

Chapter 1

Employment, population and unemployment

Two basic and very important questions are investigated in this chapter. The first question is why employment grows more rapidly in some regions than in others. The second is what happens when employment growth is out of line with demographic increases in labour supply. How do such dynamic imbalances influence the distribution of unemployment or modify the pattern of labour supply by inducing migration? To examine these questions we have made use of the demographic and employment accounts which appear in the Appendix, supplemented by estimates of migration. The results presented below show that the main problem in Northern Ireland and Scotland has been demographic growth of labour supply while in the North-West it has been one of a relative decline in employment. The most dynamic regions, notably East Anglia and the South-West, have had rapid growth

of employment well in excess of their indigenous labour supply.

Our estimates of the shortfall of employment relative to demographic trends confirm a broad picture of the UK as being divided into three zones (see Table 1.1). The largest shortfalls and highest unemployment have been in Northern Ireland, Scotland and the North and North-West of England. There is then an intermediate zone stretching from Wales through the West Midlands to Yorkshire and Humberside which has run into substantial problems in the 1970s. Finally, the South and East of England have had relatively good employment growth and lower rates of unemployment.

The first part of this chapter examines causes of the uneven distribution of growth of employment within the UK. The second part of the chapter discusses the effects of employment shortfalls on unemployment and migration. Disparities in income among regions are considered in Chapter 2.

Table 1.1 Employment shortfalls and unemployment by region^a

	Employment shortfall 1966-78, as a percentage of 1973 labour force	% unemployment, 1978
Northern		
Ireland	16.5	11.5
Scotland	12.0	8.2
North	12.3	8.8
North-West	10.5	7.5
Wales	5.3	8.4
West Midlands	6.6	5.6
Yorkshire and Humberside	8.0	6.0
East Anglia	- 8.2	4.9
South-West	- 2.4	6.5
East Midlands	2.0	5.0
South-East	4.3	4.2
UK	6.0	6.1

^a The employment shortfall is defined as the sum of the natural increase in population and the effect of changes in activity rates less the change in employment and self-employment. The percentage unemployment rate for 1978 includes school leavers.

The distribution of employment growth

Some regional differences in growth of employment are the result of historical patterns of specialisation, for example, in agriculture, coal mining and different branches of manufacturing. But within the manufacturing sector major differences of trend remain even when full account has been taken of different specialisations. Moreover it is no longer possible, if it ever was, to explain regional differences in employment growth in terms of agriculture and industrial sectors alone, with the implicit assumption that service employment follows passively through the operation of a local 'multiplier' mechanism. We shall see that regions experience differential growth of employment in both public and private services which has little close connection with what is happening in the industrial or any other sector except in the very long run.

But in all regions the manufacturing part of the industrial sector remains important because of its size and the fact that regional policy has had considerable influence on its location. Two decades of active regional policy have made an important contribution to remedying or mitigating the structural problems of some regions – notably Wales, Scotland, the North and Northern Ireland. In other regions such as the North-West, Yorkshire and Humberside and the West Midlands adverse structural factors have remained

largely unchecked.

We adopt a wide interpretation of structural defects. The industry-mix of a region is only one of the factors which may influence the rate at which manufacturing employment grows. Two other structural characteristics appear from the evidence to be very important in regional variations in employment change – although there may be others which remain as yet unidentified. The first, a spatial characteristic, is the extent to which a region's economic activity is located in extensive, densely populated urban areas as opposed to smaller cities, towns and villages. There has been a flight of manufacturing industry from large conurbations on such a scale that regions containing them have suffered major losses of manufacturing employment. More rural regions have experienced relatively fast growth of manufacturing industry.

The other structural factor is that some regions provide a suitable environment for the foundation of new manufacturing companies while others, notably the depressed regions, do not. It appears that regions with a tradition of large manufacturing firms are at a disadvantage because most people who start new small businesses learn how to do this while working for another small firm. In the short run the 'new firm effect' is not important enough to affect significantly overall employment growth but over a period of decades the impact can be substantial.

Variations in employment growth by sector

The employment contribution of the main sectors of economic activity in each region – agriculture, industry, construction, private services and public services – can be derived from the tables in the

Appendix. Here we consider changes by sector over the period from 1966 to 1978, examining regions in three groups – the problem regions in the North (Table 1.2), the South and East (Table 1.3), and the intermediate regions (Table 1.4).

Taking problem regions first, employment in Northern Ireland increased more rapidly than it did in the UK as a whole; by far the most important determinant of this differential growth was the remarkable increase in public service employment. Scotland shared in the growth of public sector jobs, although to a much smaller extent, and this offset a relative shortfall in the growth of private sector employment leaving total employment moving broadly in line with that of the UK. In the North of England the main sectors of employment moved broadly in line with their national counterparts. The North-West was the only problem region to have a substantial relative fall in total employment due to large declines in industry and private services; like other problem regions it had an increased share of public service employment.

The dynamic regions in the South and East of England also displayed great variability of experience (Table 1.3). Total employment in East Anglia increased by 15% more than in the UK as a whole; industry and government services were the really important contributors. The South-West region also enjoyed an above-average increase in overall employment but in this case industry and *private* services were mainly responsible. Both of these predominantly rural regions experienced a rise in manufacturing employment partly as a consequence of decentralisation from London. Total employment growth in the East Midlands exceeded that in the UK as a whole by 4½%,

Table 1.2 Relative employment changes in problem regions, 1966-78

	Changes in numbers employed and self-employed as a percentage of the 1966 labour force less corresponding percentage changes for UK as a whole			
	Northern Ireland	Scotland	North	North-West
Agriculture	-1.9	-0.5	+0.2	+0.6
Industry	+0.6	-0.3	-0.4	-3.0
of which male	(+2.4)	(-0.7)	(-1.8)	(-1.3)
female	(-1.8)	(+0.4)	(+1.4)	(-1.8)
Construction	+0.3	+0.2	-0.2	-0.2
Private services	+1.9	-2.4	-0.4	-4.6
of which male	(+0.1)	(-1.0)	(-0.8)	(-2.3)
female	(+1.8)	(-1.5)	(+0.3)	(-2.3)
Government services	+7.1	+2.6	+0.7	+1.5
of which male	(+4.5)	(+1.0)	(+0.1)	(+0.5)
female	(+2.6)	(+1.6)	(+0.6)	(+1.0)
Total	+8.2	-0.4	+0.3	-5.8
of which male	(+5.0)	(-0.9)	(-2.1)	(-2.8)
female	(+3.2)	(+0.4)	(+2.5)	(-3.0)

Table 1.3 Relative employment changes in the South and East, 1966-78

Changes in numbers employed and self-employed as a percentage of the 1966 labour force <i>less</i> corresponding percentage changes for UK as a whole				
	East Anglia	South-West	East Midlands	South-East
Agriculture	- 2.8	-0.8	-0.2	+0.4
Industry	+11.2	+5.2	+2.3	+0.1
of which male	(+ 8.0)	(+3.2)	(+1.4)	(+0.1)
female	(+ 3.1)	(+2.0)	(+0.9)	(0.0)
Construction	+ 1.1	+0.4	+0.8	-0.4
Private services	+ 1.7	+3.3	+0.5	+2.0
of which male	(+ 2.3)	(+1.7)	(-0.2)	(+1.0)
female	(- 0.7)	(+1.7)	(+0.7)	(+1.0)
Government services	+ 4.0	-0.8	+1.1	-2.2
of which male	(0.0)	(-0.9)	(+0.4)	(-0.6)
female	(+ 4.0)	(+0.1)	(+0.8)	(-1.7)
Total	+15.1	+7.3	+4.5	-0.1
of which male	(+ 8.9)	(+3.6)	(+2.3)	(+0.7)
female	(+ 6.2)	(+3.7)	(+2.2)	(-0.8)

with all sectors except agriculture making a modest contribution. The South-East had a slight relative fall in total employment. The private service sector was very strong in the South-East but this was offset by relative decline of employment in public services – due in part to the policy of central government office dispersal.

The geographically intermediate regions between the other two groups are Wales, the West Midlands and Yorkshire and Humberside (Table 1.4). All three experienced below-average employment growth. In Wales losses in agriculture, coal and both public and private services were partially made up by relative gains in manufacturing and construction. The West Midlands had a sharp fall in industrial employment reinforced by a relative fall in public service employment, yet surprisingly employment in private services kept up with the national average. In Yorkshire and Humberside the fall in industrial employment was offset by a rise in public service employment, but employment growth in private services fell significantly below the national average.

Some important analytical points arise from these regional employment accounts. There is no clear sectoral pattern of employment change either across groups or within groups of regions. In the past it has commonly been argued that the tradeable goods sectors provided the main driving force for regional employment change with the non-tradeable sector responding indirectly through multiplier effects. Further it was argued that the tradeable goods sector was predominantly made up of manufacturing, mining and agriculture while services were predominantly non-tradeable. This black-and-white distinction among sectors is not borne out by the evidence of the sector employment accounts which reflect an alto-

gether more complex pattern of changes in the main sectors.

Government employment

Nowhere is this more so than in the case of employment in government services. Changes in government employment between 1966 and 1978 were related closely neither to population growth nor to employment changes in industry. It is therefore wrong to regard this sector as responding passively to demographic change. For example in the South-West region population increased by 6.7% more than the national average and industrial employment by almost as much, yet the region's share of government employment declined. Conversely in Scotland, where both industrial employment and population fell, employment in government services showed a large increase relative to the UK as a whole. The conclusion must be that government service employment is often one of the primary 'engines' of regional employment growth and an important regional policy instrument in its own right. In Northern Ireland it was the main factor preventing a major employment decline.

As far as local government is concerned, the employment it provides can be influenced by switches in central government grants, for example as between urban and rural areas, as well as by variations in the number of jobs financed from local rates.

Within central government there are three large blocks of employment subject to different growth rates and location requirements – the health service, defence and the civil service. Expenditure on the health service can be expected to be fairly evenly distributed among the regions but some regions which have lagged behind in manpower and facilities in one period may 'catch up' in a later period. Employment

Table 1.4 Relative employment changes in intermediate regions, 1966-78

	Changes in numbers employed and self-employed as a percentage of the 1966 labour force <i>less</i> corresponding percentage changes for UK as a whole		
	Wales	West Midlands	Yorkshire and Humberside
Agriculture	-0.9	+0.3	+0.2
Industry	+0.9	-2.9	-2.1
of which male	(-0.9)	(-1.6)	(-1.2)
female	(+1.8)	(-1.2)	(-0.9)
Construction	+0.5	-0.2	+0.1
Private services	-0.5	+0.2	-2.0
of which male	(-0.8)	(+0.2)	(-0.7)
female	(+0.3)	(0.0)	(-1.3)
Government services	-0.7	-1.4	+1.8
of which male	(-0.8)	(-0.6)	(+0.5)
female	(0.0)	(-0.9)	(+1.3)
Total	-0.8	-3.9	-2.0
of which male	(-2.9)	(-1.9)	(-1.1)
female	(+2.1)	(-2.0)	(-0.9)

in the armed forces is concentrated in the South-West, East Anglia and the South-East. These regions suffered disproportionately from the postwar fall in the numbers of armed forces but no further reductions are now expected. Civil Service employment is concentrated in the South-East but its growth in this region has been checked by the dispersal of many thousands of jobs to other regions.

Another important feature of the growth in government services has been their tendency to employ a high proportion of women. Thus regions in which government service employment has risen rapidly – notably the problem regions – have also experienced a relative increase in female activity rates.

Private services

Just as in the case of government employment, it would be a mistake to regard private service employment as being closely responsive in the short and medium term to demographic change or changes in other sectors. For example in East Anglia the rise in population exceeded the national average by 13.6% from 1966 to 1978 yet employment in private services rose only 4½% more than the national average. By contrast in the South-East population increased less than the average yet private service employment increased 5.3% more than average. Moreover, industry grew rapidly in East Anglia and slowly in the South-East. The picture is plainly not one of a simple multiplier relationship.

About one-third of private service employment is in business, financial, professional and scientific services. Employment in this group has increased rapidly compared with that in other service industries. Regions such as the South-East with a high proportion

of these services have therefore enjoyed a distinct structural advantage. Other parts of the country, notably the old conurbations of Glasgow, Manchester and Liverpool which historically provided the original growth poles of the industrial revolution, built up a range of traditional service industries associated with specialised warehousing, shipping, docks, transport and so on. These conurbations are now strong negative growth poles with traditional service industries dying alongside the manufacturing industries they used to serve. New postwar light industrial developments have not required the same local services. Thus the North-West region and Scotland have had declines in private service employment while the South-East has increasingly specialised in supplying financial and business services to all regions. The mobility of some modern service industries* is quite properly reflected in the fact that mobile service projects can now qualify for regional selective assistance under the Industry Act.

Another factor in regional differences in the growth of private service employment is the variation in labour supply. In our April 1980 *Review* we pointed to evidence at the national level which suggested that when rapid growth in demand has coincided with a restricted labour supply, service employment has increased unexpectedly slowly, whereas when demand was slack but the labour supply was expanding employment in private services has risen much more than would have been expected. Thus private services may act as a 'sponge' which soaks up surplus pools of labour. There is evidence that this mechanism operates at the regional level, particularly in retail

* See Rhodes and Kan (1971).

trades.* But a more detailed testing of this hypothesis is required before hard conclusions can be drawn.

Manufacturing industry and regional policy

Manufacturing industries are important to all regions and particularly so to the four regions which straddle the centre of the UK – the North-West, Yorkshire and Humberside, the East and West Midlands. Until 1966 manufacturing employment in the UK as a whole grew steadily. These four regions enjoyed prosperity and largely full employment even though considerable restructuring of the industrial heartland was taking place. New growth industries such as chemicals, pharmaceuticals, electrical and electronic engineering and vehicles provided employment for large numbers of people leaving traditional coal and textile industries. But since 1966 about 1½ million jobs have been lost in UK manufacturing industries; as a consequence the four central manufacturing regions are already experiencing substantial reductions in employment.

Jobs in manufacturing industries have always been regarded as potentially mobile between regions. The great vision of regional policy from the earliest days in 1934 and particularly since 1960 was that manufacturing plants could be diverted from the more prosperous to the depressed areas by government subsidies and controls, thereby compensating for the structural weaknesses and excess labour supply of the regions of high unemployment in the North. Having glimpsed the vision, many people impatiently expected a miracle. Others, seeing continued high unemployment rates in the depressed regions, concluded that the vision was a complete illusion. Both groups were mistaken.

In the event, regional policy has made an important contribution to employment growth in those regions which have benefitted from the full regional policy package over the whole of the 1960s and 1970s – Wales, Northern Ireland, Scotland and the North. The contribution to other regions such as the North-West,

* See George (1966).

Yorkshire and Humberside and the South-West has been much smaller either because only a part of the region was assisted or because only part of the package of regional policies was applied and for only part of the time.

Detailed work on the evaluation of the impact of regional policy in the UK suggests that policy added between 325 and 375 thousand manufacturing jobs in the depressed areas in the past two decades.† The rate of job creation varied considerably throughout the period, falling from a peak of about 25,000 manufacturing jobs per annum in the late 1960s to about 7000 jobs per annum in the late 1970s. The diminishing effectiveness of policy was partly a consequence of a weakening policy package (REP was abolished in 1976 and the IDC policy is largely in abeyance) but was also associated with the accelerating decline of UK manufacturing industry as a whole.

In general regional policy has been at its most effective when diverting mobile investment projects from the South and East to the depressed regions of the North and West; this diversion mechanism accounts for about two-thirds of the jobs created by policy in the problem regions. The impact of policy in encouraging the expansion of indigenous firms in these regions has been less impressive. Regional policy has made the greatest contribution to the economies of Wales and Northern Ireland, followed by those of the North and Scotland (see Table 1.5). Northern Ireland has always had the strongest policy package although its impact has been seriously weakened during the political troubles of the 1970s. Wales has a good record of labour relations and benefits from its proximity to the West Midlands and the South.

Structural factors in the growth of manufacturing employment

The effects of regional policy in the manufacturing sector have been superimposed on differential 'struc-

† Moore and Rhodes (1977).

Table 1.5 Manufacturing employment: the effects of structural changes and regional policy

	1959-1966			1966-1975		
	Structural effects ^a	Policy effect	Total change relative to UK average	Structural effects ^a	Policy effect	Total change relative to UK average
Northern Ireland	-12.4	+7.5	- 4.9	-8.9	+ 9.6	+ 0.7
Scotland	-10.8	+6.1	- 4.7	-1.3	+ 5.8	+ 4.5
North	- 3.6	+3.4	- 0.2	+5.6	+ 9.5	+15.1
North-West	- 7.4	+1.1	- 6.3	-5.0	+ 2.1	- 2.9
Wales	+ 1.4	+9.8	+11.2	-2.7	+17.8	+15.1
Yorkshire and Humberside	- 3.9	0	- 3.9	-0.7	+ 2.3	+ 1.6

^a Structural effects defined to include all factors other than policy which influence employment change relative to the UK average.

tural' trends of employment. All regions have a substantial established manufacturing sector inherited from the past. In the older industrial areas this block of inherited industrial activity is subject to structural defects of various kinds. The structural defects tend to be self-perpetuating and do not correct themselves. Thus while regional policy can make a contribution to countering ingrained, adverse structural factors it can only radically transform the position of depressed industrial areas over a period of decades.

Three important structural effects can be demonstrated, all of which have a large influence on the distribution of manufacturing employment among regions in the long run. The first is the industry mix or pattern of specialisation of a region which has received considerable attention in the literature. The second is the pattern of urban and rural settlement in the region. The third is the rate at which new firms have been founded in the region. The regional impact of each of these factors is difficult to quantify with precision and we cannot yet be sure how closely the three factors (together with regional policy) account for observed differential movements in manufacturing employment among the regions. Nevertheless there is now sufficient evidence to establish that they are all of major importance.

Industry mix

Regions with large concentrations of slow-growing or declining industries are clearly at a disadvantage compared with other regions with high concentrations of industries which everywhere grow rapidly. The measurement of this industry-mix effect is constrained by data availability; our estimates in Table 1.6 have been made using minimum list headings as the basis of disaggregation. The figures therefore take no account of variations in product ranges within each minimum list heading. Nor do they take account of other important variations within each industry such as the size and age of plants, both of which may affect growth performance.

All the problem regions in the North experienced an adverse industry-mix effect between 1959 and 1966, amounting in Northern Ireland to a 13.8% loss of manufacturing employment. The North-West suffered a 5.7% shortfall of employment on this account. In both regions the adverse effect continued into the 1970s although at a slower rate. Scotland suffered an adverse effect in the early 1960s but a beneficial effect in the later period.

Among the intermediate regions Wales had a favourable industry-mix although the employment gain was small. In the West Midlands the industry-mix was strongly favourable to employment growth in the early 1960s. Yorkshire and Humberside, which already had an unfavourable industry-mix in the early 1960s, suffered heavily on this account between 1966 and 1975.

The East Midlands experienced a smaller loss from its adverse pattern of specialisation, while East Anglia and the South-West both gained a 6% boost to manufacturing employment after 1966 from a favourable mix. In the South-East the industry-mix was

Table 1.6 Manufacturing employment: the effects of industry-mix

	(% of employment in initial year)	
	1959-1966	1966-1975
Northern Ireland	-13.8	-10.1
Scotland	- 3.9	+ 0.4
North	- 3.2	+ 6.1
North-West	- 5.7	- 5.0
Wales	+ 1.5	+ 2.6
West Midlands	+ 5.7	+ 2.6
Yorkshire and Humberside	- 3.3	-10.9
East Anglia	+ 1.4	+ 6.2
South-West	- 3.2	+ 6.2
East Midlands	- 0.5	- 4.2
South-East	+ 4.7	+ 4.0

favourable to employment growth in both periods.

The urban-rural shift

The common feature of regions experiencing significant relative decline is that they contain a major conurbation. Regions experiencing relative growth of employment are all predominantly rural regions. Evidence of the importance of the urban-rural mix for a region's employment growth is presented in Table 1.7 which displays a very pronounced hierarchy.

After allowing for differences in industry mix, manufacturing employment fell between 1959 and 1975 by over 40% in London and by over 6% in the five major conurbations of Merseyside, Glasgow, Birmingham, Tyneside and Manchester. It increased by 20-30% in towns and by over 80% in rural areas.

The major cause of the urban-rural contrast is probably the constraint of physical space inhibiting expansion of employment in existing factories located within conurbations and cities. Since requirements for space per employee in manufacturing have been rising steadily at a rate of close to 1% per year, a factory which cannot extend its floor-space is unlikely to maintain or expand its employment, even though its output may be rising.

Factories closely surrounded on all sides by existing buildings will obviously form a higher proportion of the total in conurbations or large cities than in small towns or rural areas. Hence the higher the degree of urbanisation the greater will be the proportion of factories with declining employment. In London, for instance, most factories are physically constrained in this sense while in many smaller cities and towns a large proportion of factories are sited in peripheral locations with scope for expansion.

Work with data on individual establishments in the East Midlands shows very clearly that the main factor in the contrast between growth of employment in cities and more rural areas is differences in *in-situ*

Table 1.7 Manufacturing employment: changes in urban and rural areas, 1959-75

	Actual employment change (thousands)	Actual employment change adjusted for industry mix	
		(thousands)	(% of 1959 manufacturing employment)
London	-586	-632	-40.8
Conurbations	-434	-173	- 6.3
Larger cities	+ 62	+173	+ 9.1
Industrial towns	+255	+343	+21.9
Non-industrial towns	+184	+210	+32.8
Rural areas	+ 73	+ 80	+84.1

Source: Fothergill and Gudgin (1979B).

expansion or contraction of employment in existing factories. Differences in rates of closure or opening of new factories are much less important. In addition, it is mainly the larger factories in industries with above-average investment rates which are constrained. Smaller firms can and frequently do move to new premises when *in-situ* expansion becomes impossible; larger factories only very rarely do so. Table 1.8, based on data for some five thousand factories employing 568,000 people in 1968 and excluding all new openings, shows the contrast clearly. In high-investing industries the cities lost employment to rural areas. Physically constrained factories in such industries shed jobs rapidly as productivity rises. In rural areas high-investing sectors reap a major advantage from the lack of site constraints. In low-investing industries the physical constraint was not the binding one and, in the East Midlands, there was no significant difference in changes in employment between cities and rural areas in those industries.

Physical constraints on expansion may ultimately lead companies to close factories. In addition the stock of industrial premises in the cities tends to fall due to redevelopment, planning controls, the unsuitability of vacant premises for reoccupation by

Table 1.8 Employment change to 1975 among East Midlands factories which were operating in 1968^a

	(% of 1968 employment)	
	High-investing industries	Low-investing industries
Cities	-16.9	-15.1
Larger towns	-12.9	-12.2
Smaller towns	+ 1.9	-14.6
Rural areas	+17.5	-12.8

^a New openings are excluded, but factories which closed between 1968 and 1975 are included. High-investing industries are those with more than three-quarters of the UK average rate of investment in 1968, 1972, 1973 and 1974.

Source: S. Fothergill and G. Gudgin from the East Midlands Industrial Databank.

industrial companies and the relative ease and cheapness of building new factories on greenfield sites.

The closure rate is a little higher in urban than in rural areas, while most new factories are built on greenfield sites. However the effects of this have been secondary to the impact of rising space requirements in constrained locations in reducing manufacturing employment in conurbations.

The urban areas suffering most from a reduction in manufacturing employment have been the inner areas of the six largest conurbations. The process of decline in fact started in the mid-1950s and continued unchecked at least until 1976. In the 1960s and 1970s it spread to the outer areas of the conurbations (Table 1.9).

The formation of new firms

The other major structural factor accounting for changes in the distribution of manufacturing employment across regions is variability in the rate at which new manufacturing companies are formed. Areas dominated by large companies have lower rates of formation of new manufacturing companies. The long-term effect on employment growth may be to create a difference of about 0.5% per annum between manufacturing employment growth in towns dominated by large companies and in those with much less large-firm dominance. The reasons for the contrast

Table 1.9 Changes in manufacturing employment in the inner and outer areas of the conurbations, 1951-1976

	(% of manufacturing employment in 1951)		
	1951-61	1961-71	1971-76
Inner areas	-7.5	-20.2	-15.0
Outer areas	+4.8	-16.5	-13.7
Conurbations ^a	-1.6	-18.4	-14.3
Rest of Great Britain	+9.6	+ 8.8	- 6.2

^a London, Merseyside, Glasgow, Birmingham, Tyneside, Manchester.

Sources: Census of Population and Census of Employment.

appear to lie largely in the supply of entrepreneurs. Existing small companies produce very many more founders of new firms than do existing large companies, most probably because of the relevance and directness of the experience gained in working for small companies. Heavy industrial regions such as the North or Wales which have a preponderance of large plants are likely to generate few new firms, whereas West Yorkshire and much of the East Midlands are likely to gain from this process due to their low average size of plant.*

In the East Midlands it is certainly true that employment in small manufacturing plants has grown faster than in large ones (Table 1.10).

Table 1.10 Manufacturing employment change 1968-75 in the East Midlands by size of plant^a

Size of plant (employment in 1968)	% change in employment
1 – 25	+19.2
26 – 100	– 4.8
101 – 500	–18.6
500+	–19.0

^a Most plants in the smallest category are single-plant firms.

Source: Fothergill and Gudgin (1979A).

The same phenomenon has been observed in several other regions and also in the USA.† However the result is somewhat misleading in that it is really the younger firms and not specifically the smaller ones which are growing. Table 1.11 shows that differences between older and younger firms are more significant than those between smaller and larger ones of the same age. The growing firms in Table 1.11 are those which are young enough still to be under the control of the founder; it may be this fact which accounts for their dynamism. A study undertaken for the Bolton Committee‡ showed that founder-managed small firms grew faster than those run by professional (non-family) owners and very much faster than those run by the second-generation of the owning family.

Although the analysis above has identified three important structural factors influencing the distribution of growth of manufacturing employment, other factors such as local authority planning policies and differences in costs crucial to neoclassical location theory should not be entirely overlooked. Planning policies have certainly played a role in distributing industry within regions, reinforcing 'natural' pressures on firms to move away from urban centres. However it is unlikely that they have been of great significance in bringing about differential growth among regions except that East Anglia has certainly gained jobs from

* Full evidence showing the importance of new firm creation and also urban space constraints will be given in S. Fothergill and G. Gudgin, *Unequal Growth, Postwar Employment Change in Cities and Regions*, due to be published late this year

† See Birch (1979).

‡ Merret Lyrax Associates (1971).

Table 1.11 Manufacturing employment growth 1968-75 in the East Midlands by size of plant and age of firm

Size of plant (employment in 1968)	Firms founded 1947-68	Pre-1947 firms
1 – 25	+40.3	– 4.1
26 – 100	+22.0	–12.8
101 – 500	+ 3.8	–18.6
500+	–	–19.0

Source: Fothergill and Gudgin (1979A).

London overspill policies and New Town development.

In summary, the primary reason for differential changes in employment among regions, other than those caused by government policy, appears to be differences in inherited structural characteristics such as the pattern of specialisation in different sectors and industries, the degree of urbanisation, and the proportion of small or young manufacturing businesses. In some regions all three types of structural effect are negative; in others they partly cancel out; in others again they may all be beneficial. Although the importance of these structural factors is not fully quantified (and in the case of non-manufacturing sectors has not been so much studied) they probably explain most of the observed differences in the 'natural' dynamism of employment in different regions.

The main attempt to alter the distribution of employment growth as a deliberate act of policy has been through 'regional policy' aimed at influencing the location of manufacturing jobs. In the 1960s and 1970s such intervention made a major contribution to employment in problem regions. Changes in the pattern of employment in government services have also had a large effect on the relative growth of jobs in different regions, largely to the advantage of those with worst problems – although (except in the case of dispersal of central government offices from London) these shifts may not always have been designed specifically to reinforce regional policy. The private service sector has been a further somewhat independent source of differential employment growth but policies to influence this remain less developed.

Employment, job opportunities and migration

The pattern of employment change causes the largest social problems and consequently excites most feeling and comment when it results in an overall shortage of jobs relative to demographic growth of the labour force. High unemployment is the most visible aspect of such shortages but the largest response has been one of emigration of population from the areas most affected. Migration has a particular significance for more prosperous areas since it spreads unemployment out of the depressed regions into those with better job opportunities. It is because of migration that the sharp rise in the general level of unemployment in the UK as a whole has been shared fairly equally across

regions.

The cause of differential regional employment problems is simply the lack of any strong mechanism to match changes in employment to demographic changes in the labour force. Given stability in school-leaving and retirement ages, demographic changes in labour supply in each region well into the 1990s are now already largely determined by the numbers of children born in recent years. Structural influences on employment also persist over long periods and have very little connection with past or present birth rates.

Some of the same points also apply to employment problems in the cities. Very large numbers of people and jobs have moved away from inner-city areas and although most moves have been achieved without great social problems, the high unemployment rates of most inner-city areas demonstrate that employment changes have not matched changes in the labour force, even allowing for migration. We shall consider this phenomenon first before returning to the effects of employment shortfalls at regional level.

Employment and unemployment in inner cities

In the early 1950s conurbations were still growing, albeit relatively slowly, but since the late 1950s the decline of conurbations has been very marked, reflecting employment changes discussed earlier. Much of the redistribution away from conurbations has occurred within regions, taking the form of declines in inner areas of conurbations and growth on their peripheries and beyond. However some of the growth of employment in East Anglia and the South-West

originates from movements out of London.

Between 1961 and 1976 the inner areas of the six large conurbations lost over a million jobs, equivalent to almost 20% of their 1961 employment (Table 1.12). Over the same period unemployment among inner-city residents rose dramatically from 3.7% of the labour force to 13.3%, double the rise which occurred elsewhere. The effect of the fall in the number of jobs located in the inner areas was intensified for residents by an increase in net inward commuting.

In the 1960s the fall in jobs for residents in the inner cities was nearly matched by a large fall in the resident labour force due to movement out of inner areas. But the residual discrepancy between movements of employment and population was still sufficient to cause unemployment to rise rapidly in the inner cities. Hence the emergence of the 'inner-city problem'; by 1971 unemployment in the inner areas was nearly 7½% compared with under 5% in the rest of Great Britain.

During the 1970s the position of the inner cities worsened considerably. Employment has continued to decline in the inner cities at the same rate as in the 1960s but has increasingly outpaced the decentralisation of population. Perhaps as a reflection of the shortfall in jobs, participation rates have risen at only half the rate in other areas. Unemployment in inner cities has reached very high levels. Indeed by the mid-1970s the unemployment problem in inner cities can be said to have overtaken the regional unemployment problem in seriousness. As in problem regions, emigration has been insufficient to stop unemploy-

Table 1.12 Employment and labour force changes in inner conurbations

	Inner conurbations		Rest of Great Britain	
	1961-71	1971-76	1961-71	1971-76
(1) Employment change	-612 (-12.3) ^a	-347 (-7.0)	546 (2.9)	748 (4.0)
(2) Increase in net inward commuting	-75 (1.5)	-17 (0.3)	+75 (0.4)	+17 (0.1)
(3) Employment change for residents (1+2)	-687 (-13.8)	-364 (-7.3)	621 (3.3)	765 (4.1)
(4) Change in resident labour force	-589 (-11.8)	-188 (-4.8)	1135 (6.0)	1234 (6.6)
(5) Increase in unemployment of residents (4-3)	98	176	514	469
(6) Increase in unemployment rate (%)	+3.6	+6.0	+2.2	+1.8

^a Figures in brackets are percentages of 1961 employment.

Notes: The conurbations included are London, Birmingham, Merseyside, Greater Manchester, Tyneside and Clydeside. The natural increase in the labour force is the increase in population of working age multiplied by the ratio of labour force to working-age population at the beginning of each period. Unemployment figures are taken from the Census of Population (which gives unemployment rates rather higher than those measured by the Department of Employment (DE)) except for 1976 when the DE figure was scaled up by the ratio of the Census to the DE figure for 1971.

ment rising way above the national average level. The most likely cause of the failure of migration to hold down unemployment in the inner areas is in the immobility of those liable to become unemployed. These include large numbers of school leavers, often from non-white communities, who have never received training or job experience and who are consequently in a poor position to compete for jobs in other areas.

Regional shortfalls in employment

Since 1966 employment growth in the UK as a whole has clearly been inadequate. Between 1966 and 1973 a slow natural increase in the labour force* was accompanied by a fall in total employment (Table 1.13). Participation rates remained virtually unchanged, but even so the shortfall in jobs was equivalent to 2% of the labour force. Net emigration from the UK eased the problem, diminishing the labour supply by nearly 1%. But unemployment rose from 1.5% to 2.7% of the labour force.

Table 1.13 The employment shortfall in the UK

		(changes as percentage of 1973 labour force)	
		1966-73	1973-78
Natural increase in labour force ^a		0.7	1.9
<i>plus</i> increase in activity		0.1	2.0
<i>less</i> increase in employment		-1.3	-0.1
<i>equals</i> employment shortfall		2.1	4.0
<i>of which</i> net emigration of labour force		0.9	0.6
increase in unemployment		1.2	3.4

^a The natural increase in the labour force is the increase in population of working age multiplied by the ratio of labour force to working age population in 1973.

* I.e. increase in the working-age population measured at a constant (1973) participation rate.

Since 1973 the situation has worsened, particularly for men. The natural increase in the labour force has been more rapid; although total employment only declined marginally there was a large increase in jobs for women (particularly part-time jobs). This shift resulted in a rise in the proportion of women seeking work. The increase in participation rates was so large that the shortfall in employment over the period was equivalent to twice the entire natural increase in the labour force. Although net emigration from the UK continued throughout this period it was insufficient to absorb the 4% shortfall in jobs. Nationally, unemployment rose sharply from 2.7% to 6.1%.

The national shortfall in employment has affected different parts of the country in different ways. Wide variations in natural increases in labour supply were not matched by similar variations in employment growth. In addition the greatest increases in participation rates tended to occur where employment shortfalls were already largest.

Three groups of regions can be identified. The four most northern regions had very large employment shortfalls over the period 1966-78, mostly because natural increases in the labour force were much higher than the UK average and greatly outstripped the increase in jobs (Table 1.14). Among these four it was only in the North-West that a particularly rapid decline in employment lay at the root of the problem. Except in the North-West (where female activity rates have always been high) participation rates rose rapidly, due to major increases in government services and to a tendency for new manufacturing firms to employ women. The resulting shortfall of jobs in the problem regions amounted to more than one in ten of the labour force. Despite a growth of employment second only to that of East Anglia, Northern Ireland's shortfall, equivalent to one in six of all the labour force, was easily the worst within the UK.

In Wales, Yorkshire and the West Midlands similar problems also existed although their magnitude was less severe. Declining employment in Wales and

Table 1.14 Employment shortfalls by regions, 1966-78

(changes as percentage of 1973 labour force)

	Problem regions				Intermediate regions			South and East				UK All regions
	Northern Ireland	Scotland	North	North- West	Wales	West Midlands	Yorkshire and Humberside	East Anglia	South- West	East Midlands	South- East	
Natural increase in labour force	15.4	6.3	5.3	2.6	1.1	4.1	3.0	2.3	1.1	2.9	-0.1	2.6
<i>plus</i> increase in participation	7.6	4.0	6.1	0.5	2.1	-2.8	1.6	1.9	2.1	2.2	2.9	2.1
<i>less</i> increase in employment	6.6	-1.8	-1.0	-7.4	-2.2	-5.4	-3.5	12.4	5.6	3.1	-1.5	-1.4
Employment shortfall	16.5	12.0	12.3	10.5	5.3	6.6	8.0	-8.2	-2.4	2.0	4.3	6.0

Yorkshire led to a larger than average shortage of jobs, but demographic factors did not exacerbate the problem more than in the UK as a whole. An important change in this period was the fact that the West Midlands was added to the ranks of regions with employment problems. Rapidly declining employment coincided with a relatively large natural increase in the labour force inherited from previous periods of prosperity and in-migration. Only a large fall in participation rates, sharply against the prevailing national trend, prevented an employment shortfall of similar magnitude to that in the North-West. This fall in participation was important because it prevented higher increases in unemployment or emigration than those which actually occurred. Male participation fell sharply from an exceptionally high level in the mid-1960s while female participation rose much more slowly than the national average. It is unlikely that this means of adaptation to falling employment will continue much into the future. If, as seems probable, the fall in male participation rates was caused by fewer people holding two jobs or continuing to work after retirement age, then such changes will have provided only a temporary cushion. Since employment is bound to continue declining rapidly in the West Midlands, the region is likely to suffer more from emigration and high unemployment in the future.

In the South and East low natural labour force increases were generally combined with above-average increases in employment and average changes in participation. East Anglia and the South-West had a considerable excess of employment opportunities while the employment shortfall in the South-East was part of a joint decentralisation of people and jobs from London, much of it overspilling into the adjoining regions.

The response: emigration and unemployment

Only two possibilities are open for regions with large employment deficits. Either the size of the labour force must be reduced by net emigration or else unemployment must rise. Individual members of the labour force may opt to take less good jobs than they might obtain elsewhere in preference to emigration, but this will eventually lead to someone else in the

same region becoming unemployed. A filtering-down process of this kind seems to occur in all regions with the result that the least qualified and least experienced (including school leavers) are most likely to become unemployed. In most regions 40% of the unemployed are described as 'general labourers' while only a small fraction of vacancies are for this occupation.

Each of the regions with large employment deficits in the late 1960s and 1970s had emigration on a significant scale (Table 1.15). This accounted for around half of the total shortfall in those regions but unemployment, already above-average in 1966, still rose more rapidly than in the UK as a whole. Although unemployment in 1978 was high in each of these regions, without emigration since 1966 it would have been much higher still. This raises the important question of why emigration held down unemployment in these regions to the extent that it did but no further.

Among possible reasons why migration does not fully resolve unemployment differentials is the fact that the filtering-down process leaves the least qualified and often least mobile people unemployed. The more filtering-down that occurs the greater will be the rise in unemployment relative to net emigration. It might be expected that as local job opportunities deteriorate more of the people faced with the choice between emigration or a less good job would opt for the former. But some people in any region are more attached to their locality than others, because they are older, have well established families, or for other personal reasons. As job opportunities worsen such people may choose to remain with lower grade jobs, increasing unemployment of those who are least qualified and least able to move.

It has been widely suggested that council house tenants are less mobile than other people of similar age and qualifications; thus council housing may influence the distribution of unemployment.* Although evidence certainly points to the fact that areas with large proportions of council housing also tend to have higher unemployment, the association in the late 1970s appears to be weak. It should be noted that if council housing were to inhibit immi-

* See McCormick (1979), Hughes and McCormick (1980) and Palmer and Gleave (1978).

Table 1.15 Unemployment and migration by region, 1966-78

(changes as percentage of 1973 labour force)

	Problem regions				Intermediate regions			South and East				UK
	Northern Ireland	Scotland	North	North-West	Wales	West Midlands	Yorkshire and Humberside	East Anglia	South-West	East Midlands	South-East	All regions
Employment shortfall	16.5	12.0	12.3	10.5	5.3	6.6	8.0	-8.2	-2.4	2.0	4.3	6.0
Net emigration of labour force	10.2	6.1	5.3	4.5	-0.5	2.2	3.3	-12.2	-7.1	-2.1	1.2	1.4
Increase in unemployment	6.3	6.0	7.0	6.0	5.8	4.5	4.8	4.0	4.7	4.1	3.1	4.6
Unemployment rate, June 1978	11.4	8.3	8.9	7.5	7.9	5.3	5.8	4.9	6.2	5.1	4.1	5.9

gration as much as emigration it would have no effect on net migration and hence little effect on unemployment. Moreover council housing is less likely to affect the migration propensities of those who go abroad than of those who move within the UK, since existing housing conditions may be of less importance within the larger decision to start a new life abroad than within the smaller one to move between regions.

Net emigration from problem regions was partly reflected in a net outflow from the UK as a whole but mainly in inflows into other regions. In East Anglia and the South-West employment grew faster than the natural increase in the labour force. Even so net immigration to these regions was so large that unemployment increased by close to the national rate (Table 1.15). In two other regions, Wales and the East Midlands, net immigration occurred despite an overall shortfall in employment. Again unemployment rose — in the Welsh case by more than the national increase.

These examples indicate the importance of migration in spreading unemployment from areas with large employment shortfalls to those with low or non-existent shortfalls and of a tendency for immigration to drive up unemployment rates in environmentally attractive areas. Migration tends to spread national increases in unemployment across all regions as long as labour turnover in regions with lower unemployment allows applicants from problem regions to succeed in gaining a proportion of the jobs vacated. The result is net immigration into dynamic regions such as East Anglia or attractive regions such as Wales and the South-West together with rising unemployment in those regions.

The South-East itself had a unique combination of net outflows of people and a below-average increase in unemployment. Following the argument above, it might have been expected that low unemployment in the South-East would attract net immigration. A number of factors may have prevented this, including pre-eminently the housing shortages and high house prices and rents in much of the region.

We have shown that regional problems arise when employment growth is low relative to demographic increases in labour supply. When this imbalance

occurs, above-average increases in unemployment are one outcome but much of the adjustment takes place through migration among regions, thus spreading unemployment to other areas. In the early 1980s nearly all regions are likely to have a substantial employment shortfall although the shortfall will still be much higher in the North. Emigration from the regions worst affected is likely to continue, implying that no region will be able to escape the effects of continuing recession on unemployment in the UK as a whole.

References

- Birch, D. L. 1979. *The Job Generation Process*, Cambridge, Massachusetts, MIT Program on Neighborhood and Regional Change
- Fothergill, S. and Gudgin, G. 1979A. *The Job Generation Process in Britain*, Research Series 32, London, Centre for Environmental Studies
- Fothergill, S. and Gudgin, G. 1979B. Regional employment change: a sub-regional explanation, *Progress in Planning*, vol. 12, part 3, New York, Pergamon Press
- George, K. D. 1966. *Productivity in Distribution*, DAE Occasional Paper no. 8, Cambridge, Cambridge University Press
- Hughes, G. and McCormick, B. 1980. Do council housing policies reduce migration between regions? Cambridge, DAE mimeo
- McCormick, B. 1979. Council housing, labour mobility and the spatial distribution of unemployment, Cambridge, mimeo
- Merret Lyrax Associates 1971. *Dynamics of Small Firms*, Bolton Committee of Inquiry on Small Firms, Research Report no. 12
- Moore, B. C. and Rhodes, J. 1977. *Methods of Evaluating the Effects of Regional Policy*, Paris, OECD
- Palmer, D. and Gleave, D. 1978. Mobility of labour: are council house tenants really handicapped? *CES Review*, no. 3
- Rhodes, J. and Kan, A. 1971. *Office Dispersal and Regional Policy*, DAE Occasional Paper no. 30, Cambridge, Cambridge University Press