Job finished, no further work available	110
(b) Left job of own accord (home sick etc.)	85
(c) Work, or considered there was work, in home area	34
(d) Sickness or domestic reasons	32
(e) Discharged (unsuitable, misconduct etc.)	23
(f) Wages insufficient	22
(g) Difficulty of securing reasonable accommodation at a reasonable rate	17
(h) Unable to obtain any work	12
(i) Other	9

P.R.O. Industrial Transference Scheme-General Review 1938. LAB 8/218. Other evidence on the reasons for 'wastage' are to be found in P.R.O. National Advisory Council. Circulars. Transfer of Juveniles from Distressed Mining Areas to Employment in other districts. LAB 2/1312/EJJ 525/10.

30. Final Report of UGC, op.cit. pp.9-10.

31. *ibid.* p.10.

do so.³² Consequently, as employment on such works schemes was bound to be short-term, so the decreasing importance of such schemes for transferees might suggest that employment gained after mid-1930 was more permanent. However, just as UGC transfers were small in relation to total transfers,³³ so not all migration was through the Ministry of Labour and thus not to definite vacancies. A job would have been progressively more difficult to obtain from 1930 onwards and migration would to some extent have been discouraged. To the extent that it was not discouraged, unemployment in the receiving area would have been increased as transferees added to southern unemployment.³⁴ In short, it is not possible to determine the certain direction of impact of in-migration on unemployment in the receiving areas, although it seems to be positively related to unemployment in most circumstances. Variations in labour market conditions over time and space affect this conclusion.

II

The long-run effects of migration will now be examined in the losing

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32. Retrenchment prevailed in 1931 and the activities of the UGC were curtailed following the May Report. Report of the Committee on National Expenditure, (P.P.,1930-1,XVI).
 33. The Ministry of Labour set up the Transfer Instructional Centres in 1929 following the increasing failure of many transferees to retain their jobs. This failure was attributed to the decline in the quality of labour being transferred. Ministry of Labour Annual Report for the year 1929 (P.P.,1929-30,XV),p.17.
 34. The fact that most migrants were young, male and single would have also resulted in return movements being easily made in the face of adversity. The net migration statistics will not include such movements if they took place within a year.

regions. Contemporary fears of the deleterious effects of prolonged out-migration were widespread. Public opinion in south Wales and Cumberland was against transference because it led to the loss of the best type of labour, there was a burden on the rates as rateable values fell, and together these factors provided an obstacle to new employers locating in these areas.³⁵ The selectivity of out-migration took several forms. Cumberland County Council observed that the age-selective nature of migration resulted in the age distribution of the remaining population being heavily weighted with dependents. As a result, expenditure on social services was increased whilst rateable value, at best, remained stationary.³⁶ It was estimated, for example, that 66 per cent of the net outward balance of migrants from south Wales, 1921-31, were under 30 and 87 per cent under 45. For Durham and Northumberland the respective percentages were 69 and 87.³⁷ Depression and the ageing of the population meant that in places like Glamorgan, two-thirds of the county rate was attributable to public assistance charges, whereas in Blackpool the proportion was one-twentieth.³⁸ The age-selective character of migration

35. P.R.O. Industrial Transference Scheme. op.cit. Such opinions were widespread and the Ministry of Labour noted that "this publicity has had some adverse affect on the willingness of a number of applicants to consider transference to more prosperous areas".

36. P.R.O. Summaries of Evidence. HLG 27/373. Cumberland County Council.

37. H.W. Singer, Transference and the Age Structure of Migration. Interim Report of the Pilgrim Trust Unemployment Enquiry. Cited in A.D.K. Owen, op.cit. p.41. Additionally, of Oxford natives at the end of 1937, 71 per cent of the total were in the 14-39 age group. Of Oxford Welshmen, 80 per cent were in this group. See, G.H. Daniel, 'Labour Migration and Age Composition', Sociological Review, 31(1939), 307.

38. P.R.O. Memorandum of Evidence of the County Councils Association. HLG 27/42.

was partially a product of Ministry of Labour policy in an effort to ensure the success of its transfer activities and its good reputation with employers in the receiving areas. But naturally it was the younger population who were more willing and able to migrate. Selectivity was not confined to age. Generally, the P.E.P. Report considered that migrant groups "probably contain many of the potential local leaders of men, and initiators of new enterprises"³⁹ and contemporary discussion of the leading role of Welsh migrants in trade union activities in the south suggests that this was partially true.⁴⁰ Further, migration also tended to be skill-biased. The more highly skilled were more employable and more mobile. The skill distribution of the remaining population was thus affected and local shortages could result. Such migration was not a contribution towards the reduction of the surplus of labour that characterized these areas. Migration also tended to reduce the active population at a faster rate than the total population. The Ministry of Labour thought that "migration tends to lessen the chance of attracting new industries to the depressed areas by reducing the size of what was one of their chief

39. Political and Economic Planning. Report on the Location of Industry in Great Britain(1939),p.142.

40. See A.D.K.Owen,op.cit.; M.Daly, 'Social Consequences of Industrial Transference', Sociological Review,30(1938) and A.D.K.Owen, 'Social Consequences of Industrial Transference: A Rejoinder', Sociological Review,30(1938). Prominent parts in strikes in Oxford's motor works are said to have been played by Welshmen. G.H.Daniel, 'Some Factors Affecting the Movement of Labour', Oxford Economic Papers, No.3(1940),157.

assets, namely, an experienced industrial population".⁴¹ Thus, the fall in numbers, and perhaps in the quality of the labour force, were thought to be factors discouraging the location of new industrial activity in these areas. Similarly, the rate burden, even after de-rating was a related deterrent to new enterprise, although perhaps largely psychological.⁴²

The other principal argument against out-migration alleged the resulting under-utilisation of social capital. Flintshire County Council noted that factory closures resulted in the migration of population and the under-utilisation of social capital.⁴³ The Tyneside Industrial Development Board echoed these fears. "The transference of labour . . . is disadvantageous to the area from which the labour is taken because the debt burden of services falls more heavily on the remaining population and

41. Royal Commission on the Geographical Distribution of the Industrial Population. op.cit. 2 Feb.1938,para.26.

42. The highest rate charged by a local authority in the year 1928/9 was at Merthyr Tydfil. K.Hancock, 'The Reduction of Unemployment as a Problem of Public Policy', Economic History Review, 2nd.ser.15 (1962),336. The 1929 Local Government Act derated industry by 75 per cent. Despite the decline in the real rate burden on industrialists, which at all times was a small proportion of total costs of production, high rates were still thought to deter the location of industrial establishments. This was argued by the District Commissioner for the South Wales Special Area in 1935. P.R.O. Transference of labour and the resultant effect on existing social services and rates. Notes on the rate position in South Wales. LAB 23/75. Population loss also affected the size of the central government's block grant to local authorities. It was estimated that Rhondda lost £43,000, 1934-9, on a per capita basis. S.R.Dennison, The Location of Industry in the Depressed Areas (1939),p.192.

43. P.R.O.Summaries of Evidence.op.cit. Flintshire County Council. However, Flintshire was generally gaining population by migration. supra,Chapter 2,Appendix2.

the public services become partly redundant."⁴⁴ Further, although out-migration might result in services becoming redundant there was no prospect of expenditure being reduced commensurately. For one, the remaining population might impose an extra charge on the public assistance rate. Secondly, services might not be proportionately reduced with population losses and even if they were, there was an inevitable lag whilst expenditure continued above limits justified by demand.⁴⁵ However, areas with high rates of out-migration also tended to have high rates of natural increase. Social capital could only become under-utilised, as a result of migration, if population growth became negative. In many areas this had not resulted by 1939 as the age-distribution of the population had not yet been skewed sufficiently towards the aged for natural increase to fall to a level that did not offset losses by migration. Merthyr Tydfil was one exception.⁴⁶ Table XX shows those counties that were experiencing negative population growth. Even in these counties it must be remembered that social capital may have been over-utilised or of poor quality and ready for replacement. As Professor Marquand stated, "the actual waste of material equipment - houses, buildings, transport and public utilities and the like - has perhaps been overstressed in some arguments".⁴⁷

It is immediately apparent that to question the under-utilisation of

44. *ibid.* Tyneside Industrial Development Board.

45. P.R.O. Memorandum of Evidence of the County Councils Association. *op.cit.*

46. A.D.K.Owen, *op.cit.* (1937), 339.

47. Professor Marquand in, 'South Wales Has a Plan'. Quoted by A.D.K.Owen, *op.cit.* (1938), 81.

capital in the Depressed Areas is also to question the alleged wastage involved in duplicating capital in the receiving areas of the south.

The Ministry of Labour considered that,

"the establishment of industries in new and undeveloped areas has its disadvantages. Thus it involves expenditure for the provision of roads, houses, schools and similar services to meet the needs of the inhabitants in areas of new industrial development, at a time when such services are available and have to be maintained in the older industrial areas".⁴⁸

However, such capital in the northern areas was often in need of replacement. Duplication was precisely what was required.⁴⁹ Even if such facilities were under-utilised in the Depressed Areas, duplication was, in fact, an advantage, in a time of low aggregate demand.⁵⁰

Each of the influences of migration on losing areas had their parallel effect in the receiving areas. Principally, there was the absolute gain in population. Then the effects on the area would have been determined by the speed of that gain, its age and skill distribution, and its consequent impact on labour supplies and the natural increase rate of the area. To some extent, such an influx may have lead to

48. Royal Commission on the Geographical Distribution of the Industrial Population. op. cit. para. 25.

49. Replacement or duplication does not necessarily imply that the new facilities must be provided on the site of the old.

50. Of course, Keynesian influences had a limited impact before World War II. Before the 'General Theory', Baldwin was able to broadcast that "the rank and file of the Socialist party and the rank and file of the Liberal party, if indeed they may be represented by Mr. Lloyd George's speech, show that still they believe that expenditure is the cure for unemployment". Reported in the Glasgow Herald, 17 Feb. 1931.

problems of overcrowding, of traffic congestion with the geographical spread of settlement, of inflexibilities in the supply of public services other than roads, such as hospitals, educational facilities, or public health services. To the extent that in-migration lead to concentrations of population, in the context of the late 1930's, a strategic disadvantage was also a product of population movements. Clearly, what has to be considered is the degree to which the various misfortunes of expanding areas were due to migration as such, rather than to population size or natural increase. Many of the attendant problems of in-migration were exaggerated by those concerned to represent the interests of a particular area. A discussion of these effects is delayed until Chapter 9 where the contribution of in-migration to the problems of London is examined. As with the preceding discussion of the long-term impact of migration on losing areas, data difficulties prevent the presentation of a completely satisfactory account.

III

In the short-term the direction of impact of transference policies on the Depressed Areas was favourable in reducing unemployment, but of negligible proportions in relation to the size of the unemployment problem. The dominating role of the mid-period depression is explanation for the relatively low numbers moving, especially after 1930/1. In the receiving areas, the impact of migration was negligible, except where concentrated in particular areas. It is not possible to be certain whether the policy ultimately spread unemployment, thus evening-out inter-regional disparities, or succeeded in placing the migrants in

permanent vacancies.

Given this negligible impact on unemployment in the Depressed Areas and the friction created in southern labour markets, examination must be made as to whether the apparent failure of migration policies in this period resulted in the introduction of Special Areas policies concentrating on moving jobs to the depressed regions, rather than moving labour out of them.

In the long-term, it appears that migration policies had cumulatively unfavourable consequences, to some degree, for both losing and gaining areas. Again, a motivation for a new policy approach to the regional problem is suggested. But, to the extent that the effects of out-migration on the Depressed Areas were unfavourable, the likelihood of success with Special Areas policies was to be reduced. In this sense, the two types of regional policy were contradictory. Similarly, in the south, the role of in-migration in adding to population and the labour force and accentuating rates of natural increase, by providing an increasing market and an expanding labour supply, contradicted later attempts to discourage industrial location in these areas. These later attempts at decentralisation were themselves partially motivated by the ill-effects of in-migration over the long-run.

Table XVI

Unemployment in Selected Depressed and Non-Depressed Counties, 1928-1934.

	Depressed	Non-Depressed
1928	331,076	237,029
1929	286,276	255,540
1930	466,519	461,962
1931	561,288	576,327
1932	629,373	581,035
1933	563,416	432,046
1934	<u>540,911</u>	<u>387,346</u>
Change in		
Unemployment	+209,835	+150,317

Source: Calculated from the Ministry of Labour's Local Unemployment Index, 1928-34.

Totals are for December of each year.

Table XVII

Unemployment and the Balance of Net Migration in Ministry of Labour Regions, 1928-1934.

	North	Scotland	Wales
1928	546,719	136,538	129,132
1929	529,902	139,904	114,820
1930	947,371	224,648	157,148
1931	1,236,122	348,926	194,649
1932	1,185,495	364,672	234,729
1933	1,058,916	344,152	216,650
1934	943,238	305,729	211,914
Change in Unemployment	+ 396,519	+169,191	+ 82,782
Balance of Net Migration	- 375,504	-144,263	-242,030

	London	South East	South West	Midlands
1928	101,306	34,899	57,038	186,932
1929	101,492	33,928	59,572	162,764
1930	156,187	54,688	75,269	275,264
1931	254,001	91,898	113,656	425,637
1932	296,309	125,842	142,790	397,506
1933	259,785	96,850	131,688	330,067
1934	194,519	72,098	108,982	256,106
Change in Unemployment	+ 93,213	+ 37,199	+ 51,944	+ 69,174
Balance of Net Migration	+380,146	+327,248	+ 94,054	+ 7,120

Source: Ministry of Labour Gazette, July issue, 1928-34; for net migration, see supra, Chapter 2, Appendix 2.

Figures are for June of each year.

Table XVIII

The Regression of Unemployment in Selected Counties on Transference and a National Unemployment Variable. 1928-1934

Independent variable	Constant	Regression Coefficient	Change in R^2	R^2	n	
<u>Northern Counties</u>						
X_2		0.49(0.09)	0.90	0.91	7	1/
X_3		-0.88(1.57)	0.01			
	178138.55					
<u>Southern Counties</u>						
X_2		0.33(0.05)	0.88	0.91	7	2/
X_3		1.91(1.62)	0.03			
	- 65572.01					

The Regression of Unemployment in Ministry of Labour Regions on Net Migration and a National Unemployment Variable. 1928-1934

Independent variable	Constant	Regression Coefficient	Change in R^2	R^2	n	
<u>North</u>						
X_2		0.68(0.10)	0.92	0.94	7	3/
X_3		1.19(1.15)	0.02			
	231114.46					
<u>Scotland</u>						
X_2		0.16(0.01)	0.96	0.98	7	4/
X_3		0.62(0.30)	0.02			
	3486.99					
<u>Wales</u>						
X_2		0.06(0.01)	0.83	0.90	7	5/
X_3		0.74(0.43)	0.07			
	87050.60					
<u>London</u>						
X_2		0.14(0.01)	0.95	0.97	7	6/
X_3		-0.30(0.20)	0.02			
	- 48583.51					
<u>South East</u>						
X_2		0.05(0.01)	0.90	0.96	7	7/
X_3		0.29(0.11)	0.06			
	- 42912.10					
<u>South West</u>						
X_2		0.05(0.01)	0.87	0.90	7	8/
X_3		0.31(0.27)	0.03			
	- 10548.77					
<u>Midlands</u>						
X_2		0.17(0.03)	0.90	0.01	7	9/
X_3		0.71(0.80)	0.01			
	- 10989.46					

Standard Errors in brackets.

All equations are significant at the 5 per cent level. Of the individual coefficients, that for X_2 is uniformly significant, that for X_3 is not.

Table XIX

The Regression of Unemployment in Selected Counties on Transference adjusted for wastage and multiplier effects and a National Unemployment variable 1928-1934. The $\hat{\beta}_3$ coefficients.

Northern Counties

-1.76(3.14)

Southern Counties

3.83(3.24)

The Regression of Unemployment in Ministry of Labour Regions on Net Migration adjusted for wastage and multiplier effects and a National Unemployment variable. 1928-1934. The $\hat{\beta}_3$ coefficients.

North

2.38(2.31)

Scotland

1.25(0.59)

Wales

1.49(0.86)

London

-1.22(0.82)

South East

0.58(0.22)

South West

0.62(0.55)

Midlands

1.43(1.59)

Standard Errors in brackets.

None of the coefficients are significant at the 5 per cent level.

Table XX

Areas Losing Population, 1920-1929 and 1929-1939^{1/}

1920-1929

Counties where out-migration offsets positive natural increase	Counties with out-migration & negative natural increase
Argyll (-16.6)	Sutherland (-6.7)
Orkney (-9.2)	Zetland (-6.4)
Caithness (-8.6)	
Berwick (-7.1)	
Wigtown (-6.4)	
Nairn (-5.8)	
Ross & Cromarty (-5.6)	
Moray (-4.7)	
Banff (-4.5)	
Selkirk (-4.3)	
Perth (-4.2)	
Roxburgh (-4.2)	
Kirkcudbright (-3.2)	
Pembroke (-3.2)	
Dumfries (-3.0)	
Inverness (-3.0)	
Cardigan (-2.8)	
Kinross (-2.7)	
Angus (-2.6)	
Aberdeen (-2.4)	
Peebles (-2.1)	
Brecon (-1.7)	
Lincs. Kesteven (-1.6)	
Kincardine (-1.3)	
Ayr (-1.1)	
LONDON (-1.1)	
Montgomery (-1.1)	
Hereford (-0.9)	
CUMBERLAND (-0.7)	
Clackmannan (-0.6)	

1/ Figures in brackets show per cent rate of population growth over decade.

Upper case lettering - Selected Counties in earlier analysis.

Table XX (continued)

<u>Counties</u>	<u>1929-1939</u>	
Counties where out-migration offsets positive natural increase	Counties with out-migration & negative natural increase	Counties with in-migration & negative natural increase
*Kincardine (-37.1)	Zetland (-17.4)	I.O.W. (-1.0)
*Kirkcudbright (-16.2)	Bute (-15.3)	
MONMOUTH (-12.3)	Merioneth (-9.6)	
Brecon (-11.6)	Sutherland (-9.1)	
Montgomery (-10.6)	Ross & Cromarty (-8.0)	
Radnor (-9.5)	*Carnarvon (-3.8)	
Anglesey (-9.4)	Argyll (-2.6)	
LONDON (-9.4)	Berwick (-2.6)	
GLAMORGAN (-9.1)	Cornwall (-2.4)	
Kinross (-8.7)	Orkney (-1.7)	
Cardigan (-7.9)		
Peebles (-5.8)		
Carmarthen (-5.1)		
Pembroke (-5.1)		
DURHAM (-4.7)		
Suffolk West (-4.7)		
CUMBERLAND (-3.7)		
West Lothian (-3.1)		
Banff (-3.0)		
Fife (-2.0)		
Caithness (-1.7)		
Denbigh (-1.6)		
Hereford (-1.6)		
Lancashire (-1.5)		
Rutland (-1.3)		
Norfolk (-0.9)		
Nairn (-0.5)		

Ministry of Labour Regions

Regions where out-migration offsets positive natural increase

Wales (-7.9)
 North (-2.7)
 North West (-0.3)

Upper case lettering - Selected Counties in earlier analysis.

*Negative Boundary Changes of Magnitude affect conclusions.

Source: Calculated from the Annual Statistical Reviews of the Registrar-General for England & Wales and the Annual Reports of the Registrar-General for Scotland.

CHAPTER 6

The Quest for an Effective Regional Policy, 1934-1937.

I

An examination of much of the literature dealing with regional policies in Britain yields the impression that either no policy existed before 1934 when a 'move-industry-to-the-workers' policy was introduced, or, that whereas a policy of labour transference was encouraged from 1928 this abruptly ceased in 1934, by reason of its failure, to be replaced by a policy encouraging the movement of the other mobile factor of production.¹ For example, a recent account notes that, "for thirty-five years, attempts have been made by governments to check the out-migration, to provide new sources of employment and to improve the long-term economic prospects of the older, coalfield-based regions of Britain".² Elsewhere, Loasby considers that, "it was the apparent failure of migration significantly to reduce inter-regional variations in unemployment that prompted the initial government intervention in the 1930's".³ Neither of these accounts reflects the reality of the times. A transference policy

1. An exception is A.J. Brown, The Framework of Regional Economics in the United Kingdom (Cambridge, 1972), pp. 281-5.
2. M. Chisholm and G. Manners, 'Geographic Space: A New Dimension of Public Concern and Policy', in M. Chisholm and G. Manners, eds, Spatial Policy Problems of the British Economy (Cambridge, 1971), p.2.
3. B.J. Loasby, 'Location of Industry: Thirty Years of "Planning"', District Bank Review, 156(1965), 32, 34.

was operated from the late 1920's. This policy continued beyond 1934 and, as a result of policy changes, was operating at its peak in 1936, as is shown in Table XXI. It is incorrect to suppose that the Special Areas Act of 1934 was a product of the failure of migration and transference policies. Transference was encouraged from 1934, not discontinued and the origins of the Special Areas Act was not so simple.

The question arises, therefore, as to whether the coexistence of such policies was complementary, as argued by the Special Areas Commissioner, or contradictory, as they could equally be held to be. Sir Malcolm Stewart argued that,

"transference should be concentrated on those districts which obviously offer the least prospect of recovery. At the same time inducements are needed to attract industries in the first place to those districts which possess the maximum opportunities for recovery. There is nothing paradoxical in these proposals since neither policy of itself is sufficient to solve the problems which have for many years confronted the Special Areas."⁴

However, McCrone makes the point that, "the exodus of the more enterprising and skilled section of the labour force from the Areas, far from relieving the problem, only aggravated it. This was precisely the section of the labour force needed to man new industry if it could be established in the Areas."⁵ The conclusion that the policies were complementary seems hard to accept given the numbers moving in these years and the selective nature of migration. However, the Special Areas Act of 1934 was not the beginnings of a 'move-industry' policy

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4. Second Report of the Commissioner for the Special Areas (England and Wales) (Parl. Papers, 1935-6, XIII), para.11.
 5. G. McCrone, Regional Policy in Britain (1969), pp. 98-9.

and so the two policy instruments did not conflict in their intentions at this stage.⁶ Further, as the 1934 Act did not herald a 'move-industry' policy, to judge it by its success in achieving such aims is a somewhat curious, although a common error.

II

The 1934 legislation emerged from two strands of concern for the regional problem. In the later part of March 1934, The Times published a series of articles on Durham. This was essentially a review of the problem previously examined in 1928 with articles on South Wales and the North-East coalfields. Some important conclusions were arrived at in the last article of the series.⁷ The younger unemployed were to be transferred from Durham, as existing policy intended, and it proposed "secondly, and simultaneously, but without raising false hopes that will hold back migration, to give determined practical thought to the chances of inducing the establishment of new industries locally, however small, or the development of more intensive agriculture". It proposed the appointment of investigators to consider an appropriate course of action, noting that the problem itself was well known. A leading article of the same date, reviewing the work of the special correspondent, envisaged a "Director of Operations against the derelict areas ... He would be the channel and instrument

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6. Whether the different instruments conflicted in terms of results is examined in the next chapter.
 7. The Times, March 20,21,22 1934. Republished in pamphlet form as 'Places Without a Future: The Burden of Durham' to be found at P.R.O. Inter-Departmental Committee on Depressed Areas. Commissioner for Special Areas-General Policy. BT 55/15.

of a concerted national effort to rid the land of these terrible pools of idleness in which manhood is slowly and fatally sinking. He would bind together the agencies of relief and amelioration and direct remedial measures with concentrated force." The leader continued, "some of the remedial measures are known, but others, more effective, have to be discovered".

In these few sentences are the forerunners of the Commissioners appointed to investigate conditions in the four areas, the principal policy conclusions of the subsequent reports and the styling of the Commissioner for Special Areas as "Director of Operations" with the implication that his work, by necessity, should to some extent be experimental. Further leading articles of the 26th March and the 13th April continued to advocate this course of action and on 19th April the appointment of investigators into conditions in certain depressed areas was announced.⁸ Mr H. Macmillan (Stockton-on-Tees) later considered that "it would not be an exaggeration to say that the decision of the Government to make those appointments was brought about no doubt by their own inquiries, and partly by the pressure of public opinion, but very largely as a result of a series of articles which appeared in the 'Times' newspaper in the summer of this year, and which revealed for the first time to many southern readers the full amount of distress".⁹

8. Hansard (Commons) 5th ser. 288,1100, 19 April 1934.

9. ibid.295, 227-8, 20 Nov. 1934.

The second, and not altogether distinct, strand of thought that heralded the 1934 legislation were the Reports of the Investigators.¹⁰ These were originally prompted, it seems, by The Times and the highlighted disparities between 'North' and 'South', as some recovery was experienced from the cyclical depression. The proposals of the Investigators were far from revolutionary. As The Economist noted, "the proposals contained in these four reports do not reveal anything particularly novel or .. striking".¹¹ Arthur Greenwood (Wakefield) considered "that there is very little which was not put before the Government on the Floor of the House, when, two years ago, I think, we had a three days' Debate on the problem of the unemployed",¹² and Mr Daggar (Abertillery) quoted a statement of Professor Marquand to a Welsh newspaper. "The publication of the reports of the four commissioners serves chiefly to draw attention to the tragic delay of the Government in dealing with this problem. We find that no new information has been discovered and that almost the whole of their recommendations have been made before."¹³ The speeches of Mr Buchanan (Gorbals) and Mr Lawson (Chester-le-Street) echoed these opinions.¹⁴ Even so, the recommendations

10. Reports of the Investigations into the Industrial Conditions in Certain Depressed Areas (P.P., 1933-4, XIII).

11. The Economist, 10 Nov. 1934.

12. Hansard (Commons) 5th ser. 293, 2076, 14 Nov. 1934.

13. ibid. 2258, 15 Nov. 1934.

14. ibid. 2267-73, 2280, 15 Nov. 1934.

were diluted after consideration by the various departments concerned.¹⁵

The exception was the cautious comment on a proposal of the Investigator for Durham.

"Captain Wallace proposes the appointment of a Commissioner to coordinate all activities in connection with Government schemes for a rehabilitation of the Durham and Tyneside area. Such a Commissioner should not be under the necessity of referring any but major questions to London. This suggestion must be considered in relation to all the areas, since presumably if a Commissioner were appointed for one area, similar appointments would have to be made for each of the others. It is difficult to see the value of such appointments unless the Commissioners were given considerable funds and powers."¹⁶

Not only was this earmarked for further consideration but the subsequent difficulties a Commissioner would have with insufficient money and authority were foreseen.

After the various government departments had considered the Investigators' Reports, it was the turn of a Cabinet Committee. It was here concluded that the Reports were unimaginative and were "unlikely to satisfy the expectations that have been created in all quarters by the appointment of the Investigators".¹⁷ Other measures had to be considered. For example, one approach that found favour was a policy aimed at developing the infra-structure of the areas so as to make them more attractive to industry. "These desiderata could be met", it was felt, "by the appointment of a Commissioner to take charge of all special measures in the Depressed Areas".¹⁸ Such a course "would have

15. P.R.O. Inter-Departmental Committee on Depressed Areas. Notes and Memoranda on Reports of Commissioners and Summary of Recommendations and Departmental comments thereon. BT 55/15/D.A.9.

16. *ibid.*

17. *ibid.* Interim Report of the Cabinet Committee on the Reports of Investigations into the Depressed Areas. CP 227(34). 22 Oct. 1934. CAB 24/251.

18. *ibid.*

an important psychological effect in persuading the persons in the Depressed Areas that the Government had their plight very much at heart."¹⁹ Transference was to be the most effective weapon; the Special Areas proposals the most dramatic.

Neville Chamberlain, as Chancellor of the Exchequer, on moving the acceptance of the Reports to the House of Commons noted that, "there was very little chance of finding any as yet undiscovered remedy that anybody had thought of" and he complimented the Investigators who, "have not allowed themselves to be led away by any will-o'-the wisps, but have chosen to rely upon the cumulative effects of attacks upon the problem from many angles".²⁰ The Government were in agreement with the Investigators, "upon the need for an intensification of the transference policy".²¹ This was particularly stressed as conditions in the South of England were improving after the collapse of 1929 and this relative revival held the prospect of job opportunities. Before 1934, the cyclical downturn had had severe effects on the success of transference policy. As Mr O. Stanley, the Minister of Labour, considered, "there is a possibility today, as trade and industry stand now, in certain districts of the country of finding for people from the depressed areas jobs which are not at the expense of persons in the locality".²² Consequently, certain changes in the industrial

19. *ibid.*

20. Hansard (Commons) 5th ser. 293, 1992, 14 Nov 1934.

21. P.R.O. Board of Trade Committee Papers. Inter-Departmental Committee on the Depressed Areas. Papers relating to the setting up of the Commissioner for Depressed Areas, and the preparation of a Draft Bill. BT 55/14/D.A.1.

22. Hansard(Commons)5th ser.293,2086,14 Nov.1934.

transference scheme were to be implemented. The cost of making up juvenile wage rates to a sum allowing existence independent from the assistance of the family income was to be transferred from the Lord Mayors Fund to the Government; Hostels were to be built; grants in aid of living expenses to be paid and incidental expenses were also to be met. Additionally, an appeal was made to employers to use the Employment Exchange machinery when recruiting labour.

Although total recovery was to await the revival of the localized basic export industries, in addition to transference, other lines of attack were to be followed. One of these was the introduction of new industries to the areas. However, any proposals of subsidisation to induce such developments were dismissed and it was hoped that the Commissioner's 'cleaning-up' of the areas would remove the temporary disadvantages and encourage such industrial developments without the need for government intervention. The greater part of the Commissioner's activities were envisaged to be concerned with the residual problem of unemployment that transfer could not deal with through land settlement, allotments, small holdings, 'local occupational devices' and certain public works. Mr Stephen Davies (Merthyr Tydfil) appealed to the Government for a different emphasis in its policy.

"What amazes me", he said, "is either the utter disregard of the Government or their utter inability to appreciate what this talk of transference actually means No effort is to be made to bring industry to them but rather to drive them away where industry might exist. I am going to appeal to the Government . . . to consider the possibility of bringing industry to the people."²³

A similar appeal was made by Lieutenant-Colonel Headlam (Barnard Castle).²⁴

But Chamberlain already considered that the contemplated policy was ambitious as it stood. The submission of the recommendations of the Investigators to the ordinary procedure

"which consists, of course, in referring each recommendation to the appropriate Government Departments for examination, subjecting it to the ordinary checks - the consideration of whether it infringes old precedents or creates undesirable new ones - in fact, the application of all the necessary and proper safeguards which are usually brought into operation when considering the expenditure of public money, is a procedure which is neither appropriate nor adequate to the special conditions of these areas. What we want here, as it seems to us, is something more rapid, more direct, less orthodox, if you like, than the ordinary plan."²⁵

Ramsay MacDonald confirmed the Government's approach.

"The Government are taking on an area, a specially defined and examined area; they are going to take an experimental area, and not to begin and end there, but, just as a scientist takes his test tube into his laboratory, works out his results and their reactions, so we begin with that area for the purposes of discovery from the experiments

23. *ibid.* 2054-5, 14 Nov. 1934.

24. *ibid.* 2029-31, 14 Nov. 1934.

25. *ibid.* 1995-6, 14 Nov. 1934

cures, methods of handling, ways of spending public and private money, approaches to unemployment, and, having got these things out from a limited area, which nevertheless is representative in its problems of the whole country, we are going to extend these results of our working . . . by experimenting in the concentrated area you can reach your universal cure."²⁶

Generally, the Bill was not well received. Mr John (Rhondda West) wondered whether there was any need to move an Amendment. " In all my experience of this House, I do not think I have ever heard a Bill introduced by a Government which has been condemned by practically everybody on the Government side."²⁷ Criticisms on specific aspects were also numerous, especially on the definition of the areas to be designated and the amount of government money to be expended.²⁸ The regulations governing the Commissioner's assistance of local authorities were also criticized and prompted Bevan (Ebbw Vale) to prophesy

"that in six months time the Commissioner who has been appointed will be one of the most disillusioned, cynical and soured persons that the Government have ever used as a decoy to do a shabby job of work. He will be compelled to turn down scheme after scheme. He will be frustrated by Government Department after Government Department."²⁹

This criticism of the measure, and that on finance, seems to have been produced by a disappointment that the Commissioner was not to undertake large scale public works schemes. By contrast, there was general agreement that no assistance should be given to any undertaking

26. *ibid.*295,29-30,20 Nov. 1934.

27. *ibid.*1357,3 Dec.1934.

28. For example, *ibid.*1773,5 Dec.1934.

29. *ibid.*1946,6 Dec.1934.

operating for profit, although rate concessions were advocated by Mr Hall (Aberdare). There was little to suggest that the Bill was viewed as a means of 'move-industry' policy, either by the Government or the Opposition. Mr Lindsay (Kilmarnock) wondered whether there was any method "apart from the clearing away of slag heaps, which the Minister of Labour is going to use to correct the dislocation in the siting of industry".³⁰ It was evident that the Government placed no emphasis on the Commissioner's proposed activities in this sphere. The problem of unemployment was seen as a national problem requiring national measures such as altering the retirement age and the school leaving age; as a problem of industries and not areas requiring the drainage of pits, the hydrogenisation of coal, the encouragement of exports and of the shipping industry, and the nationalisation of mining royalties; as an inevitable feature of the capitalist system, a product of mechanisation and more. Opinion was sufficiently diverse to prevent a clear interpretation of the problems of the areas. The pressure for a 'move-industry' policy was merely one pressure amongst many and it was not developed to an extent that could attract many supporters.

1934 saw a re-examination of the regional problem, prompted by the disparate rates of recovery of the north and south from the cyclical depression. This resulted in a restatement of faith in the well-tried remedy of transference. The improvement of economic conditions in the south promised that this approach might become successful in dissipating northern unemployment. The innovation of Special Areas policy was a product of the Government's need to do something dramatic for these areas.

30. *ibid.* 541, 26 Nov. 1934. Also see 1310, 3 Dec. 1934.

A multi-faceted approach to the problem of regional unemployment was more acceptable than one relying on the much criticized, politically sensitive solution of transfer. The Commissioner's aims were to administer those palliatives within the Special Areas that had, without exception, been seen before. Even the hope that industry might be attracted was an echo of previous hopes,³¹ neither then nor in 1934 backed by sufficient power to enable these hopes to be seriously expected of fulfillment. The well-known limitations on the Commissioner's ability to induce industry to locate in the Special Areas - the exclusion of major towns from within the scheduled areas, the limited funds at his disposal, his lack of autonomy in the distribution of these funds and, in particular, his inability to aid undertakings established for profit³² - are only tenable if objectives are attributed to the legislation that were not in the minds of its architects. It was essentially an experimental scheme to discover what might best be done to solve the problem of surplus population. The Government did not set the Commissioner a task and then tie his hands behind his back so that he could not complete it. Transference was to be encouraged and Commissioners appointed to experiment with additional methods of solving the problem of regional unemployment. New industries was only one of the many channels that they were to explore.

31. For example, the work of the Chief Industrial Advisor to the Board of Trade in 1929,1930. This is described at P.R.O. New Industries in the Depressed Areas. BT 56/38/C.I.A.1800 (Parts 1 & 2).

32. For example see Second Report of the Commissioner for the Special Areas(England and Wales),op.cit.; Third Report of the Commissioner for the Special Areas(England and Wales) (P.P.,1936-7,XII).

III

As with much post-war legislation in this field, the 1934 Act was flexible so Loasby's comment on the situation in post-World War II Britain is also found to be applicable. "It is important to note," he observed, "that each shift of policy has required only an administrative decision to bring it into effect; legislation has followed later, if it has been needed at all, and the dates of legislation are therefore poor guides to the timing of policy changes."³³ It was after 1934 that the character of Special Areas policy began to assume a character closer to that which is usually attributed to it and that a contradictory element began to creep into policy objectives.

Early in 1935, the English Commissioner announced his intentions on future action ³⁴ and it was noted that transference might conflict with his other aims, namely the expansion of agriculture and industry, and public works. Already the emphasis was moving away from a labour mobility cure for the depressed areas.

"For the younger section of the population in the distressed areas the generally accepted remedy is transfer to areas of employment, leaving behind a relatively elderly and less efficient remainder to bear the burden of the future. Transfer there must be; but, carried beyond a certain point, transfer will leave a waste of social capital and a legacy of future liabilities which will add to the difficulties of local industrial recovery. When the social and economic consequences of industrial decline are so tragic the possibilities of some

33. Loasby, *op. cit.* pp. 28-9.

34. The Times, 29 Jan. 1935.

direction of industrial development cannot be dismissed from consideration."³⁵

The emphasis of policy was to change gradually. Baldwin appealed in mid-1935 "to employers generally to make use of the exchanges and to give the officials there an opportunity of submitting men and boys from these areas".³⁶ Whilst transference was hoped to increase, the Prime Minister went on to regret

"the fact that none of the new industries which have come down to the London area have thought fit to establish themselves in one of the depressed areas. I cannot see yet how we can bring the Government in by any form of direct action . . . but I do appeal . . . to the men who are undertaking and laying down new works to show their gratitude to the country for protecting them with a tariff by doing something in exchange for the country and going where the country needs them most, and that is these areas."³⁷

The climate of opinion in the House of Commons, however, seems to have been in advance of the Government. Mr Macmillan replied that

"the Prime Minister, with engaging frankness, said that he realised that the problem of attracting new industries to the old areas was the essential problem for the Government . . . He said that at present he had no ideas and no positive plan to suggest . . . Might I suggest one or two? Might I suggest that it is now common history that the Government should reconsider the policy of derating . . . May I suggest another source of investigation? What is the main reason why the new industries group around the London area? One of the reasons is that power has become mobile. There is no need today, as there used to be, to put down plant near the coalfields . . . What is more important is that it should be put near the market . . . I suggest for the Prime Minister's serious consideration that something might be done on the lines of modern transport . . . The next policy which might be considered is that of

35. *ibid.*

36. Hansard(Commons)5th ser.304,201,9 July 1935.

37. *ibid.*202,9 July 1935.

making the distressed areas really attractive commodities by undertaking on a broad basis, to clear the whole of the site and form new factory sites."³⁸

Mr. Scrymgeor-Wedderburn (West Renfrew) also argued that the Government could "acquire in the Special Areas estates which may be suitable for industrial development and which might very quickly attract new industries if they were prepared with that purpose in view".³⁹

Meanwhile, opposition to transference was becoming widespread as advocates of a 'move-industry' policy multiplied in number. But the Government did not think that transference should be abandoned, preferring a multi-pronged attack on the problem of unemployment. The Government did not believe that "the introduction of new industries into the depressed areas is going to play a very large part in the near future in solving the problems of those areas. Speaking generally we doubt the feasibility of trying to persuade ordinary industry to go into the Special Areas."⁴⁰ Mr Wise (Smethwick) put the logic behind the continuation of transference policy. "Looking at the distressed areas," he said, "what new industries can be taken into most of them? Industry has not migrated from these areas for fun; it has migrated because other areas are economically more suitable."⁴¹ The Government had no doubt that a policy of "transfer, forcefully presented and vigourously prosecuted, can do something effective and permanent to bring back many of the

38. *ibid.* 228-9, 9 July 1935.

39. *ibid.* 242, 9 July 1935.

40. P.R.O. Cabinet Committee on the Reports of the Commissioners for the Special Areas. Report. CP 197(35). 18 Oct. 1935. CAB 27/577.

41. Hansard(Commons) 5th ser. 304, 275, 9 July, 1935.

employable persons in the depressed areas into the stream of production".⁴²

"The Cabinet's policy should be a further speeding up and improvement of the process of transference."⁴³

Debating the First Reports of the Commissioners, the Commons again found itself divided. Whilst the Opposition argued against transference and for the control of the location of industry, the Government stood by the status quo. Mr A. Greenwood (Wakefield) opened the debate.

"The Government have no policy", he asserted, "their only hope is to diffuse this problem all over the country, through a large scheme of transfer. The industrial districts which are distressed would then not look quite so bad. People who are the victims would be scattered throughout the length and breadth of the country, and the Government would then be able to point at the distressed areas as having improved; but any man who is taken out of a distressed area and sent into another part of the country steals a job - if he gets a job - from some native in the new area, unless there is an extension in the demand for labour."⁴⁴

If transference was unacceptable it was also true, Mr Greenwood thought, that

"capitalist enterprises have no moral right to leave social capital derelict, and to leave workers hopeless and workless, while they take their capital elsewhere . . . in these difficult times none of the great patriotic employers ought to be allowed to walk away from a district and leave a trail of ruin behind them. We assert . . . that the Government should control movements of capital in these days and that it should . . . also control the location of industry."⁴⁵

It was at this time that the proposals of Richard Thomas and Co. to open

42. P.R.O. Note by Chairman of Inter-Departmental Committee annexed to Inter-Departmental Committee's Report on the Reports of the Commissioners for the Special Areas. 27 Sept.1935. CAB 27/577.

43. *ibid.* Cabinet Committee on the Reports of the Investigations into the Depressed Areas. Proceedings and Memoranda. D.A.(34) 9th Meeting, 17 Oct.1935. CAB 27/578.

44. Hansard(Commons)5th ser.304,1673,23 July, 1935.

45. *ibid.*1682,23 July 1935.

a new plant in the East Midlands orefield were under public discussion and this proposed movement and its apparent ramifications may have given some impetus to the establishment of a 'control capital movements' school of thought.⁴⁶ Mr Bevan referred to the proposals of Sir William Firth. "It seems to me", he said, "that when industrialists like Sir William Firth talk about the establishment of new steel works at Redbourne they are talking antediluvian economics. They are merely taking into account the balance sheet of steel production alone, but if you are to have economics which are sound you must take into account the obsolescence of the social apparatus left behind in the old place."⁴⁷

Neither were Government backbenchers content with Government policy, although they were not at one with the Official Opposition. Lord Dunglass (Lanark) put emphasis on transference from areas where there was no prospect of attracting new industries and was against preventing industries from changing their locations because it might result in a decline in the competitiveness of the industry and a subsequent loss of business in international markets. If a new location was necessary, the workforce ought to be encouraged to move with the plant. However, for areas where expenditure on social capital should continue he advocated attempts to induce the establishment of new industries, for example,

46. infra, Chapter 8.

47. Hansard(Commons)5th ser.304,1673,23 July 1935.

through the complete derating of industry in these areas.⁴⁸ A similar point of view was expressed by Lieut.-Col.Sir C.Headlam. He thought that the smaller industries, at present attracted by the London market, could be attracted to non-derelict locations in the Special Areas and he considered, "the proposal made by the Commissioner on page 16 of the Report that there should be a special fund created in order to lend money on easy terms for the expansion of existing enterprises and the starting of new enterprises would prove to be a very great help to us".⁴⁹ He also wondered whether the Government could "bring some influence to bear on the railway companies in order that some differentiation in freight charges might be made".⁵⁰ Mr Bevan was in agreement on this last objective.⁵¹ The subsidy of freight rates was also advocated by Lieut.-Col.C.Kerr (Montrose) in an adjournment debate of the 2nd August and he thought "the Government might [also] . . look into the question of being able to provide cheap sites for new industries in those areas".⁵²

The changing emphasis in the aims of policy was further encouraged

48. *ibid.*1722-8,23 July 1935. At this time industry was 75 per cent derated by the 1929 Local Government Act. However, the burden of public assistance was still unevenly distributed, given the unequal regional distribution of distress, and representatives of these areas were often arguing for the complete derating of industry, less frequently for a differential derating, and also for the burden of public assistance to be taken over by the central government. It was not until April 1937, with the passage of the Local Government Act, that the block grant was adjusted to redistribute the rate burden somewhat, although not to the extent of equalisation.

49. *ibid.*1740,23 July 1935.

50. *ibid.*

51. *ibid.*1763-4,23 July 1935.

52. *ibid.*3063,2 Aug.1935.

by Sir Malcolm Stewart's proposals to establish trading estates, on the Slough model, in the Special Areas. Noting the limitations of the 1934 Act and the remote possibility of private enterprise beginning such a venture in these areas, he proposed, "that something should be done to provide estates in the Special Areas somewhat similar to those at Slough and Trafford Park . . . Some practical measure has to be taken to offer a definite inducement to new industry to establish itself in these areas."⁵³ The cautiousness of the Government was not far from the Commissioner's mind when he submitted his proposals, and, perhaps to soften the blow, he observed that, "the proposal is admittedly unorthodox, but it should be regarded as an experiment".⁵⁴ This was in the spirit of the original legislation and subsequently the unorthodox became Government orthodoxy. Mr Baldwin expressed his "conviction that of all the things that can be done in those areas, the introduction of new industries is by far the most important" and he preferred trading estates as a means to this end. "I attach some importance to, and view with some hope, the establishment of one or more trading companies charged with the duty of establishing and equipping estates in the Special Areas."⁵⁵ Compulsion was still abhorrent. Nevertheless, it was becoming clear that Government appeals were not having any effect. Mr Anderson (Whitehaven) referred to the failure of industrialists to respond to the Commissioner's circular on whether they would consider a Special Areas location and added that "I think

53. P.R.O. Correspondence between the Commissioner and the Board of Trade. Memorandum of 16 Aug.1935. BT 64/11/I.M. 1981/35.

54. *ibid.*

55. Hansard(Commons)5th ser.307,74-6,3 Dec.1935.

it will be agreed that the idea of persuasion or of appealing to their morality has fallen on hard ground, and I feel that, unless something is done of a compulsory character, we cannot hope that new industries will come into the special areas".⁵⁶ On December 11th, the Minister of Labour announced that, in addition to the trading estate contemplated for the North-Eastern area, a similar venture was to be considered for South Wales. The Government were now relying on trading estates to fulfill the objective of moving industry into the Special Areas. However, the techniques of inducement were still in their infancy although Mr Edwards (Middlesbrough East) did suggest "the possibility of preventing people setting up factories in the South in preference to the industrial areas".⁵⁷

A new pressure for an alteration in regional policy was introduced by Mr Dalton (Bishop Auckland) on the publication of the Commissioners' Second Reports in March 1936. He regretted that transference was the most effective policy instrument possessed by the Government⁵⁸ and thought the accomplishments of the Special Areas Commissioners were "wholly inadequate in scale and conception". The fresh element was the fear that "if the present southward drift of industry continues, before long the whole of British industry will be gathered in an ever-expanding ring around Greater London - Greater London which in time of peace is a geographical abortion and in time of war would be a death trap for millions".⁵⁹

56. *ibid.*192-3,4 Dec.1935.

57. *ibid.*1041,11 Dec.1935.

58. *ibid.*309,1024,2 March 1936.

59. *ibid.*1024-6,2 March 1936.

A dual policy was needed. "Positive state action is necessary", Dalton continued, "if . . . new industries are to be brought into old areas. Without positive state action all the well-meant activities of local Development Boards will be impotent, and all appeals addressed to private employers will be quite useless."

Secondly,

"in future there should be a system of Government licensing of sites for all new factories . . . The Government should definitely intervene in deciding whether a new factory shall go to Durham or South Wales or Cumberland or Scotland, or whether it shall be allowed to cling on to the outskirts of Greater London, in Hertfordshire, or Essex or Middlesex. . . I should like to submit this special consideration in the case of light industries as distinguished from the heavy industries."⁶⁰

Mr Dalton's fears for London were echoed. Criticisms of transference and arguments in favour of inducements to industrialists were the other pressures for a change in Government policy. Viscount Wolmer (Aldershot) noted that "the amenities of London are much greater than the amenities of Northumberland, and a capitalist's wife would much rather live near London than near Newcastle. The effect of this . . . will be that London will continue to grow . . . and . . . I submit, [that] is unhealthy from a national point of view."⁶¹ Mr K. Griffith (Middlesbrough West) was amongst those against transference. "There is all the difference in outlook if work is brought to an area. What you are saying then is, 'The ship is leaking, all hands to the pumps'; but if you adopt transference as the main policy you say, 'The ship is sinking, all hands to the

60. *ibid.*1029-31, 2 March 1936.

61. *ibid.*1116, 2 March 1936.

boats'."62 Other criticisms were voiced by a variety of M.P.s.63

Lord Dunglass re-advocated his preference for a dual policy of transference, which he hoped could be accelerated, for example, by transferring more labour to prospective employment, and of inducements to industrialists.64

Critics of policy with more extreme proposals, advocated some form of control over the location of industry. In a debate on the 11th March, Mr A. Edwards moved for the appointment of a commission to survey industry and to take powers to plan the location of industry. "I suggest, therefore, that it should be the duty of the proposed commission . . . to declare certain areas of the country closed areas, and that no one should be allowed to establish a factory in any place in the country without a Government permit." "I would suggest an area of 40 miles round London being closed, and that even if a permit were given . . . I should insist that such factories be placed in satellite towns, such as Welwyn."65 Further, "in report after report we have been told that light industries are essential to the revival of trade in [the Special] areas, and if private enterprise will not respond to the national interest, it should be the duty of the commission to establish such enterprises."66 Mr Greenwood also argued for compulsion, pointing to the failure of persuasion to have any results and to existing precedents.

62. *ibid.*1046, 2 March 1936.

63. For example, Mr Whitely (Blaydon), Mr Anderson, *ibid.*1064, 1079, 2 March 1936; Sir R. Aske (Newcastle-upon-Tyne), 1242, 3 March 1936; Mr W. Joseph Stewart (Houghton-le-Spring), 1286, 3 March 1936.

64. *ibid.*1093, 2 March 1936.

65. *ibid.*2145, 11 March 1936.

66. *ibid.*2147, 11 March 1936.

"We have time and time again interfered with the rights of people to put their businesses where they liked. The Town and Country Planning Act enables local authorities to exercise very powerful influences to stop the establishment of factories, petrol stations and so on . . . a Government which is prepared to begin with the organisation of our industry for war purposes ought at least to have sufficient imagination to try to organise it for peace purposes."⁶⁷

More representative of Parliamentary opinion, Mr Boothby (Aberdeen and Kincardine East) was sympathetic to the aims of the motion but not to the methods. He considered it a "very dangerous thing for the State to arm itself with authority to order industries to go into districts where they do not wish to go", but, nevertheless, regretted the duplication of social capital, the economic and social distress of the Special Areas and the strategic disadvantages of the concentration of industry about London.⁶⁸ Dr Burgin (Parliamentary Secretary to the Board of Trade) also preferred persuasion to compulsion.

Increased pressure for effective Government intervention in the location of industry and for the run-down of transference policy was to have no immediate results. Following the trading estates experiment, the Government announced in April 1936 the formation of the Special Areas Reconstruction Association, Ltd. (hereafter, SARA). This was a product of recommendations by Stewart, in the previous July, for a body to provide capital for new industries to enable them to locate in the Special Areas, and to assist existing enterprises. The Opposition was against the measure, arguing that the proposed capital of the company at £1 million was not nearly large enough and that it

67. *ibid.*, 2208-9, 11 March 1936.

68. *ibid.*, 2156, 11 March 1936.

would only begin to touch the problem. The time for experiment, it was felt, had ended. Nevertheless, the measure was favourably received in some quarters. Mr Magnay (Gateshead) recognized the new principle involved in the measure. "To be frank, I never expected the Chancellor of the Exchequer would do this. This heterodox finance, coming from him, amazed me not a little."⁶⁹ Mr Bevan also saw some significance in the measure. "The ground taken by the Government is that it is now necessary to offer inducements to industries to establish and maintain themselves in the distressed areas. If that is admitted, the inducements offered by the Government are not nearly as effective as the inducements which lie in their power."⁷⁰ But although significant in principle, the Government were still not committed to a single policy weapon. Mr Morrison (Financial Secretary to the Treasury) noted that with regard to transference

"there has been a hopeful acceleration of that movement in recent years . . . I mention these figures to let the hon. Members see that though we have bought this measure /SARA/ to deal with one aspect of the problem, we are by no means neglecting the other. We ask the House to take the line that we take, that every conceivable measure should be tried."⁷¹

IV

In October 1936, the Government announced that the Special Areas Act was to be extended for a further period. There was some reaction

69. *ibid.* 311, 1934, 7 May 1936

70. *ibid.* 1951, 7 May 1936.

71. *ibid.* 1985-6, 7 May 1936.

in the Commons. Sir A. Sinclair (Caithness and Sutherland) regretted the mere continuation of the 1934 Act "because even such improvements as has taken place in the Special Areas is due not so much to increased employment as to transfers".⁷² Mr Dingle Foot (Dundee) noted that "a small measure was brought forward last session [SARA]; but surely", he asked, "we are not going to stop there. If that measure is successful the principle will have to be applied a great deal further. The proposal has been made [for example] that the Government should make a grant towards new industries setting up in the Special Areas."⁷³ Other criticisms concerned the powers of the Commissioners, the geographical coverage of the First Schedule, the amount of money actually spent in the Areas and the delay in getting trading estates and SARA into action. Not only was the Special Areas policy deemed ineffectual, but, there was now a coherent case for the intervention of the Government in the field of industrial location. The alternative policy of transference was unpopular and it had been seen by this time that recovery had passed by the depressed areas.

The Economist observed that "plainly, the Cabinet's present inertia is seriously out of touch with public opinion" and it welcomed Stewart's Third Report. The Government "should aim not merely at improving the lot of the unemployed in the Areas and transferring them elsewhere", it argued,

72. ibid. 317,46,3 Nov. 1936; Also see The Economist, 31 Oct. 1936.

73. Hansard (Commons) 5th ser. 317,553,6 Nov. 1936. Other proposals were discussed in The Economist, 7 Nov. 1936.

"but also at the deliberate direction of new industries into the Areas. Mr. Stewart does not think that there are fundamental economic reasons why new industries should come to London except in special cases. Accordingly, persuasion being 'futile', and compulsion, in his opinion, inadvisable, he would 'induce' industrialists to go to the socially desirable districts by two main methods. First, he would prohibit the location of further new factories in Greater London . . . and, secondly, he would make concessions in rating, income tax, and finance in the Special Areas themselves."⁷⁴

The success in interpreting the 1934 Act so that trading estate companies could be allowed in mid-1935 was important to the Commissioner. He used the precedent of indirect aid to private enterprise as an argument for direct aid. He considered it

"necessary to examine an essential principle not now recognized by the Special Areas Act. I refer to the provision that the functions of the Commissioner shall not, except within the specified narrow limits, include the carrying on of any undertakings for the purpose of gain, or the provision of financial assistance to any undertaking carried on for that purpose. It appears to me that this restriction needs reconsideration. Its full rigour has already been modified through the medium of non-profit earning legal entities, which have been set up with Government approval. By this means machinery has been designed within the limits of the Act which will help to foster private enterprise in the Special Areas . . . My recommendation is that by means of State-provided inducements a determined attempt should be made to attract industrialists to the Special Areas."⁷⁵

Chamberlain expressed his views on Stewart's Third Report in a debate of 17th November 1936. Firstly, he doubted whether the prevention of industrial expansion in the London area would necessarily result in the diversion of this expansion to the

74. The Economist, 14 Nov. 1936.

75. Third Report of the Commissioner for the Special Areas (England and Wales), op.cit. paras. 25, 8.

Special Areas. Further examination of this proposal was promised. Secondly, the proposal for 'State inducements' to new industries to locate in the Special Areas was accepted. "I am willing to be unorthodox in regard to the Special Areas", he commented.⁷⁶

Nevertheless, he added that the Government

"cannot see in front of us any scheme by which we can hope to give employment in the areas to all the people who are there. Therefore, transference must go on [even though] it is only natural that those who are most ready to seek their fortunes elsewhere are the youngest, the strongest, the most enterprising - in fact, the most active and efficient members of the community."

The general tenor of the reaction to Chamberlain's statement was unfavourable. It was thought that the Government needed to act and could, given the will, have acted immediately. Mr Boothby was of this opinion and also considered that no new proposals had been made. Nevertheless, the Government had shifted its grounds considerably from the position that the existing legislation was simply to be continued for a further period. Mr Lawson considered that it was "largely because of the marchers and the general uprising in public opinion, that the Government have now come to the point of making a promise that they are going to consider, investigate and look into the matter".⁷⁸

The Government, however, were not yet ready to meet its critics. The radical step of providing state inducements to enterprises to

76. Hansard(Commons)5th ser.317,1595-6,17 Nov.1936.

77. ibid.1590-1,17 Nov.1936.

78. ibid. 1605,17 Nov.1936.

locate in the depressed areas was a sufficient new departure and the administration began to tackle those questions that had previously resulted in any proposal suggesting subsidy of being rejected out of hand. Gillett noted that, "it is not going to be of any advantage in the long-run to establish industries in areas where they cannot possibly survive when the subsidy period comes to an end."⁷⁹ How was a decision to be reached on what a particular firm would receive on a variable scale of possible inducements? What criteria were to favour one firm rather than another? What was to be done for existing industries who were to be affected by subsidised competition?

The Government's policy was ready for its introduction into Parliament in March of 1937. There were three new developments in policy. The first was that, to meet the demands of the Commissioner, inducements to private industry were to be provided. Secondly, special financial assistance was to be made available to areas outside of the Special Areas, where local initiative was present. Thirdly, a fund of £2 million was to be provided by way of loan to give financial assistance to industries rather bigger

79. Letter from Sir George Gillett, the second English Commissioner, to Ernest Brown, the Minister of Labour, 23 Dec. 1936. P.R.O. Commissioner for the Special Areas (England and Wales). Recommendations in Third Report on State provided inducements to attract industry to the Special Areas. LAB 8/205. It was widely held in Government circles that the proposed allowances in respect of rates, rents and taxes would be ineffective. See P.R.O. Cabinet Committee on the Reports of the Investigations into the Depressed Areas. Inter-Departmental Committee's Report on the Third Reports of the Special Areas Commissioners. D.A.(34)10,11 Jan. 1937. CAB 27/577; P.R.O. Special and Distressed Areas. T 172/1828; P.R.O. Papers leading up to and connected with the passage of the Special Areas Amendment Bill 1937. T 161/779/41961/01.

than those covered by SARA. This assistance was to be provided in both the Special Areas and the new 'certified' areas. These last-named areas were to be selected by the Minister of Labour and were to fulfill the conditions that heavy and prolonged unemployment had been experienced and that in the absence of financial assistance no recovery from this situation seemed likely. The areas were also to be dependent on one or more depressed industries.⁸⁰ On the question of the growth of London it was felt that the metropolis was not unique in its experience of problems associated with industrial growth. Accordingly, a Royal Commission was to be established to study such questions. South West Durham was another area of special concern. In this case the South West Durham Improvement Association was to be set up to improve the economic outlook of the area and to consider the problems created by the existence of small and relatively isolated villages where there was little prospect of industrial development.⁸¹

80. 'Certified areas' were a compromise solution to the demands and pressures for an extension of the Special Areas scheduled in the Act of 1934. Parliamentary pressure for the scheduling of an area is evidenced by the concern of Lancashire M.P.s. For example, see the debate reported in Hansard (Commons) 5th ser. 317, 1809-65, 18 Nov. 1936. Lengthy consideration is given to the possibility of extension by the Inter-Departmental Committee on the Special Areas. P.R.O. Cabinet Committee on the Reports of the Investigations into the Depressed Areas. Inter-Departmental Committee's Report on the Third Reports of the Special Areas Commissioners. D.A. (34) 10, 11 Jan. 1937. CAB 27/577; P.R.O. Cabinet Committee on the Reports of the Investigations into the Depressed Areas. Proceedings and Memoranda. D.A. (34) 10th Meeting, 26 Jan. 1937. D.A. (34) 11th Meeting, 10 Feb. 1937. CAB 27/578.

81. Hansard (Commons) 5th ser. 321, 1023-7, 9 March 1937.

The breadth of these proposals overshadowed previous Government efforts, although they fell short of hopes for immediate action on the location of industry. It is also significant that this was the first policy statement where there was no reference to transference. However, the policy statement was not welcomed.

In reviewing previous achievements, Mr Brown had laid some stress on the impact of the rearmament programme. The value of Government contracts to the Depressed Areas was £41 million in the eighteen months to November 1936 and of this, £24 million had gone to the Special Areas. There were numerous proposals for the future which were to provide employment for 3,000 persons.⁸² It was this emphasis that distressed The Economist. Reviewing the White Paper giving details of the Amendment Bill it said that,

"it is clear, from the whole tenor of the White Paper, that the Government places its reliance not upon any such measures as these but upon the defence programme. Depression and distress are to be bought off by expenditure on guns and battleships. The Special Areas plan pales into insignificance besides the rearmament programme."

"The end of the armament programme - which, presumably, we must one day envisage - will once more devastate areas that have been told to pin their hopes on unproductive activity. It is dangerous to encourage the Special Areas to put all their eggs, for the second time, into one basket."⁸³

82. *ibid.* 1114, 9 March 1937; 1012-3, 9 March 1937. Also see note by the Chancellor of the Exchequer, D.A.(34)11, 15 Jan. 1937 in P.R.O. Cabinet Committee on the Reports of the Investigations into the Depressed Areas. CAB 27/577.

83. The Economist, 6 March 1937. Also see Miss Lloyd George (Anglesey) in Hansard (Commons) 5th ser. 321, 1048, 9 March 1937.

Other aspects of the policy were criticized besides the apparent emphasis on rearmament. Mr Dalton considered "a Royal Commission . . . a well-known device for postponing decisions" and proposed a Minister of Cabinet rank to take the responsibility for the location of industry.⁸⁴ He also made the point that the benefits from the various inducements were not automatic, being at the discretion of the Commissioners. Further, the restriction on the Commissioner's powers to assist in spheres where some other Government Department had the responsibility had not been removed and it seemed that the Treasury loan fund of £2 million was "just painfully keeping pace with Lord Nuffield."⁸⁵ Many were also to echo Dalton's fears for South West Durham. "It appears", he said, "that the chief remedy of the Gibb Report is to drive people out of the villages and then pull the houses down behind them . . . we do not accept the view that this area is unsuited for further industrial development."⁸⁶

84. Hansard(Commons)5th ser.321,1032,9 March 1937. Mr Burke (Burnley) also thought a Royal Commission unnecessary, 1096,9 March 1937.

85. ibid.1042,9 March 1937. Financial restraints were not important in preventing the efficient working of a 'move-industry' policy although, of course, such restraints could limit progress in the field of public works and the social improvement of the areas. It is my belief that financial considerations have figured too prominently in explanations and judgements of the performance of Special Areas policy. If the Government had had clearly defined intentions in respect of a 'move-industry' policy then its objectives could have been met at no direct financial cost by the direction of industry. The proposed embargo on development in the London area is a case in point. Public works were not limited by finance so much as the desire to avoid expenditure on public works for party political reasons.

86. ibid.1043,9 March 1937. For further information on the policy for the South West Durham area, see P.R.O. Special Areas. Survey of S.W. Durham for Commissioner. HLG 30/17.

But despite these and other criticisms, the policy for the Special Areas was now, first and foremost a 'move-industry' policy. However, transference had still not been abandoned. Mr Chamberlain stated that "for some time there must remain a large number of people unemployed . . . whilst other measures are being developed, and in those circumstances, where a man has an opportunity of raising his own standard by finding continuous employment at good wages elsewhere, I cannot understand why hon. Members opposite show any objection to the process."⁸⁷ A 'move-industry' policy would take some time to have an effect, in the meantime, transference, rearmament and land settlement were to provide short-term relief.

V

Transference had now become a contradictory policy. It became increasingly difficult to argue that the coexistence of transference and a 'move-industry' policy was complementary now that the latter was to be pursued with vigour. Mr Storey (Sunderland) considered that

"we have got to concentrate the inducements offered on those areas where there is some chance of building up a balanced industrial development. I am convinced that the time has come when we must make up our minds as to the areas in which the cure is industrial development and the areas in which the cure is transference."⁸⁸

87. Hansard(Commons)5th ser.321,1573,12 March 1937.

88. ibid.322,103,6 April 1937.

A letter to The Economist the previous year had clearly pointed out the dichotomy of aims.

"It is right that the full blast of change should not fall on a small number of people; but their troubles should be mitigated", the authors argued, "not by measures which encourage them to stop where they are but by helping them to move into new employment. The further difficulty, however, then remains that a policy of transfer started in a district must have so depressing an effect on those industries and people that are left that there can be no chance of new industries establishing themselves there. The existence of the present transfer policy is itself sufficient to explain the reluctance of new industries to move to the Depressed Areas. The transfer remedy, therefore, must be abandoned as a general policy. It must be confined to those parts which are quite hopeless, but there must be pushed to the limit It emerges clearly that any general policy, applied to the Depressed Areas indiscriminately, whether it be a policy of transfer, or subsidy, or worse still of both together, cannot but be bad."⁸⁹

The bad effects of the coexistence of apparently contradictory policy instruments might also have been avoided if both measures had quantitatively insignificant effects on the problem of regional unemployment, irrespective of the degree of the discrimination between areas employed in the application of the different policy instruments. The Scottish Special Areas Commissioner argued that "what is needed is both the energetic continuation of the transference scheme, mainly because of its benefit to the less skilled workers, and the vigorous pursuit of every practicable and justifiable means of attracting to the area the new industries . . . Much more can still be done in both ways before the apparently opposing policies of transference out

89. The Economist, 14 Nov. 1936. The letter was from P.T. Bauer and A.M. Stamp.

and attraction in will be in any danger of mutual conflict."⁹⁰
Whether this was so or not, it was clear the stage had been reached where the possibility of contradiction was very real indeed.

The numbers transferring declined after 1936. This may have been attributable to a number of causes, for instance, prospects in the Special Areas improved relative to those facing the potential migrant so that labour was encouraged not to move and perhaps was absorbed into employment; the success of Special Areas policy may have resulted in a decline in transference. Transference might also have ceased to be so important if it exhausted its supply of potential movers. That is, transference may have been so successful in encouraging people to move that its job was finished. There is a further possibility and that is that transference declined as a result of deliberate policy changes inspired by the realisation that contradictory policies were coexisting from 1937.

This latter possibility can be examined further and it is interesting to observe the conclusions of a Ministry of Labour Departmental examination in 1938.

90. P.R.O. Memorandum by Commissioner for Special Areas in Scotland. The effect on areas of the withdrawal of big industries. HLG 27/77.

"The broad general conclusion which the Inspectors have reached is that industrial transference should be slowed down. They suggest that the number of scheduled areas should be reduced and that efforts should be concentrated in the remaining severely depressed areas. Finally, they recommend that we should consolidate the good work achieved in transferring people from depressed areas in the last few years by taking steps to ensure as far as possible that employment should continue to be made available for them in the non-depressed areas."⁹¹

This appears to be the final link; proposals are being made to curtail transference and, implicitly, to dovetail it into a more effective 'move-industry' policy. But it is also true that it was decided to run-down transference policy because it had been successful in moving those that it could.

"The dearth of applicants who were suitable for transfer was commented upon at most of the depressed area offices visited. It was often stated that the best of the workers had already transferred or were in employment locally, and that, probably because of the prolonged period of unemployment which they had experienced, a high proportion of the applicants at present registered was bordering on the unemployable."⁹²

VI

A strong case can be made through the detailed examination of policy changes, therefore, for a much later start to a regional policy predominately concerned with moving industry to the Special Areas. If this is so then the initial legislation of 1934 cannot be criticised on the grounds that it did not enable non-existent objectives to be achieved. In turn, if this is so, then the

91. *ibid.* Industrial Transference Scheme - General Review 1938. Minute of 9 July 1938. LAB 8/218.

92. *ibid.*

normal rationalisation of the 1937 amending legislation (to cure the faults of the 1934 Act) is not tenable and its origins were somewhat different. This reappraisal also throws new light on the other regional policy, namely, transference and it is seen to be the dominant regional policy after 1934 and probably as late as 1936.

"Transfer has been pursued with more enthusiasm and less publicity than the second alternative [of] luring new industry into places where men were idle . . . Neither circumstance is surprising. A new body, new men, and new grants were necessary for the latter, but the former could be carried out through the Ministry of Labour and subsidiaries which already existed."⁹³

This, perhaps, explains the underestimation of the role of transference policy in the inter-war years. As a result of these gradual changes in policy emphasis, it is likely that the two apparently contradictory coexisting policies were rarely in fact contradictory.⁹⁴

93. The Times, 17 Nov. 1936.

94. The exceptions are the period after the 1937 legislation and, the extent to which prolonged out-migration from an area is bound to make the achievement of a 'move-industry' objective more difficult, even if not coexisting with a 'move-industry' policy.

Table XXI

Labour Transference, 1928-1938

1. Labour Transferred from the Depressed Areas to Employment through the Employment Exchanges, 1928-1938.

	Men	Women	Boys	Girls	Total Individuals	Households and Family Removals*
1928	3,600**	360***	1,840	n.a.	n.a.	-
1929	36,843	2,239	2,622	1,994**	43,698	2,850
1930	28,258	1,752	1,313	1,708	33,031	2,100
1931	17,889	2,631	868	1,986	23,374	1,680
1932	8,359	2,651	628	2,502	14,140	990
1933	5,333	4,038	1,117	2,955	13,443	605
1934	6,828	4,420	1,661	3,512	16,421	1,308
1935	13,379	6,350	5,376	4,648	29,753	3,718
1936	20,091	8,008	9,449	5,958	43,506	10,025
1937	24,000		7,675	6,450	38,125	7,673
1938	18,000		4,131	5,496	27,627	4,000

2. Subsidiary schemes

(a) Labour Transferring from the Depressed Areas to Prospective Employment, 1928-1937

1928	1,500**
1935	1,016
1936	2,039
1937	2,052

(b) Labour Transferring from the Depressed Areas to Employment found other than through the Employment Exchanges and assisted by the Ministry of Labour (Free Fares), 1936-1938

1936	4,000
1937	3,000
1938	2,000

Source: A.D.K.Owen, 'Social Consequences of Industrial Transference', Sociological Review, 29(1937); Annual Reports of the Ministry of Labour; P.R.O. Industrial Transference Scheme, Memorandum by the Minister of Labour. CP 324(28). CAB 24/198.

*Family Removal Scheme began in 1935, the Household Removal Scheme in Dec.1928.

**Part of year only

***Women and girls transferred after training. No records exist of other female transfers in this year.

APPENDIX

A Regression Analysis of the Impact of Changes in Transference Policy in 1935

The suggestion that transference was encouraged from 1935, whilst at the same time Special Areas policy was introduced, was reflected in the figures of Table XXI. The peak year of transference activity was 1936. But it might be argued that this peak was simply due to favourable circumstances, such as a buoyant labour market, rather than the product of a new impetus from transference policy. This argument can be put to the test.

After inspection of the movement of the time series involved (Diagram II), a regression of transference on national unemployment (reflecting the state of employment opportunities in the national labour market) was run for the years, 1929-34. This was of the form:-

$$Y_i = \alpha + \beta X_i + E_i$$

where Y_i = transference in the i 'th year

X_i = national unemployment in the i 'th year

E_i = error term.

These results (Table XXII) show that national unemployment is a good predictor of transference. The extension of the analysis to include the period 1935-8 shows that the level of explanation decreases, although the equations dealing with total transfer and adult transfer remain significant. The examination of the years 1935-8 separately suggests that this decrease in explanatory power is attributable to national unemployment no longer explaining such a large part of the variation in

transference after 1935, although in the case of juvenile transfer the association is stronger but still far from significant. Thus, the differing emphasis on transference policy is to be preferred in explaining the increase in transference activity in this later period.

Predicting total transfer from equation 3 for the period 1935-8 gives the estimates of Table XXIII (and see Diagram III). This also shows the actual figures for these years. As expected, with the exception of 1938, the predicted values of the transference variable are exceeded by the actual values. However, given the confidence intervals for these predictions, only 1936 can be singled out as definite support for the hypothesis that the increased transference activity did not simply reflect a greater opportunity for the operation of the schemes.

Transference was encouraged from 1935¹ and to such an extent that activity in 1936 was exceptional in comparison to that expected from an examination of the openings available (indicated by national unemployment). The Ministry of Labour thought that "the improvement in industrial conditions and the extended facilities for assisting transference referred

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1. By the advance of fares to transferees to prospective employment and the grant of aid towards the cost of lodgings. An allowance for dependents was also given. Similar facilities were made available to transferred men who had lost their jobs in the south and awaited another. Other encouragements included giving free fares to those finding employment in non-depressed areas; the extension of the Household Removal Scheme to allow a family to follow younger members of a family and the extension of the juvenile transference scheme. Ministry of Labour, Annual Report for the year 1935 (Parl.Papers, 1935-6,XIII),pp.21,2,44-50. The scheduled areas were also increased between 1934 and 1938. See supra, Chapter 4, Appendix.

to in the 1935 Report resulted in a marked increase in the number of persons transferred from depressed areas compared with previous years".² Other factors may have been offsetting this policy impetus in 1937 and 1938 and disguising the changed relationship between openings and transference. These were the improved expectations of opportunities in the scheduled Depressed Areas and the exhaustion of suitable applicants for transfer; the latter partially a function of the particularly high rate of transfer in 1936. As early as 1936 the Ministry noted the influence of the former factor.

"There remain many unemployed boys and girls in the Special Areas who could have been placed in suitable employment in other areas but for their own unwillingness to leave home, or the reluctance of their parents to allow them to do so. To some extent this reluctance was attributable to the expectation of increased opportunities of employment locally; another factor is uncertainty and ignorance of industrial conditions in other parts of the country."³

There seems little doubt that transference was pursued with new vigour and some effect from precisely that date at which it is normally assumed a 'move-industry' policy began.

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2. Ministry of Labour, Annual Report for the year 1936(P.P., 1936-7, XII),p.18.
 3. *ibid*,pp.42-3.

Table XXII

The Regression of Transference on National Unemployment for 1929-1934,1929-1938 and 1935-19381929-1934

	$\hat{\alpha}$	$\hat{\beta}$		R^2	n
(1)	$\hat{Y}_i = 5633.55$	$- 0.001$	$X_i + e_i$	$R^2 = 0.28$	
	(0.001)				6
(2)	$\hat{Y}_i = 55862.87$	$- 0.017$	$X_i + e_i$	$R^2 = 0.66(a)$	
	(0.006)				6
(3)	$\hat{Y}_i = 61496.41$	$- 0.017$	$X_i + e_i$	$R^2 = 0.73(a)$	
	(0.005)				6

1929-1938

(4)	$\hat{Y}_i = 16927.23$	$- 0.005$	$X_i + e_i$	$R^2 = 0.30$	
	(0.003)				10
(5)	$\hat{Y}_i = 48004.72$	$- 0.014$	$X_i + e_i$	$R^2 = 0.57(a)$	
	(0.004)				10
(6)	$\hat{Y}_i = 70499.41$	$- 0.021$	$X_i + e_i$	$R^2 = 0.70(a)$	
	(0.005)				10

1935-1938

(7)	$\hat{Y}_i = 24729.12$	$- 0.007$	$X_i + e_i$	$R^2 = 0.45$	
	(0.006)				4
(8)	$\hat{Y}_i = 36590.44$	$- 0.008$	$X_i + e_i$	$R^2 = 0.24$	
	(0.010)				4
(9)	$\hat{Y}_i = 9395.56$	$- 0.022$	$X_i + e_i$	$R^2 = 0.37$	
	(0.020)				4

In Equations, 1,4,7 \hat{Y}_i = predicted juvenile transfer. In 2,5,8 \hat{Y}_i = predicted adult transfer. In 3,6 & 9 \hat{Y}_i = predicted total transfer (adults + juveniles + free fares + prospective employment, see Table XXI)

Standard errors in brackets.

(a) significant at 5 per cent level.

Table XXIII

Predicted Total Transference and Actual Transference, 1935-1938

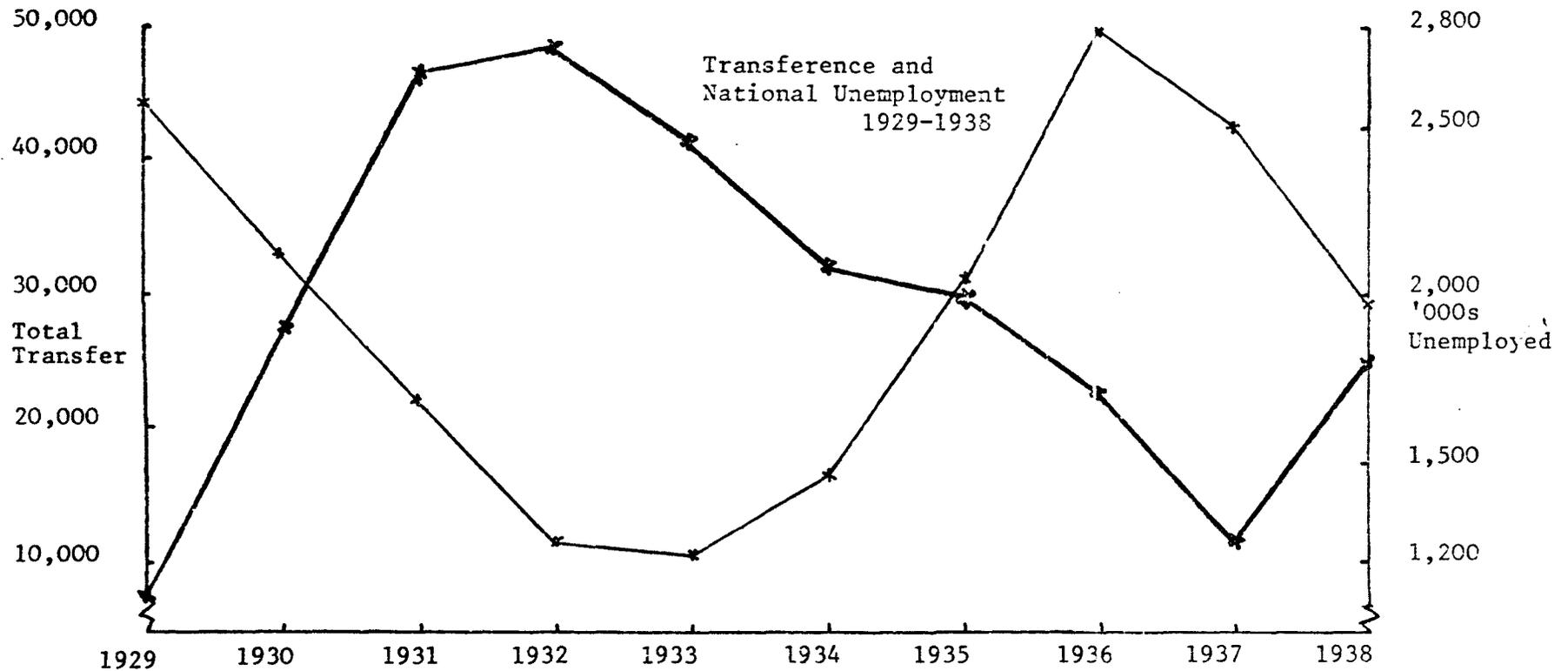
	Predicted Total Transference (\hat{Y}_i)	Actual Transference (Y_i)
1935	27,496 \pm 8,316	30,769
1936	32,545 \pm 10,291	49,545
1937	38,427 \pm 14,198	43,177
1938	30,845 \pm 9,518	29,627

The 95 per cent confidence intervals for the predictions were obtained from the formula:

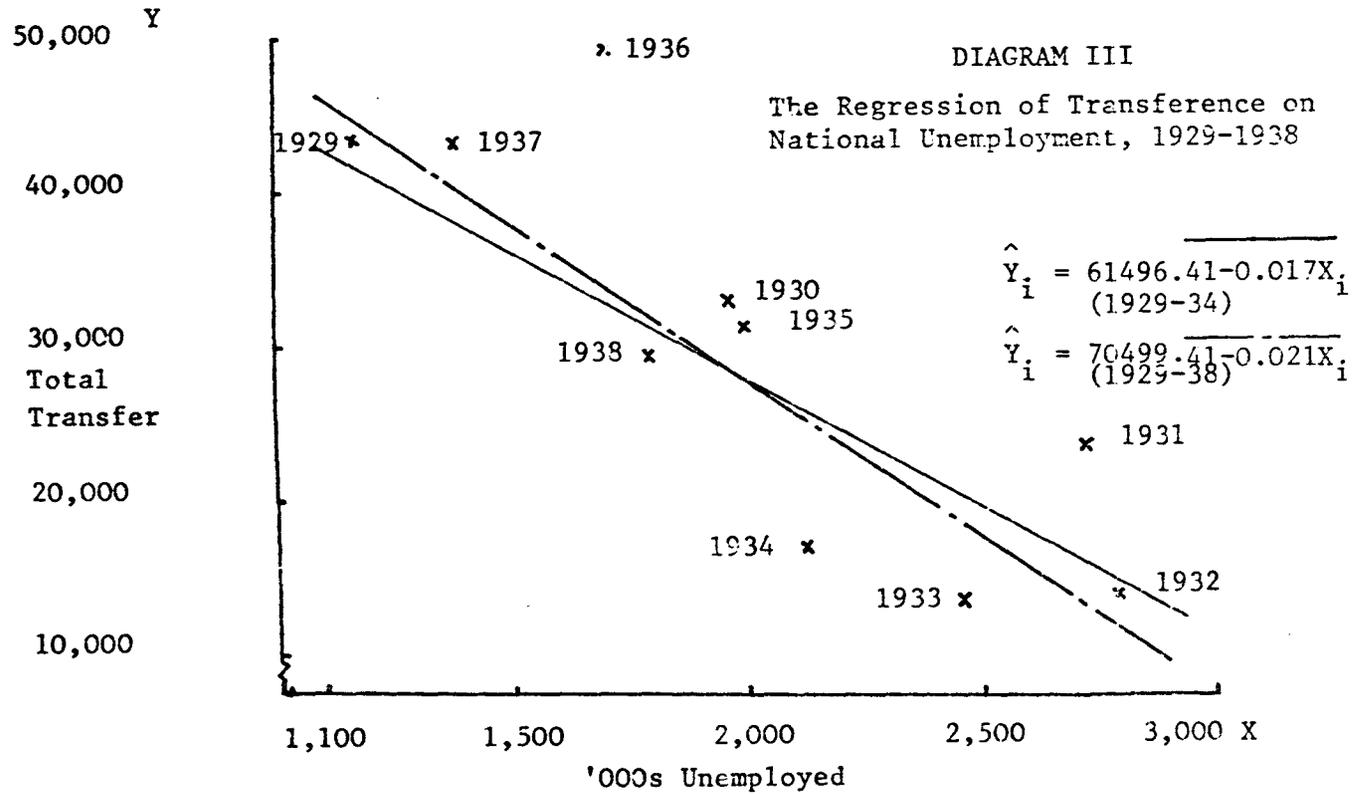
$$\pm t_{0.95/2} \hat{\sigma}_e \sqrt{\frac{1}{n} + \frac{(x_o - \bar{X})^2}{\sum_{i=1}^n x_i^2}}$$

see J. Johnston, Econometric Methods (New York, 1972), pp. 38-43.

DIAGRAM II



— Total Transference
— Unemployment



CHAPTER 7

Special Areas Policy and Industrial Transference: The Contribution of Contradictions, 1935-1939

I

There are two broad approaches that may be taken in answering the question, 'what was the effect of regional policy?' The first compares a period of active policy with a period of inactive policy and judges the contrast between the two.¹ A number of problems exist with such an approach. It has to be assumed that 'other things are equal' but this is never the case and such random fluctuations as occur cannot easily be removed from an analysis. There is also an inherent systematic bias. Around the bottom of a cycle, disparities in regional fortunes are likely to be enhanced. An 'active' policy might well result from such an environment but its chances of success are lessened by the fact that it is likely to be more difficult to encourage migration of labour at such times² and a policy of guiding the location of industry depends on the existence of a desire among firms to expand or, indeed, establish themselves. In contrast, a period where economic conditions do not demand an 'active' policy is also going

1. B. Moore and J. Rhodes, 'Evaluating the Effects of British Regional Policy', Economic Journal, 83(1973).

2. For example, the fall in the rate of migration in 1931-2.

to be one in which a regional policy will be more successful. The second approach identifies the effects of particular policies within a period. This approach will be used.

With the absence of a good many statistics at the regional level, a seemingly straightforward approach immediately becomes more complex and it is necessary to introduce a number of assumptions even to obtain the most basic indicators. How much new employment was provided in the Special Areas by industry locating and expanding there? How many people transferred out of the Special Areas at the same time? What effect did the other actions of the Commissioners (on public works schemes, housing developments and social improvements) have on the primary aim of reducing unemployment? None of these questions can be simply answered.

These difficulties encouraged the introduction of a systematic bias in the data series. The tenor of the argument has been that labour migration policies have been underestimated. In the construction of statistical series, the impact of labour migration on the reduction of unemployment in the Special Areas is understated, whilst an upward bias is introduced into the indicators of the other activities of the Special Areas Commissioners. If the resulting data suggests the greater efficacy of labour migration policies, such a result is unlikely to be attributed to random errors in the data. It will indicate that labour migration, even when as little as possible is attributed to the policy, was still a more effective instrument than the other policy weapons employed against regional depression.

An estimate of direct employment provided in new and extended factories in all the Special Areas (with an allowance for closures) is shown in Table XXIV.³ It seems from this that the increase in such employment was, at best, about 20,000 and, at worst, 10,000, over the four year period from 1934. This is a considerable range for minimum and maximum estimates but the method of calculation (described in the notes to the Table) allows nothing more precise. Tables XXV - XXVIII provide similar detail for the four Special Areas in question, and Table XXIX provides a summary of the number of establishments for each area for the whole period of the Board of Trade Surveys of Industrial Development.⁴ The use of the maximum employment estimate introduces a systematic bias in this first statistical series.

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3. The Special Areas' geographical coverage is described in Appendix 1. The employment estimates do not purport to reflect the direct influence of policy. All new employment is included, not just that attributable to the operation of policy. For example, it would be unreasonable to attribute closure to policy.
 4. Board of Trade, Annual Surveys of Industrial Development, 1934-8. No other source of information provides an acceptable indication of the growth of employment in the Special Areas. The total employment provided on trading estates in the Areas by May 1939 provides some indication of the growth of employment in the year that the Board of Trade Surveys do not cover. For this information, see Royal Commission on the Distribution of the Industrial Population. Report (Parl. Papers, 1939-40, IV), Appendix III and G.R. Allen, 'The Growth of Industry on Trading Estates, 1920-39, with Special Reference to Slough Trading Estate', Oxford Economic Papers, new ser. 3(1951). Another source of information which cannot be used for fear of double-counting is the estimates of employment to be provided as a result of assistance from SARA, the Treasury Fund and the Nuffield Trust. See P.R.O. Cabinet Committee on the Reports of the Investigations into the Depressed Areas. Proceedings and Memoranda. D.A. (34)15. CAB 27/578.

What were the effects on employment of the other activities of the Commissioner? Between 21 December 1934 and May 1936 the Scottish Commissioner estimated that 4,626 man-years of employment would be provided by public works. The consideration of employment that 'would be' provided in public works, introduces the bias towards a large impact for this arm of policy.⁵ With the assumption that employment was provided for the whole of the sixteen month period (a minimum estimate of total numbers employed) then 3,470 persons were provided with employment. Unfortunately, no other estimates of the employment provided by such as public health works, the provision of hospitals or various agricultural schemes is provided by the Scottish Commissioner. Consequently, it must be assumed to continue, that employment provided bears some constant relation to the commitments involved. On the basis of commitments by the Commissioner from the Special Areas Fund towards total costs the total employment directly provided is 10,167. This total can be broken down temporarily. From May 1936 to July 1937 an additional £1,045,833 was allocated to such expenditure and from July 1937 to September 1938 a further £1,720,332 was committed. The associated employment provided in the two periods was thus 2,522 and 4,165. If it is assumed that the resulting employment was evenly distributed over each of the periods involved,

5. There was a considerable divergence between money committed and money expended. In March 1936, after a request for a breakdown of amounts under these two headings, it was stated that "approximately £330,000 of the £3,443,000 referred to relates to expenditure by the Commissioners and the balance to commitments". Hansard (Commons) 5th ser. 310,870-1, 23 March 1936

a monthly rate of public works employment can be obtained. The redistribution of these jobs over calendar years gives the following figures:-

Dec. 1934 - Dec. 1935	2,603
" 1935 - " 1936	2,134
" 1936 - " 1937	2,654
" 1937 - " 1938	3,610

With the assumption that the same relation holds true in England and Wales, then a commitment from the Special Areas Fund of £16,670,000 would provide jobs for 40,341 persons. The use of the same procedure utilized with the Scottish data yields estimates of the annual impact of public works schemes.⁶

Dec. 1934 - Dec. 1935	8,337
" 1935 - " 1936	12,547
" 1936 - " 1937	12,694
" 1937 - " 1938	9,370

The other basic series required is transference. This is simple to obtain for the Depressed Areas but not for the more limited Special Areas. The Scottish figures, in particular, are unsatisfactory, as they refer to non-comparable time periods and are incapable of any feasible manipulation. Between August 1935 and May 1937 4,199 adults were

6. In relation to commitments it was necessary to spend £413 from the Special Areas Fund to create one job. This compares with £678 per job in the 1960's. North East Development Council, The North in the Sixties: A Survey of the Northern Region and Regional Policy - 1960 to 1969 (Newcastle, 1971), p.86.

transferred whilst 1,255 juveniles moved between January 1935 and July 1937. From June 1937 to June 1938 a further 1,959 adults were transferred and 361 juveniles moved July 1937 to July 1938. A total movement under the transference scheme is given as 7,774.⁷ In Table XXX net migration data are presented for county areas approximating the Special Area boundaries. Figures for the Scottish Area are included. These pertain to mid-year to mid-year periods and, given some assumptions on the temporal distribution of net movement, a series pertaining to calendar years can be obtained. It is regrettable that transference data cannot be presented for the Scottish area but it is argued that net migration statistics are a better reflection of the impact of policy on labour movement. Transference was intended to spearhead a general outflux of population and these statistics better reflect this than the data on assisted persons alone.

English and Welsh transference data are shown in Table XXXI. Some simple assumptions allow these figures to be presented for something like calendar years, 1935-8, and a cumulative total transference of about 90,000 is seen. Net migration data for the Special Areas of England and Wales have already been shown in Table XXX.

The only remaining series to be introduced is unemployment which is shown in Table XXXII. The notes to the Table describe the basis of the data presented.

7. A crude transference series was constructed for calendar years utilizing a number of heroic assumptions for the purposes of regression analysis. Even so, only three observations could be obtained and such a number was insufficient for a statistical analysis.

Now that some statistics have been obtained, the impact of policy can be judged. Table XXXII has described unemployment statistics for the Special Areas and for Britain. It was expected that influences on the national level of unemployment would also influence regional unemployment levels so that as national unemployment increased, so regional unemployment would also increase. The closer the association between these two series, the less scope there is for explaining regional unemployment in terms of specifically regional influences. Such regional influences might include a very distinct industrial structure, different rates of growth of particular industries in particular areas, or the influence of regional policy.

That unemployment at the national and regional level were related is shown in Diagram IV. This relationship can be more explicitly documented by a simple regression analysis. A linear model was employed to regress Special Areas unemployment on national unemployment. The national unemployment variable was calculated as national unemployment minus Special Areas unemployment. The results of this analysis are shown in Table XXXIII. It can be seen that the variables are related as R^2 demonstrates, and that the relationship is positive. A small number of observations, however, prevented the results from attaining statistical significance.⁸ Nevertheless, the results suggest that

8. An attempt was made to overcome this problem by pooling the data, but although a statistically significant equation was produced (7) R^2 was low and the sign of the regression coefficient, contrary to expectations.

national factors are important in explaining the variation in unemployment in the Special Areas, except in the West Cumberland area. In all cases, however, the size of the unexplained residual suggests scope for regional factors as an additional explanation of changes in unemployment levels. Policy might have been one of these residual explanations.

The impact of policy can be quantified from the data presented in Tables XXIV - XXXI and the information on public works employment. The combination of this data gives the aggregates of the upper section of Table XXXIV.⁹

However, the contribution of transference to a change in unemployment is not equal to its absolute size. Neither can the income or employment multiplier effects of Special Areas Fund expenditure or of new factory employment be ignored. Firstly, there is the 'wastage rate' of transference as a result of the failure of movements of population to be permanent. Owen estimates this proportion as 27 per cent for adults and 35 per cent for juveniles¹⁰ from Ministry of Labour sources and calculations based on evidence to the Royal Commission on the Geographical Distribution of the Industrial Population suggest that 30 per cent may be taken as an overall rate of 'wastage' for adult and juvenile transferees

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9. By the accumulation of the influences of unemployment in this manner, double-counting may be introduced if, for example, a factory closes and all the workers migrate.
 10. A.D.K.Owen, 'Social Consequences of Industrial Transference', Sociological Review, 29(1937), 338.

taken together.¹¹ Secondly, there are multiplier effects to be considered.¹² The discussion of the appropriate values by which to inflate the direct employment series and to deflate the migration series is presented in Appendix 2 and from this the employment multiplier (k_e) is taken as 1.35 and r (the number of persons who have to move out of a region before one more man loses his employment) is taken as 5. These figures maintain the constant bias in the calculations that favour the impact of new employment and discredit the short-term impact of migration. The effective part of transference to be set against the change in unemployment is seen in the lower part of Table XXXIV. Estimates of direct and indirect employment arising from the initial direct employment estimates are also given. It is probable that the contribution of 'Public Works etc.' to the generation of indirect employment is overstated given its 'once and for all' character and, similarly, the consequences of an increase in direct factory employment are probably understated. Nevertheless, it is clear that the principal revision to the figures of Part A of Table XXXIV are in respect of 'wastage' from transference, an estimate that can be confidently advanced.

A regression of Special Areas unemployment on national unemployment and a regional policy variable was then run. The results are discussed in Appendix 3. It is here concluded that policy has some role in

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11. Royal Commission on the Geographical Distribution of the Industrial Population. Memorandum of Evidence of the Ministry of Labour, 2 Feb. 1938, para.56; 3 Feb. 1938, Appendix IV, Table XV. In 1935, out of 20,000 adults transferred, there were 6,055 returnees, which gives a wastage rate of 30.23 per cent. In 1936 the figures were 34,039, 8,429 and 24.76 per cent respectively. Juvenile rates vary from 29.88 per cent in 1935 to 37.79 per cent in 1936 to 43.31 per cent for the period Oct. 1934 to Sept. 1937. Also see P.R.O. Industrial Transference Scheme - General Review 1938. LAB 8/218.
 12. The possibility of a multiplier-capital stock adjustment interaction is not considered in the estimates of Table XXXIV.

explaining variations in Special Areas unemployment, but statistical difficulties prevent any definite conclusions being drawn. Indeed, given the small number of observations available and the uncertainty surrounding the construction of the policy variable estimates, a regression analysis was not likely to prove very useful. It was, however, the only refinement possible on the observations of Table XXXIV.

The establishment of some role for regional policy in determining Special Areas unemployment led to the question being posed of what the relative contributions were of each of the policy instruments. It is clear from Table XXXIV that transference is numerically more important than the indicators of the other policies. Regression analysis was again employed in an attempt to establish the closeness of the relationship between Special Areas unemployment and transference and Special Areas unemployment and non-transference policy. Appendix 3 also contains the results of this work. The conclusions were again, for the reasons outlined above, not very useful.

The data of Table XXXIV, therefore, is the best indication of the relative impact of different policy instruments. The results presented in Table XXXIII demonstrated that regional policy had some role in determining Special Areas unemployment. It seems that the Scottish Area's Commissioner concentrated on public works and the like in order to relieve unemployment. An examination of the relative

weighting of his efforts from the information of the reports suggests the repetition of Dennison's comment that the Commissioner concentrated on those schemes "calculated to produce lasting assets to the community" in that until 1935, 90 per cent of total grants to public works were for sewerage schemes.¹³ Transference was kept low by the reluctance of the Scottish Commissioner to encourage it and by his realisation that, "transference is more difficult .. [than in England and Wales].... because there is in Scotland no busy expanding industrial centre like the Midlands or South of England and the time has not yet come when transference to England will become a normal outlet for Scottish youths."¹⁴ Considerable progress was made, however, in expanding factory employment, in particular at the Hillington Industrial Estate although, as was true of much light industry, employment was predominantly for women. The unemployment problem was not always relieved and, indeed, might even have worsened statistically when female labour was made redundant, after being attracted into the labour force for the first time by the local establishment of new industry. A considerable problem of unemployment still remained in 1938 despite all these efforts. The English and Welsh position

13. S.R.Dennison, The Location of Industry and the Depressed Areas(1939), p.161. The other Scottish Commissioners followed these lines.

14. Final Report of the Commissioner for the Special Areas (Scotland) (P.P., 1938-9, XII), para.174. Additionally, when net migration data for the Scottish Special Area is examined, it must be recalled that it surrounded Glasgow, and as such, was subject to a considerable suburban centrifugal movement of population.

revealed in Table XXXIV demonstrates the much greater significance of transference in the attack on localized unemployment, in comparison to the impact of new employment. As in Scotland, public works also made an important contribution to the reduction of unemployment. Nevertheless, a considerable volume of unemployment remained in 1938. Table XXXV shows the most intractable problem of the long unemployed in the Special Areas.

However, although it is appropriate to judge the efficacy of policy by its contemporary aim of reducing unemployment this judgement should not be compressed into an artificial time scale. The importance of new industrial developments in the Special Areas can hardly be assessed on their results to 1938 (the latest date at which figures can be presented) and even the extension of this period to the outbreak of war is ⁱinsufficient. As the District Commissioner for the North-East Area pointed out,

"it is true to say of the Durham and Tyneside Special Area that schemes for the removal of industrial dereliction, or in other fields where conditions needed improvement, had made slow progress by the end of 1936, and a definite policy for promoting industrial recovery did not emerge until the beginning of the present year". 15

Even the antecedent of trading estates in the Areas were slow to get under way as sites had to be selected, and the initial capital equipment provided. 16

15. C.Forbes Adam in Fourth Report of the Commissioner for the Special Areas (England and Wales) (P.P., 1937-8, XII), para.152.

16. An estate in Cumberland was delayed as a result of indecision on the viability of one estate for the area and subsequently several small sites were utilized. Team Valley was selected with the needs of light industry in view. Third Report of the Commissioner for the Special Areas (England and Wales) (R.P., 1936-7, XII), para.125-6.

The likelihood of contradiction between different policy instruments is also affected by such longer term considerations. Transference, for instance, as well as spontaneous out-migration, had been proceeding from these parts of the country since the end of the 1914-18 war and the cumulative effects of a continuous loss of population through such a selective process as migration tended to result in the ageing of the population, the removal of its more skilled and employable labour and in a deterioration of its social capital. All these factors deterred industrialists from locating in the North, despite inducements and encouragements from 1936-7 onwards. As Dennison noted, "attempts to attract industries, and the reconditioning of areas to receive them, do not combine well with a policy of transference; in their aims and results, unless they are narrowly controlled, they are inconsistent".¹⁷

Regional policy contained another contradiction besides that between transferring people out and moving industry in. Commenting on the unemployment figures in Scotland, the Scottish Commissioner observed in his final report that, "generally speaking, as in the previous year, the main recovery is in the heavy industries which, while welcome, does not contribute to a permanent solution of the real problem, and, indeed, by obscuring that problem, may, as I have said, retard its solution".¹⁸ The Board of Trade data does not

17. S.R.Dennison, op.cit.p.169.

18. Final Report of the Commissioner for the Special Areas (Scotland), op.cit.para.205.

allow an estimate of the change in employment in manufacturing establishments unless extensions are undertaken or new plant constructed. The fuller utilization of capacity therefore would not be noted and neither would any change in employment in the extractive industries. Of the establishments that are covered, the data of Table XXXVI emerges. In terms of employment provided, the 9.6 per cent of all expansions in the North-East area tended to be amongst the largest employers. Shipbuilding concerns at Newcastle and West Hartlepool employed a minimum of 1,900 persons in December of their first year and a similar expansion at Hebburn in 1935 brought at least 600 new jobs. However, the exclusions from the data, in particular of government rather than private munitions works, and of the extractive industries, makes the results understate the extent of this contradiction.¹⁹

II

The possibility of contradiction between transference and move-industry policy has been indicated. The 'complementary' argument, used to refute this, depended on the application of different policies to different localities and types of labour. Frequent requests were made by both

19. Speaking of 1936-7 the District Commissioner for the West Cumberland area said that "the increased demand for iron and steel has brought about a considerable improvement and the iron ore mines now in production are working to capacity, while three new shafts are being sunk". Fourth Report of the Commissioner for the Special Areas (England and Wales), op.cit.para.197.

Commissioners for an analysis of the surplus so that an appropriate solution could be devised for particular districts.²⁰ In the absence of this the English Commissioner was more specific on how he imagined contradiction was to be avoided.

"Whilst there is a hope of revival for the more firmly established industrial districts in the Special Areas, there are parts of these Areas for which it is difficult to see an economic future. These are mainly situated in some of the coal and iron districts up the valleys in South Wales, in the West Durham coalfield, and in some of the smaller towns and villages surrounding Cleator Moor in Cumberland. Unemployment in some of these small districts has, for a number of years, amounted to practically three-quarters of the employable population. The community in fact is little more than a small town or village built round a coal shaft. When the coal ceases to be worked the possibility of economic life disappears. There is no justification that I can discover for establishing industrial enterprise in such places."²¹

Transference was the appropriate policy for these areas. Industrial development was to be encouraged elsewhere. But it is not possible to isolate derelict and non-derelict areas for analysis.²² The relative impact of transference and 'move-industry' policy cannot be contrasted

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20. For example, in the First Report of the Commissioner for the Special Areas (England and Wales) (P.P., 1934-5, X), para. 217; Third Report of the Commissioner for the Special Areas (England and Wales), op.cit. para. 11; Third Report of the Commissioner for the Special Areas (Scotland) (P.P., 1935-6, XIII), para. 15.
 21. First Report of the Commissioner for the Special Areas (England and Wales), op.cit. para. 163. Also see Royal Commission on the Geographical Distribution of the Industrial Population. Memorandum of Evidence of the Ministry of Labour, 2 Feb, 1938, para. 32.
 22. Geographical situation and occupational structure is not enough. For example, Bishop Auckland was considered a suitable location for new industry.

between the areas. Further, transference cannot be given for local authority areas, although net migration residuals can be derived from the annual data of the Registrar-General. However, it seems that the ability to contrast derelict and non-derelict areas is not crucial. The combined impact of policy does not seem to have been sufficient to allow one policy instrument to hamper another.²³

In the West Cumberland area there is no striking relationship between the changes in factory employment or the rate of migration. (see Appendix 4) Whitehaven did not benefit from the introduction of new factory employment before 1938 and yet unemployment declined with a modest loss of population from net migration. Maryport did gain a branch factory in leather tanning during 1934 but at the same time more persons moved out of the town on balance than were employed in the new establishment. Meanwhile, unemployment decreased. As it is generally permissible to assume that the activities of the Special Areas Commissioner in respect of public utility projects are unlikely to have varied in impact so dramatically between years, it might be reasoned that the decline in unemployment in these towns was a product of the general revival of activity. There was increased employment attributable to increasing demand in the iron and steel industries. It might also be argued that migration was an important contributor to the improvement, something like

23. This was realized in the Fourth Report of the Commissioner for the Special Areas (Scotland) (P.P., 1937-8, XIII), para. 174. "It is certain at any rate that transference out will not conflict with efforts to bring fresh industry to the Areas, until much greater progress in both directions has been made than has so far proved practicable."

1,800 persons moving out, on balance, over the period. But although the impact of labour migration policies was probably greater than the more recent 'move-industry' policy, in relation to the size of the problem, both were relatively ineffectual and, consequently, the two arms of policy were not contradictory in practice.

South West Durham was one of the areas mentioned by Sir Malcolm Stewart when identifying the derelict areas where transference was to be the primary policy. Bishop Auckland, Crook and Spennymoor are within this area. The intention of policy was to encourage the establishment of new employments in these towns so that the population of the surrounding derelict mining villages might find new employ in a local centre, either travelling daily to the centre (thus turning derelict villages into dormitory settlements) or moving household. On balance, however, migratory movements were outward, although net migration statistics do not reveal directional movements and the absence of daily travelling data serves to obscure the position. Neither was there a rush of new industry into these districts, but unemployment did decline. Nevertheless, the problem of excess unemployment remained by the end of 1938 so it is probable that the different policy instruments were not contradictory.

Other towns in the North East Coast area illustrate the same point. New factory employment and transference are not in practice contradictory

solutions when the problem remained as large as it did by the end of the period. However, the very reason that the problem did not easily succumb to the 'move industry' policy may have been the result of the cumulative effects of out-migration over a long period of time.

In Gateshead, of the 12,000 unemployed in 1934 many were dependent upon the iron and steel industries, shipbuilding or perhaps coal-mining and at least as many were male. The new employment at the Team Valley Estate and at Gateshead itself was in such varied trades as clothing, date and fruit packing, colliery machinery, motor vehicle bodies and coaches, wooden furniture, milk cartons and oilskin waterproof clothing. With one exception, these were all new light industries and could be easily justified as providing a necessary diversification of the town's interests, making it less susceptible to the vagaries of cyclical and structural change. Nevertheless, these same trades did not provide employment for the sort of person who dominated the unemployment registers of the North-East. "The great majority of the 4,000 or so employees on the Team Valley Estate at the outbreak of war were women and girls",²⁴ and so it is not surprising that out-migration was high, even though it declined somewhat as the Estate's progress accelerated.²⁵ The chief

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24. M.P. Fogarty, Prospects of the Industrial Areas of Great Britain (1945), p.178. The quoted figure of 4,000 includes expansion between 1938 and Sept.1939 from nine factories giving a maximum of 1,000 employment opportunities to 110 factories providing 4,000 actual jobs.
25. This suggests causality but migration also depends on conditions in the potential receiving areas.

employment for men in this connection was the construction work involved in laying out the estate rather than in the permanent employment it provided them. "The most valuable immediate result of the establishment of the trading estate [Fogarty added] was moral; it gave the area new hope."²⁶ New employment and out-migration were not contradictory in this locality.

The South Wales area was more dependent on a narrow range of industry than any other area and it struggled, in addition, against its topography. This hampered any solution couched in terms of setting up large plant in particular localities and then recruiting labour from the surrounding towns and villages. In turn, however, topography linked the fortunes of particular towns and it was often hoped that recovery in one town would assist the more depressed communities at the head of the north-south valleys. Pontypool and Blaenavon were linked by valley formation. New factory employment did not materialise until 1938 and until that time out-migration was the principal relief of unemployment. The area did benefit from a Government arms factory at Glascoed, north east of Pontypool, in 1937. Other Government arms factories were located in the South Wales

26. M.P. Fogarty, op.cit.

area, the North-East coast being frowned upon for strategic reasons,²⁷ and plants were established at St. Athan, Glamorgan and at Bridgend by 1937, the latter providing some relief for the populations of Maesteg, Glyncoornwg and Ogmore and Garw. Merthyr Tydfil was the home of another armaments factory by 1938, although earlier proposals for munitions works in the area were rejected by the service departments.²⁸ In the same year a telephone accessory manufacturer was established at Dowlais, but in relation to the numbers unemployed these new employments were as, with so many other areas, only beginning to attack the problem. Migration's contribution was more significant.

Most new factory employment in South Wales was located on the Treforest Estate outside Pontypridd and although the project was not fully developed before the war it had begun to make an impact on the fortunes of the area, in particular of Pontypridd and to a lesser extent towns further up the valleys such as Aberdare, Rhondda and Mountain Ash.

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27. All areas other than the South-East and Midlands were at a disadvantage when it came to the location of aircraft production; engineering experience took precedence over 'vulnerability' in choosing locations. See the cases discussed in W. Hornby, Factories and Plant (1958) pp.285-96; and Royal Commission on the Geographical Distribution of the Industrial Population. Memorandum of Evidence of the Ministry of Labour, 2 Feb.1938, Q.2698.
28. P.R.O. Special Areas. Methyr Tydfil. Suggested establishment of government factory, 1936. HLG 30/53,

However, of the 2,000 new jobs provided in, for example, cigarette lighter accessories, dry ice, brushes, aeroplane parts, toys and fancy goods, paper, cardboard and cartons, synthetic bottle caps and silk printing, by the outbreak of war only 500 were for men. Further, the location of the estate created a need for daily travelling of labour on an extensive scale.²⁹ Out-migration was still a valid solution to the problem of regional unemployment.

The general inference that can be drawn from this local analysis is that migration was a more effective weapon against unemployment. From 1937, with the deliberate pursual of an industry policy, there was a risk of the two policies being contradictory. Despite the fact that it is not possible to isolate derelict and non-derelict areas, in relation to the size of the unemployment problem it is unlikely that the two policies came into conflict.

III

In practice, the contradiction of policy instruments was avoided. The factors inhibiting labour movement have been discussed,³⁰ What inhibits a policy of attempting to influence the distribution of employment by guiding the location of industry?

29. This was in contrast to Cumberland where a number of small estates were chosen as a better means of providing an attack on the area's problems.

30. supra, Chapter 3.

The principal limitation before the 1937 Special Areas Amendment Act were the restrictions on the Commissioner's powers preventing him from undertaking a policy that only became accepted after he had begun to issue reports. Opinion overtook the 1934 Special Areas Act and attributed intentions to it that were never in the minds of its architects. The District Commissioner for Durham was well aware of the change in emphasis in policy in 1937 and Sir Malcolm Stewart noted in his first report that " the commissioner is not directly charged with the duty of relieving unemployment by the provision of work".³¹ He was to be " solely concerned with measures designed to facilitate the economic development or social improvement of the areas. "³² Policy was not contradictory because, at this stage, there was one overriding policy instrument and that was transference.

Stewart noted the other limitations on his power at the same date. He quoted Chamberlain in the Commons who said " we are going to give the Commissioners a very wide discretion. They must not be afraid of trying experiments even if those experiments fail ",³³ and Stanley, the Minister for Labour said "of course the commissioner will be responsible through me to Parliament for broad policy. I shall have to answer for it in the House, but I hope we shall be able to leave him as far as possible unhampered in the day to day administration of his duties. "³⁴

31. First Report of the Commissioner for the Special Areas (England and Wales), op.cit. para.6.

32. *ibid.*

33. *ibid.* para.4.

34. *ibid.*

But what Parliamentary precedent allowed as powers with "wide discretion" was not the same as the meaning of the phrase in normal usage. The Commissioner was precluded from assisting undertakings carried on for gain, he was unable to assist areas outside the Special Areas unless substantial employment would be provided for people residing within the Special Areas,³⁵ and he was unable to provide or supplement a grant toward the cost of any work for which a specific grant was payable by any other government department, whether this other department was actually paying a grant or not. Stewart noted that this latter restriction would prevent him providing funds to assist road building which, in turn, would severely limit his ability to make a site clearance policy effective in attracting industry. Rather than the Commissioner being endowed with power "more rapid, more direct, less orthodox if you like than the ordinary plan"³⁶ the Commissioner was "as much subject to orthodox financial control as any Government department."³⁷ The restriction on assisting undertakings carried out for gain was circumvented by the mechanism used to establish Trading Estates and finally abolished with the introduction of

35. A legal opinion on the 1934 Act, when it was being considered for amendment in late 1936 and early 1937, concluded that it did not allow action outside the Special Areas for any reason. P.R.O. Powers of the Commissioner to undertake or assist schemes outside the Special Areas. LAB 23/31.

36. These were the words of N. Chamberlain. Quoted in the First Report of the Commissioner for the Special Areas (England and Wales), op.cit. para. 4.

37. This was Sir Malcolm Stewart's view. First Report of the Commissioner for the Special Areas (England and Wales), op.cit. para. 6. Also see the Second Report of the Commissioner for the Special Areas (Scotland) (P.P., 1935-6, XIII), para. 5.

inducements, Treasury loans and the assistance of SARA in 1936 and 1937. The policy from then aimed at moving industry, however the other restrictions remained.

Another limitation on the effectiveness of Special Areas policy was the actual areas designated as 'Special'. Apart from the exclusion of parts of Lancashire,³⁸ major towns geographically adjacent or sometimes within the Areas were excluded. The rationalisation for this was that unemployment did not constitute such a problem in these towns and as there was no conception of a policy encouraging growth in these areas and transferring labour short distances to these centres, there was no reason to expect their inclusion. However, it can be seen from the examples of South West Durham and South Wales, that it was realized that industry locating in one particular area suited to it could relieve the surrounding population from unemployment but, nevertheless, the logical extension of this idea does not seem to have been taken up by the Government. Both English and Scottish Commissioners pointed out this defect in policy. "In Wales ... the exclusion of important cities and towns such as Cardiff, Newport and Swansea has created an artificial boundary within an established industrial region ... it is impossible, in my view, to determine the prospects of the mining

38. The case for Lancashire's inclusion in the Special Areas was put in University of Manchester, Department of Economics and Commerce, Readjustment in Lancashire (Manchester, 1936). The Minister of Labour was in favour of the inclusion of north-east and south Lancashire when the Special Areas Act of 1934 was in the process of amendment. The compromise solution of 'certified areas' was the result of pressure from the Chancellor of the Exchequer. P.R.O. Cabinet Committee on the Reports of the Investigations into the Depressed Areas. Proceedings and Memoranda. D.A. (34) 10th Meeting, 26 Jan. 1937. CAB 27/578.

valleys irrespective of their relation to large industrial centres nearby".³⁹ The exclusion of Glasgow from the Scottish Area was noted by Sir Arthur Rose but he seemed to resign himself to the status quo on the grounds that experiment could not be expected over too wide an area.⁴⁰ Post-war commentators have emphasised these exclusions. McCrone writes that it was "difficult to tackle the problems of economic regeneration in an area when the towns which formed the focal points of development were excluded"⁴¹ and Lee considers that "recent experience has shown, to thus exclude the major growth centres from an area is a grave mistake."⁴² The evidence of factory development on the North-East coast might be used to illustrate this point as the whole of Tyneside was included in the Special Area and attracted considerable industrial development in relation to that experienced by the rest of the area.⁴³

These, then, were the limitations on the Commissioner's ability

39. First Report of the Commissioner for the Special Areas (England and Wales) op. cit. para 6.
40. Third Report of the Commissioner for the Special Areas (Scotland) op.cit.para.2. The Ministry of Labour wrote to the English Commissioner's office in December 1936 saying, "It is I think important for political reasons to have some amendment to the Act to which Ministers can point as giving good reason for continuing to exclude Cardiff etc. from the Special Areas."
41. G.McCrone, Regional Policy in Britain (1969), p.93.
42. C.H. Lee, Regional Economic Growth in the United Kingdom since the 1880's (Maidenhead, 1971), p.153. Both McCrone and Lee erroneously believe that Newcastle was excluded from the Areas.
43. This development was without the aid of inducements in Newcastle. See Board of Trade, Annual Surveys of Industrial Development, 1934-8.

to achieve success in his efforts to promote economic development. When the objective of promoting economic development became more specific from 1937, some of these limitations were removed and the coincidence of a more clearly defined objective and the introduction of measures to allow this objective to be achieved resulted in the upturn in the rate of success that was observable in 1938-9. If Stewart's recommendations in his third report to restrict the growth of London had been implemented, rather than deliberated upon by the subsequent Royal Commission, then some of the industrial growth experienced in London might have been diverted to the Special Areas and the rate of success would have been higher still. But the policy was never sufficiently successful to reach a point at which the dual operation of transference and move-industry policy became contradictory.

Special Areas policy did, however, include some progressive achievements. Trading Estates conformed approximately to the current concepts of growth points and industrial complexes.⁴⁴ and it was found that the advance provision of factories, estate communications and services meant that a considerable volume of industrial activity could be stimulated

44. See J.R. Lasuen, 'On Growth Poles', Urban Studies, 6(1969); W.Isard and E.W. Schooler, 'Industrial Complex Analysis, Agglomeration Economies, and Regional Development', Journal of Regional Science, 1(1959); W.Isard, E.W. Schooler and T.Vietorisz, Industrial Complex Analysis and Regional Development: A Case Study of Refinery-Petrochemical-Synthetic Fiber Complexes in Puerto Rico (New York, 1959).

without recourse to the additional carrots of contributions towards rent, rates and taxes or capital grants. For example, of the 82 firms in receipt of some form of assistance that located in the Scottish area up to September 1938, 44 benefited from a factory or site at Hillington alone. In England and Wales the respective figures were 210 and 100.⁴⁵ However, the English Commissioner considered that Trading Estates were important in influencing the location of small light industries, as the Board of Trade data demonstrates, and saw the Treasury fund and the Nuffield Trust as the more important influences on the location of larger heavy industry.

The acceptance of a 'move-industry' policy by the Government brought the possibility of contradiction to the fore. The availability of labour in the Special Areas was often stressed by the Commissioners as an attraction to incoming industry and from a survey of industrialists it seemed that labour supply was indeed an important influence on contemporary location decisions, despite the other considerations that might be taken into account. However, here was a handicap to the Commissioner's efforts from 1936/7 onwards. Although it is usually assumed that high unemployment percentages mean large reserves of labour, this is not necessarily true. Neither is it necessarily true

45. P.R.O. Correspondence and drafts of memoranda to the Barlow Commission. BT 104/91.

that low percentages mean low labour reserves.⁴⁶ The continual depressed state of the Special Areas throughout the inter-war period and the continual out-migration of labour had a number of debilitating effects on the potential labour supply to incoming industry. These effects, both real and imagined, were known to industrialists who considered them among the reasons for avoiding a Special Areas location.

The vicious circle of depression leading to further depression and the disadvantages of high rates were noted by the Commissioner as handicaps on a 'move-industry' policy.⁴⁷ 'Technical trade reasons' were commonly advanced by industrialists circularized by the Commissioner as reason for avoiding the Special Areas.⁴⁸ Criticism of policies to influence the location of industry usually hinge on the concept of 'mis-location'. This argument says that businessmen locate according to those factors that are likely to influence the success of the firm and that to interfere in this decision-making process is bound to make

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46. G.Davies, 'Regional Unemployment, Labour Availability, and Redeployment', Oxford Economic Papers, new ser.19(1967) Numbers unemployed in the Special Areas at their highest point were about 400,000. This figure for Greater London is 295,000. Table XXXV shows the 'hard-core' unemployed who might be removed from the effective reserve.
 47. First Report of the Commissioner for the Special Areas (England and Wales), op.cit.para.29.
 48. Second Report of the Commissioner for the Special Areas (England and Wales)(P.P.,1935-6,XIII), paras. 10-17.

the firm less efficient in production than it otherwise could be.

The justification for such intervention favours social considerations in the locality, arguing that unused labour reserves will be utilised. If viewed as an economic problem it can be argued that to use 'wasted labour' is to push the economy closer to capacity, however, the economic solution may be to allow the firm to locate at its optimum location and transfer labour to this location; the consequence for national economic fortunes would then be at its highest. For 'mis-location' to follow from government intervention in the location of industry suggests that businessmen are rational in choosing their locations and indeed do choose an optimum location or something near it.⁴⁹

However, it is clear that in a number of cases rational decisions were not made.⁵⁰ A study of location decisions in post-war Britain concluded that much of industry was not resource-tied and that costs tended to settle down after three years. Some form of subsidy might be necessary to assist industry after its initial movement but from then it was not

49. Contrast the Board of Trade's and Ministry of Labour's evidence to Royal Commission on the Geographical Distribution of the Industrial Population. Minutes of Evidence, 19,20 Oct.1937 and 2,3 Feb. 1938.

50. For example, Morris Motors is at Cowley because it was Nuffield's home district. P.W.S. Andrews and E.Brunner, The Life of Lord Nuffield: A Study in Enterprise and Benevolence (Oxford,1955). The Bristol Aeroplane Co. Ltd. set up at Filton, Bristol because the company was formed by Bristolians. D.Napier and Son Ltd. of Acton: "The removal in 1902 from Lambeth to Acton would not be due to any reasons other than the fortuitous ones such as Mr Napier's own residence being on the west side of London and the availability of a considerable area of unoccupied land in the district at that time." P.R.O. Memorandum by Society of British Aircraft Constructors Ltd. HLG 27/53.

likely to be any more or less efficient than a comparable entity elsewhere.⁵¹ Nevertheless, such fears operated against the success of a 'move-industry' policy.

It seems, then, that the Commissioners approach from 1937 was justifiable on economic grounds provided he confined his attention to 'footloose' industries. Further, post-war experience suggests that the initial subsidisation of industry in new locations was the appropriate way of allaying entrepreneurs fears of high cost locations. However, the limitations on the Commissioner's powers such as the inability to restrict growth about the metropolis and the exclusion of major towns from some of the Areas, coupled with the deteriorating labour supply, partially as a result of transfer, and the availability of ample reserves of labour, probably of a more varied ability, in the Midlands and South-East, resulted in his policies being less successful than they might have been. As a result the policies of transfer and 'move-industry' did not become contradictory after 1937, at least not conterminously,⁵² and the failure for policies to contradict each other before that date is explicable by the non-existence of a 'move-industry' policy.

51. W.F. Luttrell, Factory Location and Industrial Movement, A Study of Recent Movement in Great Britain (1962), I, p.312.

52. The impact of continual out-migration of population and its effects on an area's prospects of attracting industrial development were considered in the preceding chapter.

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Table XXIV

Direct Employment in New and Extended Factories in the Special Areas,
1934-1938

No. of estab. & extensions		Employment at December		Accumulated Total Empl.		No. of Closures	Empl. Lost*	Adjusted Employment Maxima	
each year	cumulat- ed	Min	Max	Min	Max			Dec.	Accum- ulated
15	15	525	1685	525	1685	22	550	1135	1135
12	27	2375	3388	2900	5073	5	125	3263	4398
18	45	1400	2692	4300	7765	10	250	2442	6840
29	74	1900	4271	6200	12036	6	150	4121	10961
66	140	4475	9540	10675	21576	13	325	9215	20176

*Minima

Notes

- (i) Data derived from the Board of Trade, Annual Surveys of Industrial Development, 1934-8.
- (ii) The information on expansions in employment was allocated to the Special Areas according to the definitions of the Areas. These definitions are presented in Appendix 1. The character of these definitions resulted in some ambiguities. A munitions factory employing 400-499 persons opened in Linlithgow, West Lothian in 1937, but it was not possible to determine which side of the Special Areas boundary, which ran through Linlithgow, this factory was placed. These figures were included in the analysis in keeping with the intended bias in the construction of the data series representing the impact of different regional policies.
- (iii) Maximum and Minimum estimates - the Annual Surveys note manufacturing and processing plants employing over 25 persons, over 100, over 200, etc.. Thus a firm's minimum employment might be 25 and its maximum 99.
- (iv) The accumulations depend on the assumption that no reductions or expansions in workforce took place over the period after the case is first noted in the Board of Trade data.
- (v) The latter part of the Table where allowance is made for closures of plant is again based on the convention of the source including establishments employing 25 and over. It is not possible in this case to identify a tenable maxima and thus the adjusted employment figures are maxima.

Table XXV

Direct Employment in New and Extended Factories in the Scottish Special Area, 1934-1938

No. of estabs. & extensions		Employment at December		Accumulated Total Empl.		No. of Closures	Empl. Lost*	Adjusted Employment Maxima	
each year	cumulat-ed	Min	Max	Min	Max			Dec.	Accum-ulated
6	6	225	694	225	694	7	175	519	519
4	10	100	396	325	1090	0	-	396	915
18	18	275	802	600	1892	3	75	727	1642
7	25	550	1093	1150	2985	1	25	1068	2710
14	39	775	1886	1925	4871	2	50	1836	4546

*Minima

Table XXVI

Direct Employment in New and Extended Factories in the West Cumberland Special Area, 1934-1938

No. of estabs. & extensions		Employment at December		Accumulated Total Empl.		No. of Closures	Empl. Lost*	Adjusted Employment Maxima	
each year	cumulat-ed	Min	Max	Min	Max			Dec.	Accum-ulated
1	1	25	99	25	99	2	50	49	49
1	2	25	99	50	198	1	25	74	123
1	3	25	99	75	297	1	25	74	197
0	3	-	-	75	297	0	-	-	197
2	5	50	198	125	495	0	-	198	395

*Minima

Table XXVII

Direct Employment in New and Extended Factories in the South WalesSpecial Area, 1934-1938

No. of estabs. & extensions		Employment at December		Accumulated Total Empl.		No. of Closures	Empl. Lost*	Adjusted Employment Maxima	
each year	cumulat- ed	Min	Max	Min	Max			Dec.	Accum- ulated
0	0	-	-	-	-	2	50	-50	-50
0	0	-	-	-	-	1	25	-25	-75
0	0	-	-	-	-	0	-	-	-75
5	5	375	795	375	795	1	25	770	695
19	24	1050	2387	1425	3182	5	125	2262	2957

*Minima

Table XXVIII

Direct Employment in New and Extended Factories in the North East CoastSpecial Area, 1934-1938

No. of estabs. & extensions		Employment at December		Accumulated Total Empl.		No. of Closures	Empl. Lost*	Adjusted Employment Maxima	
each year	cumulat- ed	Min	Max	Min	Max			Dec.	Accum- ulated
8	8	275	892	275	892	11	275	617	617
7	15	2250	2893	2525	3785	3	75	2818	3435
9	24	1100	1791	3625	5576	6	150	1641	5076
17	41	975	2383	4600	7959	4	100	2283	7359
31	72	2600	5069	7200	13028	6	150	4919	12278

*Minima

Table XXIX

Industrial Establishments in the Special Areas 1932-1938

South Wales	Factories opened	extended	closed
1932	1	-	-
1933	1	-	1
1934	-	-	2
1935	-	-	1
1936	-	-	-
1937	5	-	1
1938	19	-	5
West Cumberland			
1932	-	-	-
1933	1	1	2
1934	2 (1)	-	2
1935	-	1	1
1936	1	-	1
1937	-	-	-
1938	2	-	-
North East Coast			
1932	7	4	2
1933	6	1	2
1934	5 (6)	3 (2)	11
1935	2	5	3
1936	5 (6)	3	6
1937	14 (12)	4 (5)	4
1938	26 (25)	6	6
Scotland			
1932	7	2	10
1933	3	-	5
1934	6	-	7
1935	2	2	-
1936	6	2	3
1937	4 (6)	- (1)	1
1938	14	-	2

Notes to Table XXIX

Based on Board of Trade, Annual Surveys of Industrial Development, 1934-8;
Board of Trade, Survey of Industrial Development, 1938, pp.5-6.

The figures in brackets record where the annual allocation to the Special Areas from the Board of Trade data disagrees with the Board of Trade's summary table in the Survey for 1938.

Table XXX

Net Migration from County accumulations approximating the Special Areas, 1934-1939 (mid-years)

Scotland.

(Dunbarton, Renfrew, Lanark excluding Glasgow)

1934-5	-1,583
1935-6	1,854
1936-7	2,257
1937-8	-1,064b
1938-9	2,313

6,190

b. extension of Glasgow at expense of Dunbarton and Renfrew.

West Cumberland

(Cumberland)

1934-5	-1,833
1935-6	-1,897
1936-7	-3,603
1937-8	-1,066
1938-9	- 554

-8,953

South Wales

(Monmouth, Glamorgan, Brecknock)

1934-5	-22,079
1935-6	-25,988
1936-7	-37,574
1937-8	-15,570
1938-9	5,158

-106,369

North East Coast

(Northumberland, Durham)

1934-5	-19,619
1935-6	-28,137
1936-7	-25,097
1937-8	-11,899
1938-9	- 4,967

-89,719

Source: Calculated from the Annual Statistical Reviews of the Registrar-General for England and Wales and the Annual Reports of the Registrar-General for Scotland.

Table XXXI

Transference in England and Wales, 1934-1938

	Depressed Areas		Special Areas		(5) (4) as % (1)
	(1) Individuals	(2) Families	(3)	(4)	
1934	17173	1308	-	-	-
1935	31040	3718	19513	19513a	62.86
1936	49446	10025	20244	28383b	57.40
1937	43177	7673	26807	24314ab	56.31
1938	29627	4000	17531	18549ab	62.61

Notes.

(1) & (2) - calendar years.

col.(3) Data is for differing periods-

Dec.1934 - Nov.1935 inclusive (juvenile component for
11 months only)

Jan.1936 - Aug.1936

Sept.1936 - Aug.1937

Oct.1937 - Sept.1938

col.(4) Adjusted data no longer indicates that 1937 is the peak
year for Special Areas transference.

a. extrapolation to twelve month period on assumption that
missing data is equal to monthly average of available data.

b. accumulation of quarterly and monthly data for
calendar years.

Source: Based on Annual Reports of the Ministry of Labour and the
Reports of the Commissioners for the Special Areas (England
and Wales), see bibliography.

Table XXXII

Unemployment in the Special Areas, 1934-1938

	Numbers					
	Scottish Area	England & Wales	North East & Coast	W.Cumberland	S.Wales	G.Britain
1934	94998	343992	173825	13419	156748	2085815
1935	82539	317574	160530	14408	142636	1868565
1936	67505	268007	127860	13565	126582	1628719
1937	68189	222688	114076	10548	98064	1665407
1938	64435	231755	106121	8962	116672	1802912
	Percentages					
1934	28.9	35.0	32.9	37.9	37.1	16.6
1935	25.3	32.7	30.7	40.7	34.5	14.8
1936	20.5	27.9	24.6	38.6	31.3	12.5
1937	21.5/16.9	23.1	21.8	30.5	24.4	12.6
1938	19.9/17.3	24.1	20.2	25.9	29.0	13.6

Notes.

Figures are for December of each year, except 1938 where June is taken (unemployment generally tends to be higher in the winter months than in midsummer.)

Boundaries. Total for Ministry of Labour local office areas that include any part of the Special Areas.

Numbers. Total registered unemployed aged 14 and over.

Percentages. Numbers as a percentage of insured persons aged 16-64 of July of each year (except 1938 which is a percentage of insured at July 1937)

Scotland 1937, 1938. Men and Women aged 18 and over on the register as a percentage of the insured population aged 18 and over.

Source: Based on Reports of the Commissioners for the Special Areas, see bibliography.

Table XXXIII

The Regression of Special Areas Unemployment on a National Unemployment

Variable, 1934-1938^{**}

Dependent Variable	Constant	Regression Coefficient	R ²	n	
Unemployment in					
North East Coast	-78206.33	0.13(0.08)	0.49	5	(1)
South Wales	-48388.72	0.11(0.05)	0.58	5	(2)
West Cumberland	5953.00	0.00(0.01)	0.07	5	(3)
Scottish Area	-38477.25	0.07(0.02)	0.76	5	(4)
English & Welsh Areas	-81531.83	0.23(0.16)	0.41	5	(5)
All Special Areas	-92112.26	0.31(0.22)	0.40	5	(6)
Pooled observations of equations 1-6	697102.27	-0.32(0.11)	0.24	30	(7) [*]

Notes

Standard Errors in brackets

* Significant at 5 per cent level

** British unemployment minus the dependent variable. Observations are for December 1934-7 and June 1938.

Source: see Table XXXII.

Table XXXIV

The Contribution to the Change in Unemployment in the Scottish and English and Welsh Special Areas of Regional Policies, 1934-1938

A. Preliminary Estimates

	Scotland, 1934-1938	England & Wales, 1934-1938
Transference	7,774	80,759
New Factory		
Employment	4,546	15,630
Public Works etc.	10,167	40,341
	<hr/>	<hr/>
Total	22,487	136,730
	<hr/>	<hr/>
Change in		
Unemployment	-30,563	-112,237

B. Estimates after allowance made for 'wastage' and multiplier effects

Transference	4,353	45,225
New Factory		
Employment	6,137	21,101
Public Works etc.	13,726	54,460
	<hr/>	<hr/>
Total	24,216	120,786
	<hr/>	<hr/>
Change in		
Unemployment	-30,563	-112,237
Unemployment, 1938	64,435	231,755

Table XXXV

The 'Hard-Core' Unemployment Problem in the Special Areas among Men, 1934-1938

	England & Wales		Scotland
Nov. 1934	123,555	Dec. 1934	28,983
April 1935	121,100	" 1935	25,037
July 1935	118,518	" 1936	18,718
" 1936	104,964	" 1937	14,642
" 1937	79,989	" 1938	15,282
" 1938	65,182		

Notes.

'Hard-core': Men aged 18-64, unemployed for twelve months and over; in Scotland there is no upper age limit.

In England and Wales male 'hard-core' unemployment was about a third of total unemployment; in Scotland about one quarter.

Source: Reports of the Commissioners for the Special Areas, see bibliography.

Table XXXVI

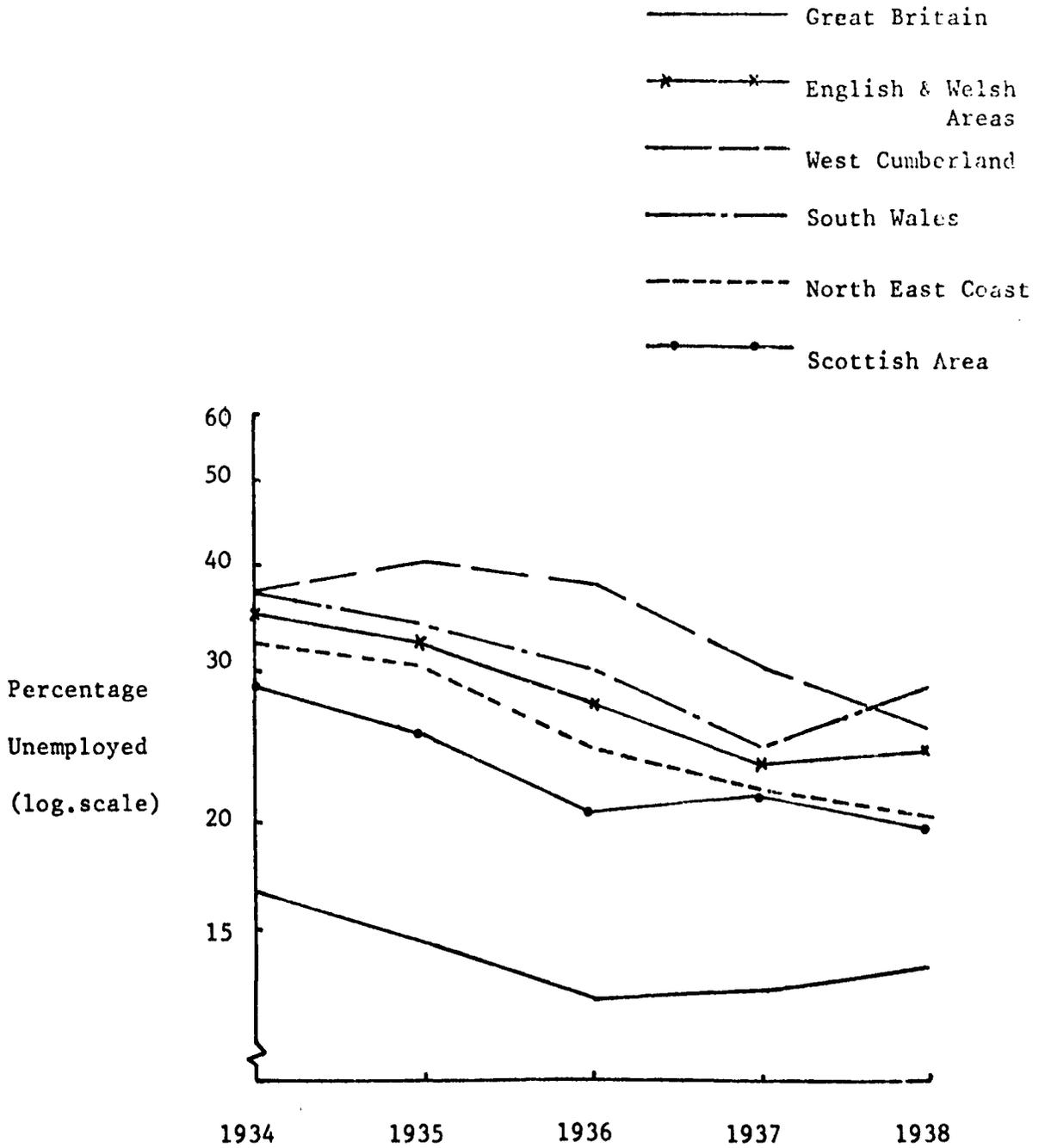
Percentage of Expanding and Declining Industries to all Expansions
in the Special Areas, 1934-1938

	Expanding*	Declining*
Scotland	82.0	2.6
North East	51.4	9.6
West Cumberland	40.0	0.0
South Wales	62.5	0.0
Britain	60.9	5.7

* Definition based on Board of Trade and Ministry of Labour information.

DIAGRAM IV

Percentage Unemployed in the Special Areas and Great Britain, 1934-1938



APPENDIX 1

The Special Areas

England and Wales

County Boroughs of Gateshead, Merthyr Tydfil, Newcastle-upon-Tyne, South Shields, Sunderland, Tynemouth, West Hartlepool.

Within the Administrative County of Durham

Boroughs of Durham, Hartlepool and Jarrow.

Urban Districts of Annfield Plain, Barnard Castle, Benfieldside, Bishop Auckland, Blaydon, Brandon and Byshottles, Chester-le-Street, Consett, Crook, Felling, Hebburn, Hetton, Houghton-le-Spring, Leadgate, Ryton, Seaham Harbour, Shildon, Spennymoor, Stanhope, Stanley, Tanfield, Tow Law, Washington, Whickham, Willington.

Rural Districts of Auckland, Barnard Castle, Chester-le-Street, Durham, Easington, Hartlepool, Houghton-le-Spring, Lanchester, Sedgefield, South Shields, Sunderland, Weardale.

Within the Administrative County of Northumberland

Borough of Wallsend.

Urban Districts of Longbeaton, Newburn.

Rural District of Haltwhistle.

Within the Administrative County of Cumberland

Boroughs of Whitehaven, Workington.

Urban Districts of Cockermouth, Maryport.

Rural Districts of Alston with Garrigill, Cockermouth, Ennerdale, Millom, Wigton.

Within the Administrative County of Monmouth

Urban Districts of Abercarn, Abersychan, Abertillery, Bedwas and Machen, Bedwellty, Blaenavon, Ebbw Vale, Llantarnam, Llanfrechfa Upper, Mynyddislwyn, Nantyglo and Blaina, Panteg, Pontypool, Rhymney, Risca, Tredegar.

Rural Districts of Pontypool, Saint Mellons.

Within the Administrative County of Glamorgan

Borough of Port Talbot.

Urban Districts of Aberdare, Bridgend, Caerphilly, Gelligaer, Glyncoed, Maesteg, Mountain Ash, Ogmore and Garw, Pontypridd, Rhondda.

Rural Districts of Cardiff, Cowbridge, Llantrisant and Llantwit Fardre, Neath and Penybont.

Within the Administrative County of Brecknock

Urban District of Brynmawr.

Rural Districts of Crickhowell and Vaynor and Penderyn.

Within the Administrative County of Pembroke

Borough of Pembroke.

Scotland

Counties of Dunbarton, Lanark (excluding the City of Glasgow),

Renfrew

Within the County of Ayr

Parishes of Ardrossan, Beith, Dalry, Dreghorn, Dunlop, Fenwick, Galston, Irvine, Kilbirnie, Kilmarnock, Kilmaurs, Kilwinning, Loudoun, Riccarton, Stevenston, Stewarton.

Within the County of Stirling

Parishes of Falkirk, Grangemouth, Muiravonside and Slamannan - "so far as situated south of the London and North Eastern Railway line from Castlecary to Linlithgow."

Within the County of West Lothian

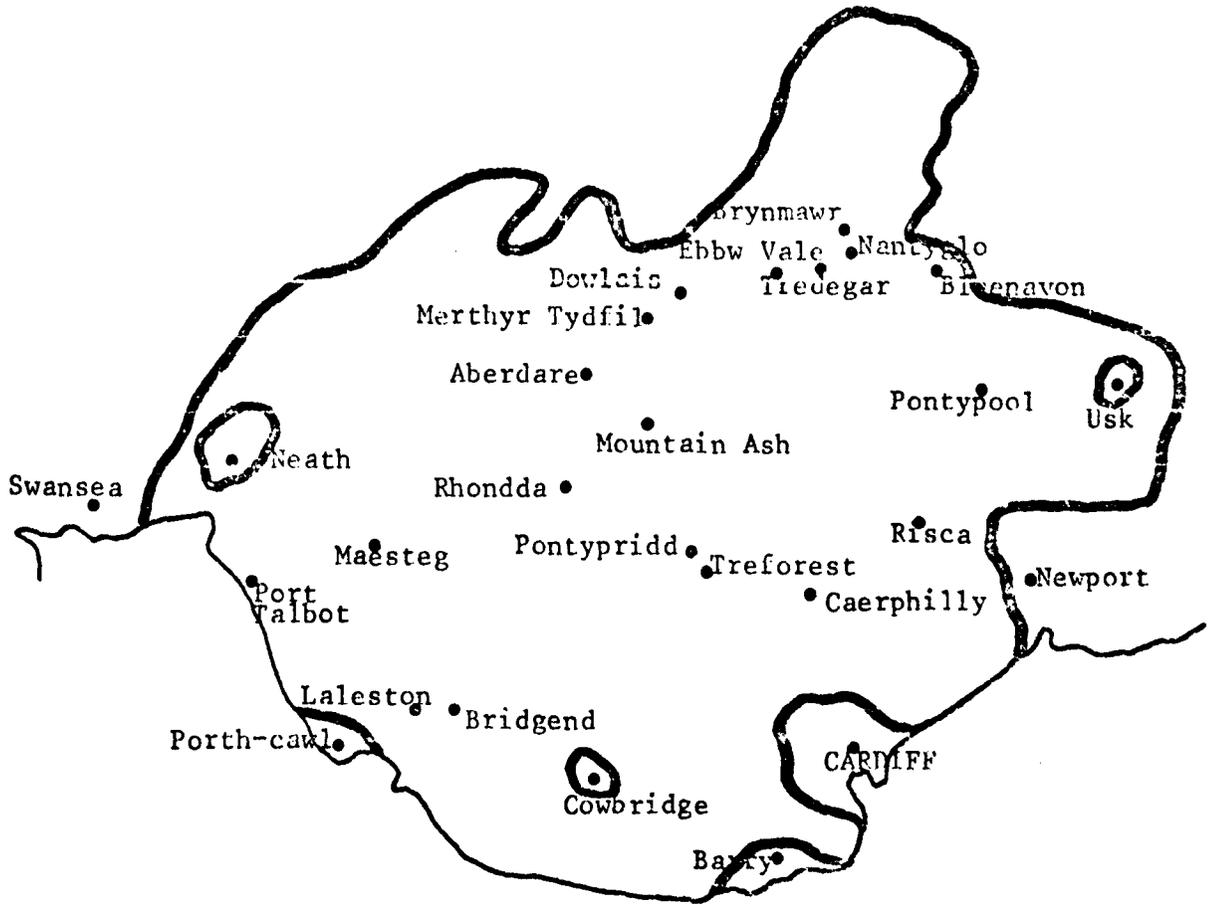
Parishes of Bathgate, Ecclesmachan, Kirkliston, Livingston, Linlithgow, Torpichen, Uphall and Whitburn "so far as situated south of the London and North Eastern Railway line from Linlithgow to Ratho."

Within the County of Midlothian

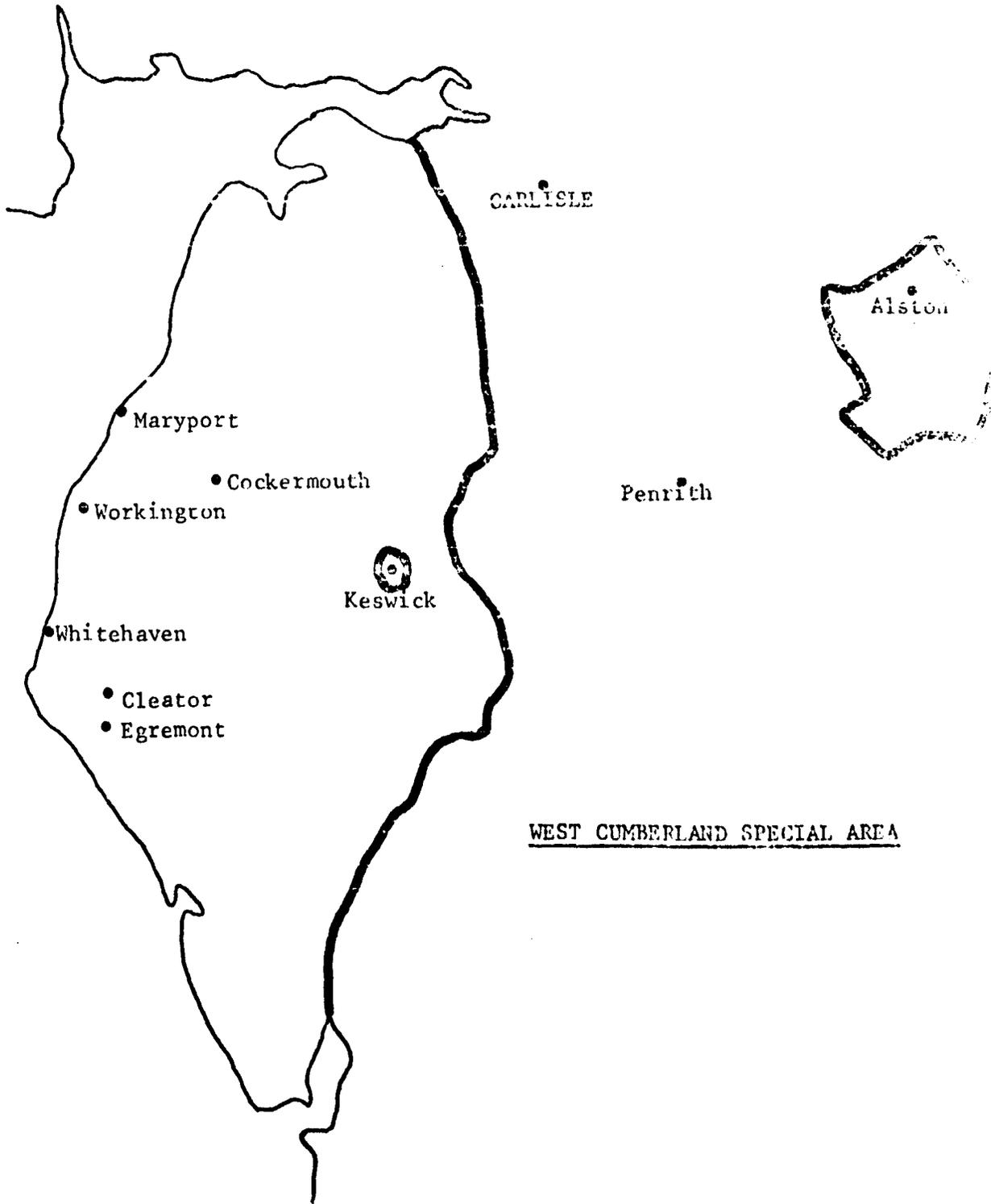
Parishes of Kirknewton, Mid Calder, West Calder.

Source: First Schedule of the Special Areas (Development and Improvement) Act, 1934. Public General Statutes, 25 & 26 Geo V, c.1(1934-5).

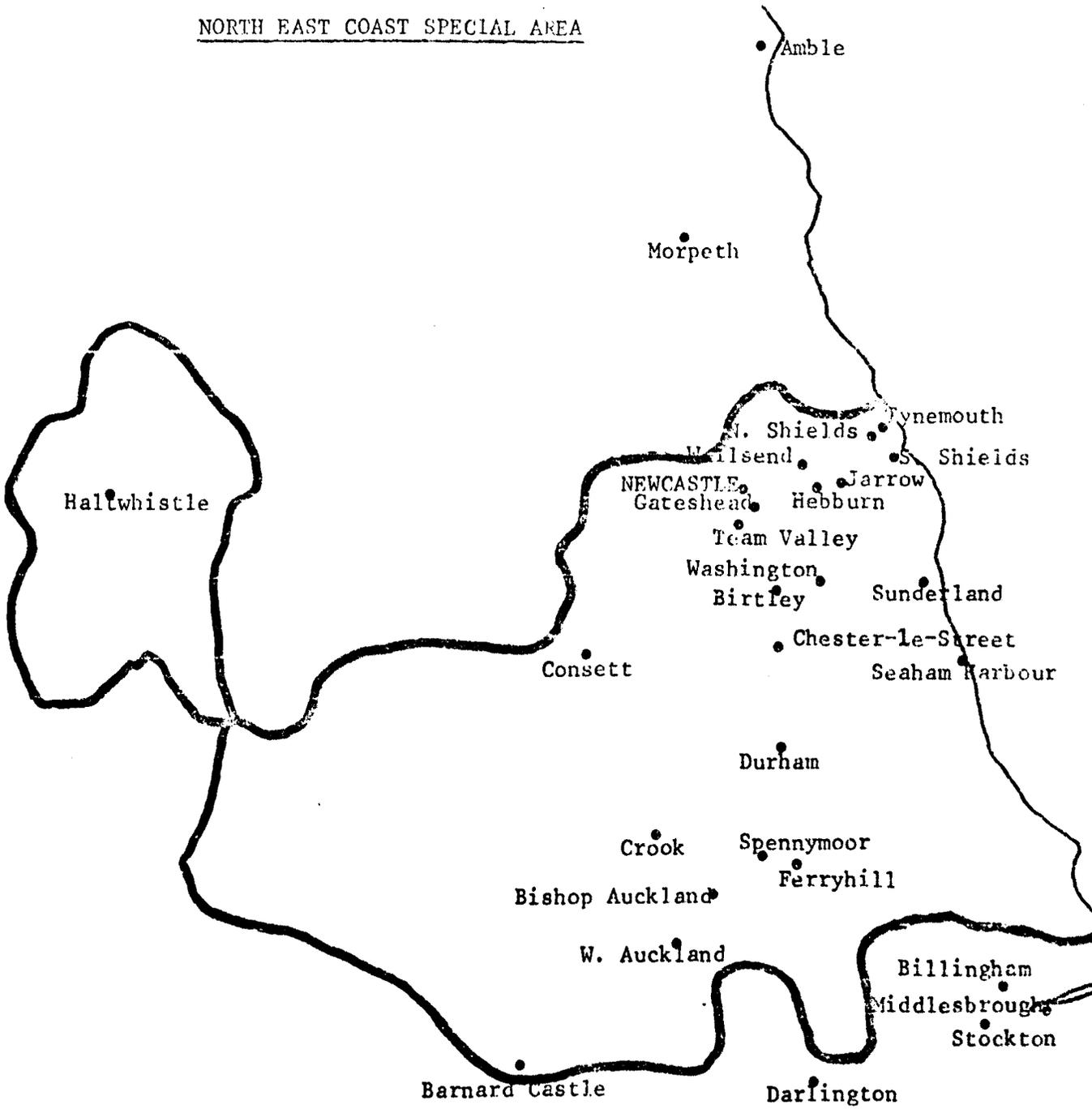
Note. The Depressed Areas scheduled under the Industrial Transference Scheme included all the above areas.



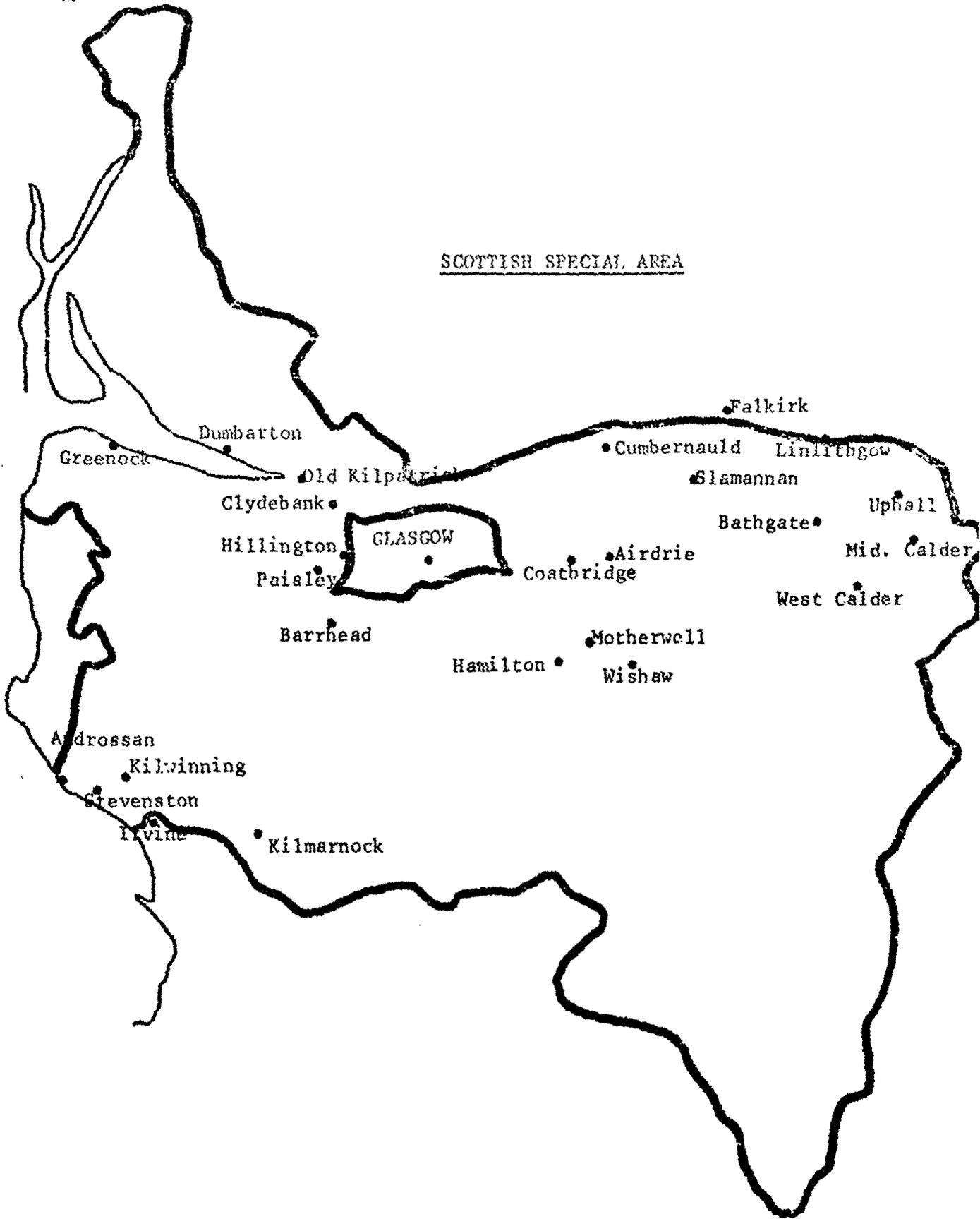
SOUTH WALES SPECIAL AREA (except Pembroke Dock)



NORTH EAST COAST SPECIAL AREA



SCOTTISH SPECIAL AREA



APPENDIX 2

A Regional Employment Multiplier for the Late 1930's

Several estimates of employment and income multipliers exist and an increasing amount of literature is appearing on the subject.¹ A range of estimates has emerged that puts the income multiplier somewhere between 1.2 and 1.5 for a standard region in the U.K. in the 1960's and it seems useful to take these estimates as a starting point in deriving an employment multiplier for the 1930's.² At the outset some shortcomings must be noted. There is the problem of projecting backwards estimates for the 1960's that are based on imperfect data. Such a projection also requires

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1. G.C.Archibald, 'Regional Multiplier Effects in the U.K.', Oxford Economic Papers, new ser.19(1967); A.J.Brown, H.Lind and J.Bowers, 'The "Green Paper" on the Development Areas. Appendix: Regional Multipliers', National Institute Economic Review, 40(1967); T.Wilson, 'The Regional Multiplier - A Critique', Oxford Economic Papers, new ser.20 (1968); D.B.Steele, 'Regional Multipliers in Great Britain', Oxford Economic Papers, new ser.21(1969); M.Brownrigg, 'The Regional Income Multiplier: An Attempt to Complete the Model', Scottish Journal of Political Economy, 18(1971); M.A.Greig, 'The Regional Income and Employment Multiplier Effects of a Pulp Mill and Paper Mill', Scottish Journal of Political Economy, 18(1971); M.A.Greig, 'Regional Multiplier Effects in the U.K.: A Comment', Oxford Economic Papers, new ser.23(1971); D.B.Steele, 'A Numbers Game (or The Return of Regional Multipliers)', Regional Studies, 6(1972); A.J.Brown, The Framework of Regional Economics in the United Kingdom (Cambridge, 1972), Chapter 8.
 2. The most recent work in this sphere is that of Steele. Simple income multipliers ranging from 1.09 for the Northern region in 1964 to 1.32 for Scotland were found. Steele's previous estimates for these regions at these dates were 1.37 and 1.89 or 1.70 respectively. On the basis of the more recent data, the estimates for the standard regions of Britain in 1967 range from 1.17 for the West Midlands to 1.31 for the South Western and Yorkshire and Humberside regions. Feedback multipliers vary from 1.30 in 1967 for the North and West, to 1.42, for Yorkshire and Humberside. The variations are due, principally, to differences in the size of regions (smaller regions importing more and larger regions exporting less).

a number of assumptions and observations that are likely to be equally imperfect. These are noted in the following text.

Archibald has estimated a minimum multiplier for the standard regions of the U.K.³ His income multiplier(k) is converted to an employment multiplier for the purpose of estimating the effects on employment of the out-migration from a region of the unemployed (or of the employed, assuming that the vacancies created are filled by previously unemployed persons.) The out-migration of the unemployed will have depressing effects upon income in the region as regional income from unemployment benefits declines. But the multiplicand is not the whole loss of payment but that part of it that is spent. Assuming that the marginal propensity to consume of the unemployed is, at least, not likely to be less than that of the employed, and that expenditure patterns similarly result in a propensity to import at least no greater than the employed, then Archibald arrives at a local expenditure coefficient (α) of 0.3.⁴ Personal income taxation will not be a relevant parameter for the case of the unemployed.

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3. G.C.Archibald,op.cit. Archibald's estimate of k is a minimum below which, he considers, it is unlikely that any regions actual k lies. $k = 1.2$.
 4. It is necessary to distinguish between the local expenditure coefficient of the employed and the unemployed, hence α and λ . Archibald took $\alpha = 0.3$, reasoning that the unemployed were likely to consume at least as much as the employed, if not more, from incremental income. Similarly, the marginal propensity to import of the unemployed is unlikely to be as high as that of the employed. Personal income tax is also a relevant parameter in the case of the employed. The net effect is that the following relation might be expected: $\alpha > \lambda$.

If unemployment benefit is represented by the symbol h , the loss of income consequent on the out-migration of an unemployed man is kh . Thus, Archibald concludes, if average weekly earnings are given by y_0 then, $y_0 = k\alpha r$, where r is the number of men that are required to move before income is reduced by y_0 and, on average, one more man loses his employment.⁵ Rearrangement yields,

$$r = \frac{1}{s k \alpha} \quad \text{where } s = h / y_0.$$

If $s = 0.4$, then the following values of r emerge⁶ -

α	r
0.3	6.9
0.4	5.2
0.5	4.2
0.6	3.5

Thus, "it appears highly probable that no more than seven men need leave for one more man to lose his job".⁷ A larger income multiplier, dependent upon less pessimistic assumptions than Archibald's, would tend to reduce this number as does higher estimates of the local expenditure coefficient (α). There is no reason to expect either of these to have been substantially different in the 1930's,⁸ however, it is likely that s (the ratio

5. This assumes that regional income only has to decrease by y_0 before employment falls by one. An allowance for a profit margin will give the same result for a decline of income less than y_0 .

6. G.C.Archibald, op.cit.p.37.

7. ibid.p.36.

8. If anything, the lower k would be more applicable to the smaller regions involved. However, α would tend towards the higher values given because of the likely lower value of the marginal propensity to import, and the higher marginal propensity to consume out of a smaller discretionary income would tend to push α in the same direction.

of benefits to average weekly earnings) would have been lower as the coverage of the welfare state was less complete and the scale of benefits less comparable with income. The result, therefore, would be for all estimates of r to be increased somewhat. For example, if s is 0.2, the first observation in Archibald's Table V, partially reproduced above, becomes 13.9 rather than 6.9; that is 14 men have to leave the region before one more man loses his job. The following table might be hazarded, where values of s vary from 0.2 to 0.4.

$$\text{Values of } r = \frac{1}{sk^\alpha} \quad \text{where } k = 1.2 \text{ and } \alpha = 0.3$$

s	r
0.4	6.9
0.3	9.3
0.2	13.9

A priori, s is expected to be lower in the 1930's and preliminary investigation suggests that this is so. Calculations of average weekly earnings (y_0) are not difficult to obtain for the period. Bowley put them at about £2.50 for both men and women in 1935 in manual industries covered by unemployment insurance.⁹ For men this figure was about £3.00, whilst for women it was nearer to £1.50. Chapman and Knight's calculations produce an average weekly earnings figure of about £2.80.¹⁰ This figure rose between 1936 and 1938 to about £2.90. Chapman and Knight's result is for all industries and services, but excludes directors fees. Given the composition and structure of employment and unemployment in the

9. A.L. Bowley, Wages and Income in the United Kingdom since 1860 (Cambridge, 1937), p.105.

10. A.L. Chapman and R. Knight, Wages and Salaries in the United Kingdom, 1920-1938 (Cambridge, 1953), p.27.

Special Areas, it seems that a figure around £2.75 will be sufficiently accurate.¹¹

It is more difficult to determine. At the rates of benefit prevailing from October 31 1935 to March 30 1938, an unemployed man with a wife and child would receive £1.45 per week in benefits.¹² However, only about 80 per cent of the unemployed received benefit of any sort and so this figure overstates the loss of income from unemployment benefits that the typical individual experienced on moving from unemployment to employment. With the assumption of a total family size of 3¹³ (an unemployed male, dependant wife and child), and a coverage of exactly 80 per cent of the unemployed by the insurance system, this loss is closer to £1.16 per week.¹⁴ In conjunction with y_0 this gives an s ratio of 0.42. This is not in accordance with a priori expectations. Fortunately, another avenue can be explored.

Burns¹⁵ has detailed the annual expenditure on national insurance

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11. Lower wages were prevalent in the heavier industries and much new employment was for female labour who commanded a lower wage than men. See A.L.Bowley, op.cit.p.51.
 12. E.M.Burns, British Unemployment Programs, 1920-1938 (Washington D.C., 1941), p.368.
 13. Statistics of public assistance claims and the number of dependents involved in these claims suggests an average family size falling from 3.0 in 1934 to 2.4 in 1938. Consequently, the h statistic obtained in this way is biased upwards by taking 3.0 as family size. Calculated from Burns, op.cit.pp. 360,67.
 14. This result, and the resulting s , are biased upwards as the mean percentage of the unemployed aided by insurance and supplementary systems for the months of March, June, September and December in the years 1934-8 and March 1939 is 79.5. Calculated from Burns, op.cit.Appendix II, p.347.
 15. Burns, op.cit.pp.347,61,67.

and supplementary systems and on public assistance and has given some indication of the numbers receiving benefits. If it is assumed that monthly expenditure is reflected by annual expenditure divided by twelve, it is possible to relate these expenditures to individuals in receipt of benefit in any of the four months March, June, September and December in the years 1934-8. The results can then be reduced to a weekly total. This procedure gives an h of £1.046 $(0.0216)^{16}$ and at the 1 per cent level of significance h is within the range of £0.984 to £1.108. With the earnings rates detailed above this gives an s ratio with a range from 0.339 to 0.443. If h is taken as 1.05 and $y_0 = 2.75$, then $s = 0.38$. This result is in the right direction but perhaps not as low as might have been expected. However, the assumptions made in the process of calculation will have tended to bias the result away from a priori expectations. A further table can be ventured showing the variation in r with different values of s ($\alpha = 0.3$).

s	r
0.44	6.3
<u>0.42</u>	<u>6.6</u>
0.38	7.3
0.34	8.2

If the impact of out-migration on employment is judged less favourably, with $s = 0.38$, α must take higher values. That is:-

α	r
0.3	7.3
0.4	5.5
0.5	4.4
0.6	3.7

16. Standard error of mean.

The appropriate employment multiplier to apply to the increases in direct factory employment and public works employment, can be obtained by converting Archibald's income multiplier. The number of additional jobs (β_1) consequent on an increase in income of y_0 from one man taking on employment is given by,

$$\beta_1 = \frac{k\lambda y_0}{y_0} \cdot \quad 17$$

λ is the local expenditure coefficient of the employed. There is also an offsetting loss to consider from the decline in unemployment benefit, if it is assumed that men move from unemployment to employment or, alternatively, that there is no change in activity rates or in in-migration. This loss is given by β_2 ,¹⁸

$$\text{which is } \beta_2 = \frac{k\alpha h}{y_0},$$

and which becomes $\beta_2 = k\alpha s$, as $s = h/y_0$.

β_1 and β_2 combined shows the change in employment consequent upon an increase in earnings as a result of an increase in direct employment by one. Thus, the employment multiplier (k_e) may be taken to be -

$$k_e = 1 + k(\lambda - \alpha s). \quad 19$$

An estimate of λ is required. The local expenditure coefficient of

17. This assumes, with Archibald, that regional income has only to increase by the average weekly earnings of labour for another to be taken into employment. An allowance for a profit margin would decrease the denominator.

18. β_2 is, of course, equal to $1/r$.

19. Aggregation is necessary as there is no information available on directional migration flows, on changes in activity rates or on the distribution of unemployment benefit. β_1 and β_2 cannot be applied selectively.

the employed is dependent upon the marginal propensities to consume (c), to import (m), and to be taxed (t), whereas that of the unemployed is dependent upon c and m alone. If α is unlikely to be below 0.3, then, because of variations in c and m , λ is likely to be less than 0.3. However, different values cannot be given to c or m on the basis of any evidence and so t must be depended upon to provide an estimate of λ . λ is thus an overestimate of the true λ .²⁰ Prest's work suggested that at 1959/60 rates, t was between 0.18 - 0.21, whereas at 1948/9 rates a figure of about 0.30 was found.²¹ The explanation for this change was the increase in allowances and decrease in rates over the period. The examination of the structure of rates and allowances for 1938/9, 1948/9 and 1959/60 suggests that for the later 1930's, t lay between 0.18 and 0.30. (See Table XXXVII) The fact that 1938/9 had different rates and allowances to the rest of the 1930's means that a t close to 0.30 is not favoured. (See Table XXXVIII) For convenience, 0.25 might be taken for t . Therefore, whilst α varies from 0.3 to 0.6, λ varies from 0.225 to 0.45. If $k = 1.2$ and s varies from 0.34 to 0.44, the following range of estimates for k_e results:-

	α	0.3	0.4	0.5	0.6
	λ	0.225	0.3	0.375	0.45
^s	0.44	1.11	1.15	1.19	1.22
	0.42	1.12	1.16	1.20	1.24
	0.38	1.13	1.18	1.22	1.27
	0.34	1.15	1.20	1.25	1.30

20. Thus k_e is biased upwards. But the fact that the movement over time of t contrasts with the movement expected in c and m , means that the k_e for this reason is biased downwards.

21. A.R.Prest, 'The Sensitivity of the Yield of Personal Income Tax in the United Kingdom', Economic Journal, 72(1962), 592. Payments in respect of insurance contributions are not considered. The fact that t for 1938/9 cannot be determined with any certainty makes it somewhat pointless to up the tax rate by what would be small amounts. The net effect of this omission is to bias the resulting k_e upwards. But k_e is not very sensitive to changes in t .

Estimates in the bottom half of the table are suggested by the discussion of the value of s and, therefore, the minimum employment impact of one new job is likely to be given by the third row of column one and the true impact could be somewhat in excess of that.

If the assumptions about the movement of men from unemployment to employment are relaxed and the new jobs are taken by immigrants or by persons not previously in the labour force then there is no offsetting loss and k_e becomes,

$$k_e = 1 + \beta_1 \quad \text{or} \quad \frac{k \lambda y_o}{y_o} .$$

Thus where $k = 1.2$ and $\lambda = 0.225$, $k_e = 1.27$ rather than 1.11 - 1.15. Similarly, where $k = 1.2$, $\lambda = 0.3$, $k_e = 1.36$. There seems some point in allowing for an increase in activity rates as much of the new factory employment was for women.²² There was also some return migration to the Special Areas as a result of improving prospects and so k_e might be taken as 1.3 and this might still be somewhat pessimistic in view of the income multiplier begun with.

These estimates are below employment multipliers given by Greig.²³ The latter's calculations were based on an examination of data selected for its high input-output linkages. Important modifications were introduced

22. See Chapter 7.

23. For a full discussion see M.A.Greig, 'Studies in the Theory and Application of Regional Multipliers', (unpublished Ph.D. thesis, University of Stirling, 1972) and M.A.Greig, The Economic Impact of the Highlands and Islands Development Board Investment in Fisheries: Economic (Multiplier) Assessment (H.I.D.B.1972).

into the multiplier model. The multiplicand was expanded to allow the inclusion of linkage effects. In the first-round multiplier average propensities were used, it being argued that if the new industry had not been established the new employees would not have remained unemployed within the area but would have moved out of it, and, that in-migration to the area, especially of particularly skilled labour, would increase with the expansion of opportunity. Public service employment was considered directly related to the growth of total employment.

Should the estimates for the 1930's be raised by taking into consideration some of these modifications? The estimate of the employment multiplier is only concerned with the direct increase in employment and the indirect increase resulting from the increased level of local spending out of the income of employees in the observed new jobs. No allowance is made for any increase in direct and indirect employment as a result of increased demand for non-labour inputs. Neither is any allowance made for any increase in employment as a result of increased output. This is because such a path cannot be followed without great difficulty when the consequences of a number of new jobs in different establishments rather than the consequences of one new factory is examined.²⁴ It was not possible, therefore, to determine the proportion of increased inputs attributable to

24. A back projection of input-output tables would be necessary. The number of branch plants might be an alternative guide to the strength of within region linkages. The Board of Trade data shows that branch plants were set up in the Special Areas as follows:

	Scotland	North East	South Wales	West Cumberland
1934	0	0	0	1
1935	1	0	0	0
1936	0	1	0	0
1937	1	2	2	0
1938	7	4	1	0

Calculated from Board of Trade, Annual Surveys of Industrial Development, 1934-8.

the increase in direct employment. Indeed, the demand for inputs may not have changed. Similar comments are applicable to the consideration of increased forward linkages. The true multipliers might be more than is represented by the local expenditure coefficient of increased wages from the new employment. Another reason for failing to cover this ground is the nature of the direct employment estimates in factories and on public works schemes. There is a distinct possibility of considerable double-counting taking place as some of the observed increase in employment may have been due to the linkage effects of some other observed increase in employment. Only the impact of wages can safely be followed through the process of income and employment generation.

Some modification in respect of average propensities seems justified if 'move-industry' policy and transference conflict. If new industry discourages out-migration then the introduction of new employment will result in some of the potential migrants staying within the region.

Public service employment would have been unlikely to expand in the Special Areas as a result of an increase in direct employment in another sector. Social capital was often alleged to be under-utilised²⁵ and labour is likely to have been underemployed on such capital. There would have been no induced employment on new investment nor an increase in employment on existing capital.

25. supra, Chapter 5.

Whether the multiplier model is adjusted or not, the income multiplier which forms the basis of the earlier calculations of k_e might be too pessimistic. If $k = 1.3$ then k_e ranges from 1.12 to 1.32. $k = 1.4$ gives k_e between 1.13 and 1.34 and $k = 1.5$ gives k_e from 1.14 to 1.37. It seems, therefore, that the range 1.3 to 1.4 might be a better approximation than 1.3.

How reasonable are the results obtained? Historical k_e were expected to be higher than present k_e as a result of changes in the governing propensities. t has changed with the result that regional multipliers are now likely to be higher. In contrast, communications have improved and the structure and composition of industry is such that increased regional trade might be expected. The areas that are being considered might now be more dependent upon imported goods than in the late 1930's. k_e would be higher in the past than now. Changes in c also suggest higher k_e in the past. The resultant estimates are not as high as this reasoning suggests as Archibald's pessimistic income multiplier has been used as the basis of the estimates and his estimate of local value added has formed the basis of the estimates of α and λ .

However, in order that the most is made of the contributions of new employment to the reduction of unemployment in the Special Areas a large value of k_e is taken to estimate the direct and indirect employment in the years from 1934. Likewise, so that the contribution of transference is minimized a low value of r is used. $k_e = 1.35$ and $r = 5$.

Finally, although the same k_e is applied in the main text of the chapter to both types of direct employment, it is likely that the resulting estimate of employment is overstated in the case of increases in public works employment as there will be little, if any, increase in permanent employment as a result.²⁶ An understatement might be the product of applying k_e to increases in direct factory employment.

26. The obvious exception is where the construction work is the establishment of an industrial site or trading estate. But this impact is not overlooked in the aggregated figures of employment in both public works and new factories.

Table XXXVII

Taxation in the U.K. 1938/9, 1948/9, 1959/60

RATES OF TAX	1938/9	1948/9	1959/60
Lowest reduced rate	1/8 in £ (on first £135)	3/- in £ (on first £50)	1/9 in £ (on first £60)
Middle reduced rate	-	-	4/3 in £ (next £150)
Highest reduced rate	-	6/- in £ (next £200)	6/3 in £ (next £150)
Standard Rate	5/6 in £	9/- in £	7/9 in £
Surtax	1/3 to 9/6 (on incomes over £2000)	2/- to 10/6 (on incomes over £2000)	2/- to 10/- (on incomes over £2000)

MAIN ALLOWANCES

Income Tax

Personal (single)	£100	£110	£140
Personal (married)	£180	£180	£240
Children	£ 60	£ 60	£100-£150
Earned income relief	1/5 (on first £300)	1/5 (on first £400)	2/9 (on first £4005) 1/9 (on next £5940)
Surtax	Nil	Nil	Excess of personal and children's allowances > £140

Source: Report of the Commissioners of Her Majesty's Inland Revenue for the year ended 31st March 1961. Hundred and Fourth Report (Parl. Papers, 1961-2, XVII), Tables 24, 75; A.R. Prest, 'The Sensitivity of the Yield of Personal Income Tax in the United Kingdom', Economic Journal, 72 (1962), 593.

Table XXXVIII

Taxation in the U.K. 1934/5 - 1938/9

RATES OF TAX	1934/5	1935/6	1936/7	1937/8	1938/9
Lowest reduced rate	2/3 in £ (on first £175)	1/6 in £ (on first £135)	1/7 in £ (on first £135)	1/8 in £ (on first £135)	1/8 in £ (on first £135)
Standard rate	4/6	4/6	4/9	5/-	5/6
Surtax	1/1 ¹ / ₃ d. to 8/3 on incomes over £2000 (1934/5 - 1937/8)				1/3 to 9/6 on incomes over £2000

MAIN ALLOWANCES

Income Tax

Personal (single)		£100 (all years)			
Personal (married)	£150	£170	£180	£180	£180
Children	£ 50	}	£ 50	£ 60	£ 60
each subsequent					
child	£ 40				
Earned income relief	1/5 on first £300 (all years)				
Surtax	Nil (all years)				

Source: Eighty-Second Report of the Commissioners of His Majesty's Inland Revenue for the year ended 31st March 1939 (P.P., 1938-9, XII), Tables 38, 54; Report of the Commissioners of Her Majesty's Inland Revenue for the year ended 31st March 1961. Hundred and Fourth Report (P.P., 1961-2, XVII), Tables 24, 75.

APPENDIX 3

A Regression Analysis of the Impact of Regional Policy on the Special Areas, 1934-1938

To test the impact of regional policy on variations in Special Areas unemployment it was necessary, given the small number of observations available, to combine the effects of employment policy and transference in a single indicator. The expected relation between unemployment and new employment was negative. As employment increased, so unemployment should decrease. This was also true of transference and so it was possible to obtain an indicator by addition of the two series. The expected relation between unemployment and the policy variable was negative. Where net migration was used as an indicator of the effects of transference policy, as in Scotland, a positive relationship was expected between unemployment and net migration. Consequently, the computation of a series indicating the overall short-term impact of policy involved changing the signs of the net migration series and adding this and the employment series. The expected relation between this policy series and unemployment was negative.

A regression of the form,

$$Y_{1i} = \alpha + \beta_2 X_{2i} + \beta_3 X_{3i} + E_i$$

was run, where

Y_{1i} = Special Areas unemployment in the i 'th year,

X_{2i} = Unemployment in Great Britain minus Special Areas unemployment in the i 'th year,

X_{3i} = Regional Policy variable in the i 'th year,

and E_i = Error term.

The results are presented in Tables XXXIX and XL. The Scottish results use net migration and net migration adjusted for wastage and multiplier effects in the regional policy indicator. The available transference data was insufficient to be included in the analysis. The signs of the coefficients are correct throughout, although the standard errors are uncomfortably high. Collinearity is a problem in both equations.¹ The change in R^2 suggests that the policy variable was of the greatest importance in the two equations. However, given the small number of observations, none of the coefficients nor the overall fit of any of the equations was statistically significant.

The best results for England and Wales appear to be for equations 1 and 2 where transference and transference adjusted for wastage and multiplier effects are used in the compilation of the regional policy series. R^2 is high and the contribution of the policy variable to the explanation of variations in the dependent variable is high. However, the sign of the national unemployment variable is incorrect. The other equations are less good. The signs are in some cases correct, but in all the standard errors are large. This is explained by collinearity in the independent variables,

1. A relationship between the policy variable and national unemployment is unfortunate, although not unexpected. Given a low level of national unemployment, out-migration from areas with relatively high unemployment will increase. Further, as employment increases nationally so unemployment will decline. Even though the Special Areas' weighting in the national statistics is small, this relationship may also be reflected. The simple correlation between national unemployment and the two policy indicators in Scotland were 0.58 and 0.49.

a problem not overcome in equations 1 and 2.² Again the relationships described are not statistically significant.

To overcome the limitation of a small number of observations it was decided to pool the data for England, Wales and Scotland and re-run the regressions. This was possible in those cases where net migration and adjusted net migration were used in the compilation of the regional policy variable. These results are shown in Table XLI. As expected, the overall fit of the equations became significant, although only the policy variable amongst the independent variables was also significant. However, the results were not satisfactory. Despite the high R^2 and the importance of the policy variable in contributing to a high R^2 , the sign of the policy variable was incorrect. Collinearity remained a problem and in equation 2 resulted in the mean square of the residuals increasing with the inclusion of the X_2 variable in the equation.

The relative impact of the two components of policy was examined on the same lines. The data of Table XXXIV in the text suggested that transference was a more effective policy weapon than employment policies, even after the wastage from transference and multiplier effects had been allowed for. The question remains, how close was the relationship between changes in unemployment and the different policy instruments. An attempt was made to answer this question by running a regression of Special Areas unemployment on a number of explanatory variables.

2. Again a relationship between national unemployment and the policy variable is to be expected. The simple correlation between national unemployment and the policy indicators in England and Wales were -0.83, -0.65, -0.86 and -0.92.

The data was run with a linear model of the form,

$$Y_{1i} = \alpha + \beta_2 X_{2i} + \beta_3 X_{3i} + E_i$$

where Y_{1i} = Special Areas unemployment in the i 'th year,

X_{2i} = an aggregate of new factory employment, public works employment and the consequent indirect employment in
the i 'th year,

X_{3i} = an indicator of transference policy in the i 'th year,

and E_i = Error term.

The results are shown in Tables XLII and XLIII for Scotland and England and Wales respectively. R^2 is high in both sets of results and suggests a good level of explanation. In Table XLII, however, the signs of the transference indicator are incorrect and for both independent variables the standard error of the regression coefficients are high. Neither equation has a statistically significant fit, probably because of the small n . The results for England and Wales were more satisfactory, although still not statistically significant. The signs of the regression coefficients are correct throughout, although the size of the standard errors makes it difficult to accept the sign of the X_3 variable. The contribution of the X_3 variable to the change in R^2 is small, in contrast with the Scottish data, and the inclusion of this variable in the equation resulted in the precision of the estimates declining in all four equations.

The data was again pooled in an attempt to obtain statistically significant results. Table XLIV contains this information and shows that the transference variable (X_3) and the overall fit of the equations is

significant. However, collinearity is again a difficulty and the signs of all the regression coefficients are wrong.

What conclusions can be drawn from this exercise? Although the level of explanation is high throughout the analysis, the null hypothesis of no relation between Y_1 , X_2 and X_3 cannot be rejected except when the data is pooled. In these cases, the signs of the X_3 variable are incorrect indicating that policy was operating to increase regional unemployment and that both of the components of policy were contributing to this apparent malfunctioning of policy. However, this conclusion may be spurious. The dissimilarity of the different specified relationships in England and Wales, and Scotland, makes it difficult to draw general conclusions.³ There is also the possibility that the incorrect specification of lags in the interaction of the transference variable and the dependent variable resulted in perverse relationships.⁴ The inability to measure transference in Scotland was another limitation on the analysis. The principal limitation, however, was the shortage of observations.⁵ As a consequence, the results for the Special Areas of England and Wales and of Scotland were not significant.⁶

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3. For example, Special Areas unemployment and the transference variable were dissimilarly related in England and Wales, and Scotland. The partial correlation coefficients, controlling for the employment variable, were 0.49 and 0.49 for the English and Welsh data of net migration and adjusted net migration. In Scotland, the coefficients were respectively -0.88 and -0.88. The pooled data result was -0.77 and -0.77.
 4. This possibility was previously noted in Chapter 5.
 5. As a result, a test could not be made for autocorrelation in the residuals.
 6. The possibility of contradiction in the direction of operation of policy instruments on unemployment could not be judged. The simple correlation coefficients did suggest that policy instruments were contradictory in Scotland, but not in England and Wales. But these observations lacked significance.

Table XXXIX

The Regression of Special Areas Unemployment on a Regional
Policy variable and an indicator of National Unemployment. Scotland,
1935-1938

	Independent Variable	Constant	Regression Coefficient	Change in R ²	R ²	n
(1)	X ₂		0.08(0.04)	0.31		
	X ₃		- 3.52(2.10)	0.51	0.82	4
		- 47546.63				
(2)	X ₂		0.07(0.03)	0.32		
	X ₃		- 3.96(1.68)	0.58	0.90	4
		- 34649.46				

The transference component of the Regional Policy variable (X₃) is represented by net migration for calendar years (1) and net migration adjusted for wastage and multiplier effects (2).

Standard errors in brackets.

All equations are insignificant at the 5 per cent level.

Table XL

The Regression of Special Areas Unemployment on a Regional Policy variable
and an indicator of National Unemployment. England and Wales, 1935-1938

	Independent Variable	Constant	Regression Coefficient	Change in R ²	R ²	n
(1)	X ₂		-0.55(0.22)	0.49		
	X ₃	1614726.79	-12.74(3.70)	0.43	0.92	4
(2)	X ₂		-0.29(0.15)	0.25		
	X ₃	1100769.28	-12.71(3.49)	0.68	0.93	4
(3)	X ₂		0.70(0.43)	0.66		
	X ₃	-1062496.58	4.51(2.65)	0.09	0.75	4
(4)	X ₂		0.90(0.69)	0.61		
	X ₃	-1542933.56	10.52(8.08)	0.03	0.64	4

The transference component of the Regional Policy variable (X₃) is represented by transference (1), transference adjusted for wastage and multiplier effects (2), net migration for calendar years (3), net migration adjusted for wastage and multiplier effects (4).

Standard errors in brackets.

All equations are insignificant at the 5 per cent level.

Table XLi

The Regression of Special Areas Unemployment on a Regional
Policy variable and an indicator of National Unemployment. England,
Wales and Scotland, 1935-1938

	Independent Variable	Constant	Regression Coefficient	Change in R ²	R ²	n
	X ₂		0.18(0.18)	0.02		
(1)	X ₃		3.54(0.73)	0.88	0.90	8
		-244448.48				
	X ₂		0.17(0.18)	0.02		
(2)	X ₃		5.33(1.12)	0.88	0.90	8
		-231619.17				

The transference component of the Regional Policy variable (X₃) is represented by net migration for calendar years (1) and net migration adjusted for wastage and multiplier effects (2).

Standard errors in brackets.

Both equations are significant at the 5 per cent level.

Table XLII

The Regression of Special Areas Unemployment on Different Regional
Policy instruments, Scotland, 1935-1938

	Independent Variable	Constant	Regression Coefficient	Change in R ²	R ²	n
(1)	X ₂		- 4.08(2.05)	0.34		
	X ₃		- 7.29(3.94)	0.51	0.85	4
		97624.47				
(2)	X ₂		- 4.08(2.05)	0.34		
	X ₃		-13.02(7.04)	0.51	0.85	4
		97631.02				

The transference variable (X₃) is represented by net migration for calendar years (1) and net migration adjusted for wastage and multiplier effects (2).

Standard errors in brackets.

All equations are insignificant at the 5 per cent level.

Table XLIII

The Regression of Special Areas Unemployment on Different Regional
Policy instruments. England and Wales, 1935-1938

	Independent Variable	Constant	Regression Coefficient	Change in R ²	R ²	n
(1)	X ₂		-12.69(3.25)	0.93		
	X ₃	526219.47	- 0.80(2.34)	0.01	0.94	4
(2)	X ₂		-12.69(3.25)	0.93		
	X ₃	526216.95	- 1.42(4.16)	0.01	0.94	4
(3)	X ₂		-13.93(3.66)	0.93		
	X ₃	549371.51	0.40(0.68)	0.02	0.95	4
(4)	X ₂		-13.93(3.66)	0.93		
	X ₃	549373.57	0.68(1.21)	0.02	0.95	4

The transference variable (X₃) is represented by transference (1), transference adjusted for wastage and multiplier effects (2), net migration for calendar years (3) and net migration adjusted for wastage and multiplier effects (4).

Standard errors in brackets.

All equations are insignificant at the 5 per cent level.

Table XLIV

The Regression of Special Areas Unemployment on Different
Regional Policy instruments, England, Wales and Scotland, 1935-1938

	Independent Variable	Constant	Regression Coefficient	Change in R^2	R^2	n
(1)	X_2		4.02(3.30)	0.03		
	X_3		-2.64(0.99)	0.85	0.88	8
		58166.52				
(2)	X_2		4.02(3.30)	0.03		
	X_3		-4.72(1.78)	0.85	0.88	8
		58168.05				

The transference variable (X_3) is represented by net migration for calendar years (1) and net migration adjusted for wastage and multiplier effects (2).

Standard errors in brackets.

Both equations significant at the 5 per cent level.

APPENDIX 4

Net Migration, Direct Factory Employment and Unemployment for Certain Towns
in the Special Areas, 1934-1938

Change in Unemployment	Net Migration	Direct Factory Employment	Unemployment	
			No.	%
<u>West Cumberland Special Area</u>				
Whitehaven				
-61	225	-	2137	28.3
1469	-261	-	2076	27.1
-1500	-725	-	3545	46.4
-649	-135	-	2045	28.2
72	-90	-	1396	19.5
Maryport				
84	-209	99	1926	57.5
-239	-206	-	2010	58.6
-377	-342	-	1771	50.9
-214	-219	-	1394	41.5
-310	-85	-	1180	37.1
<u>North East Coast Special Area</u>				
Crook				
-129	-149	-	3769	38.7
-297	-169	-	3640	37.8
-934	-8149b	-	3343	36.1
223	-419b	-	2409	25.9
-838	-457	99	2632	28.7
Spennymoor				
232	-164	-	3367	30.5
-202	-410	-	3599	32.6
-1129	2977b	-	3397	29.9
-103	-264b	-	2268	20.6
351	-406	-	2165	20.2
Bishop Auckland				
-668	42	-	5999	52.9
-358	303	-	5331	49.0
-1199	17409b	-	4973	48.0
-365	-429b	-	3774	35.5
-80	-481	198	3409	31.8
Gateshead				
109	-2410	-	11848	40.7
-2422	-2708b	-	11957	42.4
-2542	-7431b	-	9535	36.2
27	-1100	298	6993	26.6
-508	-939	793	7020	26.0

Change in Unemployment	Net Migration	Direct Factory Employment	Unemployment No.	%
Sunderland				
-3433	-2896	99	28522	47.3
-4599	-2201b	-	25089	42.8
-6517	-2432b	-	20490	35.4
284	-1617	198	13973	24.0
92	-941	496	14257	24.4
Consett				
-9	-56	-	1163	8.4
-94	194	-	1154	8.0
-366	18286b	-	1060	7.3
531	-187b	199	694	4.6
-352	-245	-	1225	8.0
Seaham Harbour				
-417	-559	-	3253	22.1
-333	-585	199	2836	20.0
-1104	7185b	-	2503	17.5
-211	-523b	-	1399	10.1
-46	-241	-	1188	8.7
<u>South Wales Special Area</u>				
Ebbw Vale				
-1452	-689	-	4806	48.4
-445	-465	-	3354	34.4
-1647	-149	-	2909	30.4
310	-240	299	1262	12.9
-462	-209	-	1572	12.1
Brynmawr^{a/}				
-341	-144	-	2119	74.6
190	-104	-	1778	65.6
-840	-206	-	1968	75.7
-3	-68	-	1128	43.2
-95	-94	-	1125	55.7

a/ A furniture factory and a boot manufacturer were set up in 1937 and 1938 respectively but are not included in the Board of Trade data (see infra, (i)). Final Report of the Commissioner for the Special Areas (England and Wales) (P.P., 1938-9, XII), para. 382.

	Change in Unemployment	Net Migration	Direct Factory Employment	Unemployment	
				No.	%
Blaina^{c/}					
	-640	-358	-	2348	87.6
	13	-310	-	1708	58.9
	-736	-488	-	1721	60.4
	-47	-203	-	985	36.2
	n.a.	-41	-	938	57.2
Pontypool					
	-952	26528b	-	5807	41.6
	-562	-905	-	4855	35.0
	-1064	-946	-	4293	31.2
	745	-502	-	3229	23.9
	-2231	-65	199	3974	31.0
Blaenavon					
	616	-192	-	920	24.4
	-294	-299	-	1536	40.0
	-398	-294	-	1242	34.8
	23	-112	-	844	24.4
	-362	-86	99	867	25.2
Merthyr Tydfil					
	-3020	-1541	-	14235	65.6
	-468	-1580	-	11215	52.9
	-2731	-2393	-	10747	51.3
	-14	-978	-	8016	40.2
	-1356	-798	199	8002	43.3
Pontypridd^{e/}					
	520	-982	-	6654	52.6
	-805	-1287	-	7174	56.4
	-1997	-1114	-	6369	51.7
	-146	-505	596	4372	36.1
	-973	-376	1189	4226	36.0
Aberdare					
	-674	-940	-	6772	50.2
	-236	-1221	-	6098	45.1
	-2741	-1363	-	5862	45.3
	180	-437	-	3121	24.4
	-379	-369	299	3301	26.2

c/ The Net Migration series refers to Nantyglo and Blaina.

e/ The Direct Factory Employment series includes the Treforest Trading Estate.

Change in Unemployment	Net Migration	Direct Factory Employment	Unemployment	
			No.	%
Mountain Ash				
297	-879	-	4667	42.2
1305	-1510	-	4964	45.5
-4309	-1359	-	6269	63.2
840	-471	-	1960	21.4
-1192	-719	-	2800	31.6
<u>Scottish Special Area</u>				
Dumbarton				
119	-36	199	2250	36.1
-847	-371	-	2369	33.5
-530	-11	-	1522	21.4
107	349	-	992	13.0
-170	254	299	1099	14.6
Hamilton				
-644	-293b	99	5934	33.6
-360	-331	-	5290	30.9
-917	135	99	4930	30.1
-99	-108b	-	4013	24.8
-204	-533	99	3914	24.4
Motherwell and Wishaw				
-627	-383	99	12203	n.a.
-1963	-278	99	11576	n.a.
-2707	402	-	9613	n.a.
708	-236	-	6906	n.a.
-782	-44	-	7614	n.a.
Coatbridge				
-753	-214	-	6108	36.4
-894	-710	-	5355	31.5
-1112	658	-	4461	26.1
1372	176	198	3349	19.3
-1336	-302	-	4721	26.3

Change in Unemployment	Net Migration	Direct Factory Employment	Unemployment	
			No.	%
Airdrie				
-439	-30	-	4952	42.4
-656	-387	-	4513	39.8
-719	1063b	99	3857	34.9
459	34	-	3138	28.4
-523	-114	-	3597	33.4
Clydebank				
-412	-465	-	6212	26.8
-1819	-948	-	5800	23.9
-1776	-358	99	3981	17.6
24	-145b	-	2205	10.1
-281	-128	-	2229	9.4
Paisley				
-35	261	-	6127	18.3
-1179	384	-	6092	18.6
-1246	322	99	4913	15.0
1132	-184	198	3667	11.4
-922	344	693	4799	15.0
Barrhead				
229	3	-	1375	24.5
-624	-52	-	1604	28.7
-242	-65	-	980	17.5
576	-318	-	738	13.0
-395	-46	99	1314	22.9
Linlithgow				
20	-8	-	523	26.7
-7	-169	-	543	27.4
-125	19	-	526	25.4
-205	29	499	411	21.5
-23	-30	-	206	10.3

-
- (i) The Direct Factory Employment data was derived from the Board of Trade, Annual Surveys of Industrial Development, 1934-8.
- (ii) Areas covered are local authority areas in the case of migration data and Ministry of Labour local office areas in the case of unemployment.
- (iii) Net Migration is for mid-year periods and allows for boundary changes, (b). Calculated from data in the Statistical Reviews of the Registrar-General for England and Wales and the Annual Reports of the Registrar-General for Scotland.
- (iv) Direct Factory Employment is a maximum estimate.
- (v) Unemployment. The percentages are from the Ministry of Labour's Local Unemployment Index. The numbers unemployed are derived from the same source on the basis of the given percentage of the numbers of insured population in the previous July. The percentages shown are for June of each year. Until 1937, the numbers used to calculate

(v) continued

percentages unemployed were the total on the register aged fourteen and over, as a percentage of the insured population. The insured unemployed was used from 1937.

CHAPTER 8

Stewarts & Lloyds, Ltd. and Richard Thomas & Co. Ltd.: A Study of Location in the Iron and Steel Industry.

This chapter digresses from the macro-economic standpoint that has been taken in the preceding chapters of this thesis and introduces an inductive micro-economic approach. From an examination of two cases of changing locations in the iron and steel industry it is demonstrated that regional policy underwent a change in emphasis in the 1930's from transference to a 'move-industry' policy. This chapter also highlights the problems of government intervention in industrial location if the industry is not 'footloose' and shows the associated problems of locating industry by purely social criteria. In contrast, the 'non-interventionist' case, where location decisions are left to the industrialist but labour mobility encouraged, demonstrates the problems of areas losing and gaining population as a result of industrial movement.

I

In the early 1930's the British tinsplate industry was suffering from an excess of capacity in relation to current and foreseeable demand. A system of production quotas existed which spread the limited demand through the existing plant and prevented any one works operating to capacity. It was impossible to reap the economies of scale secured

through capacity production. The competitive position of the British industry was declining; it was unable to sell its product at profitable prices and its technical equipment was becoming obsolete, whilst an absence of profits hampered the setting aside of funds to allow for depreciation.

The industry needed new investment if it were to survive. Meanwhile, there was the American example of the continuous wide strip mill for the manufacture of sheet and tinplate. If this example could be followed the basis of the British industry might be improved, but even more than the existing equipment, such a plant needed to be working at full capacity to justify its high capital costs. Sir William Firth, chairman of Richard Thomas & Co., proposed that the industry cooperate in building such a mill. But there were too many small units in the industry to make such a course possible, and so Firth began to prepare the way for Richard Thomas & Co. to 'go it alone'.¹ Steps were taken to eliminate some of the industry's excess capacity and thereby increase the quota allowed to the firm. From 1932-6 the company acquired 61 tinplate

1. W.E.Minchinton, The British Tinplate Industry:A History (Oxford,1957), pp.196-200; J.C.Carr and W.Taplin, History of the British Steel Industry (Oxford,1962), Chapter XLV.

mills and 19 sheet mills, preferring this method to the cut and thrust of competition.

Certain economies of operation could be gained with the building of an integrated plant with coke ovens, blast furnaces, steel furnaces and ancillary equipment on the same site as the rolling and finishing processes. The other influences on costs were the transport of raw materials and finished products. It was with these considerations in mind, and with the examples of Stewarts & Lloyds at Corby and the deliberations of United Steel on extensions at their Appleby-Frodingham plant, that Sir William Firth announced the company's plans.² He proposed the erection of a modern strip mill at the Redbourn works (Lincs.) that would be capable of producing 150,000 tons of tinplate and sheets per annum at a saving of £200,000. The Redbourn property offered a particularly favourable site for such a plant as it had available suitable buildings and space and an adequate supply of cheap ore suitable for producing the necessary high grade steel. The estimate of saving was given on the basis of the supposition that demand would not increase, and that some Welsh plant would have to be closed down. Sir William regretted that the same low production cost could not be attained in Wales.³

2. Minchinton, op.cit.pp.201-2. The case of Stewarts & Lloyds is discussed in the second section of this chapter.

3. The Times, 16 July 1935.

Thus, it seemed that the earlier pattern of Stewarts & Lloyds development at Corby was to be imitated, South Wales to be the area to suffer as a consequence. Nothing was said, however, of transferring labour from Wales to Lincolnshire to work on the new plant.

The prospect of this re-location of the tinsplate history was far from welcomed in south Wales, especially in the Swansea district where the industry had, until then, been centred. The Lord Mayor of Cardiff "hoped Cardiff and Swansea would fight against the transfer of the works . . . The transference of the industry might leave the Welsh area affected derelict."⁴ A meeting of delegates of tinsplate workers adopted a resolution at a Swansea meeting asking the Government to set up an inquiry into the proposed move⁵ and the Mayor of Llanelly, regretting the company's proposals, considered Llanelly "quite capable of absorbing the whole industry".⁶ The Government's standpoint was unclear. Special Area policy was still in its formative stages in mid-1935, only having been operative for six months, and there was some confusion over the course to be followed when such situations arose. The Commissioner's First Report, published almost simultaneously with Richard Thomas & Co.'s announcement, argued for the economic location of the iron and steel industry but insisted that workers needed to be protected from a life of idleness in potentially derelict

4. *ibid.* 13 July 1935.

5. *ibid.* 15 July 1935.

6. *ibid.* 16 July 1935.

areas.⁷ Conflicting policy aims had not yet been reconciled.

Meanwhile, opposition to the movement continued. A sustained campaign of opposition was to have some results. On October 23 1935 the President of the Board of Trade and the Minister of Labour received a joint deputation from commercial, trading and industrial interests of Monmouthshire urging the Government to take immediate steps to reopen the Ebbw Vale steelworks that had been closed for six years and had formerly employed 6,000 men. A petition with forty thousand signatures was presented.⁸ But steps had already been taken. On 31 October 1935, Sir John Benyon, chairman of the Ebbw Vale Steel, Iron & Coal Co., announced that negotiations for the acquisition of the Ebbw Vale steelworks by Richard Thomas & Co. Ltd., had reached an advanced stage.⁹ The acquisition of the Ebbw Vale works was to make the building of the Lincolnshire works unnecessary. The Commissioner for the Special Areas had taken an active interest in the reopening of the works and had had a share in the discussions.

It might seem that Richard Thomas & Co., had been forced to change their original plans in response to public pressure. Indeed,

7. First Report of the Commissioner for the Special Areas (England & Wales) (Parl. Papers, 1934-5,X), para.191-2.

8. The Times, 22 Oct.1935.

9. *ibid.* 31 Oct.1935.

Baldwin claimed personal responsibility for the change in a speech at Newcastle.¹⁰ But it was Firth who approached the Commissioner for the Special Areas with the suggestion that Ebbw Vale might be bought.¹¹ Further, although there were particular disadvantages associated with the Ebbw Vale site in contrast to other possible locations within south Wales, the labour demands of the new plant could not have been met in Lincolnshire. Finally, Firth later claimed that the Redbourn announcement had merely been a feint to discourage potential competitors.¹² It demonstrated that Richard Thomas were prepared to produce tinsplate outside of south Wales.

But this later rationalization of the change of course ought not to be taken too literally. At first Richard Thomas suggested a Lincolnshire location and then Ebbw Vale. Were Richard Thomas really prepared to sacrifice the economic advantages of a midlands location, in return for an increased sense of public responsibility? My opinion is that there were not, and that they were pushed to Ebbw Vale.¹³

10. *ibid.* 13 Nov.1935.

11. see Second Report of the Commissioner for the Special Areas (England and Wales) (P.P., 1935-6, XIII), para 19-27; Minchinton, *op.cit.*p. 204; Carr and Taplin, *op.cit.*p.545.

12. Carr and Taplin, *op.cit.*p.545

13. Certain factors support this conclusion: the continuing efforts to expand in the east Midlands; the choice of Ebbw Vale rather than a more suitable Welsh site; the readiness of the Government to provide financial support when the company experienced later difficulties.

On 4 April 1936 The Times announced proposals of Richard Thomas to establish a strip tinplate mill at another site far from Wales at Irthlingborough, about 12 miles from Corby.¹⁴ This again reflected the company's desire to expand at a low-cost location.¹⁵ In a speech at Swansea on 26 May, Firth made his position clear.

"It would be absurd and against national interests to build modern works in South Wales. Northamptonshire and Lincolnshire were undoubtedly the natural centres for the economic production of British steel . . . Welshmen must be prepared to live where production could be most economically effected rather than protest that where they lived was where employment should be provided." 16

Further criticism resulted.¹⁷ However, the Irthlingborough proposals never got off the ground. A Times editorial put the events in their social context.

"Some may still argue that such a mill should on strictly economic grounds be placed where originally proposed, in Lincolnshire; alternatively, if a Welsh site was essential on social grounds, that it should be placed at a port rather than at the head of a valley. But even economists of the strictest sect will rejoice that so depressed a community is once more to be turned to creative activity." 18

Site problems, changing plans and increasing capacity were leading to growing delays and increasing costs. Some were becoming sceptical of the company's prospects. The Economist noted that productive capacity in the tinplate industry was large in proportion

14. The Times, 4 April 1936

15. The Redbourn Works were ultimately modernized in conjunction with the Ebbw Vale reconstruction.

16. The Times, 27 May 1936

17. See, for example, Hansard(Commons) 5th ser.314,2173-5, 15 July 1936.

18. The Times, 25 Sept.1936

to present or prospective demands. Further, the construction of the strip mill was a costly process, and a large annual output would be required to offset these construction costs with efficient production. The ambitious investment programme would require a heavy capitalization and yet liquid assets were at a low ebb.¹⁹ There was engendered an unwillingness to invest at the same time that the company required increased funds. A debenture issue in early 1937 was described as an "indifferent success" and the opportunity was taken to reiterate the doubts about the company's position.²⁰

By the end of April 1938 the cash resources of the company were exhausted and bank credit had been depleted. Issue was ruled out by the standing of the company on the stock market. The cessation of work at Ebbw Vale was only prevented by an arrangement under which temporary finance for immediate capital requirements was provided on the condition that a suitable inquiry was made into the prospects and financial needs of the company. This was carried out by the Chairman of the Lancashire Steel Corporation and, simultaneously, the British Iron and Steel Federation examined the position, advising the deputy governor of the Bank of England that Ebbw Vale's completion was in the national interest.²¹ The Times reported that a total of £6 million would be required to complete the new works and to provide the company with adequate working capital.

19. The Economist, 21 Nov.1936

20. ibid. 30 Jan.1937

21. The Times, 5 July 1938; Carr and Taplin, op.cit.p.547

This amount covered an extension of the original plans, which, by further reducing operating costs, would compensate for the immediate inflation of capital requirements. The new capital was to be provided by the joint stock banks and certain banking houses headed by the Bank of England and whilst the stock was outstanding control of the company was to be vested in a committee consisting of the Governor of the Bank of England, the chairman of the company, a representative of the steel industry and a nominee of the debenture holders. Three leading steel chairmen were to be added to this combination to "strengthen" the board.²²

Sir William Firth detailed the reasons necessitating financial assistance and public control of the company at the 1938 Annual Meeting. He argued that Ebbw Vale was a favourable site because of the proximity of cheap coking coal and its situation both for export and inland distribution. In time of national emergency it was less vulnerable than the east coast. Good offices, houses and labour were available and the cost of demolition had been partially offset by the scrap recovered.²³ However, the timing of the project had been unfortunate. Government intervention to re-locate the proposed strip mill from Lincolnshire to Ebbw Vale resulted in some delay whilst plans were adjusted, and the company itself spent a considerable time modifying

22. The Times, 5 July 1938.

23. ibid. 29 July 1938. Some of these arguments may be questioned. For example, Ebbw Vale, an inland hill-site, was not favourably situated with regard to the supply of ore or the distribution of its product. Further, low inter-departmental transfer costs were not a feature peculiar to an integrated plant at Ebbw Vale.

and extending the proposals for the Ebbw Vale site.

"What happened", Firth continued, "was that insufficient margin was allowed for wage increases that have taken place . . . insufficient provision was made for unforeseen site difficulties . . . insufficient allowance was made for the advance in the prices of structural steel and machinery, and no allowance was made . . . for the abnormal delays we have experienced in obtaining delivery."²⁴ Another difficulty was the absence of experience of our contractors in the foundation work necessary for the strip mill plant."²⁵

In addition to these underestimates due to increased costs there was a further £1,500,000 which was a product of extensions in scale of the original plans.²⁶ As implied earlier, however, it was deceptive of Firth to distinguish between these two components of increased costs as the delay caused by the latter component contributed towards the increase in the former and, besides, allowance ought to have been made for some of the increases which Firth seemed to regard as largely products of fate. Cost estimates should have been revised realistically and more frequently. It does not seem possible to agree with Firth when he argues that "the only criticism that can justly be directed against your board . . . is that the scheme was embarked upon before the money was secured".²⁷

In September 1938 production began at the hot strip mill²⁸ and by April 1939 the plant was operating at 70 per cent of capacity, employing

24. *ibid.* Delays in delivery were due to the primacy of rearmament.

25. *ibid.*

26. *ibid.*

27. The Times, 29 July 1938.

28. Carr and Taplin, *op.cit.* p.548.

3,500 men.²⁹ At the outbreak of war, the plant was approaching full capacity employing about 6,000 men.³⁰ Its contribution to employment, however, had been greater when it was under construction.

If the plant had not been a successful venture for the company before 1939, it was to prove most successful when working at full capacity. Ebbw Vale steel sheet and tinplate was capable of competing in export markets with high-quality American products, and was very much more suitable than the products of the traditional processes for use in the motor industry. It was also very much cheaper. In fact, "there is no question of the superiority of the new process, or of the success of the Ebbw Vale works in particular".³¹ If the plant eventually became profitable for the company, the original motivations for its location at Ebbw Vale were not so well satisfied. The technical progress embodied in the new plant made it seem probable that total employment in the tinplate industry would be drastically reduced and tinplate workers had now another threat to the maintenance of their employment. It also seemed probable that the location of the main part of the industry would tend to shift from west Wales towards the eastern part of the South Wales

29. The Times, 18 April 1939.

30. *ibid.* 29 July 1938.

31. M.P. Fogarty, Prospects of the Industrial Areas of Great Britain (1945), p.123.

Special Area, thus simply shifting the focus of the unemployment problem.³² In addition, the problem in qualitative terms may have become more difficult. Migration was less of a characteristic of tinsplate workers than of coal miners as they were less accustomed to mobility, had a higher proportion of home ownership in their numbers and more of them were Welsh-speaking. Further, the hope of recovery was never abandoned and, therefore, labour movement could not be looked to for a solution. As a result of these problems of technological unemployment maximum gains from the improved techniques were not gained in the post-war period as the plant was overmanned.³³

It seems, therefore, that Richard Thomas & Co., began by hoping to establish a plant on a midlands orefield location. But the changing social climate and, perhaps, the vociferous complaints of the Welsh, led to Government intervention and a change of plans. As a result of the new location and the delay caused by this and later modifications in the company's plans, production was not able to start before the end of 1939 and further Government intervention was required in the form of financial assistance to enable the company to avoid abandoning its Ebbw Vale construction. However, when production was started it proved successful, although it would have been more successful at another site and the contribution to the solution of the unemployment problem in south Wales was not as great as was expected. Was the Government

32. *ibid.*p.83; D.L.Burn, The Economic History of Steel-Making, 1867-1937 (Cambridge, 1940),p.460.

33. Minchinton, *op.cit.*pp.213-4,243.

intervention a success? Should Richard Thomas have been allowed to act independently of social considerations and, indeed, would they have done if left unhampered? Such questions are best left until the case of Stewarts & Lloyds has been examined.

II

Stewarts & Lloyds announced their decision to expand at Corby in November 1932. They were proposing to build a basic Bessemer plant and tube works in an integrated unit on a 'green-field site' at an estimated cost of £3,300,000. The chairman's announcement to the shareholders of the company promised that the "scheme will bring about large reductions in manufacturing costs".³⁴ "When the plant is finished all the tubes now manufactured at several tube works from imported basic Bessemer steel will be produced on one site at Corby", and, "employment will be given altogether to some thousands of men".³⁵ Clearly Mr. MacDiarmid was conscious of the contribution to employment that the expansion in capacity would make in a climate of high unemployment. However, the promised concentration of tube manufacture in Northamptonshire held worrying prospects for employment in the firms existing tube works, principally in Lanarkshire.

34. The Times, 30 Nov. 1932. That is, through economies of scale, an integrated plant, fuel economies etc.

35. ibid. An orefields location was encouraged by fuel economies enabling location to no longer be restricted to coking coal resources.

The immediate reaction to Stewarts & Lloyds' announcement in Scotland was concern that the tube industry and its employment was to be lost to the area.³⁶ Stewarts & Lloyds' counter to these arguments was that "the decision to locate the new plant at Corby was reached after a comprehensive examination of the economic advantages, both with regard to assembly of raw materials and marketing".³⁷ The next day Stewarts & Lloyds announced that "there is no intention of abandoning tube manufacture in Scotland" but there will be "a new allocation of orders as between the Scotch and English works".³⁸ If the Scottish works were not to be abandoned, Corby would provide new employment rather than transferring employment from one part of the country to another and simultaneously the company warned unemployed men in other parts of the country not to "make their way to the Northamptonshire ironfields, as work will be found first for local labour".³⁹ A Northamptonshire correspondent of The Times was not convinced by these arguments pointing out that whereas the scheme both in construction and subsequent manufacture was to give employment to some thousands of men, "the population of Corby is about 2,000, and today, according to Labour Exchange figures, there are six iron and steel workers on the unemployed list for Corby, and a number of men on part time".⁴⁰ Clearly, expansion of manufacture at Corby, even if not to be at the expense of the Scottish works, was sure to require a large influx of labour on a permanent basis from other districts. This

36. For example, see, Glasgow Herald, 30 Nov. 1932.

37. *ibid.*

38. The Times, 1 Dec. 1932.

39. *ibid.*

40. *ibid.*

conclusion was not lost to the National Housing and Town Planning Council which urged the implementation of a regional plan within which to guide development in the Corby area and another correspondent warned of the ravages of open-cast mining for good agricultural land.⁴¹

It was not long before it became clear that Stewarts & Lloyds' promise that tube-making was not to be abandoned in Scotland was not quite the same thing as a promise that capacity or employment were not to be reduced. In October the first major reduction in Scottish capacity as a result of the Corby development was announced.⁴² The Scottish steelworks of Stewarts & Lloyds at Clydesdale, Mossend was to close at the end of 1933. The Universal Plate Mill was to be dismantled and transferred to Corby. The Glasgow Herald prophesied an immediate increase in local unemployment and the community of Bellshill was disturbed by the prospect. By early November it was evident that Stewarts & Lloyds' decision was not to be reversed for the sake of local employment, either by the Government or the company itself, and Bellshill's Miners Welfare Institute resolved that the local authority should approach the Ministry of Labour, the County Council and the company in order to provide alternative employment.⁴³ Protestations do not seem, however, to have been as numerous nor as loud as the later complaints from Wales. Opinion still accepted transference as the normal solution and campaigns to influence

41. *ibid.* 8 Dec.1932; 23 Dec.1932. From the company's standpoint open-cast mining was cheap and Northamptonshire's shallow beds favoured it as a location from the first.

42. Glasgow Herald, 21 Oct.1933.

43. *ibid.* 4 Nov.1933.

the location of industry were, at this stage, exceptional.

Out-migration from the area continued. It was now obvious that a considerable exodus of labour from Scotland to Northamptonshire was likely and partially intended to occur and the question of Government responsibility for either alternative employment or assistance with the process of transfer of population became more pressing. But there was no thought to restrict the plans of Stewarts & Lloyds, for example to insist that any new plant was to be built in Scotland. The Government's intervention was to be limited to smoothing the process of labour migration.⁴⁴ This attitude, in contrast to that displayed in the Richard Thomas case, illustrates the changing emphasis of regional policy in the 1930's.

Meanwhile, the construction of the Corby works was proceeding such that it was hoped production could commence in late 1934.⁴⁵ On 4 November 1933 The Times reported that,

"the transformation of the village of Corby, Northamptonshire, into a busy steel centre is proceeding apace . . . Several contracts are being placed locally. Power is being obtained from the electricity 'grid'. Heavy concrete foundations to support the new Bessemer converters are now being put down, a 250 foot brick chimney towers over the skeleton frames of the main works, and this will be partnered by a steel chimney 150 foot high. A large gas-holder is also to be erected to store the gas from the coke ovens."⁴⁶

The impact on the local economy was considerable even at this early stage,

44. Hansard (Commons) 5th ser.284,508-9,14 Dec.1933.

45. Glasgow Herald,30 Dec.1933.

46. The Times,4 Nov.1933.

for example, "bricklayers, carpenters, and labourers arrive daily at Corby from Leicester, Rugby, and Market Deeping to work on the new housing estate",⁴⁷ and preparations were being made for extensive alterations to the current Corby. At least 2,000 additional workers were expected to be employed when the works was operational and a housing estate of 700 dwellings was envisaged along with a new sewerage system and an improved water supply. Indeed, the Ministry of Health were considering development schemes for the area involving expenditure of £23,000 and Stewarts & Lloyds were also contributing towards the provision of Corby's social capital. The firm was to construct 50 houses monthly at first, rising later to 100 a month.⁴⁸ Houses were not all the firm were to provide. East Carlton Hall was to be provided with reading rooms, billiard room, a swimming pool and tennis courts so that it could accomodate unmarried members of the executive staff of the company. Stewarts & Lloyds also contributed to the cost, along with the Central Electricity Board and Kettering Urban Council, of the erection of power transmission lines from the Northampton sub-grid to the works.⁴⁹

The first blast furnace at Corby was lit on 8 May, 1934,⁵⁰ an electric excavator was erected on the fields adjoining the works to strip the overburden that covered the ore,⁵¹ and the first heat of steel was made in January 1935.⁵² Tube production followed in June. By then

47. *ibid.*

48. *ibid.* 20 Oct.1933.

49. *ibid.* 12 April 1934.

50. *ibid.* 10 May 1934.

51. *ibid.* 13 June 1934.

52. *ibid.* 8 Jan.1935.

two blast furnaces and three Bessemer convertors were in use, the rolling mills and tube works were busy, a model town had been grafted on to a village, and employment had been found for 2,500 men.⁵³ The housing estate boasted 800 completed homes and, given the number of migrants from Scotland, the town was seen as a "definitely Scottish community in a typically English county".⁵⁴

Although Corby was now in production, the repercussions on the firm's other locations and on the steel industry in general had not yet finished. The decision to curtail production of the Rutherglen works was announced in February 1936. This was the biggest single reduction in Scottish employment, involving 1,200 workers, that had yet been contemplated by the company. It argued that,

"the Phoenix Works is not geographically suited to be supplied with its raw material from the new works, and it has therefore been found necessary to concentrate the manufacture of the bulk of the tubes formerly made in these works at Corby. The balance will be transferred to other works of the company in Scotland."⁵⁵

Stewarts & Lloyds did have some concern for the unemployment it was likely to cause and "endeavoured to minimize the disturbance to local employment by the transfer of as many workpeople as possible".⁵⁶ The Government, despite the increasing public concern for the Special Area problem, seemed

53. *ibid.* 29 June 1935.

54. *ibid.* The origins of Stewarts & Lloyds' workforce is described in D.C.D. Pocock, 'The Migration of Scottish Labour to Corby New Town', Scottish Geographical Magazine, 76(1960). Also see, D.C.D. Pocock, 'Some Features of the Population of Corby New Town', Sociological Review, new ser. 8(1960).

55. Glasgow Herald, 28 Feb. 1936.

56. The Times, 4 March 1936.

satisfied in the knowledge that this was the company's intention.⁵⁷

The contribution of the Corby developments to the standing of Stewarts & Lloyds are as well judged by the comments of the chairman.

"Our low costs of production have enabled us to supply our customers in the home market with tubes of the highest quality at prices not appreciably higher than those ruling in 1913, notwithstanding the higher rates of wages, shorter working hours, and improved housing conditions and recreation and other facilities which now obtain . . . Corby has proved an unqualified success."⁵⁸

From the viewpoint of private costs and benefits, Corby was indeed an unqualified success. Even including the company's accepted obligation towards its employees, both in Scotland and in Northamptonshire, from the company's standpoint its policy was successful. But the questions remain; was enough concern displayed by the company for the consequences its actions would have on local employment rates? Was it optimal policy to expect 2,000 Lanarkshire steelworkers to uproot with their families and move to the English midlands? Should the Government have intervened and, if so, in which direction, to encourage labour movement or to freeze the existing location of Stewarts & Lloyds plants? What more general observations can be drawn from the histories examined, in particular, from contrasting the two?

57. Hansard(Commons) 5th ser.309,2286,12 March 1936.

58. The Times, 18 May. 1936.

III

In simple terms, a comparison of the experiences of the two concerns with regard to the location of their establishments yields the following conclusion; that Stewarts & Lloyds moved to what was an economic location and that Richard Thomas & Co., attempted to follow this example but were diverted from this path by a changed climate of Government and public opinion. As a result, the latter company experienced certain difficulties. However, the different timing of the investment decisions is one factor explaining the different fortunes of the concerns; another is the actual process of investment; yet another is location.

Until now the axiom that the optimum location for the steel industry was the east midlands orefield has been taken for granted. Conversely, south Wales has been dismissed as a relatively poor location, although some distinction has been made between inland sites and coastal locations. However, although the particular disadvantages of the Ebbw Vale site contributed to the difficulties of Richard Thomas & Co.; once in production, the plant was successful. To add that the plant was not as successful as it might have been rests on the assumption that a midlands location was the best location; both in the short-term and over the longer period that steel plant was likely to survive. In relation to the expected life of a steel plant, location factors will change and if the long-view is considered when contemplating a re-location the likely changes in resource distribution, in techniques, or in markets ought to be considered. But this is asking Mr. MacDiarmid and Sir William Firth to have predicted some 40-50 years into the future, as this was the expected life span of steel plant in the 1930's. There was little

guarantee of an optimum decision even if the long-view was considered. It was not reasonable to expect the emergence of basic oxygen processes, or the premature decline of the importance of the midlands orefield, to be predicted. Thus, Stewarts & Lloyds' decision may be defended, but the location at Ebbw Vale cannot.

Duncan Burn argued that location on domestic orefields was the better location for the steel industry. However, "the political strength of the old high-cost locations has been increased . . . and . . . trade union opinion has proved to be very strongly attached to the existing distribution of production".⁵⁹ Others disagreed with this interpretation. Langley argued that the cost advantages of the home orefield locations were offset somewhat by the lower iron content and the consequently greater fuel requirements of the midlands location per ton of pig iron. Domestic ore extraction was likely to become more expensive as deeper seams were worked and imported ore would cheapen with an improvement in port facilities, as Firth had argued in the case of the Welsh ports.⁶⁰ Other factors pointed to traditional locations for steel capacity, not least the high capital costs of green-field developments and the duplication of social capital involved.⁶¹ It was not clear

59. D.L.Burn, 'Recent Trends in the History of the British Steel Industry', Economic History Review, 17(1947), 101.

60. The Times, 5 Dec.1936.

61. S.J.Langley, 'The Location Problem in the British Steel Industry', Oxford Economic Papers, new ser.3(1951). Also see Report of the British Iron and Steel Federation to the Minister of Supply (P.P., 1945-6,XIII), p.11 where similar conclusions are reached.

whether the midlands was the best location, considering private costs, either in the short or the long-run. Limited reserves of domestic ore and high costs of capital construction made it doubtful whether Stewarts & Lloyds' example could be successfully followed.⁶²

If social costs are now considered the best location choice becomes more complex. At Corby, a rural community was rapidly transformed into a steel town and labour was drawn from other parts of the country, particularly from Lanarkshire. Although Stewarts & Lloyds contributed towards the costs of this redistribution of population, both by assisting transfer and by the provision of housing and other facilities, the whole cost was not borne by them. The Ministry of Labour shared the costs of moving population,⁶³ the County Council assisted in the housing field and the education authority took action to deal with the increasing school population. Northamptonshire County Council considered that "the needs of the new Corby have been adequately and readily met by the local authorities concerned, although some difficulty has been experienced owing to the unpredictable rapidity with which development has taken place".⁶⁴ Further, the Import Duties Advisory Committee were disturbed by the

-
62. As argued by G.R.Denton, 'Investment and Location in the Steel Industry: Corby,' Oxford Economic Papers, new ser.7(1955),274. Jewkes and Winterbottom doubted whether Corby's prosperity could be anything other than transient being based on exhaustible resources. J.Jewkes and A.Winterbottom, An Industrial Survey of Cumberland and Furness (Manchester,1933),p.47.
63. Report of the Import Duties Advisory Committee on the Present Position and Future Development of the Iron and Steel Industry (P.P.,1936-7,XII),para.137.
64. *ibid.*para.140.

failure to restore land subjected to open cast mining,⁶⁵ and feared that "developments of the nature exemplified at Corby may create in areas in which works are closed down 'pockets', or even considerable areas, of depression".⁶⁶ If these social losses had to be wholly considered in Stewarts & Lloyds' accounts it is conceivable that the private gains would have been transformed into an overall loss and the re-location would not have taken place. However, although some of the Scottish labour of Stewarts & Lloyds was reluctant to move or easily returned to Scotland - because of the ties of home and companionship, the increasing demand for labour in the Special Areas as prospects improved, and the great dependence on the fortunes of one firm if the move to Corby was made - it was true that this was often offset by better pay, greater security of employment and better housing if the move was made. Further, "so far as Lanarkshire is concerned, none of the public services in any area have been left derelict owing to the movement of the industry from the area",⁶⁷ and, although "there has . . . been a large migration of population from the Bellshill area . . . again the public services have not been affected".⁶⁸ Thus, it appears that even considering both social and private costs, Stewarts & Lloyds would probably have proceeded with their development at Corby as being, on balance, beneficial to the national as well as the firm's economy.

65. *ibid.* para.141; and see the Report on the Restoration Problem in the Ironstone Industry in the Midlands; Summary of Findings and Recommendations (P.P., 1945-6,XIII).

66. Report of I.D.A.C. on (P.P.,1936-7,XII),para.142.

67. P.R.O. Memorandum by the Commissioner for Special Areas in Scotland on the Effects of the Withdrawal of Big Industries. HLG 27/77; P.R.O. Supplementary Evidence of the Association of County Councils in Scotland to the Royal Commission on the Geographical Distribution of the Industrial Population, HLG 27/37.

68. P.R.O. Supplementary evidence *op.cit.*

The technological innovation embodied in the Ebbw Vale plant and its size in relation to the rest of the tinsplate industry had the result that the labour attached to the industry had to be reduced. The location at Ebbw Vale, although not necessitating the provision of fresh social capital as at Corby, did require a re-location of the tinsplate industry from the Swansea and Llanelly areas. Intra-regional migration might be thought of as the ideal regional policy if it is used in conjunction with an optimum plant location. But in the Richard Thomas case, the plant location was not optimal, and the tinsplate workers of west Wales were probably more immobile than other Welsh occupational groups. Thus it seems that Government intervention was less than successful. Neither in the short nor the long-term was the Ebbw Vale site anything approaching an optimum location and judged even on the limited grounds of relief to Welsh unemployment the verdict seems unfavourable. National losses, in the sense of a less than maximally efficient plant in an inappropriate location, were not offset by regional gains in terms of employment.

However, the above case studies do not necessarily lead to a position favouring the economic location of industry by private criteria, with a redistribution of labour to those new locations. Firstly, Stewarts & Lloyds and other large firms were likely to be exceptional in the provision of housing and in the assistance to labour migration. Secondly, much of industry is 'footloose' and so its efficient operation should not be substantially affected as between different areas. A 'move-industry' policy can be effective in this sphere. Thirdly, in 'non-footloose'

cases where the availability of raw materials or labour are of unavoidable importance, economic criteria cannot always be successfully determined for the long-run and a case can be made for giving less weight to such factors and more weight to considerations of regional unemployment.

Nevertheless, it is a curious fact that many communities where the steel industry exists are totally dependent upon that industry for their livelihood. The location of steel works do not seem to generate the spatial association of linked-industries. Consequently, given the scale of such communities, a large amount of new industry has to be induced to such locations in order that the communities may survive. It is necessary to bear in mind, therefore, the nature of the labour demands of the new employment in relation to the skills and abilities of a steel-making labour force. It does not seem realistic to not consider a policy of labour transference.

A reflection on the current position of the steel industry is instructive. The industry is still indifferently located. For example, Ebbw Vale is now dependent upon imported ore, rather than Lincolnshire/Northamptonshire ironstone, and its situation 20 miles from a deep water port is a severe handicap. As a result the British Steel Corporation announced in November 1972 that the steel-making plant at Ebbw Vale was to be closed, although tinplate facilities were to be retained.⁶⁹ If the problem had been faced in the 1930's, the present problems may have been avoided. Further, port facilities still cannot handle the large ore

69. The Guardian, 17 Nov. 1972

carriers thus pushing up the freight charges per ton of ore.⁷⁰

These lessons still do not seem to have been fully learnt. Although the B.S.C. plan to cut production and employment at four Scottish works by 1977 (at Tollicross, Cambuslang and two at Motherwell) in order to phase out the now obsolete open-hearth methods, it also intends to expand production at Ravenscraig, Lanarkshire.⁷¹ This is an inland site originally built upon after public protest on the original plans in 1958 to build a new strip mill in the Midlands.⁷²

As in the 1930's, the localities affected by such decisions are concerned not with the problems of industrial location or of technical efficiency, but with the problems of local unemployment.⁷³ The comment of the Second Industrial Survey of Wales that "state support, for purely sentimental reasons, given to industries which proved in the long-run to be unsuccessful, would be harmful rather than beneficial"⁷⁴ is still true. Long-run considerations of location factors need to be considered when Government intervention is to be made in a heavy industry in the interests of short-term employment, and a greater allowance is necessary for depreciation, to discourage inertia in the face of new factors influencing the industry's best techniques and locations. As The Times puts it, "the B.S.C. chairman has undoubtedly told ministers

70. R. Pryke, 'Strategy for Steel', Journal of the Public Enterprise Group, 2 (1972)

71. The Guardian, 21 June 1972

72. G. McCrone, Regional Policy in Britain(1969),p.118.

73. For example, see Royal Commission on the Geographical Distribution of the Industrial Population. Evidence of the Association of Counties of Cities in Scotland,QQ.2448-2453, 15 Dec. 1937.

74. Quoted in *ibid.* Evidence of National Industrial Development Council of Wales and Monmouthshire, para. 4, 16 March 1938.

that they must choose between a short-term decision to save jobs in areas of high unemployment and a long-term one designed to enable the country to maintain an efficient industry".⁷⁵ The problem is the prediction of long-run changes in location factors. In the long-run neither Corby nor Ebbw Vale were best locations for the steel industry, although there was more ground to reject Ebbw Vale at the time the decision was taken.

75. The Times, 22 Dec. 1972.

C. THE CULMINATION OF THE INTER-WAR YEAR'S EXPERIENCE
OF REGIONAL POLICIES: THE DISCREDITING OF
TRANSFERENCE

I

Contemporary reference to the problems of the growth of London are legion. An early account concentrates on some aspects of atmospheric pollution in large cities.¹ In 1934, references to the apparent link between London's problems and those of the Depressed Areas were made.² But it was not until 1936/37 that this view became the orthodoxy. Certainly, the emphasis on the strategic risks of the concentration of population in time of war were untypical. More typical were views that expressed concern for the increasing traffic problem in the capital or for the contrast in health standards between town and country.³ If a link between the different areas' problems was implied, it was normally that the success of transference out of the Depressed Areas depended upon conditions in the potential receiving areas of the south, rather than that

1. Sir N. Shaw and J.S. Owens, The Smoke Problem of the Great Cities (1925).
2. Lieut-Col. Headlam (Barnard Castle). Hansard(Commons) 5th ser.293, 2028-2033, 14 Nov.1934.
3. For example, the Bresse Report was set up in 1934. See, Ministry of Transport, Highway Development Survey, 1937(Greater London). Report by Sir Charles Bresse and Sir Edwin Lutyens(1938). (Hereafter, Bresse Report.) Also, H. Warren and W.R. Davidge, Decentralisation of Population and Industry: A New Principle in Town Planning(1930), Chapters 2,3; Royal Commission on Transport: Final Report - The Coordination and Development of Transport (Parl. Papers, 1930-1, XVII), pp.182-216. Such evidence does not necessarily indicate the disadvantages of large cities as such.

these conditions in the south were a product of an excess inflow of labour from the Depressed Areas occasioned by the southward 'drift of industry'. As the emphasis in regional policy moved to a position favouring the encouragement of new industry in the Depressed Areas, so it was that the latter view came to prominence. The effects of transference both in the receiving areas and in the Depressed Areas led to pressures for a regional policy concentrating on capital mobility.⁴

Parliamentary debate focused on the question of state intervention in the location of industry. Mr A. Edwards, the M.P. for Middlesbrough East, suggested in December 1935, "the possibility of preventing people setting up factories in the south in preference to the industrial areas" as a means of encouraging industrial expansion in the north.⁵ He wanted southern growth and transference curtailed to help economic growth in the north. In March 1936, Mr Dalton (Bishop Auckland) noted that, "if the present southward drift of industry continues, before long the whole of British industry will be gathered in an ever-expanding ring around Greater London - Greater London which in time of peace is a geographical abortion and in time of war would be a death-trap for millions".⁶ Mr Dalton wanted southern

4. See Chapter 6 for an account of the shifting emphasis of regional policy for the Depressed Areas.

5. Hansard(Commons), 5th ser.307,1041,11 Dec.1935. Also see, ibid.2145, 11 March 1936.

6. ibid. 309,1026,2 March 1936.

growth and transference curtailed to alleviate the problems of the south.⁷

The changing view of the regional problem, and of the appropriate policy to deal with it, was codified in the Third Report of the Commissioner for the Special Areas in England and Wales.⁸ Sir Malcolm Stewart noted the disadvantages of London's growth. The welfare of the present population was threatened as open spaces became built-up areas and access to the countryside became more difficult. As a result of the increase in size and the "lack of the industrial planning of London", there resulted a loss in terms of time, discomfort, expense and fatigue necessitated by the daily journey to work in the London area. The appearance of a traffic problem also menaced the efficient distribution of goods within the metropolis whilst the concentration of population and industry in the area represented a strategic danger in the face of potential aircraft attacks.⁹ Sir Malcolm argued that much of the growth of Greater London was not dependent upon economic considerations, and wondered whether it would be possible to restrict industrial expansion and "through the control of Greater London, which has become a national menace, a better distribution of industrial activity can be secured ... the Special Areas would benefit to the extent

7. The factors behind the southward drift of industry were noted by Viscount Wolmer (Aldershot). "In the days of old, factories had to go to the north where the coal and power were. Now, with the electric grid, we can bring the power wherever it is wanted. The amenities of London are much greater than the amenities of Northumberland, and a capitalist's wife would much rather live near London than near Newcastle. The effect of this .. will be that London will continue to grow .. and .. I submit, this is unhealthy from a national point of view." *ibid.* 1116, 2 March 1936.

8. Third Report of the Commissioner for the Special Areas (England and Wales) (P.P., 1936-7, XII).

9. *ibid.* Appendix I.

that they obtained their share of diverted development."¹⁰ Chamberlain's reaction to this proposal expressed scepticism on its likely efficiency, at least in relation to assisting the Special Areas as well as London itself.¹¹ Besides, wider issues were raised by Sir Malcolm's proposals. Thus, it was that the seeds of the Barlow Commission were sown.¹² The terms of reference and the membership of the Commission were announced on 7th July, 1937.¹³

The prospect of a Royal Commission was not generally welcomed, it being viewed as a device for avoiding action.¹⁴ Sir Montague Barlow considered this problem in a memorandum of March, 1938.¹⁵ He first complained of the terms of reference.¹⁶ These "are not very clear, and bear traces of having been subject to amendment by various authorities".¹⁷ He might have gone on to consider this factor as a partial cause of the delay before the Commission's conclusions were reached. In March, 1938 he considered two alternatives, either to report within twelve months or possibly as long a

10. *ibid.* para. 24.

11. See Hansard(Commons) 5th ser.317,1595-6,17 Nov.1936 and supra,Chapter 6.

12. Another preliminary announcement of the impending study appears in Hansard(Commons). 5th ser.321,1026-7,9 March 1937.

13. *ibid.* 326,342,7 July 1937.

14. See Chapter 6; "The promised Royal Commission on the location of industry might have been claimed as a statesmenlike move had it been appointed in 1927, when the need was already obvious, instead of in 1937." "Hundreds of thousands of people who have been left to rot for ten years or more can view with little enthusiasm a further long delay for elementary inquiry and discussion! P.E.P., Planning, V (9 March 1937),pp.1-2.

15. P.R.O. Points for Consideration: Memorandum by the Chairman, HLG 27/43.

16. The terms of reference are well-known and need not be reproduced here.

17. P.R.O. Points for, *op.cit.*

contemplation of the evidence as two years.

"In view of the wide Terms of Reference and the importance attached by Parliament, the Press, and the Public generally, to the findings of the Commission, it is essential that full consideration should be given to all relevant evidence; a sketchy Report not based on full consideration of all available facts would be of little use to anyone." 18

However, he noted that

"there is considerable pressure in Parliament and elsewhere in favour of a Report being issued with all speed, but it is often not realised, at any rate by those who have little direct experience of the rather cumbrous machinery of enquiry by Royal Commission or similar bodies, how slow such machinery must necessarily be in operation". 19

Nevertheless it was hoped that the Report might be presented by Christmas 1938. As it was, the Report was not presented until January 1940, although it had been awaiting the printers, who were occupied with war demands, since August, 1939.

This delay and the coincidence of the appearance of the Report with wartime did much to lessen its immediate impact. But in the long-term it is a widely held view that the Report was of supreme importance in shaping post-war policy.²⁰ Indeed, Professor Brown has gone so far as to describe, "the Barlow Report ... as a general treatment of desiderata relating to the distribution of the industrial population, which has not yet been superceded".²¹ The Report itself and its conclusions are widely known and

18. *ibid.*

19. *ibid.*

20. For example, see G. McCrone, Regional Policy in Britain (1969).

21. A.J. Brown, 'Regional Economics, with Special Reference to the U.K.', Economic Journal, 79 (1969), 760.

so it is only necessary here to indicate the general import of the Commission's conclusions.²² As Loasby puts it, the "Barlow Report is a classic example of an inquiry with its conclusions written into its terms of reference".²³ The Commission agreed that social, economic and strategic disadvantages arose from the concentration of the industrial population in particular areas of the country. The Commission was required to propose a remedial course of action. In this objective it failed. Sir Alan Barlow of the Treasury thought that "the general impression left by a first reading of the Commission's report cannot but be that the Commission have thrown back at the Government the problems with which they were charged".²⁴ "The essence of the Report is the proposal to set up a Central Authority (or a new Ministry) which leaves undetermined what is the proper action, if any, to be taken to reconcile the obvious disadvantages of interfering with the freedom of industry to choose its own location."²⁵ The Ministry of Health concurred with Sir Alan Barlow's views. Maude replied, "I much hope that we shall find it possible simply to play for time. The report contains, in my view, very little of value and even if the proposals, or any of them, ought to be adopted, they seem to me to be quite impracticable in wartime."²⁶ Similarly, the Scottish Office considered that "there is little

22. For the Report itself - Royal Commission on the Distribution of the Industrial Population, Report (P.P., 1939-40, IV). (Hereafter Barlow Report). Useful summaries of the Report are to be found in G. McCrone, op.cit. pp. 102-5; J.H. Jones, 'The Report of the Royal Commission on the Distribution of the Industrial Population', Journal of the Royal Statistical Society, 103(1940); P.R.O. Location of Industry. Correspondence arising out of the Report HLG 52/1006. Summary of the Report prepared by the Treasury, 28 Dec. 1939.

23. B.J. Loasby, 'Location of Industry: Thirty Years of "Planning"', District Bank Review, 156(1965), 35.

24. S.R.O. Report of Barlow Commission: Comments. DD 10/304. Letter from Sir Alan Barlow to all Government Departments summarizing the Report and asking for views, 28 Dec. 1939.

25. *ibid.*

26. P.R.O. Location of Industry. Correspondence arising out of the Report, op.cit. Letter from E.J. Maude to Barlow, 10 Feb. 1940.

in the findings and recommendations that could not have been formulated by anyone having any kind of knowledge of the problems before the Commission began its work".²⁷ There seems to have been some premonition that such a reaction to the Report was likely. In June 1938, Maude wrote to Barlow noting that "the Commission have no idea what to recommend and their report may be something of a fiasco".²⁸

The Times was less critical of the Report.

"Both in the reservations and in the minority report are a sense of urgency and a note of conviction which are not present in anything like the same degree in the majority report. Basically there is agreement between the majority and the minority Differences developed when the commission came to the crucial choice between advisory and executive powers in the application of remedies. Even at this parting of the ways of opinion there was agreement that in the great and rapidly developing area of London and the Home Counties immediate action is required." 29

The Times' verdict was that "a Ministry for the location of industry does not fit easily into the political scheme; but a Board, with large executive powers and informed by the spirit of the reservations of the minority report, could do great things for industry and for Britain".³⁰ But

The Economist was critical of the inability of the Commission to frame an effective course of action and of the failure to answer the central question

27. S.R.O. Report of Barlow Commission: Comments.op.cit. Minute from Scottish Office to Scottish Home Department, 14 Feb.1940.

28. P.R.O. Royal Commission on Location of Industry: Constitution and terms of reference. HLG 68/50. Letter from E.J.Maude to Barlow, 15 June 1938.

29. The Times, 1 Feb.1940.

30. *ibid.*

of equity versus efficiency posed by the need to intervene in industrial location.³¹ The Dundee Courier echoed the common opinion when it stated that "the report is more successful in expounding the problem than in prescribing its solution".³²

It is instructive when looking at comments on the Report from disparate sources to note that many of them concern the powers recommended by the Report to be vested in either the Board, or, as the Minority hoped, in a new Ministry. There was no dispute as to the Report's conclusions on the problems of large aggregates of population and industry. Even the relatively slight attention given to the Special Areas aspect of the problem, particularly given the importance of this aspect in the origins of the Commission, received no criticism. It was already the established orthodoxy that the problems of London and of the Special Areas were the different sides of the same coin. The Note of Reservations to the Majority Report expressed this most concisely.

"The general background of the inquiry was undoubtedly public concern regarding the lop-sided development of industrial activity in certain parts of the country, the social and economic evils of which became apparent in the disaster of the depressed areas consequently, we have looked upon the excessive concentration of population in London and other large conurbations as more a symptom of the main disease than as an evil in itself."³³

31. The Economist, 3 Feb.1940. The Economist wanted the Commission, or a similar body, to remain in operation during war-time so that post-war policy could be based on an analysis of the established trends and of the impact of war. See The Economist, 13 Jan.1940, 20 April 1940.

32. Dundee Courier, 1 Feb.1940.

33. Barlow Report, op.cit.p.208.

It is significant that the one area where the Commission could agree on vigorous action, was the need for control of the location of industry in London and the Home Counties as was originally recommended by Sir Malcolm Stewart.

In the House of Commons, the origins of the Royal Commission were also seen in the imbalance of regional development and the growing dissatisfaction with transference. Mr Lawson (Chester-le-Street) saw the Commission as a product of the "dolorous conditions existing in the Special Areas, side by side with the growth of great industries in large new areas".³⁴ "It would be a far better thing if, instead of bringing people from those industrial areas to industries in the south, industries were taken to the industrial areas. Therefore an embargo should be placed upon the development of industry in Greater London."³⁵ However, the Government were inclined to shelve the Report. Mr Elliot (the Minister of Health) put the Government's view.

"It was said recently that perhaps this country was mad, but, if so, it was with a superb madness. After all, a Debate on the report of a Royal Commission, which was set up in July, 1937, reporting in 1940, in this eighth month of a gigantic war runs a certain risk of unreality against which we must all be on our guard."³⁶

"Clearly at the present time when world affairs are in the kind of flux in which they are now, it would be premature to reach conclusions, or even to weigh the merits of the proposals in the report."³⁷

34. Hansard(Commons) 5th ser.359,1028,17 April 1940.

35. *ibid.*

36. *ibid.* 1036,17 April 1940.

37. *ibid.* 1046,17 April 1940.

The Parliamentary Secretary to the Board of Trade (Major Lloyd George) added that, "if we ask some Minister to plan for what is going to happen after the war, we may find someone else doing the reconstruction for us".³⁸

Therefore, in the short-term the impact of the Report was negligible, partially because of its own deficiencies and partially due to the advent of war. Nevertheless, the Report did draw together existing fact and opinion on regional development in Britain and represented the final step in the process of accepting the doctrine of the interrelated nature of the problems of the south and the north. Transference was discredited as a tool of regional policy.

II

Regional policy in the post-war period has been dominated by the doctrine that the problems of the south and north are interrelated.³⁹ Holmans has questioned whether this policy orthodoxy is acceptable.⁴⁰ The evidence may also be examined for the inter-war period. This involves the investigation of the notion that London's growth was excessive. In turn, this notion suggests the existence of an optimum city size that has been surpassed. But the concept of an optimum city size cannot be defended and

38. *ibid.* 1093, 17 April 1940.

39. Although policy has not always fully reflected this interpretation of the evidence with appropriate instruments, particularly before the 1960's.

40. A.E. Holmans, 'Restriction of Industrial Expansion in South-East England: A Reappraisal', Oxford Economic Papers, new ser. 16 (1964). Also see, A.P. Thirwall, 'A Reply to Mr. Holmans on "Restrictions of Expansion in South-East England"', Oxford Economic Papers, new ser. 17 (1965) and A.E. Holmans, 'Restriction of Industrial Expansion in South-East England: A Rejoinder', Oxford Economic Papers, new ser. 17 (1965).

thus there are grounds for doubting whether London's growth was non-optimal.⁴¹ Nevertheless, contemporaries feared that London was too large on social, economic and strategic grounds.⁴² The increase in size of the London area in this period is indicated by the growth of population. Chapter 2 provides details of population increase and net migration for Greater London and the L.C.C. area. The centrifugal movement of the population from the inner areas of the conurbation to the outer areas and beyond was also noted. Here it will suffice to present similar data for the Conurban Ring - that part of Greater London not within the L.C.C. area - for it is here that the most startling growth took place in the 1930's. The inner area, in fact, lost population. This information is provided in Table XLV. This shows the importance of migration in relation to natural increase in contributing to the expansion of the area's population over the period. Of the total increase of just over 1 million, almost 900,000 is attributable to net migration. It seems probable that the greater part of this net balance of migration came from areas outside of the conurbation in most years. Another indicator of size is presented in Table XLVI where the population density for various areas of London is shown. Generally, it can be seen that the area as a whole was expanding rapidly, this growth being concentrated on the fringes of the conurbation. This expansion was principally the result of migration; outwards from the inner areas of London, and from other parts of the country, especially the Depressed Areas.

41. See Appendix, 'The Concept of Optimum City Size'.

42. In the late 1930's there was a particular stress on strategic fears. See Barlow Report, op.cit.

This population increase led to an increase in traffic. However, as the Bresse Report pointed out, increasing traffic was also a function of the "growth of travel habit, the ever-increasing popularity of the motor car, the spread of motor ownership to classes which formerly would have regarded such a possession as beyond their means, and the tendency of the Londoner to live further afield and thus become more dependent upon transport"⁴³ The traffic problem had various origins. Bresse concluded that "there is no escape from the conclusion that their capacity London's Highways leaves no margin available for anything approaching the increase in traffic we are bound to anticipate".⁴⁴ The report was bound by its objectives and this conclusion to recommend the construction of new routes and improvements at particular points that would result in improved traffic flow, promoting public safety and alleviating congestion. For example, Hammersmith Broadway required "some sort of signal control". The Royal Commission on Transport had earlier advocated road widening at this point.⁴⁵ Improvements of arterial roads had resulted in better traffic flows to the outskirts of the central area where narrower roads and the convergence of routes had resulted in congestion.⁴⁶ The growth of traffic

43. Bresse Report, op.cit. p.10.

44. *ibid.*

45. Royal Commission on Transport, op.cit. They thought it ironic that Hammersmith Broadway should be no wider than the width of the average slum.

46. Several digressions are tempting. Firstly, there is a 'Parkinson's Law' of traffic increase. The improvement of facilities generates more traffic with the result that the improved situation is very soon as bad as the unimproved situation. See Royal Commission on the Geographical Distribution of the Industrial Population, Memorandum of Evidence submitted by the Ministry of Transport, op.cit. QQ.2019-2023. Secondly, and related to this point, it needs to be considered whether the emphasis on fitting the streets to the traffic (as expressed in the Royal Commission on Transport, the Bresse Report and subsequently) needs to be revised in favour of fitting the traffic to the streets.

at particular points illustrates this problem. (See Table XLVII). Similarly, the novel investigations of the Bressey Report substantiated the relation between increasing traffic and increased congestion. After the selection of particular routes for examination both across and around inner London, it was found that there were wide variations in average speed. The speeds on the central routes were lowest.

"These low speeds, to which traffic is reduced across the inner zone of London, rise gradually as the routes approach the outskirts, where average speeds of 18 m.p.h. were not infrequently recorded. The numerous journeys performed on the three cross-London routes indicate an average speed of roughly 12½ m.p.h. from end to end. This can usefully be compared with the North Circular Road, where the corresponding figure is 23.6 m.p.h." 47

A recommendation for a South Circular Road followed, as did a preference for roundabouts rather than intersections and traffic lights. The objective was to reduce delay.⁴⁸

However, a traffic problem had wider implications than simply for traffic itself. As Sir Malcolm Stewart had earlier indicated, there were ramifications on health, productive efficiency and the physical environment. For example,

"the effect of running very heavy traffic in narrow channels between tall buildings, or underground, is greatly to increase exposure to noise, which is very fatiguing and harmful to the nerves. In the carriage of a city tube train travelling at 30 m.p.h. the noise ranges from about 90 to 106 phons - a level at which an adult lion continuously roaring to capacity (105 phons at 18 ft.) would scarcely be audible." 49

47. Bressey Report, op.cit. pp.17-18.

48. In common with latter-day transport economists such studies measure the impact on urban society of increased traffic in terms of the effect of increased traffic on other road users. See E.J.Mishan,The Costs of Economic Growth(1969), p.132 for a critique of this approach.

49. P.E.P.,Planning, VI(26 July 1938), p.5.

Further, the increasing density of settlement of industry and population resulted in increases in site values which, as well as contributing towards the separation of home and workplace, also hampered attempts to deal with the increased demand for transport facilities. Existing thoroughfares in central areas might need to be reconstructed or it might be necessary to provide tube railways and either course was very costly.⁵⁰

Nevertheless, the London Passenger Transport Board agreed with the general principles expressed in the Ministry of Health's evidence to the Barlow Commission.⁵¹ "While the peak traffic problem is serious and not capable of easy remedy at all, it points not so much to any restrictions upon the growth of London as to the planning of London."⁵²

The remaining evidence on London's problems is more sketchy. Although there was a general contrast in mortality between town and country this was not necessarily due to size as such. There were also some advantages of large aggregates of population. "For example, in the sphere of public health, it enables a hospital service to be economically provided with specialist staff and units for the various forms of special treatment, since the numbers

50. Royal Commission on the Geographical Distribution of the Industrial Population. Memorandum of Evidence submitted by the Ministry of Transport, op.cit. para.40.

51. ibid. Memorandum of Ministry of Health, 6 Oct.1937, Q.479.

52. ibid. Memorandum of the London Passenger Transport Board, 15 Feb.1938, para. 9. Similar conclusions were reached in the Memorandum of Evidence submitted by the Registrar-General for England and Wales, 16 Nov.1938, where it was shown that the excess in mortality between urban and rural areas was not related to size but rather to such factors as overcrowding and smoke production. Such factors, in turn, were not necessarily accompaniments to urban life but could be alleviated by planning. For evidence on overcrowding also see, Ministry of Health, Report on the Overcrowding Survey in England and Wales (1936).

involved ensure a full use being made of the facilities offered."⁵³

Nevertheless, rates of mortality did differ within London with overcrowding, and atmospheric pollution, (see Table XLVIII), although these were superior to other conurbations in Britain.⁵⁴ Again it seems that the absence of planned development, rather than the size of London, resulted in its health problems.

It seems that London could not be considered non-optimal. Nevertheless, a number of problems were associated with its development⁵⁵ which in turn were seen as a product of unsystematic growth. It does not follow, therefore, that the appropriate policy to deal with London's problems was a restriction on further growth or a dispersal of population to either satellite towns and garden cities or to the Depressed Areas of the country. London's problems might have been solved by planning.⁵⁶

III

If London's problems were not attributable to size alone, then the role of migration in increasing size was not to be blamed for the problems. However, if the rapidity of growth was a factor, then migration might still be held responsible. In some way migration may be viewed as a cause of

53. Royal Commission on the Geographical Distribution of the Industrial Population, Memorandum of London County Council, 16 Feb.1938, para.80.

54. Barlow Report, op.cit. p.83.

55. *ibid.* pp.51-103,153-178 for a comprehensive coverage.

56. Indeed, policies designed to alleviate congestion or pollution by reducing the size of the city may worsen rather than improve such negative externalities. See, E.S.Mills, 'Welfare Aspects of National Policy Towards City Sizes', Urban Studies, 9(1972).

London's problems. It may also be possible to view the regional problem in the Depressed Areas as being aggravated by London's unrestricted growth.

The general problems of areas receiving in-migrants are well illustrated by the comments of the County Councils Association.⁵⁷

"There is, in the first place, the obvious difficulty of establishing, at comparatively short notice and on the large scale required, the varied services, notably education, health and transport, which must be provided to cope with the legitimate demands of an increased population such as has been experienced in some areas during recent years. The cost of these services is heavy in any circumstances, but their provision is apt to become even more expensive when undertaken in haste and in districts which have hitherto been more rural than urban in character. In second place, populations so transferred usually are the occupants of comparatively small houses, while their physical and financial conditions are in many cases such as to necessitate frequent recourse to the public health and public assistance services. The increase of rateable values resulting from immigration of this type therefore is wholly insufficient to meet the increased cost imposed upon the receiving area."

In Surrey the,

"influx of families from distressed areas and of poorer immigrants has resulted in increased demands for council houses, and special reference should be made to the fact that the population of the St. Helier estate contains a high number of tuberculosis cases and possibly of persons with other physical defects. As the people are of working class type, maximum use of public services is made." 58

Buckinghamshire, particularly the Slough area, also experienced high in-migration with consequent heavy demands on public services such as

57. P.R.O. Memorandum of Evidence to Royal Commission on the Geographical Distribution of the Industrial Population from the County Councils Association. HL0 27/42.

58. *ibid.*

housing, sewerage and hospital accommodation. Further, the

"labour requirements for such a growing area can only be met by transfers from other areas, and social problems and questions connected with juvenile employment consequently arise. The situation is easier when whole families move as such, but the transfer of large numbers of boys and girls and adults who must live in lodgings and whose employment is unstable creates problems difficult of solution." 59

Similar problems were experienced in other areas of the South-East, particularly in Cowley, and the Dagenham and Becontree areas of Essex. Local finances were strained in an effort to meet the new demands and where supply lagged behind these demands, congestion occurred.

The reaction of migrants are illustrative of the problems of resettlement in new, and often strange, communities. The treatment of Welsh migrants in Oxford affords evidence of some discrimination.

"On the way home in a bus one day an Oxford woman began to say that the Welsh were stealing jobs in Oxford by working for low wages."

"He found a strong dislike of Welsh people on the part of Oxford men, who thought the Welsh were taking their work and were all reds."

"The two younger boys for a long time were afraid to leave the house because 'one night a gang of English boys met them, called them Taffies and tried to make them swear and sing 'God Save the King'.'"

"Many landladies asked applicants for lodgings whether they were Welsh, and turned away all those who were." 60

But not all migrants were discontented.⁶¹ Indeed, it was often the case

59. *ibid.*

60. G.H.Daniel, 'Some Factors Affecting the Movement of Labour', Oxford Economic Papers, No.3 (1940), 173-9.

61. *ibid.*

that the out-migration of one individual to a new area would lead to a cumulative movement to that new area.⁶² For example, the following extracts from letters of transferred labour to those remaining in the Depressed Areas of Whitehaven and Cleator Moor encouraged such cumulative movement.

From Slough a transferee wrote, "I thought you would have been down here before now. I have a job waiting for you and my friend the Boss asked me last night when you would be here as he is keeping the job open for you",

or from London, "I was talking to the Boss this morning, so you can come soon as possible, you'll be alright with Joe and I. Sorry Dan I'm short of cash at present, I'd have sent you fare, but hope you can manage off the Exchange, and Joe, as(sic) been off three weeks, a motor car run over his foot."⁶³

The characteristics of migrant populations had particular consequences for the receiving areas. Migrants tended to be largely composed of those in the younger age groups of the population.⁶⁴ Where migration was narrowly focused, this affected the age structure of the local community and the rate of natural increase. Activity rates also tended to rise as a result of the changing age distribution of the population. The faster growth of the insured employed population in London and the South East than the total population is testimony on this point. However, it seems unlikely that this phenomenon was entirely due to migration as it is probable that the activity rate of the native population was increasing in a climate of industrial

62. For example, the mining village of Pontycymmer provided most of the migrants from the Maesteg district to Oxford. Survey of the Social Services of Oxford and District, I(1938-40), p.59.

63. P.R.O. Industrial Transference Scheme-General Review 1938. LAB 8/218.

64. See A.D.K.Owen, 'Social Consequences of Industrial Transference', Sociological Review, 29(1937), 340.

expansion. But if in-migration is significant in this respect, then it might be possible to agree with Owen that the labour inflow "made possible much of the remarkable expansion of industry which has taken place in London and the midlands".⁶⁵ Professor J.H.Jones of the Royal Commission was concerned to establish whether this labour supply was cause or effect of London's growth. The London County Council considered that,

"it is difficult to get cuase and effect. It is a question whether the population from outside London increased industry, or whether the increase in industry in London tended to draw the population from outside. I should think probably the population would be drawn from outside London by the fact that there is more work in London." 66

Professor Jones later observed that the relative growth of London "was but the expansion of an area almost filled with expanding industries and relatively free from declining industries, and able to recruit the labour essential to relative growth by the fact that workers in other areas were being driven out by unemployment ...".⁶⁷ Dennison's investigation of the labour recruitment of two expanding factories concluded that "much of the labour supply has been built up by migration".⁶⁸

The problems of the South-East, and more particularly of London, and those of the Depressed Areas can be connected. London's growth was not a

65. *ibid.* p.346.

66. Royal Commission on the Geographical Distribution of the Industrial Population. Memorandum of Evidence of London County Council, 2 March 1938, Q.3582.

67. J.H.Jones, *op.cit.* p.327.

68. S.R.Dennison, The Location of Industry and the Depressed Areas (1939). In the absense of a comprehensive survey of labour recruitment in London industry in this period, it is not possible to conclude that a migrant labour supply was necessary for growth.

cause of the Special Area problem. The latter was a product of structural factors. However, locational disadvantages followed structural depression and to this extent, the relatively favourable position of London worsened the problem in the Depressed Areas by attracting labour. Even so, such migration was predominantly 'pushed' not 'pulled'. Industrial growth was not diverted as the growth industries of London had in fact been long-established in the capital.⁶⁹ There were few factory re-locations.⁷⁰ But London's problems were certainly in part due to migration, both through its contribution to the rapid increase of population to a high level and through the particular characteristics of a migrant population. A reservation needs to be made in respect of the contribution of intra-regional migration to the problems of the area.

IV

The ill-effects of migration in the Depressed Areas were important in first encouraging a shift of regional policy emphasis towards attempts to influence industrial location. This change in emphasis, plus the consequences of migration for receiving areas, led to a recognition of the problems of London's growth. In turn, this resulted in connections being seen between the regional problem in the north and that in the south. The

69. See P.Hall, The Industries of London since 1861 (1962); Barlow Report, op.cit. pp.249-280.

70. Board of Trade, Annual Surveys of Industrial Development, 1933-8.

Barlow Report represented the final stage in the acceptance of this comprehensive view. In some part, the problems were interlinked and, as such, the subsequent policy emphasis on diverting growth from the south to the north had its factual basis.

London's social and economic problems were explicable by the absence of effective planning in an era of rapid population increase from immigration. Strategic fears were important in recommending dispersal and decentralisation of population and industry and an interpretation of this recommendation involving an inter-regional redistribution of activity rather than a wholly garden city or satellite town solution, was dependent on the apparently justified link between distress in the north and too-rapid growth in the south. However, even though there may be some casual interconnection, there must remain some doubt as to whether the appropriate policy recommendation was to reverse this process and abandon transference as a policy instrument.⁷¹ London's relative growth was not dependent on transferred industries. Therefore, any attempt to divert this growth elsewhere by restricting growth in the South-East may have simply resulted in the contemplated expansion being abandoned. Further, to the extent that a London location had certain locational advantages, then a diversion of an establishment would result in a decline in efficiency and in growth. Such a result can only be justified on efficiency as well as allocative grounds

71. The following argument draws heavily on Holmans, op.cit.

if the external diseconomies of expansion were more severe in the South-East than elsewhere. It is not clear that this was the case, for example, the level of congestion was not uniform through the South-East, being worse in central London. Thus, a location in the Conurban Ring or at Slough might have given rise to less negative externalities than a location in Newcastle or Glasgow. The centrifugal movement of population from the urban core of conurbations was not peculiar to London;⁷² neither were the attendant problems. Similarly, mortality tended to be higher in northern conurbations than in southern and overcrowding was at its worst in Durham and Northumberland.⁷³ Further, although in-migration to the South-East created demands for additional social capital, this did not necessarily imply a wasteful duplication of facilities under-utilised in the Depressed Areas,⁷⁴ and the scope for sewerage improvement schemes found by the Commissioner for the Special Areas in Scotland suggested a requirement for improvements of capital stock in the north.

Perhaps each manifestation of the regional problem needed to be dealt with in its own context. A set of policies dealing with the problems of rapid metropolitan expansion were required on the one hand, and on the

72. See supra, Chapter 2; W.Hewitt, Workplaces and Movements of Workers in the Merseyside Area (Liverpool, 1928); R.Lawton, 'The Journey to Work in England and Wales: Forty Years of Change', Tijdschrift voor Economische en Sociale Geografie, 54 (1963); K.K.Leipmann, 'The Daily Ebb and Flow of Labour between Home and Workplace in English Industrial Areas: A Statistical and Sociological Study', (unpublished Ph.D. thesis, London School of Economics, 1942).

73. Royal Commission on the Geographical Distribution of the Industrial Population, Memorandum of Evidence of the Registrar-General for England and Wales, op.cit.; Ministry of Health. Report on the Overcrowding Survey, op.cit.

74. supra, Chapter 8.

other, policies to alleviate distress in the Depressed Areas. In such circumstances there is no reason to dismiss labour migration as a policy instrument. In an intra-regional context this is obvious. Inter-regionally, the problems arising from migration may have been dealt with by regulating the flow of labour movements and ensuring that the inflow to any particular area was not so rapid as to give rise to insuperable short-run problems. In the Depressed Areas, a similar regulation would have ensured a concurrent reduction of population and social capital to the level at which technological and locational considerations could justify the provision of employment for the remaining population. Where no justification existed, 'euthanasia' ought not to have been discounted, despite its political unpopularity.

The policy conclusions arising from the Barlow Report may not have been practicable or desirable. Nevertheless, the attempt to deal with London's problems forced attention on the long-standing problems of the Depressed Areas of the country. The real significance of the recognition of London's plight might be seen in the impetus it gave to the efforts to deal with the problems of the north.

Table XLV

Population and Net Migration in London's Conurban Ring, mid-1930 - mid-1939.

	Population	Net Migration	Net Migration as a % of population
	(i)	(ii)	(iii)
1930	3,671,134	134,096	3.65
1931	3,817,961	106,519	2.79
1932	3,944,547	99,403	2.52
1933	4,061,920	91,415	2.25
1934	4,170,748	99,901	2.40
1935	4,289,693	125,790	2.93
1936	4,434,602	104,811	2.36
1937	4,560,468	53,183	1.17
1938	4,637,175	53,720	1.16
1939	4,714,549		

Notes.

Col.(i) - mid-year points.

Col.(ii),col.(iii) - mid-year periods. i.e. the last observation refers to the period mid-1938 to mid-1939. For the methodology, see supra, Chapter 2, Appendix 1.

Source: Calculated from the Annual Statistical Reviews of the Registrar-General for England & Wales.

Table XLVI

Population Density per square mile. Resident Population. London,
mid-1930 - mid-1939.

	Greater London	London	Conurban Ring
1930	11,645	37,598	6,374
1931	11,821	37,387	6,628
1932	11,980	37,246	6,848
1933	12,064	36,740	7,053
1934	12,123	36,156	7,241
1935	12,229	35,771	7,447
1936	12,375	35,394	7,699
1937	12,489	34,996	7,917
1938	12,554	34,725	8,051
1939	12,595	34,303	8,185

Table XLVII

Vehicular Traffic at Hammersmith Bridge and Putney Bridge, London,
July, 1930-1937.

	Hammersmith Bridge	Putney Bridge	Weather Conditions
15 July, 1930	11,635	20,606	Dull but Dry
14 July, 1931	12,241	21,080	Dull
11 July, 1933	13,559	19,868 ^{a/}	Showery
9 July, 1935	16,032	28,331	Fine
13 July, 1937	16,886	30,667	Fine

a/ affected by repair and reconstruction works.

Source: London County Council, Statistical Abstract for London,
1927-37, Vol. XXIX (1938).

Table XLVIII

Infant Mortality in Greater London, 1930-1939 (rates per 1000 live births)

	L.C.C.	Conurban Ring
1930	59	49
1931	65	52
1932	67	52
1933	60	49
1934	67	47
1935	58	65
1936	66	49
1937	60	49
1938	57	44
1939	47	40

Source: London County Council, Statistical Abstract for London, 1927-37, Vol.XXIX(1938); ibid. 1937-46, Vol.XXX(1948).

APPENDIX

The Concept of Optimum City Size

Much of the literature concerned to discover an optimum city size concentrates on costs alone, particularly on the costs of public service provision. Given the potential of economics of scale at low populations and the potential of diseconomies of scale at high populations, a set of U-shaped cost curves can be generated with the optimum being equal to the point of minimum costs. (A on Diagram V) In the absence of marginal cost pricing there is no mechanism to prevent this point A being surpassed. The in-migrant to the city is only charged at average cost, even though by his migration not only are costs increased to him but also to the existing residents of the city. The existence of these external diseconomies prevent city size from being confined to the point of minimum average cost.

A consideration of the complementary social product curves (should evidence exist) illustrates the possibility of several other optima, which casts doubt on the value of a conception of some unique optimum. There is no reason to confine attention to the cost curves in a search for an optimal solution. It will be in the interests of residents to maximize the difference between AP and AC (point B). In contrast a criteria of the maximisation of output (and population) suggests the $MP = MC$ solution (point C). The existence of several optima is possible with a variation

in the criteria of optimality.¹

Evidence on costs other than that for public service provision is rare. There is no certain empirical justification for the upturn in average cost. Moreover, what is really required is some evidence on average social cost. Such a consideration would move the family of cost curves upwards on the diagram, accounting for the relationships of environmental, health and congestion externalities with city size.

Contemporary approaches to the question of optimum city size illustrate the empirical shortcomings of this concept. Lomax used a cross-sectional minimum costs approach and concluded that the optimum size as determined by local government costs was in the region of 100,000 - 150,000.² A U-shaped cost curve was also contemplated by the Ministry of Health.

"There can be no doubt that up to a point the larger a town the more likely the health and other services are to be carried out with efficiency and economy The view, however, has sometimes been expressed that a town may become so unwieldy as to increase disproportionately the cost of its services." 3

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1. For a fuller discussion see W. Alonso, 'The Economics of Urban Size', Papers and Proceedings of the Regional Science Association, 26 (1971); H.W. Richardson, 'Optimality in City Size, Systems of Cities and Urban Policy: A Sceptic's View', Urban Studies, 9 (1972). Also see G.M. Neutze, Economic Policy and the Size of Cities (Canberra, 1965).
 2. K.S. Lomax, 'The Relationship between Expenditure per Head and Size of Population of County Boroughs in England and Wales'. Journal of the Royal Statistical Society, 106 (1943). Also see, C. Clark, 'The Economic Functions of a City in Relation to its Size', Econometrica, 13 (1945).
 3. Royal Commission on the Geographical Distribution of the Industrial Population. Memorandum of Ministry of Health, 6 Oct. 1937, para 30.

But to supply evidence to confirm or reject this supposition involved certain difficulties. The Ministry considered that there were "a number of factors to be considered, apart from mere size, and particular services will sometimes be found to be more cheaply carried out in the very large towns".⁴ One problem arose from equating costs with expenditure. Comparisons also needed to be made between services homogeneous in quality. Certain services⁵ were examined and the Ministry observed that in street cleansing, "the inhabitants of the larger cities demand and get a higher standard of street cleansing than elsewhere";⁶ for public lighting and fire brigades, "the figures show a wide variation in cost in towns of approximately the same size".⁷ Generally, "the diversity of costs between towns of approximately the same size suggests that factors other than the size of the town have a very large influence".⁸ Sir John Maude considered that "the real evil is not the size of the town but the lack of proper planning of the town".⁹

4. *ibid.*

5. Street Cleansing, Refuse Collection and Disposal, Public Lighting, Fire Services. Other services, such as water supply, were deliberately not considered being thought to be dependent upon local natural resources and conditions. *ibid.* 17 Nov. 1937. Section VI.

6. *ibid.* para. 3.

7. *ibid.* para. 7.

8. *ibid.* para. 6. Diagram VI illustrates the estimated average cost curves for these services.

9. *ibid.* 6 Oct. 1937, Q.479.

The net cost per 1,000 population of other services such as the treatment of tuberculosis, venereal disease, mental deficiency and the cost of maternity and child care, was also investigated by the Ministry of Health. Similar conclusions were reached. "The figures show no clear relationship to the size of the town."¹⁰

"The information available seems to show that most of the disadvantages of aggregation of population can be eliminated by intelligent town planning concentration of population in towns makes easier rather than more difficult the provision of social amenities and communal services such as water supply, sewerage, refuse collection etc. and the example of say, Birmingham, suggests that there is practically no limit to the size of town for which they can be provided." ¹¹

There was little evidence on local government costs to support a U-shaped average cost curve. Neither was there evidence for the period to enable an examination of the influence on producers' or consumers' costs of variations in city size. The empirical basis for a minimum costs approach was lacking.¹² Neither was there any information

10. *ibid.* 16 Nov. 1938, para. 31.

11. *ibid.* para. 38.

12. Of course, not only is empirical verification of the U-shaped average cost curve doubted, but little is known of the shape of the average social cost function. The Ministry of Transport failed to find any relationship between the size of towns and traffic accidents. Royal Commission on the Geographical Distribution of the Industrial Population. Memorandum of Evidence submitted by the Ministry of Transport, 2 Dec. 1937, para. 44.

pertinent to the revenue curves and so the approach to the study of city size through the concept of optimum city size failed through a lack of evidence. It is also conceptually indefensible.

DIAGRAM V

A DIAGRAMMATIC REPRESENTATION OF THE CONCEPT OF
OPTIMUM CITY SIZE

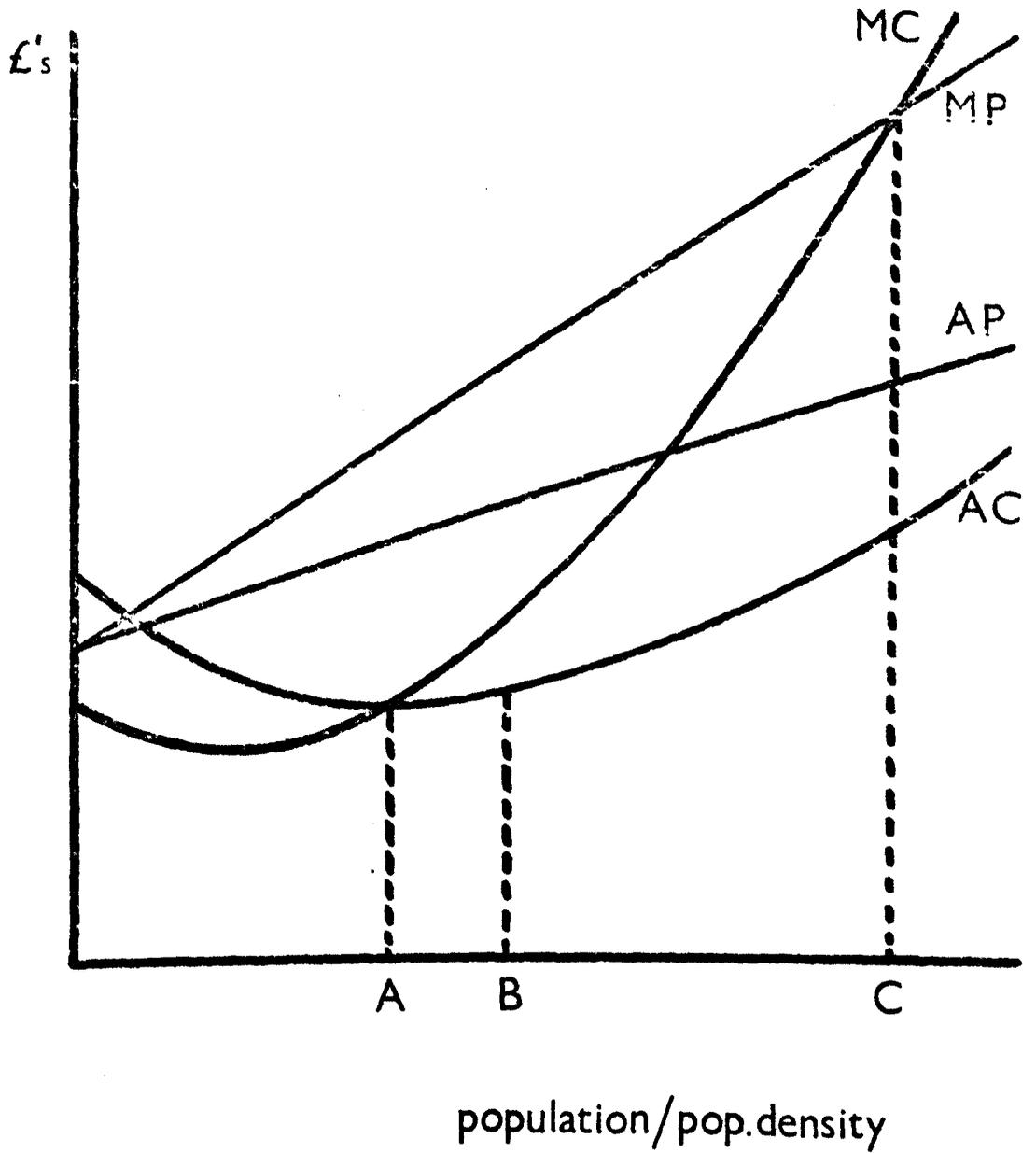
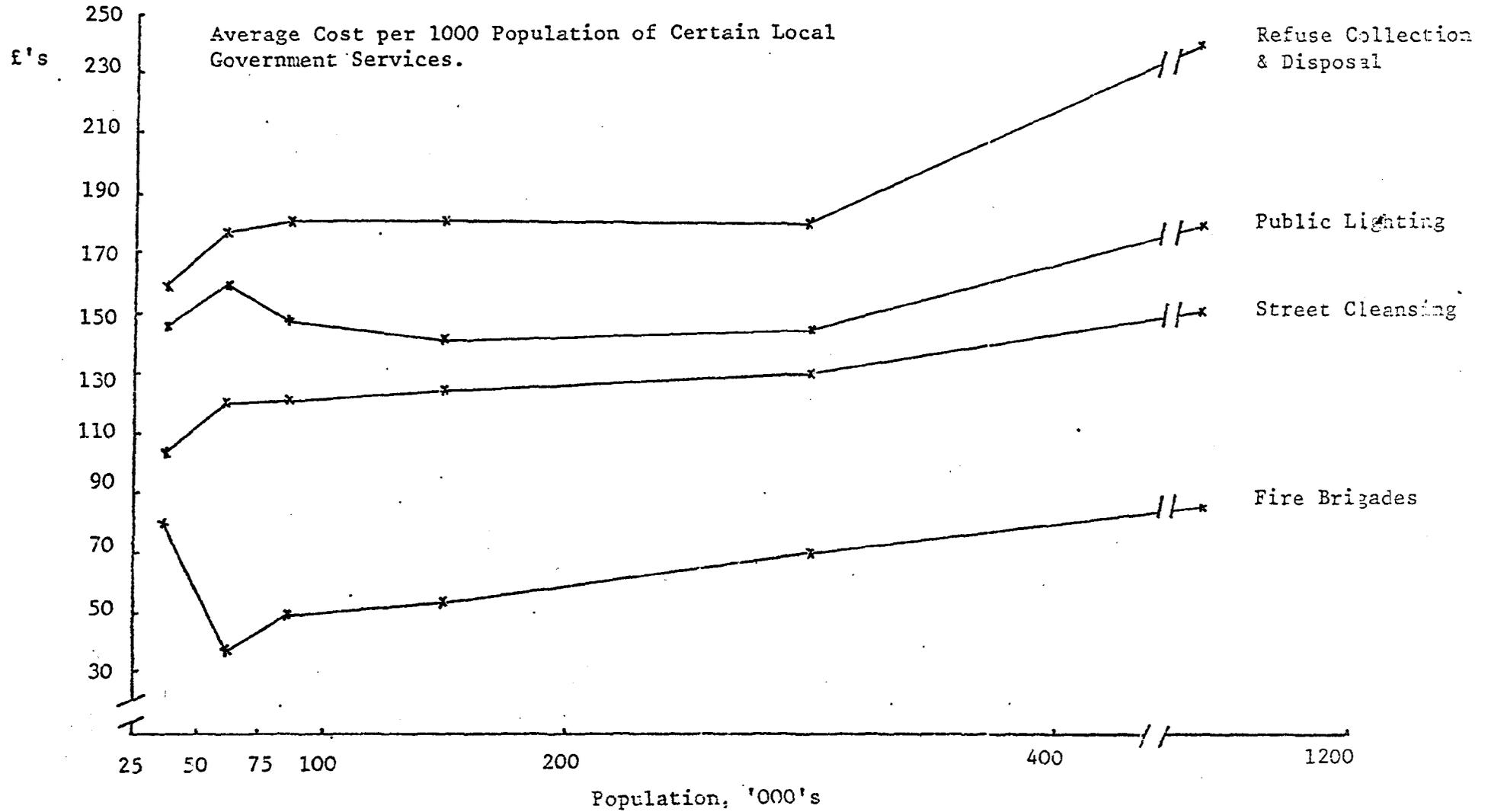


DIAGRAM VI



Source: see text.

CHAPTER 10

Conclusion: The Legacy of the Inter-War Years

Labour migration has been underestimated as a weapon for tackling the regional problem. For most of the inter-war years it was the preferred method for dealing with localized depression, for these years were not characterized by the dominance of the 'move-industry-to-the workers' orthodoxy that dominates regional policy today. Labour migration was also an effective means of reducing regional disparities in unemployment experience.

The relative place of labour migration amongst other policy instruments was shown in Chapters 4 and 6. There is little controversy concerning the role of transference before 1934. At that time there was no competing instrument of regional policy. With the introduction of the Special Areas Act in 1934, regional policy is often considered to have begun. Such a view is mistaken. Neither is it acceptable to identify the introduction of a 'move-industry' policy with the first Special Areas legislation. The new departure in policy was a very gradual one and owed much to the first English Commissioner, Sir Malcolm Stewart. Besides, transference was simultaneously encouraged and was the dominant policy instrument until at least 1937.

The effects of regional policy were dealt with in Chapters 5 and 7. Before 1934, it was shown that unemployment in the north would have been more severe were it not for labour migration. However, the cyclical downturn of the early 1930's outweighed all other influences on

regional employment and made the implementation of policy difficult. After 1934, when increased emphasis was again put on transference, it was shown that this policy instrument made the greatest contribution to the reduction of unemployment in the Special Areas. Transference did not fail.¹

The failure to recognize the importance and efficiency of labour migration in the inter-war years has resulted in post-war policy virtually ignoring this avenue of attack on the regional problem.² But this explanation cannot hold for the failure of the Government in the immediate post-war period to utilize a transference policy.³ A number of other

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1. In contrast, see H.W.Richardson and E.G.West, 'Must We Always Take Work to the Workers', Lloyd's Bank Review, 71(1964), 35,36; B.J.Loasby, 'Location of Industry: "Thirty Years of"Planning"', District Bank Review, 156(1965), 33. Both Loasby and Richardson and West are of the opinion that the absence of full employment was an important explanation of 'failure'.
 2. This is the verdict of McCrone. G.McCrone, Regional Policy in Britain (1969), p.99. In 1971, only 8,000 people were assisted by the various transfer schemes of the Department of Employment. House of Commons Expenditure Committee (Employment and Social Services Sub-Committee), Employment Services. Minutes of Evidence of the Department of Employment (Parl.Papers, 1971-2, XIII), 8 March 1972, paras.664-734. The general approach is as stated by Mr Raison - "I accept the principle that we should not go out of our way to encourage geographic mobility of labour". *ibid.* para.693. The Memorandum of the Association of Officers of the Ministry of Labour to the same committee also took the view "that the first priority should be the development of regional policies to bring jobs to the people rather than the reverse". *ibid.* Minutes of Evidence of the Association of Officers of the Ministry of Labour, 19 July 1972, para.44.
 3. Advocates of such a policy include, Richardson & West, *op.cit.*; E.G.West, 'Regional Planning: Fact and Fallacy', Lloyd's Bank Review, 80(1966), who questions the alleged disadvantages of population drift; K.Hartley, 'Public Policy and the Regions', District Bank Review, 159(1966), who argues that growth requires unbalanced development and thus labour mobility; H.R.Kahn, 'Labour Mobility: Some Critical Reflections', District Bank Review, 157(1966), who hopes advocates of labour migration will not overstate their case making it susceptible to criticism; and A.T.Peacock and D.G.M.Dosser, 'The New Attack on Localized Unemployment', Lloyd's Bank Review, 55(1960), who hope for greater encouragements to labour migration.

explanations are feasible. Firstly, labour transference was ignored because of the orthodoxy established by the Barlow Report. The problems of the 'over-congested' south were seen as a product of labour inflows from the depressed north. Rather than a policy regulating the play of free market forces, a course of action diametrically opposed to this course was recommended. Industrial growth was to be diverted northwards and labour encouraged to stay where it was. Location policies had had little time to work themselves out before the war. In the post-war period a fresh chance was available that was now backed by the findings of a Royal Commission. Secondly, with an effective government policy on industrial location determined by social criteria, the unpopular policy of transference could be abandoned. Finally, a commitment to full employment meant that to avoid inflationary pressures in the fully employed regions of the economy, unemployed labour in other regions had to be found employment where they were. To transfer them southwards would more likely add to demand than supply.⁴

The abandonment of an effective policy instrument is regrettable. There are two tasks for labour mobility in an approach to regional

4. This has been argued by L.Needleman, 'What Are We to Do About the Regional Problem?', Lloyd's Bank Review, 75(1965); L.Needleman and B.Scott, 'Regional Problems and Location of Industry Policy in Britain', Urban Studies, 1(1964). Another case for control of the migration of population is put by A.P.Thirwall, 'Migration and Regional Unemployment: Some Lessons for Regional Planning', Westminster Bank Review, (1966). Eversley has shown that population changes were beginning to fit in with the dominant regional policy of moving work to the workers from 1961. D.E.C.Eversley, 'Population Changes and Regional Policies since the War', Regional Studies, 5(1971).

depression which recognizes the need for the use of this instrument. One is to move population out of areas where the principal industries are moribund. It was suggested in Chapter 8 that out-migration was the appropriate solution for the problems of Ebbw Vale. Industry should only be directed to areas of high unemployment if there are no detrimental consequences for its efficiency. This was not so in the case of the steel plant at Ebbw Vale. Such a policy might not merely divert expansion to localities unfavoured by entrepreneurs but positively discourage it. In the contrasting 'non-interventionist' case, where location decisions are free but labour mobility encouraged, there are no problems of mis-located industry. The areas losing and gaining population might experience a number of problems, but probably not of a magnitude to offset the gains from an optimum location. The deliberate depopulation of a community should be considered as a real alternative to a policy dictated by social considerations. A failure to come to terms with such a situation, as at Ebbw Vale, merely buys time for a community. The same problem faces Ebbw Vale today, with the steel industry intent on efficiency and better locations.

A second task for labour migration in an approach to the regional problem which uses this policy instrument is to link areas of probable expansion with areas of surplus labour within regions. In this case policy combines economic and social aims. A region may be selected for development because of its high wastage of labour resources, but within it, an area ripe for development may be selected as the siting for new industry. The labour supply may be brought to this area by inducements to short-distance migration or to commuting. This task for

labour migration is less likely to provoke personal and social objections to mobility than the previous task. Depopulation is a drastic policy and inter-regional movement is more likely to be between non-homogeneous areas than movements within a region.

Although transfer was abandoned as a main aim of regional policy, the post-war Labour Government did not, by contrast, implement the findings of the Barlow Report uniformly. The 1945 Distribution of Industry Act was the basis of the Government's regional policy until 1960. It was designed to achieve the objective of a 'proper distribution of industry',⁵ an aim which might have owed its origins to the Barlow Report and to the contemporary emphasis on diversified industrial structures. In practice, it fell short of Barlow's 'economic view' of the problem. It is probable that this Act owed as much to the precedents set by pre-war legislation, to the Labour Party's views of the problem and to anti-transference feelings, as to the Barlow Report.⁶

Why was Barlow side-stepped?⁷ Partly because the Report was shelved in war-time; partly because the 'economic' interpretation of the regional problem might be evident only with the benefit of hindsight.

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5. For the Act see Public General Statutes, 8 & 9 Geo.VI, c.36(1945).
 6. The Labour Party's social approach to the regional problem is illustrated in, Labour Party, Labour and the Distressed Areas: A Programme of Immediate Action, Interim Report of the Labour Party's Commission of Enquiry into the Distressed Areas (1937).
 7. Lee notes that this was so, but offers no explanation. C.H.Lee, Regional Economic Growth in the United Kingdom since the 1880's (Maidenhead, 1971), pp.156, 7.

The formulation of Barlow orthodoxy was a gradual process, the result of a culmination of different attempts to grapple with various problems, so the comprehensive view which is apparently so evident in Barlow today was not so evident to contemporaries. The measures adopted after 1945 were selective. A new towns policy was encouraged, not as growth points, but to provide overspill housing. Continuing research and review of the problem was not implemented. Attempts were not made to diversify the structure of industry in certain areas or to improve the environment by removing any locational disadvantages. Nevertheless, the emphasis was on limiting industrial growth in London and the South-East and encouraging it elsewhere. Such a policy dictated by social considerations was bound to have its shortcomings.⁸

Policy appeared to be very successful in the immediate post-war period and may have encouraged the retention of this approach.⁹ A number of factors, other than policy, were responsible for the success. The feared post-war recession in the northern areas failed to materialize. The heavy industries were prosperous. Labour shortages, the retention of building licences and the existence of various factories from war-time building programmes combined to encourage

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8. Some of these shortcomings were anticipated by Cairncross. He recognized that "a locational policy must . . . not try to put pressure on industry to go to places that are not really suitable". Scottish Council (Development & Industry), Report of the Committee on Local Development in Scotland (Edinburgh, 1952), para.59. Also see, A.K.Cairncross and R.L.Meier, 'New Industries and Economic Development in Scotland', Three Banks Review, 14(1952). A current example is provided by the Chrysler plant at Linwood, Renfrewshire. See The Guardian, 26 Oct.1972.
9. McCrone, op.cit, pp.112,3; A.J. Brown, The Framework of Regional Economics in the United Kingdom (Cambridge, 1972), p.286.

locations in the north. Spontaneous labour mobility may also have been encouraged by the experience of war, national service and direction of labour. Barriers to mobility were reduced.

From the early 1960's, regional policy again had an 'active phase', as after the prosperity of the greater part of the 1950's, regional disparities began to re-emerge with recession. The emphasis in policy began to switch towards a concern for economic growth. Instead of viewing unemployment as a social problem, it was considered as a loss to national output. When the 1945 regional policy was put to the test it was found wanting. These more recent developments, in policy, however, are dealt with elsewhere.¹⁰ It remains to note that despite pressure for a policy on labour migration, particularly in the context of an 'economic' policy, the Government has failed to take any action. Policy seems still to be socially, rather than economically oriented.

10. For example, McCrone, *op.cit.*, Chapter V; Brown, *op.cit.*, Chapter 11; Lee, *op.cit.*, Chapter 11; B. Moore and J. Rhodes, 'Evaluating the Effects of British Regional Policy', Economic Journal, 83(1973).

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