The development of industrial employment in the Northern division of the Wakefield Metropolitan district since 1961

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ABSTRACT

This thesis presents a detailed study of the development of manufacturing, warehousing and coalmining in the Northern Division. In order to fit this study into its proper perspective the national and regional trends in employment and in the location of industry are analysed. The coalmining industry is dealt with independently. The limited material available was obtained through informal interviews and correspondence with the N.C.B.

After a preliminary survey of the area it was decided to carry out a thorough investigation by means of a questionnaire utilized during personal interviewing. Aggregate statistics from various sources are combined with the questionnaire survey of firms to study the changes in manufacturing and warehouse units. The method by which information was gathered from firms is discussed.

The findings of this work suggest that Regional policy had little or no impact on the location of manufacturing industry in this area. The area has attracted warehouse units, due in no small measure to the road networks. The feasibility of the engineering industry receiving new impetus from the demands of the coal industry for ever more modern technological developments and the possibility of an increase in population employment in the services are also considered.

The current picture of manufacturing industry and warehouse units and projections for the future are discussed in this work.

THE DEVELOPMENT OF INDUSTRIAL EMPLOYMENT IN THE NORTHERN DIVISION OF THE WAKEFIELD METROPOLITAN DISTRICT SINCE 1961

BY

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This research is original and no part of it has ever been submitted for a degree at any University.

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CHAPTER 1

Introduction

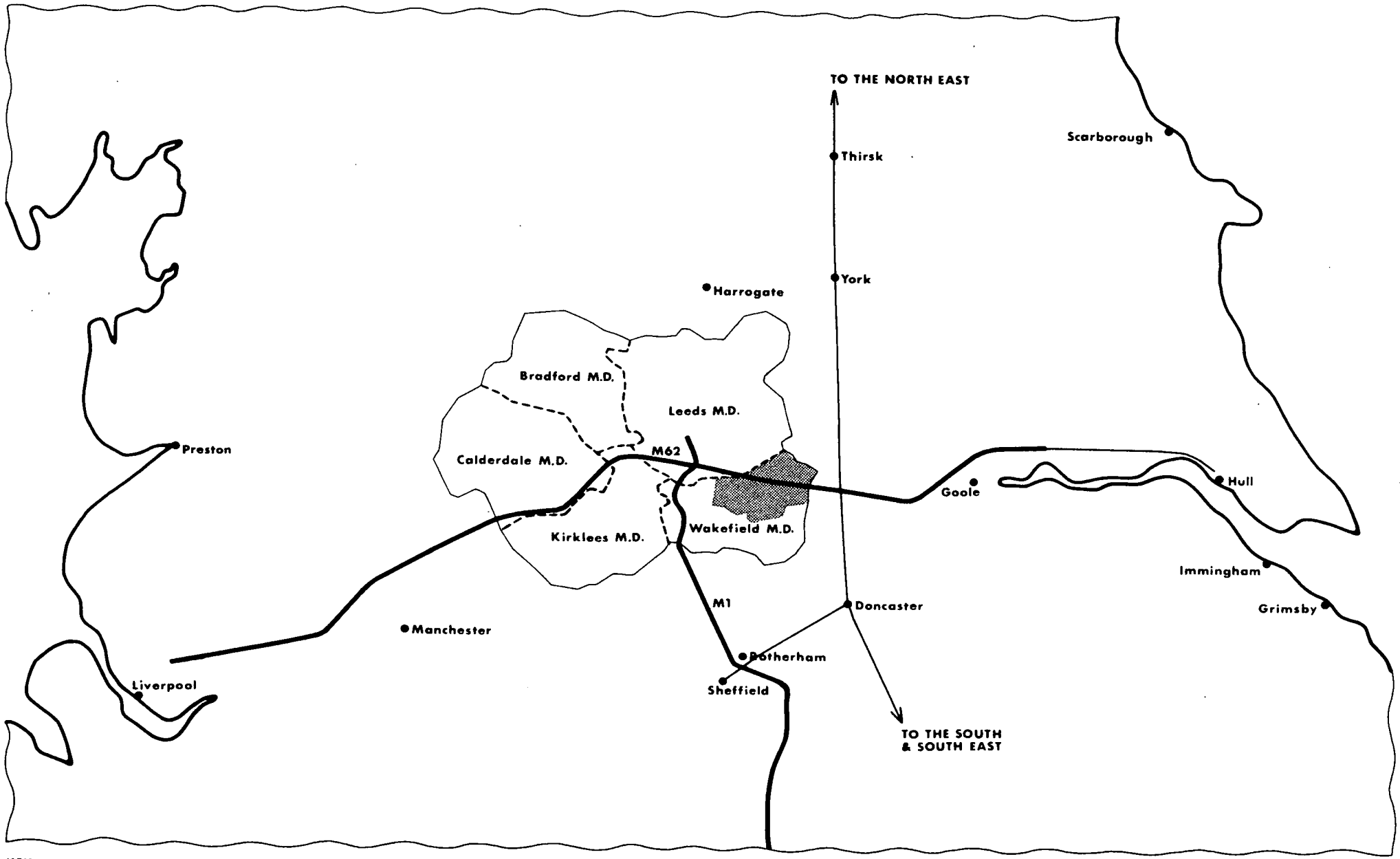
Aims

This thesis describes and attempts to explain the development of industrial employment in the Northern Division[1] of the Wakefield Metropolitan District, (Maps 1 and 2), since 1961, seeking to evaluate the effects of different influences such as the opening of the M62 and the availability and location of industrial land and investigating the processes of change. It is concerned with manufacturing, warehousing and mining for two reasons. First, their increasing importance in the overall economic structure of the Northern Division is revealed in the following. In 1976 29.2% were employed in manufacturing, 6.9% in warehousing and 21.9% in mining. The total employed in manufacturing had increased by 1.2% since 1973 and there was an increase of 0.3% in warehousing since 1971. Employment in mining, however, had declined by 1.3% since 1973. Second, adequate treatment of these complex sectors of economic activity by themselves neeessitates detailed and lengthy analysis.

The year chosen as a base is intended to be representative of what seems likely to become recognised as a watershed period in the country's industrial location history, the early 1960's.[2] To support this suggestion

1. The Northern Division is 90.65km^2 in area, 16.09km from west to east and 8.04km north to south. It includes the towns of Castleford, Pontefract, Normanton, Featherstone and Knottingley, and is often referred to as the 'Five Towns'.
2. Keeble, D. (1976) Industrial Location and Planning in the United Kingdom, Methuen. p.8.

REGIONAL SETTING OF THE NORTHERN DIVISION



MAP 1

KEY

NORTHERN DIVISION

studies done by B. Coates and E. Rawstron[3] substantiate beyond reasonable doubt the predominance of central area concentration and peripheral area decline as the key trends in the location of manufacturing industry in the United Kingdom up till about 1960. During the 1960's and especially the later 1960's, concentration has been replaced by increasing spatial dispersion of manufacturing industry both to relatively unindustrialised sub-regions and to their peripheral areas. The first stage (Chapter 2) of the study is a systematic description, in as accurate and objective a manner as possible, of the employment changes which have taken place in the national, regional and local economy. General aspects (population and employment) of the economic geography of the area are introduced to assess the whole economic structure before more detailed accounts of coalmining and industrial development. Coal is dealt with independently (Chapter 3) not only because it is a primary industry of considerable importance in the Division, but also because it is the only nationalised industry in the area. Difficulties were encountered in obtaining information from the NCB as much of the material was confidential and thus inaccessible to the public.

3. Coates, B. and Rawstron, E. (1971) Regional Variations in Britain; studies in economic and social geography, London. They mapped 1951-1961 county changes in manufacturing employment as recorded by the population census. Unfortunately, there is no evidence in their discussion of this map of any adjustment of the figures for the important change in official definition of "Manufacturing Industry" which took place in 1958. However their data are probably broadly correct in indicating absolute decreases in the level of manufacturing employment in the 1950's in most peripheral areas - notably Scotland (-56,000), Devon and Cornwall (-11,000) and West Riding of Yorkshire (-13,000). Conversely, with the single exception of the old countries London and Middlesex, the whole of the West Midlands and South East recorded massive growth of manufacturing industry.

In the case of industrial development in the Northern Division, after initial examination of industrial employment structure, the study is confined to manufacturing and warehousing (Chapter 4). Chapter 5 looks at the future employment problem and relates the need for employment from "new industries" to likely constraints on its availability. Concluding statements derived from the work and approaches to further investigations are placed in Chapter 6.

Methods

It was decided to combine aggregate statistics made available from the Local Planning Office, the Manpower Service Commission, Population Census Office and Department of Employment with a questionnaire survey of firms, to study the changes in manufacturing and warehouse units. The aggregate statistics on population, employment and transport were collected to indicate broad changes which could then be studied in more detail by using the survey. In order to carry out the survey a list was compiled[4] of the name and location of the establishments and letters were sent to them to explain the purpose of the study and seek meetings, if possible, with the person primarly responsible for the original decision on the location of the new factory or, where that was not possible, with someone else fully familiar with the circumstances of the decision. It was left to the judgement of each firm to suggest the person who would be the most appropriate to meet. In the event, in 99 of the 116 firms studied, the principal person providing the information was the Managing Director, in 5 the Administrative Director and in 2 the Company Secretary. Frequently other people in the firm were also seen to complete particular aspects of

4. See page 87 for full details.

the picture, and the main meetings were often supplemented by telephone calls to get clarification or elaboration of points not covered adequately at the meetings.

Conclusion

The thesis begins with the national picture and then reflects on the regional situation until finally it deals in depth with the local economy. This sequence is followed because in general, changes in the national and regional economy are reflected at the local level.

CHAPTER 2

Employment Change in the National, Regional and Local Economy

The changing structure of employment opportunities in an advanced and mixed economy is influenced not only by the shifting nature of the world political economy, by developments in international markets and the domestic entrepreneurial response to them, and those technological developments which influence the extent to which capital is substituted for labour but, at the root of change, lies the evolution of consumer demands.

Over the past 25 years consumer goods have been purchased at an ever increasing rate and simultaneously families have come to spend an increasing proportion of their income on personal services. Consequently the number of jobs available in the service activities has increased and the main portion of the increase has come from rising female participation rates, while the number of males in the total workforce appears to have fallen (Table 1). Although the total has been stable in the long term there have, however, been several important sources of variation among industries, cities and regions.

Table 1 Total working population, United Kingdom 1965, 1970, 1974, 1975, 1977.

(Millions - figures rounded) at mid June each year

Year	Males	Females	Total
1965	17.07	9.02	26.10
1970	16.36	8.94	25.29
1974	16.05	9.60	25.65
1975	16.11	9.72	25.83
1977	16.26	10.06	26.32

Source: Annual Abstract of Statistics

Structural Changes in Employment

Among the structural changes in national employment particular importance must be attached to the fortunes of different industries (Table 2). As in most post-industrial societies the shift here has been marked by the relatively rapid growth of the service sector;[1] between 1960 and 1974 it expanded its share of total employment from 54% to 62%. More precisely it was the "white collar" services - finance, insurance, administration, education, and health - which accounted for this growth (Table 2). At the same time the Manufacturing sector lost ground and its share fell from 39% to 35%.

If one could be sure that the shift from Manufacturing to services was justified by rapidly increasing production in the former and a massive growth of the latter's export potential there would be little cause for concern. However, in the late 1960's the biggest gains in manufacturing production came in the consumer goods industries, while the investment goods and intermediate goods industries registered a very slow growth. This shift has taken place over a period of time in which there was considerable interest shown in the spatial allocation of resources. Post-war governments have taken positive steps to discourage the growth of employment in the London - Midlands part of the country and to steer expansion into the less fortunate regions variously designated as Special Development Areas, Development Areas and Intermediate Areas[2]. From the earliest planning studies and legislation of the 1920's and 1930's, politicians and regional planners have viewed the location of manufacturing

1. Sant, M. (1978) "Issues in Employment", in Davies R. & Hall P. (ed) Issues in Urban Society, Penguin.
2. Chisholm, M. & Oeppen, J. (1973) The Changing Pattern of Employment Croom Helm, London.

Table 2

Total employment by major industrial category, United Kingdom, 1960 – 1974 (thousands)

Industry	1960 no.	%	1965 no.	1970 no.	1974 no.	%	1960–1974 percentage change
agriculture, forestry, fishing	635	2.8	497	468	417	1.8	-34
mining and quarrying	769	3.4	629	410	349	1.5	-55
Manufacturing	8,851	39.4	9,028	8,339	7,871	34.5	-11
food, drink, tobacco	815	3.6	839	792	766	3.4	-6
chemicals	531	2.4	518	491	475	2.1	-11
metal manufacture	618	2.8	632	594	507	2.2	-18
engineering	2,049	9.1	2,287	2,095	1,980	8.7	-3
shipbuilding	278	1.2	219	190	185	0.8	-33
vehicles	920	4.1	870	840	792	3.5	-14
metal goods	546	2.4	591	596	582	2.6	+7
textiles	902	4.0	819	678	585	2.6	-35
leather	64	0.3	61	49	43	0.2	-33
clothing and footwear	591	2.6	558	455	427	1.9	-28
bricks, pottery, glass, cement	339	1.5	358	318	301	1.3	-11
timber, furniture	293	1.3	301	271	283	1.2	-4
paper, printing, publishing	603	2.7	639	626	589	2.6	-2
other manufacturing	302	1.3	335	345	358	1.6	+19
Services	12,214	54.3	13,467	13,254	14,153	62.1	+16
construction	1,459	6.5	1,700	1,335	1,328	5.8	-9
gas, electricity, water	378	1.7	419	391	347	1.5	-8
transport and communication	1,707	7.6	1,655	1,573	1,506	6.6	-12
distributive trades	2,833	12.6	3,023	2,676	2,761	12.1	-3
finance, professional, scientific	2,562	11.4	3,108	3,853	4,490	19.7	+75
miscellaneous services	1,998	8.9	2,226	1,947	2,125	9.3	+6
national government	526	2.3	566	589	610	2.7	+16
local government	751	3.3	772	890	986	4.3	+31
Total	22,489	100	23,621	22,471	22,790	100	+1

Source: Annual Abstract of Statistics.

activities as the most important single variable controlling the country's regional prosperity. Virtually all the major regional planning statements and legislation of the last forty years - 1940 Barlow Report; the 1945 Greater London Plan; 1966 Industrial Development Act; the 1972 Industry Act, have assumed, implicitly or explicitly, that the essential foundation for successful regional policy and planning is control over the location of new increments of manufacturing industry. Other types of economic activity, notably service industry, have generally attracted much less attention. Though location of service industry is now being recognised as of greater policy importance than hitherto, concern over manufacturing industry remains the cornerstone of regional plans and policies. This is because most manufacturing firms are important generators of exogenous income for their locality and they are, in practice, far more mobile than service industry, in terms of the relative volume of movement of existing establishments, of the distances moved and of the range of new locations selected.[3]

In pursuit of this post-war interest, two categories of policy are to be noted. The first is one of general inducements such as investment grants[4] and the Regional Employment Premium (R.E.P.) and the second is the use of powers to encourage firms to move from one part of the country to another: the main instrument is the machinery governing the award of Industrial Development Certificates (I.D.C.) but the process has also been aided by the building of advance factories and special housing provision for key workers by the Local Authority. In recent years, employment in offices

3. Keeble, D. (1976) Industrial Location and Planning, Methuen.
4. "Government Support for Industry" Trade and Industry, November 17, 1978 and January 19, 1979.

has been subject to controls similar to those applied to Manufacturing industry, with the aim of decentralising office work from London and Birmingham in particular.

The main purpose of policy measures through I.D.C.s and investment grants has been to increase the aggregate number of jobs in the less fortunate areas and the means for achieving this imply the introduction of industries new to the less fortunate regions or the fostering of industries which are under-represented. Consequently it is to be expected that in the areas of high unemployment the policies pursued by Government should have had a marked impact on the employment structure and in general toward the diversification of job opportunities, as new industries replace the jobs lost through the recent run down of traditional staple industries like the textiles.

Industrial Movement may be defined as occuring when an existing manufacturing company establishes a new factory on a site geographically separated from that at which it was or is carrying out production. Movement may thus involve the complete transfer of production from the old location, the factory being sold or demolished: or it may involve the retention of production at the old factory, with the establishment of a branch factory at the new location. Evidence collected by Howard[5] relating to mobile manufacturing plants in the period 1945 to 1965 certainly yields material to suggest that mobile industry ought to have had a quite substantial impact on the employment structure of some regions. Evidence of a regional shift in manufacturing and total employment, in unemployment

5. Howard, R.S. (1968) The Movement of Manufacturing Industry in the United Kingdom 1945-65, HMSO for the Board of Trade.

rates, in incomes and in net migration, is briefly summarised for selected regions in Table 3.

As this shows, the period since about 1965 and in fact particularly since 1970, has witnessed striking convergence of nearly all these different indices of regional economic performance towards the national average. Thus the three major assisted regions all increased their relative shares of national Manufacturing employment between 1965 and 1975 whereas both the South East and West Midlands recorded a decline and there were very substantial falls in unemployment relativities recorded by Scotland, Wales, and Northern England. Earnings data reveal a closely similar picture with a particularly marked convergence towards the United Kingdom average in the cases of the West Midlands, Scotland and Northern England. Lastly the net migration figures suggest a very significant improvement in the economic performance of the assisted regions including a striking reversal in the direction of net migration between 1962 - 1967 and 1973 and 1975 in the case of Wales, and a sharp fall in migration losses from Scotland. Both the South East and West Midlands are now losing population by net migration. Clearly factors additional to regional policy are also involved in these somewhat dramatic shifts[6] but while acknowledging the role of some of these additional factors there is also now substantial evidence that the major single influence at the Development Areas/South East and Midlands level has been regional economic policy working through shifts in Manufacturing location. The scale of these shifts and their attribution to intensified regional policy is clearly brought out in a variety of recent independent statistical analyses at both regional and

6. Keeble, D. (1977) "Spatial Policy in Britain: regional or urban?". Area 9.1.

Table 3 Regional economic indicators in Great Britain, 1965 - 1975.

	% share of U.K. manuf. Employment 1965	Change in manuf. emp. share, 1965-1975 in % points	% share of U.K. total employment 1965	Change in total emp. share, 1965 - 1975 in % points	Unemployment rate as % of Great Britain average 1965 - 1975	
South East	27.91	-2.37	32.33	- 0.10	63	69
West Midlands	13.84	-0.21	10.10	- 0.36	48	99
Scotland	8.47	+0.04	9.17	0.03	215	127
Wales	3.63	+0.60	4.45	- 0.05	187	138
North	5.36	+0.70	5.50	+ 0.08	185	146

	Average weekly earnings of male manual workers relative to U.K. average		Average annual net migration per 1,000 of regional base year population	
	1962 - 1963	1974 - 1975	1962 - 1967	1973 - 1975
South East	104.1*	103.5	+0.64	-3.82
West Midlands	104.5*	100.3	+1.28	-1.35
Scotland	92.7	100.7	-8.09	-1.07
Wales	101.7	97.7	-0.23	+2.75
North	95.3	100.7	-3.05	-1.81

*Statistics for 1967 - 1968: earlier data for these regions not available
Sources: Department of Employment Gazette, Abstract of Regional Statistics.

subregional levels using different data sets from employment counts, firm movement statistics and company surveys.[7]

> "Without the incentives and controls of regional policy, the level of employment in the Development Areas would now be considerably lower. There is sufficient evidence to indicate that there was an important and obvious response to the intensification of regional policy in the early sixties".[8]

However, the weakening of the Regional policy package (such as the abolition of R.E.P. in 1974 plus weakening of Investment incentives) itself in the 1970's, coupled with political instability in Northern Ireland and the overall decline in employment in the U.K. Manufacturing sector, accounts for the decline in the measured impact of policy in the 1970's relative to the 1960's.[9]

Although very little information is available the following table shows a record of openings of manufacturing establishments in selected regions. Yorkshire and Humberside is the only region which increased not only the number of openings over the two periods covered but also the opening of establishments new to manufacturing. Between 1966–1971 a total of 232 manufacturing establishments were opened in Yorkshire and Humberside, twelve of these had originated in the South East and eleven in the East Midlands. Fourteen openings were new to manufacturing and

7. Moore, B. & Rhodes, J. (1976) "Regional Economic Policy and the Movement of Manufacturing Firms to Development Areas". Economica. 43 17-31. "A Quantitative Analysis of the Effects of the Regional Policy Instruments", in Whiting, A. (ed). The Economics of Industrial Subsidies HMSO, London.

8. MacKay, R. (1976) "The Impact of the Regional Employment Premium", in Whiting, A. (ed). The Economics of Industrial Subsidies HMSO, London.

9. Moore, B., Rhodes, J., and Taylor, P. (1977) "The Impact of Regional Policy" C.E.S. Review 1.1 67-77.

Table 4

Record of openings of manufacturing establishments 1966 to 1971 and 1972 to 1975

Destination / Origin	United Kingdom		North		Yorkshire and Humberside		East Midlands		East Anglia		South East	
	Establishments	Emp. 00's	Establishments	Emp. 00's	Establishments	Emp. 00's	Establishments	Emp. 00's	Establishments	Emp. 00's	Establishments	Emp. 00's
1966–1971												
Total	5,794	4,744	359	482	249	296	491	360	354	213	2,156	1,229
North	152	185	135	166	1	(2)	2	(2)	2	(2)	4	(2)
Yorkshire & Humberside	271	306	17	36	206	244	16	10	3	(2)	10	3
East Midlands	360	360	14	38	11	21	267	233	4	(2)	17	8
East Anglia	101	74	2	(2)	1	(2)	–	–	82	60	8	4
South East	1,736	1,598	53	119	12	(2)	52	43	140	107	1,165	863
South West	166	141	2	(2)	–	–	1	(2)	2	(2)	10	(2)
West Midlands	411	383	12	15	–	–	10	8	2	(2)	18	12
North West	336	418	23	27	1	(2)	3	(2)	–	–	10	8
England	3,563	3,465	258	406	232	(2)	351	298	235	172	1,242	905
Wales	139	129	3	(2)	–	–	1	(2)	–	–	4	(2)
Scotland	267	279	4	(2)	–	–	1	(2)	–	–	3	(2)
Northern Ireland	22	26	–	–	–	–	–	–	–	–	1	(2)
Abroad	174	227	16	42	3	(2)	6	3	5	3	63	49
All origins excl. region of destination	–	–	146	289	29	42	92	70	158	115	148	94
All origins	4,165	4,125	281	455	235	286	359	303	240	175	1,313	957
ENM(3)	1,629	618	78	28	14	10	132	57	114	38	843	272

(1) Numbers surviving at the end of 1975 and employment in mid-1975

Source: Department of Industry

(2) The employment of these establishments is concealed because of the constraints imposed by the Statistics of Trade Act 1947.

(3) Opening of establishments new to manufacturing.

Continued/

Table 4 / Continued

Record of openings of manufacturing establishments 1966 to 1971 and 1972 to 1975

Destination / Origin	United Kingdom		North		Yorkshire and Humberside		East Midlands		East Anglia		South East	
	Establishments	Emp 00's	Establishments	Emp 00's	Establishments	Emp 00's	Establishments	Emp 00's	Establishments	Emp 00's	Establishments	Emp 00's
1972–1975												
Total	3,087	1,784	152	146	280	169	308	191	171	76	904	395
North	57	67	47	61	1	(2)	1	(2)	–	–	–	–
Yorkshire & Humberside	167	111	4	(2)	145	100	4	(2)	–	–	2	(2)
East Midlands	191	132	4	(2)	11	8	159	109	7	3	2	(2)
East Anglia	50	25	3	(2)	1	(2)	4	(2)	32	16	3	(2)
South East	849	558	28	45	30	30	57	49	84	44	437	268
South West	115	128	3	(2)	2	(2)	–	–	–	–	6	2
West Midlands	169	120	3	(2)	3	(2)	6	2	1	(2)	7	2
North West	244	132	4	(2)	9	6	4	(2)	–	–	1	(2)
England	1,842	1,273	96	121	202	145	235	166	124	(2)	494	275
Wales	80	45	–	–	–	–	–	–	1	(2)	2	(2)
Scotland	118	89	3	(2)	1	(2)	1	(2)	–	–	–	–
Northern Ireland	6	8	–	–	–	–	–	–	–	–	–	–
Abroad	106	103	11	(2)	3	(2)	9	(2)	1	(2)	28	(2)
All origins excl. region of destination	–	–	63	67	61	47	86	62	94	49	51	25
All origins	2,152	1,518	110	128	206	147	245	171	126	65	524	294
ENM(3)	935	266	42	18	74	22	63	20	45	11	380	101

(1) Numbers surviving at the end of 1975 and employment in mid–1975

(2) The employment of theseestablishments is concealed because of the constraints imposed by the Statistics of Trade Act 1947.

(3) Opening of establishments new to manufacturing.

Source: Department of Industry

twenty nine of the establishments had actually come from outside the regions. This number increased to 61 establishments between 1972-1975. Three of these were from abroad, one from Scotland, eleven from East Midlands and thirty from the South East. However, the total number opened during the same period had declined to 202. These figures also suggest that a greater proportion of openings came from within the region itself. The employment generated is difficult to assess due to constraints imposed by the Statistics of Trade Act 1947.

Since about 1969 the absolute volume of migration seems to have slackened considerably e.g. quarterly total of the amount of new factory space approved (not completed) in Britain as a whole have fallen steadily from a peak 1967-1971 of 2.75 million sq. metres (29.6 million sq. feet) in the first quarter of 1969 to a low of 1.40 million sq. metres (15.1 million sq. feet) in the third quarter of 1971. This is a fall of exactly 50%.[10]

However, we look not only at movement variations through time but also through space. The geography of post-war factory migration is extremely interesting in being heavily biased towards particular parts of the country. This is most strikingly illustrated by the pattern of origins. The most important source of migrant firms has been South East England and within this Greater London. The West Midlands, the second main origin region accounts for less than a third of the manufacturing employment generated by mobile firms from London and the South East, and migration from other regions such as Yorkshire and Humberside and the North West is relatively unimportant. It is also interesting to note that foreign firms setting up new factories for the first time in the United Kingdom provided nearly as much employment as did those from the West

10. Unpublished data collected by The Department of Trade and Industry.

Midlands. The explanation for the geographical bias in origins is relatively simple. First and foremost South East England and to a lesser extent the West Midlands contain by far the greatest concentration of modern growth industry in the country. At the same time, however, movement from these areas has been increased by geographically selective government controls on growth, which have undoubtedly prised more South East firms from their existing locations than would otherwise have been the case. In addition other local constraints on growth such as labour shortages and sheer lack of open space on which to build factories have also been felt more severely in London and Birmingham than elsewhere. The 'ceiling' on manufacturing growth in the Capital imposed by these constraints then directly explains the remarkable migration of manufacturing firms from London to the peripheral areas and elsewhere, revealed by Department of Trade and Industry statistics. By 1966 London firms had established 1,259 new post-war factories elsewhere in the United Kingdom (320 of them in peripheral areas) and the 239,000 jobs provided in them were equivalent to exactly one-quarter of London's then Manufacturing workforce.

Geographical bias in the pattern of destinations selected by migrant factories is more complex but work done by Keeble[11] reveals that the great majority of moves by the end of 1968 selected one or other of two distinct types of destination area - either the peripheral areas of higher unemployment or more central locations immediately surrounding the two main origins of movement, Greater London and West Midlands conurbation. In quantitative terms the first movement type accounts for 46% of all 1966 employment in post-war moves while central area movement accounts

11. Keeble, D. (1972) "Industrial Movement and Regional Development in the United Kingdom". Town Planning Review 43,1, 3-25.

for a further 31%. It is also important to note that two-thirds of all movement to the peripheral areas originated in the South East and West Midlands regions and that virtually none of the migration to central areas has come from the periphery. Almost all the moves to these central locations originated within the region concerned and especially in London or Birmingham.

Movement to the peripheral areas has been characterised by the establishment of relatively large factories, the great majority of which are branches rather than complete transfers, with a bias towards particular industries e.g. movement to the peripheral areas and to the South East have been dominated by the engineering industries while migration to the periphery has involved larger proportions of textile, clothing and footwear firms than is the case with that to the South East where engineering plays a greater part.[12] The branch factories typical of peripheral area movement are often established to mass produce relatively standardized goods, with the help of only semi-skilled, often female, labour. Manufacturing research and development units and factories producing unstandardized and technologically -changing goods do not seem to be attracted in any significant numbers to peripheral locations.

A study done by Atkins[13] on employment change in branch and parent manufacturing plants in the U.K. 1966-1971 reveals that firstly, this period was one of contraction in manufacturing employment but mature branch plants maintained their employment better than their parents. Secondly, branches set up in assisted areas were no more vulnerable to closure than branches set up in non-assisted areas. Thirdly, branches set up in the assisted areas were more vulnerable to closure than their

12. Op. cit.

13. Atkins, D. (1973) "Employment Change in Branch and Parent Manufacturing Plants in the United Kingdom 1966-1971." Trade and Industry 12,9.

parents but their employment, however, declined much less than their parents. Fourthly, a poor employment performance of non-assisted area branches; this is partly explained by a higher rate of closure among the parents of the former than among the parents of the latter.

Although sub-regional employment data are unfortunately not available for the period since 1971, table 5 suggests that the locational trends for the later 1960's are still operating powerfully. Thus the South East's share of the U.K. manufacturing employment declined still further and very substantially between 1971 and 1975 from 27.4% to 25.9%. The North West's share fell 1971-1973 from 14.5% to 14.3% while that of the West Midlands remained static. Regions broadly peripheral to the London-Birmingham axis such as the North, East Anglia, the South West and Wales continued to expand their manufacturing activity steadily relative to the rest of the country. Significantly in view of developments in government regional industrial location policy in 1971 and 1972, this group of expanding peripheral regions was joined by Scotland and Yorkshire and Humberside[14] who increased their share of U.K. manufacturing employment (Table 5).

However the main theme of the chapter is not only change in employment on a national level but also on a regional and local level and in order to understand the latter more fully some emphasis must be placed on industrial change in Yorkshire and Humberside.

This region lies at the centre of Britain between the Northern and East Midlands regions and includes the industrial areas of West and South Yorkshire, the agricultural areas of North Yorkshire and the land areas on either side of the Humber estuary. Most of the regional population lives

14. Keeble, D. (1976) Industrial Location and Planning in the United Kingdom, Methuen, p232.

Table 5 The changing regional distribution of manufacturing employment

	1971		1973		1975	
	A	B	A	B	A	B
North	448	5.6	450	5.8	n.a.	n.a.
Yorkshire & Humberside	779	9.7	768	9.8	n.a.	n.a.
East Midlands	595	7.4	591	7.6	n.a.	n.a.
East Anglia	190	2.4	200	2.6	198	2.6
South East	2,206	27.4	2,069	26.4	1,940	25.9
South West	407	5.1	409	5.2	400	5.3
West Midlands	1,104	13.7	1,074	13.7	1,021	13.6
North West	1,163	14.5	1,116	14.3	n.a.	n.a.
Wales	324	4.0	329	4.2	317	4.2
Scotland	669	8.3	657	8.4	637	8.5
Northern Ireland	170	2.1	164	2.1	154	2.1
United Kingdom	8,056		7,828		7,492	

Source: Central Statistical Office, Abstract of Regional Statistics number 10. 1974, table 41
Department of Employment Gazette Vol. 84, No. 8 1976.

A = Number of manufacturing employees in thousands

B = % share of U.K. total

n.a.= not available

in the industrial west and South Yorkshire but there are also large centres of population at Hull, Grimsby and Scunthorpe. It has a total population of 4,876 million (1977) with 22.7% under 15 years of age compared with 22.5% in the U.K. Between 1961 and 1977 the death rate of Yorkshire and Humberside was above the U.K. figure but in 1976 there was very little difference between the two areas with 12.2 per thousand for the U.K. and 12.4 per thousand for the region (Table 6). The region had a small natural population decrease between 1976 and 1977, and in the years 1974 to 1977 it lost population through migration and at a marginally higher rate than during the early 1970's. It is difficult to draw any direct links between unemployment and migration and it may well be that the adverse employment conditions elsewhere in the country will have made a more significant contribution to the region's migration experience. Table 7 shows the percentage of employees in employment and it reveals that the economy of Yorkshire and Humberside regions also reflect national economic trends but the region appears to have weathered the latest recession rather better than the country as a whole.

Table 6

Birth and Death Rates per 1,000 population in the United Kingdom and Yorkshire and Humberside 1961 - 1977

Area	Birth Rate					Death Rate				
	1961	1966	1971	1976	1977	1961	1966	1971	1976	1977
United Kingdom	17.9	18.0	16.2	12.1	11.8	12.0	11.8	11.6	12.2	11.7
Yorkshire & Humberside	17.8	17.6	16.8	11.8	11.4	12.5	12.3	12.1	12.4	12.2

Source: Regional Statistics 1979

Table 7 % Employed in Manufacturing and Services

Area	Year 1973	Year 1976
	Manufacturing	
United Kingdom	34.3	32.1
Yorkshire & Humberside	38.7	36.1
	Services	
United Kingdom	54.1	57.1
Yorkshire & Humberside	46.8	50.6

Source: Regional Statistics 1975 - 1979

The fall in employment in manufacturing was a little less than the U.K. average in 1976 (-2.9% compared to -3.2%) although there were sharp falls in metal manufacture and textiles.

The table shows that the region had a higher proportion of employees in manufacturing, 36% compared to the U.K. average of 32% and changes in the percentage employed in services reflect national changes, i.e. an overall increase. The expectation that most of the increase in employment would be female proved correct and the greatest numerical increase was in professional and scientific services, but this group and those in Public administration and defence towards the end of the period were affected by cutbacks in public expenditure. The region experienced above average growth of insurance, banking, finance etc., compared to slower than national growth during earlier years; this may be due to some catching up in the provision of these services in the region, and to the movement of firms into the region. According to provisional data there

was a small increase in employment in the sector during 1977 and 1978.

We now need to look in more detail at two manufacturing industries engineering and textiles. Table 8 shows that there was a decline in the percentage employed in both industries with the greatest change in the female labour force. The engineering and allied industries continue to make a major contribution to employment in the region, accounting for 12% of the regions total employment in 1978. They have been variously affected by depressed world markets and significant import penetration and there is a continuing need for investment in modern plant and equipment and for improvements in productivity from both existing and new production facilities. Market opportunities are good for efficient component and equipment suppliers, particularly where the U.K. range of products is limited or inflexible; for example, the unsatisfied demand for foundry equipment and some automated production lines. Improvements in world trading conditions should both secure present employment and in some companies lead to the creation of new jobs. There will probably be a reduction in the proportion of less skilled workers and an increasing proportion of professional and technologically-based employees and, in some sectors, in skilled manual workers.

However, a wide range of engineering and related industries are represented in West Yorkshire accounting for about 15% of the county's employment. In spite of considerable fluctuations in employment in individual industries the total number of jobs in this sector has remained fairly stable over a long period. Fluctuations in the national level of such employment throughout the 1960's were not reflected in the County. Only in the two years from 1970 was the steep national decline followed, with a similar parallel in the recovery from 1972 to 1974. In West

Table 8

% Employed in Engineering and Textiles*

Engineering

Area	1973			1976		
	Male	Female	Total	Male	Female	Total
United Kingdom	19.4	9.1	15.3	19.1	7.8	14.5
Yorkshire & Humberside	16.4	7.8	12.9	16.2	6.3	12.2

Textiles

Area	1973			1976		
	Male	Female	Total	Male	Female	Total
United Kingdom	3.3	7.0	4.7	3.0	5.9	4.1
Yorkshire & Humberside	7.1	11.6	8.7	6.4	9.4	7.5

Source: Regional Statistics 1979

* Engineering and Allied Industries, Textiles, leather and clothing.

Yorkshire locally operating conditions and specialisations suggest that prospects for engineering may be better than nationally. In mechanical engineering many of the largest firms in the county are in the faster growing sectors in output terms. However the experience of the machine tools sector of this industry exemplifies the problem being currently faced throughout the engineering industry.

Nationally employment in machine tools in 1975 was 40% below the 1970 level; the greatest loss occurred during the recession of 1971-1972 during which 20,000 workers were lost to the industry. In West Yorkshire the decline in employment has not been so rapid with 7,000 employees in 1975, 25% below the 1970 level. In many respects the engineering industry in West Yorkshire appears to be fairly healthy. The County not having directly benefited from the rapid employment growth associated with the vehicles industry during the 1960's has not suffered the employment contraction experienced in the centres of vehicle production. By specialising in the production of vehicles such as tractors, employment has been maintained at a high level and most recent figures show the notable expansion of jobs in this industry.

Output of clothing remained roughly stable nationally between 1974 and 1976 but increased sharply during 1977. Between 1974 and 1976 employment in the region fell at about the national rate (10%) but provisional national statistics show employment stabilising between 1976 and 1978. Measures to help the industry against foreign competition have been introduced and projects in the region with a total value of about £16 million were assisted by the clothing industry scheme. However, the industry still faces difficult problems of a national and international nature. Companies are troubled by low profitability and liquidity problems and a large number of jobs are supported by the Temporary

Employment Subsidy - payment in respect of 7,400 workers in the clothing and footwear industries was authorised in 1977. Productivity improvements are important for the industry's future and the clothing industry productivity Resources Agency is being set up. It is clear that in the future these industries will provide a much smaller proportion of jobs, than in the past which may bring problems for West Yorkshire which has traditionally relied on the strength of its manufacturing sector.

The region's unemployment rate was at the U.K. average in April 1979 (5.6%) and this has increased from 2.8% and 2.7% respectively since 1974. Most manufacturing fixed investment in Yorkshire and Humberside in 1976 was by the heavy, capital intensive, industries such as coal, petroleum products, chemicals and metal manufacture, together accounting for nearly one sixth of the U.K. total. The region produced one quarter of the U.K.'s iron, one third of its steel and over one quarter of the U.K.'s coal in 1977. It is also strong in textiles with nearly one quarter of U.K.'s output in 1975. However, workers in Yorkshire and Humberside had lower average weekly earnings than the U.K. average in April 1977 (Table 9).

A large part of North Yorkshire is designated a development area while the rest of the region has Intermediate area status. This means that the region is eligible for financial assistance, however, with recent changes in Regional Policy there will be a stoppage in financial assistance to this region except to Mexborough TTWA, Rotherham Employment Office Area (EOA), Scarborough EOA and Whitby EOA. The government proposed that the assisted areas now covering currently 40% of the employed population be reduced, over a transitional period of three years, to around 25%, in order to focus on the remaining assisted areas more

Table 9

Average weekly earnings in the United Kingdom and Yorkshire and Humberside April 1977

Area	Full-time Manual Men	Full-time Non-manual Men	All Full-time Men	Full-time Manual Women	Full-time Non-manual Women	All Full-time Women
	£	£	£	£	£	£
United Kingdom	71.5	88.9	78.6	43.7	53.8	51.0
Yorkshire & Humberside	71.2	83.1	75.4	42.3	50.6	47.9

Source: New Earnings Survey - April 1977

effectively. In practice and with reference to Yorkshire and Humberside this means that the Regional Development Grant (R.D.G.) for the development areas will be reduced 20% to 15% on buildings, plant and machinery provided after 1st August 1980. The Government also proposed that the 20% R.D.G. on buildings provided in intermediate areas should be abolished from the same date. Finally the Government proposed to raise the minimum levels from £100 for plant and machinery and £1,000 for buildings to £500 and £5,000 respectively in respect of expenditure defrayed on or after 18th July 1979. Loss of Intermediate status will remove eligibility for E.E.C. grants and reduce Derelict Land Grant allocations. It also means withdrawal of the Tourist Board discretionary grants for projects which increase employment. The Advance Factory programme will be retained, but must become more self-financing. It is therefore probable that more factories will be sold freehold for owner-occupation or to institutions as investments. Whether there will be any cutback in allocation for West Yorkshire cannot be anticipated at present.

Regional Selective Financial Assistance under Section 7 will, however, be more stringently assessed and used only to enable projects to go ahead, which provide productive and more secure jobs.[15]

The Government's national schemes of assistance to industry to encourage major investment generally and in specific sectors have been successful in the region, as shown by its share of over 20% of the national total. In this region industry is expected to absorb a large proportion of the funds provided under schemes designed for industrial reorganisation and modernisation, for example in wool textiles, ferrous foundries, machine

15. Government announces "More Selective" Regional Policy, Trade and Industry July 20, 1979, pp 99-102.
Joseph Spells Out His Regional Policy, Financial Times, July 18, 1979.
Joseph Downgrades Many Aid Areas, The Guardian, July 18, 1979.

tools, clothing and textile machinery. The region's share of regional financial assistance (available only in assisted areas) has been lower at 5.5% of the national expenditure on Regional Development Grants from the start of the scheme in 1972, to the end of June 1978, and 7% of the national total of regional selective assistance (excluding that on the service industry scheme), both in part reflecting the lower level of assistance available in Intermediate areas. However, between 1977 and 1978 Yorkshire and Humberside received £16.7 million. This was the highest proportion of assistance given to any Intermediate area on building and works. At the end of March 1978 the region had received £71.4 million that is 52% of all assistance given on buildings and works. Between 1976 and 1978 the region received £11.8 million under the Selective Assistance and since November 1977, 60 Government advance factories have been authorised for the region bringing the total approved since January 1975 to 154. Between April 1971 and March 1978, 871 projects (new developments and extensions) were completed in West Yorkshire in the manufacturing warehouse and commercial office categories of development.[16] Of these 56% were for manufacturing, 33% were for warehousing and 11% for commercial offices. It is interesting to note that in the report of August 1975 the respective proportions were 52%, 36% and 12% suggesting that proportionately, more manufacturing developments are now being completed than warehousing developments than in the first four years of the operation of the system.

In terms of floorspace 1503,6137m^2 of floorspace were completed and of this 46% were manufacturing, 32% warehousing and the remaining 22% were commercial office floorspace. Again the amount of manufacturing

16. The Monitoring of Manufacturing, Commercial Office and Warehouse floorspace completions in West Yorkshire April 1972 - March 1977

floorspace completed has proportionately tended to increase at the expense of both warehousing and commercial offices. However, very little information is available on warehousing, but, the following table shows that changes in the region reflect changes in the national economy. This increase in the former is particularly marked in Leeds Metropolitan District.

Table 10 % Employed in Warehousing 1973 - 1976

Area	Year	
	1973	1976
United Kingdom	12.0	12.1
Yorkshire & Humberside	6.3	11.5

Source: Regional Statistics 1979

Data for one yearly warehousing floorspace changes in the Leeds area, shows that the range of growth in the Metropolitan District has increased from 0.5% in 1967-1968 to 5.3% in 1971-1972. Further information suggests that in the period April 1971 to September 1973 new warehousing floorspace was proceeding at a rate three times faster than new industrial development in the Leeds area. Concern has been expressed over the small amount of growth exported in the industrial sector during recent years.[17] It could be argued, however, that the high rate of growth in warehousing has contributed to an employment stability as an alternative to the only modest industrial expansion and there are a range of options, ranging from a continued acceptance of warehousing development on the scale experienced in the recent past, with a few safeguards for future industrial expansion, to an option which suggests exercising firm control over any further growth in warehousing commitment within the Metropolitan District.

17. Financial Times April 1974.

Between 1971 and 1979, 82 projects were completed in manufacturing and warehouses, (64 of the former and 18 of the latter) in Wakefield Metropolitan District.[18] Table 11 shows the floorspace and the site area. It also reveals the number of projects that were new developments or extensions. The majority of manufacturing completions were extensions, (64.1%) while 72.2% of warehouse completions were new developments. When the combined statistics for manufacturing and warehousing are examined, then it can be seen that 43% were new developments and 56% were extensions. It would appear, therefore, that greater emphasis is being placed on extensions. However, one needs to look in greater detail at each sector. Between 1971 and 1979 in the case of manufacturing completions, 50% of the projects, 34.2% of the floorspace and 41.8% of the site area were extensions to existing development. In the case of warehouse development, 15.8% of the projects, 22.1% of the floorspace and 21.8% of the site area completed, were associated with new development. These statistics reflect the fact that most warehouses completed, tend to be new developments, usually on industrial estates. But the number of projects and floorspace completed has tended to decline through time.

Between 1971 and 1978, 1,299,839M^2 of floorspace (manufacturing and warehouse) was completed in West Yorkshire and 11.35% of this was in Wakefield M.D. compared with 43.81% in Leeds M.D. 804,816M^2 of the above was for manufacturing and 12.89% of the manufacturing completions were in Wakefield M.D. The vast proportion of warehouse completion over the same period was in Leeds M.D. (65.87%) and Wakefield M.D. had 8.86%. Table 12 shows completions between 1971 and 1977 according to SIC and it also shows

18. S.C.O.L.P.A. Monitoring System - letter from Mr. Bradshaw.

Table 11 Monitoring of Manufacturing and Warehouse Floorspace 1971 - 1979

Manufacturing

New Development	Wakefield M.D.			West Yorkshire M.C.		
	1	2	3	1	2	3
Total	23	53243m^2	15.94ha	132	294644m^2	111.38ha

Extensions	Wakefield M.D.			West Yorkshire M.C.		
	1	2	2	1	2	3
Total	41	50548m^2	28.82ha	374		103.52ha

Total	Wakefield M.D.			West Yorkshire M.C.		
	1	2	3	1	2	3
	64	103791m^2	44.76ha	506	804816m^2	214.90ha

Warehouses

New Development	Wakefield M.D.			West Yorkshire M.C.		
	1	2	3	1	2	3
Total	13	52659m^2	15.06ha	179	406216m^2	159.67ha

Extensions	Wakefield M.D.			West Yorkshire M.C.		
	1	2	3	1	2	3
Total	5	11206m^2	9.10ha	91		33.09ha

Total	Wakefield M.D.			West Yorkshire M.C.		
	1	2	3	1	2	3
	18	43865m^2	24.16ha	270	495023m^2	192.76ha

Source: S.C.O.L.P.A. Monitoring System.
Town Planning Department.

1. Number of projects completed
2. Floorspace completed (m^2)
3. Site Area completed (ha)

Table 12 Floorspace Completions by Industrial Order/Land Use Group in Metropolitan Districts in West Yorkshire and Manufacturing Floorspace Completions by Industrial Order in Wakefield Metropolitan District

SIC Group	SIC Group/Land Use Group	Local Authority						Wakefield M.D.	
		Bradford %	Cald. %	Kirklees %	Leeds %	Wakefield %	Total %	M^2	%
	Unspecified	11	0	10	60	19	100	10416	13
(iii)	Food, Drink and Tobacco.	10	23	2	60	4	100	2822	4
(iv)	Coal and Petroleum Products	0	51	0	0	49	100	450	1
(v)	Chemicals and Allied Industries	35	8	6	47	4	100	1130	1
(vi)	Metal Manufacture	12	13	0	59	16	100	2906	4
(vii)	Mechanical Engineering	24	43	6	19	9	100	12301	16
(viii)	Inst. Eng.	0	0	0	72	28	100	1246	2
(ix)	Electrical Engineering	80	8	0	11	0	100	0	0
(x)	Shipbuilding and Marine Engineering	0	0	0	0	0	0	0	0
(xi)	Vehicles	15	7	15	44	19	100	116	1
(xii)	Metal Goods NEC	17	25	28	17	12	100	3502	4
(xiii)	Textiles	45	18	17	15	5	100	3912	5
(xiv)	Leather, Leather Goods, Fur.	56	0	14	30	0	100	0	0
(xv)	Clothing and Footwear	44	3	0	31	22	100	8676	11
(xvi)	Bricks, Pottery, Glass, Cement	24	10	13	19	33	100	11792	15
(xvii)	Timber, Furniture.	59	17	5	17	1	100	1287	2
(xviii)	Paper, Printing, Publishing.	2	2	38	56	2	100	930	1
(xix)	Other Manufacturing Industries	18	4	3	21	54	100	16600	21
								79086	100
	Unclassified Offices	13	0	5	61	21	100		
	Central Govt. Admin. Offices	37	20	0	43	0	100		
	Local Govt. Admin. Offices	81	2	15	2	0	100		
	Finance & Insurance	23	21	0	56	0	100		
	Property Services	0	0	0	100	0	100		
	Admin. Offices NEC	66	0	0	34	0	100		
	Prof. & Scientific Services	0	0	0	100	0	100		
	Unclassified Warehouses	24	0	5	65	6	100		
	Distributional Warehouses	20	8	4	60	9	100		
	Wholesale Dist. re Food & Drink	17	1	19	45	18	100		
	Wholesale Dist. re Petrol Prods.	0	0	0	0	0	0		
	Wholesale Dist. NEC	9	3	1	86	1	100		
	Oil, Gas, Builders Materials etc.	32	3	0	65	0	100		
	Industrial Materials etc. NEC	10	2	2	82	5	100		

Source: S.C.O.L.P.A. Monitoring System

manufacturing floorspace completions over the same period for Wakefield Metropolitan District. In general the distribution of manufacturing floorspace completions closely coincides with the distribution of built up areas in West Yorkshire, and concentrations are particularly well defined within the boundaries of the old county boroughs. In Wakefield M.D. completions were concentrated in three main areas; where industrial estates have been established in recent years, in Ossett and Wakefield, and in the Five Towns area. However, in the present economic climate it is hardly likely that greater developments and increase in employment will take place in manufacturing but will be in the service sector, and though the region remains well placed to take advantage of improvements in the national and international economic situation, the area's problems will be that much more difficult to solve because of the present employment situation, the changes in regional policy and the continued doubts expressed about the fishing industry and industries dependent on it.

We now look at the local level (Northern Division) in detail. It comprises the towns of Castleford, Pontefract, Normanton, Knottingley and Featherstone and the villages of Darrington, Old Snydale, Ackton and Streethouse (Map 1). The Western and Northern boundaries of the Division are the Rivers Calder and Aire (or in parts, the Aire and Calder canal). The Eastern boundary runs to the east of Knottingley and Darrington; and the Southern boundary runs south of Pontefract. The approximate area is (90.65 km^2). From West to East the Division is some 16.09km (direct line distance) and from North to South about 8.04km. Leeds lies 17.69km to the North West, Sheffield 37.01km to the South West and York 32.18km to the North East.

The adjoining Local Authority areas are Leeds Metropolitan District

to the North and Selby District (North Yorkshire County) to the North East and East. Although the Division is mainly urban in its overall character, each of the five main towns are separated from one another by belts of agricultural land with each town having its own unique character, identity and sense of community. This sense of physical separation has been contrived as deliberate planning policy by the designation of proposed green belts between each town and village. Having said this, it is also clear that the towns in question whilst having separate identities, do form a closely-knit group within this part of West Yorkshire.

Population

The present population of the Division is 120,000 (1971 Census). Table 13 gives the population broken down by areas, an indication of the population changes over the 1961-1971 period, and information upon the age structure of the population. The main growth has been in Knottingley and Pontefract, with a slight increase in Featherstone and a decline in Castleford and Normanton. This decline owes much to the reduction in mining jobs available in these towns and the dramatic growth in Knottingley, is the result of the National Coal Board scheme to relocate miners from Scotland and the North East to work at Kellingley Colliery, the most recent in the area, which is situated east of Knottingley just outside the County boundary. Pontefract's growth may be attributed to the greater diversity of employment the town offers.

The table also shows that there was an increase in all towns in the percentage of persons in the dependancy age groups 0-14 and 60+, and a decline in the 15-59 year age group. It is also evident that Featherstone, Knottingley and Pontefract had a higher than average proportion of children

Table 13 Population and Age Structure of the population of the Five Towns, 1961, 1971.

Area	1961 Total Population	1971 Total Population	% Change Since 1961	Ages 1961 % between 0–14	15–59	60+	Ages 1971 % between 0–14	15–59	60+
Castleford	40,350	38,235	-5.2	23.79	66.13	10.07	23.87	57.52	18.61
Featherstone	14,636	15,230	4.1	26.48	64.90	8.62	27.31	57.74	14.95
Knottingley	11,184	16,350	46.2	26.5	65.20	8.3	29.84	58.96	11.2
Pontefract	27,128	31,365	15.6	26.55	60.15	13.3	27.54	57.77	14.69
Normanton	18,305	17,660	-3.6	22.95	60.42	16.63	24.20	55.63	20.17

Source: Population Census Office.

and correspondingly lower proportions of people of retirement age and was probably the result of in-migration of young couples into Featherstone and Knottingley. In fact the movement of people in and out of Wakefield District is by far the hardest population change to estimate or predict.

Throughout the 1950's and 1960's Wakefield Metropolitan District was traditionally an area of net migration loss with more people moving away to find new or better jobs or more pleasant places to live. Since the beginning of the 1970's it is estimated that the number of people leaving in search of jobs has fallen significantly, while the number of families moving into the area to take advantage of new housing and employment opportunities has increased. Table 14 shows that on average a greater number of people had moved into the five towns than left them, and as already noted, this was particularly the case for Featherstone and Knottingley and less so for Castleford, whereas Pontefract and Normanton had more people leaving than entering.

Table 14 Migrants within the Five Towns within five years preceding the census

	Immigrants	Emigrants
Castleford	183	171
Featherstone	535	406
Knottingley	408	179
Pontefract	331	408
Normanton	152	205
Total	1,609	1,369

Source: 1971 Census - Figures are based on 10% sample

The 1971 age/sex structure of the County was broadly similar to the Country as a whole although West Yorkshire had proportionately more children (0-15) and fewer people in the younger working age group (25-35 years). The retirement age group (60+ females, 65+ males) are comparable to the national

amounting to 16.4% of the total population.

National forecasts of population growth tend to form the background to regional and local population forecasts, and these have until recently projected major increases of population on the assumption of an increasing birth rate. Consequently, regional and local plans have generally assumed a normal growth of population, subject to adjustment for migration changes. The following table shows the population of the U.K. and Yorkshire and Humberside from 1961-1976. There was very little increase both nationally and regionally between 1971 and 1976, with Yorkshire and Humberside having a below national increase during that period. The greatest increase took place between 1961 and 1966.

Table 15 — Total Population of United Kingdom and (million) Yorkshire and Humberside 1961, 1966, 1971, 1976.

	1961	1966	1971	1979[19]
United Kingdom	52,807	54,500	55,610	55,928
Yorkshire and Humberside	4,677	4,809	4,868	4,892

Source: Regional Statistics Number 13. 1977.

The number of people in Wakefield Metropolitan District grew steadily from just over 285,500 in 1961 to almost 302,500 by 1971, and between 1971-1975 it was the only district to experience zero migration. Since the last census in 1971, the Registrar General forecast that the population will remain static until 1981 before increasing again to reach approximately 310,000 by 1986. Birth rates in Wakefield Metropolitan District fell from 15.5% (1961) to 14.4 (1971) and in West Yorkshire from a peak of 18.8 in

19. Provisional

1964 to 17.1 per thousand population (1971). National birth rates have also fallen over the same period and are still well below those for the County, averaging only 16.1 per thousand in 1971. The following table shows local birth and death rates.

Table 16 Birth and Death Rates of the Five Towns 1961, 1971.

Name of Town	Birth Rate		Death Rate	
	1961	1971	1961	1971
Castleford MB	15.3	17.0	11.8	11.8
Featherstone UD	19.0	20.7	8.9	9.7
Knottingley UD	18.2	20.6	7.7	7.8
Pontefract MB	19.5	18.2	10.6	9.1
Normanton UD	16.9	15.7	12.1	12.0

Source: Registrar General, Statistical Review 1971, Table 13.

Castleford, Featherstone and Knottingley increased their birth rate with the greatest increase in Knottingley (2.4). These towns also had the highest percentage of people between 15-59 years in 1961 and 1971. However, there was a noticeable decline in the birth rates of Pontefract and Normanton (1.3 and 1.2 respectively) but this too corresponds with a decline over the same period in the percentage of people between 15-59 years. Between 1961 and 1971 the death rate of the five towns on average fell from 12.62 to 10.08 but there was an increase over the same period in the death rates of Featherstone and Knottingley 8.9 and 7.7 in 1961 to 9.7 and 7.8 respectively in 1971. Therefore the percentage change in population in these two towns was mainly due to increased births and in-migration[20] (tables 15-16).

20. The Census of in-migration figures include international migrants, whereas the out-migration figures do not, because the Census cannot account for people who have gone abroad. Therefore those figures are not comparable with the Registrar General's population change figures which do have an allowance for international imigration.

Traditionally the employment situation within the Division is dominated by the coalmining industry, but in fact the employment is rather more diverse than that. Glass, chemicals, brickmaking, confectionery, clothing and engineering are all examples of long established industries which are important within the Division. There are large chemical and glass manufacturing plants in both Castleford and Knottingley. Lighter industries are located in Pontefract, such as the manufacture of confectionery for which the town is well known. Featherstone also has some lighter industry including the manufacture of plastics and clothing. This fact is illustrated in the following table in which the more important industries and firms in the area are listed. The list is not intended to be exhaustive but merely indicative of the variety of industrial undertakings within the Division. For this reason employment in shopping areas, offices, railways and local government are not included on the list. Further, the employers listed are not intended to be in any order of size or importance.

Table 17 Main Industries Within the Division

Name of Industry	Nature of Industry
FEATHERSTONE	
Ackton Hall Colliery	
Snydale & Ackton Hall Brickworks	
Linpac Limited	Packaging
Gaunson Limited	Clothing
Birshall Limited	Engineering
Littlewoods Limited	Mineral Waters
PONTEFRACT	
Prince of Wales Colliery	
Dunhills Limited	Confectionery
Wilkinsons Limited	Confectionery
Whitehouse Industries	Engineering
Remploy Limited	Diverse Products

Table 17 (Continued) Main Industries Within the Division

Name of Industry	Nature of Industry
PONTEFRACT (Continued)	
C.W.S. Fellmongery	Special Industry
Wilkinsons Limited	Special Industry
ABM Limited	Maltsters
Hey Bros.	Mineral Waters, etc.
Gents Limited	Clothing
Reeves Limited	Timber Products
Warneth Limited	Engineering
KNOTTINGLEY	
Ferrybridge A.B. and C Power Stations	
Ransome Hoffman Pollard	Engineering/Bearings
Rockware Limited	Glass
Plasmor Limited	Building Blocks
Newsome Limited	Oil Blenders
Knottingley Oil	Oil Suppliers
Baekart Limited	Textiles
British Road Services	Transport
John Harker	Ship Building
Shaw Bros.	Iron Founders
Kellingley Colliery	NB Just to east of boundary of Division
Armitage Limited	Heating Engineers
Yorkshire Tar Distillers Limited	Tar Distillers
Synthetic Chemicals Limited	Chemicals
Greggs Limited	Glass
CASTLEFORD	
Glasshoughton Colliery	
Fryston Colliery	
Wheldale Colliery	
Glasshoughton NCB Coking Plant	
United Glass (Lumb's)	Glass Manufacture
Hickson and Welch Limited	Chemicals
Laporte Limited	Chemicals

Table 17 (Continued) Main Industries Within the Division

Name of Industry	Nature of Industry
CASTLEFORD (Continued)	
Rowntree/Mackintosh	Confectionery
Glasshoughton Brickworks	
W. Poskit Limited	Timber Products
Fawcett and Sons	Maltsters
Burberry's Limited	Clothing
Castletex Limited	Clothing
Allinsons Limited	Flour Millers
Ansons Units	Foundry
Hardy Limited	Printers
NORMANTON	
Normanton Brick Company	
Pope and Pearson (Altofts) Limited	Bricks
Warmfield Brick Company	
Yorkshire Electric Limited	Detonators
John Barron Limited	Clothing
Gloucester Company Limited	Clothing
Grantham Limited	Clothing
James Collins Limited	Clothing
Allied Industrial Services	Clothing
Benson & Son	Engineering
Semath Limited	Engineering
Eurodrive Limited	Engineering
International Sports Limited	Sports Goods

Between 1961 and 1973 male employment declined at a rate just below the District average, while female employment increased at a rate above it. The percentage of people employed in mining in 1976 was 21.9%, manufacturing 29.2% and services 41.4%. (Table 18) However, the proportion employed in mining declined from 25.6% in 1971, whereas those employed in manufacturing

Table 18 % Rates - Employees in Employment in Castleford T.T.W.A. 1971, 1972, 1973, 1975, 1976.

	1971			1972			1973			1975			1976 (latest)		
Industry	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
MINING	37.0	1.6	25.6	35.1	1.5	24.0	34.4	1.4	23.2	33.2	1.5	22.3	33.5	1.4	21.9
MANUFACTURING	24.2	36.8	28.2	23.7	37.0	28.1	24.2	35.4	28.0	25.3	35.1	28.7	25.8	35.2	29.2
SERVICES	30.3	59.1	39.6	30.2	59.0	39.7	30.5	59.3	40.3	29.8	60.7	40.4	30.7	60.7	41.5

NOTES:

1. M = Males F = Females T = Total

2. Due to re-organisation of the Local Authority in 1974, figures for certain sectors in the Services Industries are not available. For this reason, our Employment Records do not show a grand total; therefore percentage rates cannot be calculated without them.

3. The information relates to Castleford Travel-to-work-area which includes Castleford, Knottingley, Normanton and Pontefract employment offices. (Featherstone is included in the Pontefract area).

Source: Manpower Service Commission

and services increased from 28.2% and 39.6% respectively to 29.2% and 41.5% respectively. The percentage of people unemployed in Castleford T.T.W.A. increased from 4.5% in 1971 to 6.9% in 1976 and is now 5.9%.[21] The corresponding percentages for Yorkshire and Humberside are 3.9%, 6.2% and 5.6%. Therefore, unemployment in Castleford T.T.W.A. has been and still is above the regional and national figure. The following table shows the activity rates for the five towns based on the 1971 census. Knottingley has the highest activity rates both for male and female workers. However, projected activity rates for Castleford T.T.W.A. are expected to decline in the male sector and increase in the female sector.[22]

Table 19 Activity Rates: Castleford T.T.W.A.

	MALES			FEMALES		
	Economically active 15+	Population 15+	%	Economically active 15+	Population 15+	%
Castleford	13,015	16,319	79.8	6,555	16,913	38.3
Knottingley	6,847	7,904	86.6	3,325	8,085	41.1
Normanton	6,119	7,849	78.0	3,195	8,261	38.7
Pontefract	15,811	19,071	82.9	8,003	19,940	40.1
Gt. Britain			81.4			42.8
Yorkshire & Humberside			81.2			41.2

Source: 1971 Census of Population.

EARNINGS

Information on earnings are only available on a regional basis and to a lesser extent on a county basis and the nature of the employment opportunities open to the working population of West Yorkshire has

21. Department of Employment Gazette, August 1976.
Department of Employment Gazette, May 1979.
Regional Statistics No. 11 1975.

22. See page 110 for full details.

contributed to the prevailing level of earnings within the county. Historically earnings in the county (and in the Yorkshire and Humberside Region) have, in aggregate, been lower than the national average, and below the levels of other major urban areas. However, Table 20 shows that earnings in mining in Yorkshire and Humberside are above the national figure. This is true also of full time manual men. In general female earnings are below male earnings and earnings in warehousing are much lower than in mining or manufacturing.

Table 20 Average Earnings in Mining, Manufacturing and Warehousing 1978

Area	Full-time Males 21+ years			Full-time Females 18+ years		
	Manual	Non-Manual	Average	Manual	Non-Manual	Average
Great Britain	£78.40	£99.90	£86.90	£48.00	£58.50	£55.40
Yorkshire & Humberside	£81.10	£95.10	£86.10	£47.40	£55.30	£52.90
West Yorkshire	£78.20	£94.30	£83.80	£47.30	£56.30	£53.10
Mining and Quarrying						
Great Britain	-	£101.80	-	-	-	-
Yorkshire & Humberside	-	£105.70	-	-	-	-
West Yorkshire	-	n.a.	-	-	-	-

Manufacturing Industry (All Manufacturing)

	MALES	FEMALES
Great Britain	£84.70	£51.20
Yorkshire & Humberside	£83.40	£49.60
West Yorkshire	n.a.	n.a.

Warehousing

	MALES	FEMALES
Great Britain	£69.20	£43.90
Yorkshire & Humberside	£66.30	£41.10

Social

A general picture of the existing housing situation within the Division can be gained from (Tables 21 - 24). Table 21 gives information on tenure of dwellings and indicates vividly the considerable achievements of the existing Authorities in providing public housing. The large number of National Coal Board houses in the Division explains the relatively high figures of rented unfurnished dwellings. Tables 22, 23 and 24, however, clearly indicate that despite the past achievements, the housing problems within the Division as a whole are a very long way from being solved. Table 22 shows the estimated number of fit and unfit dwellings by housing age groups. Table 23 shows the situation regarding the provision of basic sanitary amenities. 9% of the households in Castleford and 9.2% in Featherstone do not possess a bath, while 6.20% and 4.76% of the same towns do not have hot water. A higher percentage of households in Normanton (12.10%) do not have a bath and 5.92% of them have no hot water. Clearance of a number of unfit dwellings has taken place especially in Castleford and Featherstone. However, this is not the complete solution. A satisfactory dwelling must not only have the necessary basic internal amenities but it must also have an acceptable environment and adequate external facilities in the widest sense. Thus the housing problems of the Division cannot be regarded as solved until all the residents of the area enjoy adequate space around the dwelling, freedom from noise or pollution of industries or traffic, adequate and suitably located shops, schools, social facilities and play areas; roads and footpaths which adequately serve their needs and are free from traffic hazards.

Table 21

Housing Tenure

Tenure/Households present in permanent dwellings

	Castleford	Pontefract	Featherstone	Knottingley	Normanton	Darrington	Northern Division
Owner/Occupier	4,472 (34%)	4,508 (45%)	1,683 (34%)	1,403 (25%)	2,842 (46%)	258 (75%)	15,166 (37%)
Council	6,728 (50%)	4,047 (41%)	2,442 (49%)	3,893 (60%)	2,416 (40%)	33 (10%)	18,959 (46%)
Private (unfurnished)	2,149 (16%)	1,375 (14%)	886 (17%)	330 (6%)	858 (14%)	48 (13%)	5,616 (13%)
Private (furnished)	34	80	8	25	22	7 (2%)	176 (4%)
Not stated	1	4	-	4	-	-	9
TOTALS:	13,384	9,942	5,019	5,655	6,138	346	39,926

Source: 1971 Census

Table 22

Fit and Unfit Dwellings

	Castleford	Featherstone	Knottingley	Normanton	Pontefract	Total
No. of properties estimated as fit dwellings –						
Pre 1919	4,639 (34%)	85 (2%)	244 (5%)	2,453 (41%)	1,200 (12%)	8,261 (21%)
1919 – 1944	3,206 (24%)	2,117 (45%)	1,609 (31%)	929 (16%)	3,235 (32%)	11,096 (28%)
Post 1944	5,639 (42%)	2,469 (53%)	3,226 (64%)	2,601 (43%)	5,747 (57%)	19,682 (51%)
TOTALS:	13,484	4,671	5,079	5,983	10,182	39,399
No. of dwellings estimated as being unfit–						
(a) In Clearance Areas –						
Pre 1919	158 (79%)	249 (48%)	–	622 (98%)	54 (79%)	1,083 (74%)
1919 – 1944	5 (2%)	263 (51%)	–	–	–	268 (18%)
(b) Individual unfit–						
Pre 1919	37 (19%)	6 (1%)	30	11 (2%)	14 (21%)	98 (8%)
1919 – 1944	–	3	–	–	–	3
TOTALS:	200	521	30	633	68	1,452

Source: Environmental Health Survey 1972

Table 23

Housing - Basic Amenities

	Castleford	Pontefract	Featherstone	Knottingley	Normanton	Darrington	Totals
Households	13,391	10,017	4,991	5,109	6,140	378	40,028
Dwellings occupied	13,530	10,103	5,042	5,154	6,233	391	40,453
Vacant	408	263	209	130	255	15	1,280
No hot water	831	186	238	114	364	18	1,751
No bath	1,216	362	461	175	743	28	2,985
No inside WC	2,163	983	896	438	1,445	41	5,966
Having all 3 amenities	11,239	9,021	4,088	4,663	4,715	337	34,063

Source: 1971 Census

Table 24

Shared Dwellings

	Castleford	Pontefract	Featherstone	Knottingley	Normanton	Darrington	Totals
No. of households in shared dwellings	21	27	6	4	5	2	65
In shared dwellings without exclusive use of sink and stove	13	21	5	4	3	-	46
Persons/room by number of households-							
1.5+ persons	125	114	84	94	48	3	468
1 - 1.5 persons	725	543	347	336	352	4	2,334

Source: 1971 Census

Facilities Available

The main hospital serving the Five Towns is the Pontefract General Infirmary, with smaller hospitals situated at Hightown, Castleford and Ackton near Featherstone. Pinderfields Hospital, Wakefield, also takes patients from the Normanton and Featherstone area and there is a Health Centre in Castleford.

Castleford and Pontefract are the main shopping centres in the Five Towns, having markets, supermarkets and a wide range of retail establishments. The shopping centre of Normanton is adequate for day to day purchases, whereas the choice in Featherstone is very limited. The superstore at Knottingley attracts customers from places outside the town including Ferrybridge and parts of Pontefract.

Leisure and recreation for the adult population, mainly centres around the pubs and working mens clubs. There are two cinemas in the Five Towns, in Castleford and Pontefract. Pontefract also has the only disco/night club in the area. All of the towns, except Featherstone, have one or more public libraries and there are community centres in Castleford, Normanton and Knottingley. Bingo is a popular pastime well catered for in all of the towns. Knottingley is well endowed with sports facilities including a sports centre. Facilities are available in most of the towns including swimming baths and pitches for cricket and football. Rugby League has a strong following especially in Featherstone and Castleford which have professional teams.

Transport

From the viewpoint of regional and national road networks, the Division is remarkably well served. The M62 motorway and the A1 trunk road traverse

the area and the former runs through the Division south of Castleford and Knottingley and north of Normanton, Featherstone and Pontefract, and intersects with the Normanton-Castleford Road, Pontefract-Castleford Road and the A1. The London-Edinburgh trunk road A1 is constructed virtually to motorway standard and lies to the West of Knottingley (Map 1). The Aire and Calder Canal system on the northern boundary of the Division links Leeds and Wakefield to Goole and carries a sufficient volume of freight to warrant its rating as the second most important national canal system. Certain sections of the Canal are also of importance in the transportation of coal directly from the collieries to the Power Stations. The Division had the most extensive railway infrastructure but much of this has been reduced as goods lines with passenger services have been withdrawn or reduced (Map 2). Castleford, Normanton and Knottingley each have one passenger railway station whilst there are two at Pontefract (Monkhill and Baghill). Whilst it is generally possible to reach other regional and national centres by rail from each of these towns the services are bad, due to the indirect routes necessary and infrequent services; thus for example there is presently no rail service directly to Wakefield from Pontefract. The overall bus service is satisfactory with no outstanding examples of deficiencies which are sometimes encountered in more rural areas. Both Castleford and Pontefract have central bus stations which are often used as passenger-changing points. Generally, services are available between neighbouring towns at 20/30 minute intervals (50 minute intervals between Knottingley and Castleford). The towns have one of the lowest car ownership rates in the country - some 57% of the households were estimated as car owning in 1975. The following table shows the rates for the towns, and Pontefract has the highest rate of ownership with Castleford as the

lowest.

Table 25 Car Ownership 1975 (Estimates from 1971 Census)

	Households with No Car (%)
Castleford	62.9
Pontefract	47.0
Normanton	61.7
Knottingley	55.5
Featherstone	56.1
Five Towns	57.2
West Yorkshire	51.3

Source: Interim Report on the Five Towns: Document 418 October 1976.

CHAPTER 3

Coalmining

The United Kingdom coal industry is the largest in Western Europe and one of the most technologically advanced in the world. It is also one of Britain's biggest nationalised industries. Though there are still private producers of coal, total private production amounts only to about one million tons a year. This compares with around one hundred and twenty million tons produced annually by the National Coal Board (NCB).

When the coal industry was nationalised after the war, it provided most of Britain's primary energy needs. In 1947 there were 958 mines and 700,000 miners. From then until the end of the 1950's, annual production exceeded 200 million tons, of which more than 10 million tons was from opencast operations. Since then there have been two fundamental changes in coal production, both due to oil. Firstly, massive supplies of cheap oil from the Middle East, beginning in the 1950's and increasing throughout the 1960's, undermined coal's dominant position in Britain's energy scene, and this change led to a substantial contraction of the industry which continued until 1972. There are now only 239 mines operated by the NCB and less than 250,000 men in the industry. But in the meantime, productivity has gone up from 262 tons per annum per man in 1947 to an average of over 460 tons per man per year over the last eight years (excluding the two strike years of 1972 and 1974). However, the second major change is that the coal industry is now no longer contracting. In the early 1970's oil producers began stepping up their taxes and royalties until by the end of 1973 oil prices had been quadrupled. Immediately the value of the U.K.'s substantial coal reserves was transformed. Coal had a new long-term role to play. In mid-1974

the average price (of British coal) had something like a margin of 30% over oil. It was anticipated that for the financial year 1974 the cost of power station coal would work out at about 4½p per therm against 6p–7p for oil. This price advantage has been largely eroded by coal price increases in 1975, but will tend to increase once more if producing nations belonging to the Organisation of Petroleum Exporting Countries extract a larger 'take' from their oil.

The effects of these changes can be seen in the NCB accounts from 1970. The Board made an operating profit of £34.1 million and a net surplus after interest of £0.5 million in the financial year 1970–1971, compared with an operating profit of £8.8 million and a net deficiency of £26.1 million in the previous year. Regions making net losses were:

Table 26 — Regions making net losses 1970 – 1971

Scotland	£9.7 million	Northumberland & Durham	£8.4 million
Yorkshire	£11.4 million	North Western	£3.1 million
South Western	£2.4 million	Kent	£2.1 million

Source: National Coal Board Report and Accounts 1970–1971

The table reveals that during this period Yorkshire experienced the greatest loss. In the following winter orders were being lost at the rate of a million tons a month before the seven week strike. One effect of the strike was to weaken the market still further because of a loss of confidence in the NCB's ability to ensure a continuity of supply. Demand which had been about 150 million tons in 1970–1971 fell in 1972–1973 to about 120 million tons.

The strike had a disastrous effect on the industry's finances, turning an expected operating profit for 1971–1972 of £35 million into an operating loss of £118 million. Adding interest repayments of £39

million and losses from previous years of £34 million, the cumulative deficit at March 31, 1972 was £191 million. To keep the NCB within the limit allowed by law the Government made an immediate grant of £100 million. This was followed by the Coal Industry Act which sought to put the industry's finances on a sound footing. Various kinds of financial assistance were involved including a write off of £475 million of the total financial accumulated debt to the Government of £850 million, thus reducing interest and depreciation charges by £35–40 million a year; a subsidy to the gas and electricity industries to cover the cost of increased coal burning; and direct support to the NCB of about £120 million a year for three to five years, to cover the costs of coal stocking, higher pensions, a premium on coking coal produced, regional grants and 'social costs' (i.e. costs arising from redundancies and transfers of employees).

The NCB and the mining unions, who had worked together to negotiate assistance on this scale, resolved to ensure the future prosperity of the industry, but this did not prevent another disastrous strike ending in February 1974, which necessitated a further programme of assistance. The NCB results for 1978–1979 compared with 1972–1973 are summarised in the following table

Table 27 NCB results for 1972 - 1973 and 1978 - 1979

	1972–1973 (53 weeks)	1978–1979 (52 weeks)
Saleable output;		
Deep mines	130m tons	107.7m tons
Opencast	11.5m tons	13.8m tons
Total	141.5m tons	125.5m tons
OMS (overall)	45.8 cwt	2.24 tons
Sales	136m tons	119.9m tons
Operating loss	£39.4m	£121.1m
Loss after interest, etc.	£83.7m	£19.4m
Special Government Grant	-	£158.3m
Collieries in production at March 31	282	223

Source: NCB Report and Accounts
Output per man shift

The number of collieries in production declined considerably between 1973 and 1979 and the operating loss was greater in 1978–1979 than in 1972–1973.

A tripartite enquiry[1] into the future of the coal mining industry was established by the Government in 1974 and included representatives of Government, NCB and the mining trade union. It concluded that, taking into account the expected development of oil, natural gas, and nuclear energy, there is likely to be a demand for between 130 and 150 million tons of coal throughout the next decade, 'providing the costs of using coal remain competitive with those of other fuel', which is rather a large assumption, unlikely to be realised. However in June 1974, coal output was running at the rate of only 114 million tons of coal a year from deep mines (i.e. excluding opencast) and increased to 233.2 million tons in 1978.

At present, indigenous coal meets about 37% of Britain's primary energy needs. Under 'Plan for Coal' the NCB is making huge investments in new and increased capacity so that coal can continue to make a substantial contribution to meeting our needs. To achieve, and maintain, an annual output of over 130 million tons would require the development of major new projects (like the Selby complex in Yorkshire which is expected to produce 10 million tons a year) and the complete reconstruction of many old mines, which is likely to cost £600 million (at 1974 prices) in addition to the requirement of £70 to £80 million a year for 'ordinary continuing capital expenditure'. Also, the coal industry will need to be able to attract labour, and productivity will need to increase by 4% a year. The closure of permanently and grossly uneconomic mines, most of which are in the peripheral areas, is also unavoidable. In July 1974

1. Plan for Coal

discussions began between the NCB and National Union of Mineworkers (NUM), on a new scheme of incentive payments, but these failed. However, there is now a recent incentive scheme which is related to each colliery, but the principal guidelines are governed by national area rules.

Yorkshire Coalfield

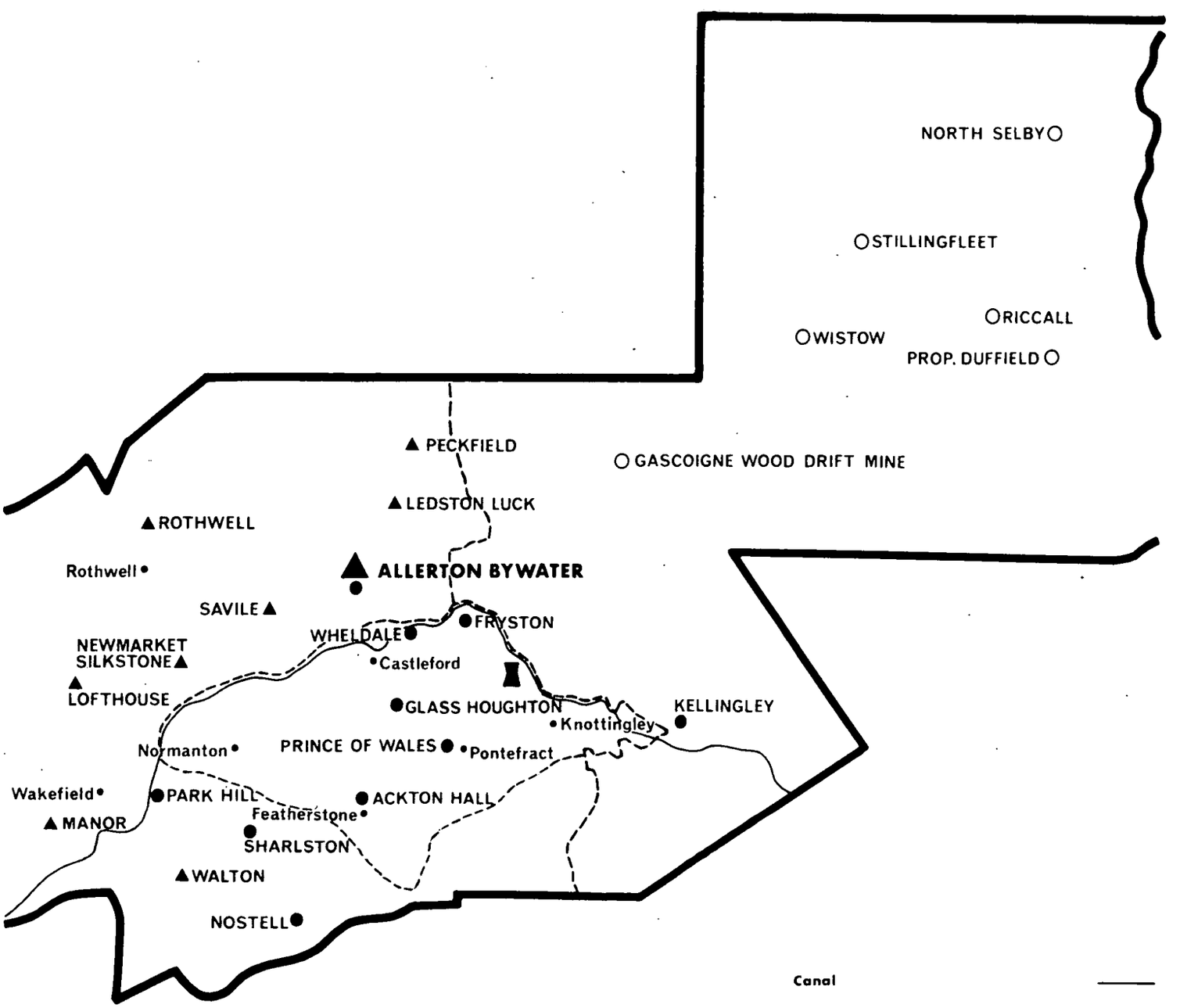
The coal mining area of West Yorkshire is part of the extensive Yorkshire coalfield (which also covers substantial areas of South Yorkshire). A total of over 25,000 men worked in the mines of West Yorkshire in 1975, concentrated mainly in Wakefield M.D. providing nearly two-thirds of all male employment in the southern part of Wakefield M.D. and over one-third in the Five Towns area. Output from West Yorkshire amounted to nearly 10% of the U.K. total production of deep mined coal in 1975 and the majority is used in the production of electricity with the remainder being used industrially or for domestic purposes. The future of coalmining in Yorkshire is therefore very dependent upon the continued existence of coal burning power stations in the area. A comparison between coal and nuclear power is even more problematic. Studies have been made by the International Energy Agency's coal research division which suggest that, on certain assumptions (on discount rate, crucially) coal-fired power generation can be cheaper than nuclear. Yet it must be said that it is the commonly accepted view, even of the coal industry, that nuclear has the price edge.

In the late 1960's the Yorkshire Coalfield increased its share of the manpower and output of the British Coalmining Industry. During the 1970's the coalfield's share of the national total has further increased in spite of the closure of 20 collieries in West Yorkshire since 1965.

It has been expected that the contraction of jobs would continue, with job losses in the county being comparable to the national rate of 5% per annum during the period to 1975, reflecting the mechanisation and pit closure programmes initiated by the Government in its White Paper on fuel policy in 1967. In practice, manpower losses in the industry reached 3% per annum between 1969 and 1971 and a slightly higher rate of 3½% per annum between 1971 and 1973. The years 1974–1978 saw a significant departure from previous trends being the first year for over a decade in which national recruitment exceeded wastage. This can be attributed to reductions in the number of redundancies; significant increase in the wage rates; and growth in unemployment levels outside the industry.

The Plan for Coal which sets out the strategy for the industry to 1985 in the light of the revised energy situation, anticipated a significant growth in output although also envisaging possible manpower reductions as productivity increases. In West Yorkshire some contraction and redistribution of employment in mining is expected in the next five years. In the recent past, with the progressive exhaustion of the exposed coalfield, mining has become increasingly concentrated in the east of the county. It is in the western sector of the existing coalfield in West Yorkshire, that the pits appear most vulnerable to closure, as a result of the exhaustion of reserves, and are less viable in economic terms, e.g. Lofthouse, Wakefield Manor, Micklefield and Walton, Ledston Luck, Newmarket Silkstone, Rothwell and Saville (Map 3). The map shows the North Yorkshire Area of the NCB lying on the East Pennine Coalfield along with the Nottinghamshire, North Derbyshire and West Yorkshire areas that together produce almost half of the total coal output in Great Britain. This area has 18 pits with a yearly output of 8,200 million tons of coal which has declined from 9,218 million tons in 1969/70 to 8,200 million tons in 1978/79 (Table 28).

NORTH YORKSHIRE AREA COALFIELDS



Canal

Power Station

Area H Q

Collieries

Mines likely to close within the next five/seven years

Selby Project - approved sites

Boundary of Northern Division

APPROX SCALE 3 MILES TO 1 INCH

Table 28 Output - North Yorkshire Area

Year	Million tons
1969/70	9,218
1970/71	9,481
1971/72	8,438
1972/73	9,921
1973/74	7,229
1974/75	8,275
1975/76	8,314
1976/77	8,069
1977/78	8,036
1978/79	8,200

Source: National Coal Board
Allerton Bywater

The Aire and Calder Navigation Canal provides an important link down to the Humber with a significant tonnage of coal being transported along it. Good rail links from the collieries also transport coal by liner train from rapid loading bunkers to the power stations which are in the North Yorkshire corridor.

Between 1965 and 1973 thirteen pits in this area (listed in Table 29) were closed because they were uneconomical. Five of the closures took place in 1968 and over the period 1965-1973 a total number of 6,268 employees were involved. However, some of them were transferred to other collieries. On the other hand production commenced in Kellingley Colliery in 1965, and total reserves are estimated to be at 174 million tons in six workable seams, while the Beeston seam is now being worked and produces 1.6 million tons per annum. The expansion of production has received considerable financial support, e.g. the life of Ackton Colliery has been increased by 25 years as a result of a £7 million project.

Similarly, Allerton Bywater has also increased its life by the same number of years as a result of a £6 million project and the life of the Prince of Wales Colliery has been extended for 50 years with a £40 million investment. £7 million of the Prince of Wales support came from EEC funds. Other collieries such as Sharlston and Selby received financial assistance from the EEC but the detailed information about grants and loans received by the collieries cannot be disclosed to outside bodies as it is confidential. In general though, the ECSC announced a loan of £10 million to the NCB to help finance investments in Yorkshire, North East England, and the West Midlands.[2]

Table 29 — North Yorkshire Area Coalfields
Colliery Closures since 1965

Snydale	August	1965	380
Roundwood (Old)	April	1966	356
West Riding	October	1966	244
East Ardsley	January	1968	306
Whitwood	March	1968	1,014
Middleton Broom	May	1968	482
Shawcross	August	1968	471
Waterloo	September	1968	435
Primrose Hill	March	1970	750
Water Haigh	April	1970	610
Thornhill	April	1972	360
Gomersal	June	1973	260
St. John's	June	1973	600
Total			6,268

Northern Division

As Map 3 shows the boundaries of the North Yorkshire Area Coalfields do not coincide with those of the Northern Division and therefore it is difficult to make use of available aggregate figures in discussing the Northern Division. However, as the map reveals, Ackton Hall, Fryston, Prince of Wales, Glasshoughton and Wheldale

2. "Help for Coal" European Community April 1979

collieries are in the Northern Division and the following table gives details of their employment change for 1961 to 1977.

The general picture is one of decline from a total of 7,850 employed in 1961 to 4,799 in 1977. Within this picture though, there were some slight increases e.g. Ackton Hall increased its workforce from 1,234 in 1971 to 1,289 in 1977 and the increase was both in underground and surface workers. There was an increase of only six in Fryston with a decline in the actual number of underground employees. Similarly the number of workers increased at Wheldale, but this was in the underground workforce. The effect of these changes was also evident in overall employment figures. Thus the percentage employed in mining in Castleford T.T.W.A. declined from 25.6% in 1971 to 23.2% in 1973. Percentage rates cannot be calculated accurately for 1975 and 1976, but there was an estimated further decline to 22.3% and 21.9% respectively. The decline in mining employment was at a lower rate than the District as a whole for the 1961 - 1971 period, i.e. 25.7% compared with 28.5%, but the specialisation in mining was relatively greater in the Northern Division and thus had a greater impact on overall growth. Recent studies suggest that mining employment is declining at a rate of 2% per annum which is faster than the rate of industry as a whole. Such decline may be halted temporarily as the NCB expects the labour force at Selby to reach about 4,000 men by 1986 with the most intensive build up between 1979 and 1981. In an area with no local mining labour force an obvious source is the Five Towns.

Bearing in mind the increase in output required nationally and the likely local effects of both mechanisation and expansion at Selby, the probability of a long term increase in local mining employment is low.

Table 30 Number of Employees in the Five Towns Collieries, 1961, 1971 and 1977.

	1961			1971			1977		
	Number employed			Number employed			Number employed		
Name of Colliery	Underground	Surface	Total	Underground	Surface	Total	Underground	Surface	Total
Ackton Hall	1,112	421	1,533	946	288	1,234	967	322	1,289
Fryston	1,083	298	1,381	705	250	955	673	287	960
Glasshoughton	1,631	410	2,141	925	365	1,290	523	228	751
Prince of Wales	1,557	481	2,038	1,058	380	1,438	777	332	1,109
Wheldale	666	191	857	416	193	609	501	189	690
Total			7,850			5,226			4,799

There are several reasons for this: firstly, increased production does not necessarily mean increased employment. The mining industry has become extremely capital intensive and this is especially so with new pits which are chosen on their ability to accommodate more advanced machinery. Secondly, it seems at present that the bulk of new mining operations will be outside of the District, so unless there is a policy of taking local miners to new pits, the employment effects may be small and not sufficient to offset employment losses in existing pits within the area. Thirdly, the boost given to mining as a result of the increase in oil prices partly stemmed from the effects that oil prices had on the U.K. balance of payments. This reinforced the need to be as independent as possible in relation to all energy sources and consequently proved an even greater boost to North Sea Oil. Once the production of the latter increases to the level of self-sufficiency, then the need for coal may not be as urgent. On the other hand, employment may not fall too dramatically as many of the mines with long lives are in the Northern Division and the closures which will probably take place are outside the Division. Even those closures may be delayed by the fact that resistance to closures within the NUM had been hardening for some years. It was felt that since the Plan for Coal assumed a need for all the coal that it was possible to get, then collieries should be kept open for as long as the coal was workable, even though they could not be worked at a profit.[3] Last year the union passed a resolution to oppose closures. Since then, there have been none. An attempt to shut Walton Colliery in North Yorkshire was abandoned by the NCB and, more dramatically, the Board reversed its own decision to close the Deep Dwffryn Colliery in South Wales. If mine-workers with a long service in the pits were offered several thousand

3. Lloyd, J. (1979) "More U.K. Investment Planned". Financial Times September 10.

pounds, then, it is argued they would be more willing to leave the industry and find work elsewhere. More importantly, if miners in uneconomic pits know that a mining job awaited them in another pit, possibly in another coalfield, and that a high premium, as well as expenses, would be paid to them when they moved, then they, too, would be unlikely to protest overmuch. The argument is narrowly economic: it assumes that loyalty to union or local officials, reluctance to move and desire to stay in the mining industry, can be overcome by high cash payments; it may of course, be correct.

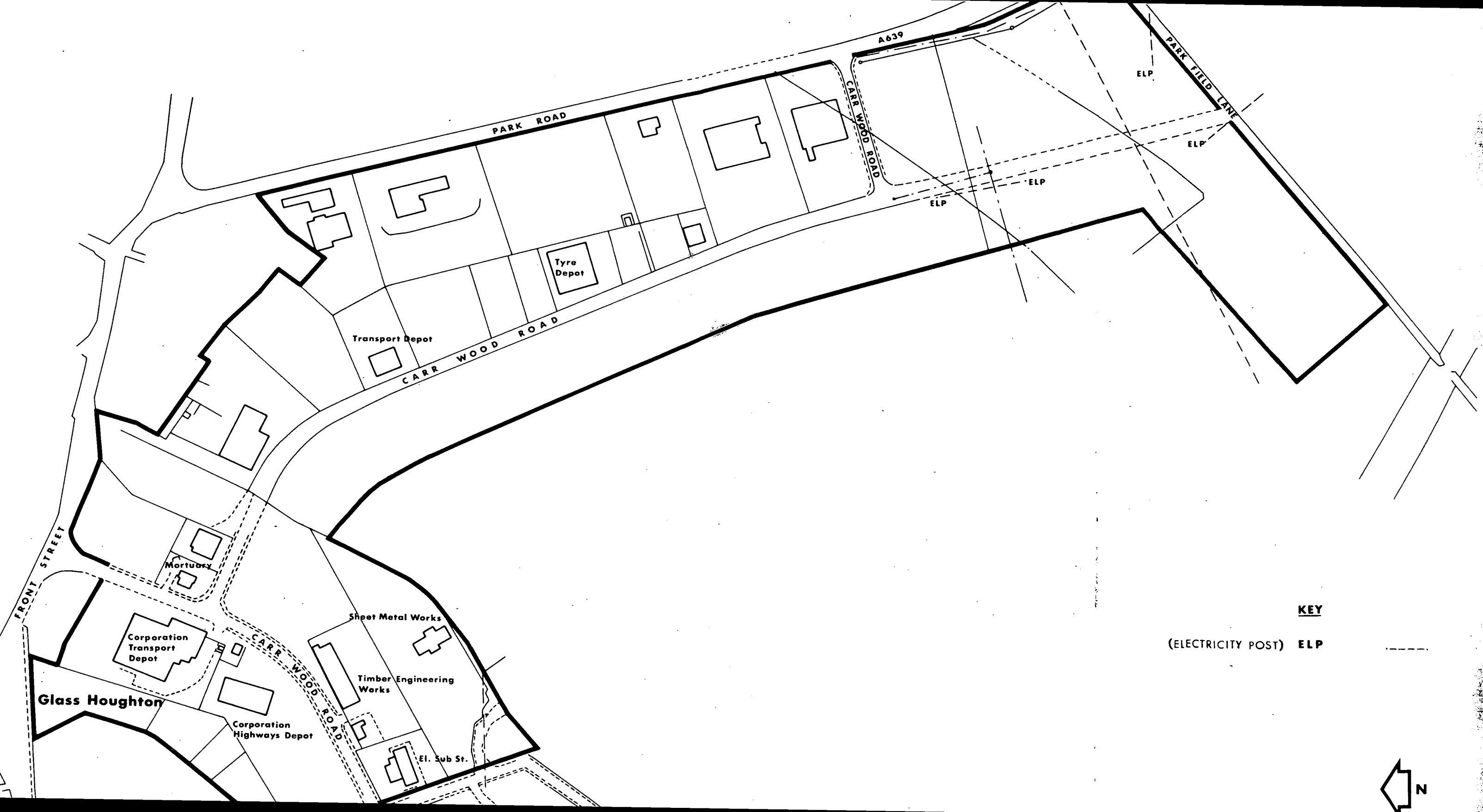
Furthermore, the Board also faces a major test on a comparatively new front, that dominated by the environmentalists. Its proposal to develop a large-scale 7 million ton a year mining project in the Vale of Belvoir, in North East Leicestershire, has met fierce opposition from local and nationally based groups. It is clear from the preliminary enquiry into the NCB's application, held in April, that the range of opposition was both wide and deep. It is probably that neither board nor Government believes that it will lose the case (though the NCB may suffer a reduction in its plans), but should it do so then the life of pits currently operating will have to be reassessed.

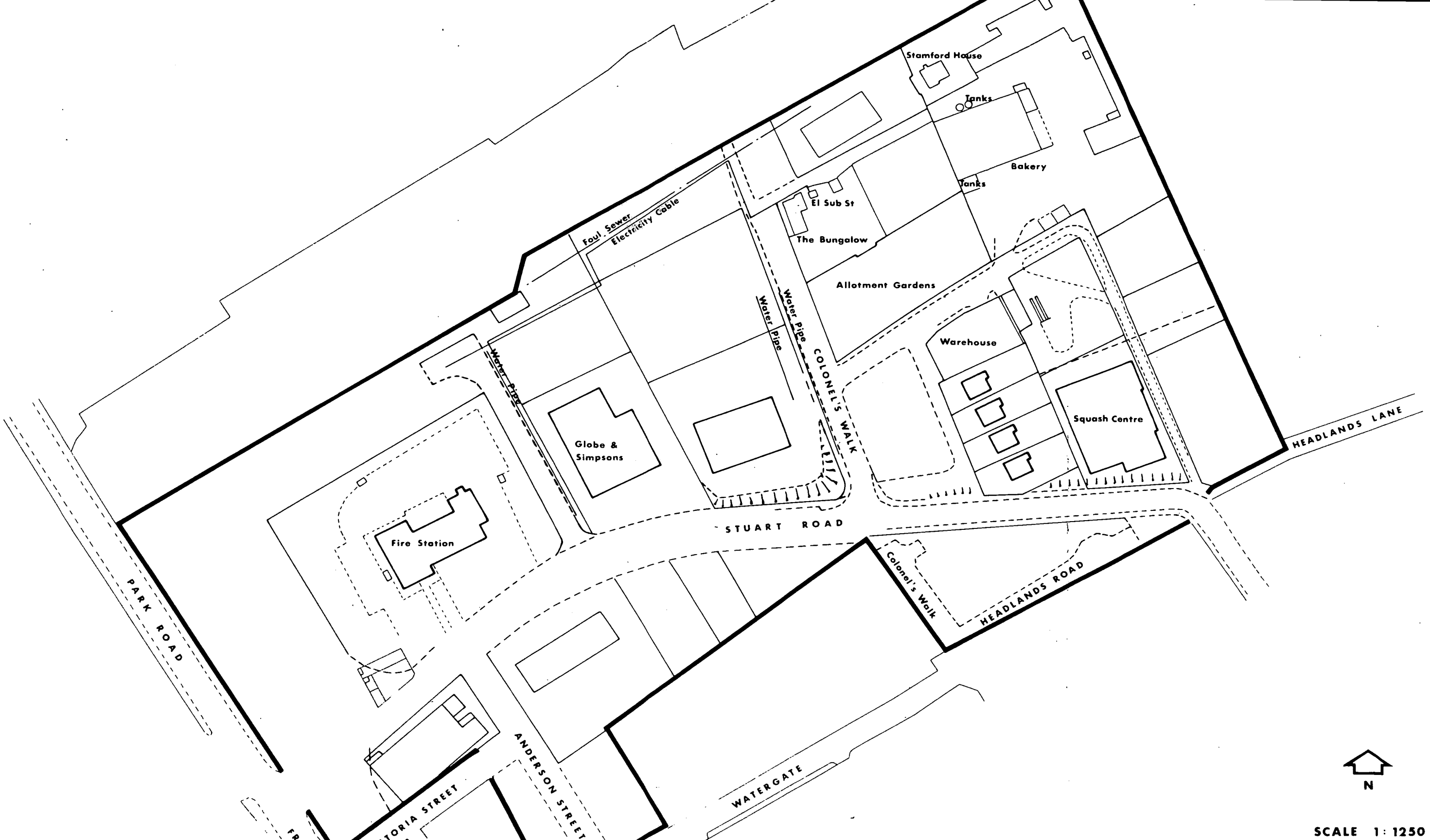
CHAPTER 4

Changes in Manufacturing and Warehouse Units in the Northern Division

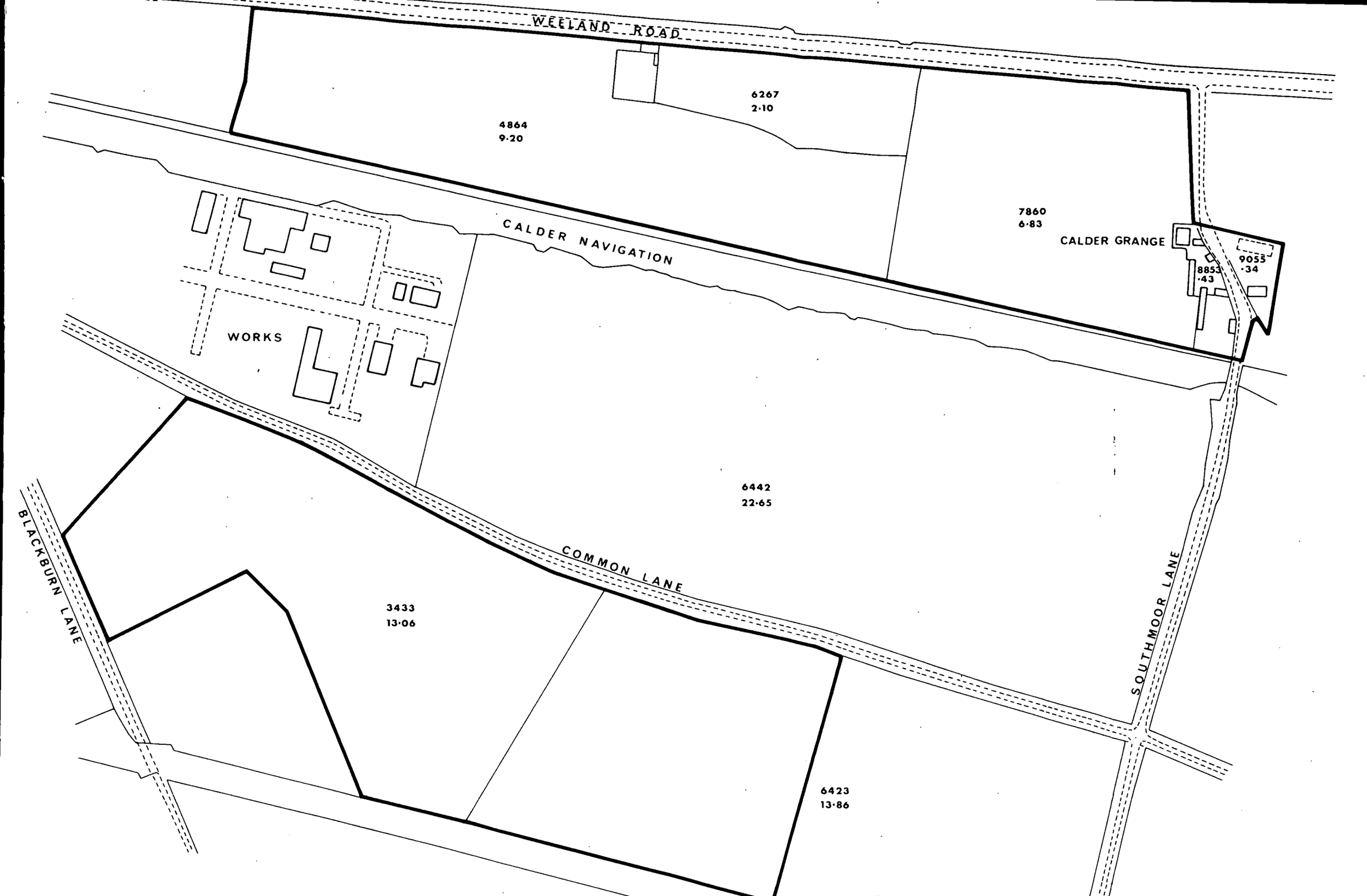
This chapter gives an account of the changes in Manufacturing (SIC III - XVIII), and Warehouse units (SIC XXIII - M.L.H. 810, 812 and 832), in the Northern Division and Map 2 shows the location of the Division with the main industrial sites. Carrwood industrial site is in Castleford and Map 5 gives the detailed layout of the site. Tanshelf and Weeland Road are in Pontefract and Knottingley respectively (Maps 7 and 8) and Normanton and Whitwood industrial estates have developed around the motorway junction. In general most of the industry is located on these sites with Normanton and Whitwood being the newest estates and Weeland Road and Common Lane (Knottingley) being much older. However, there are locations which are totally independent of all other industry and normally have only one firm on the site, e.g. Dunhills and Wilkinsons in Pontefract and Rowntrees in Wheldon Road, Castleford. These are the oldest establishments in the Division being over a hundred years old.

As already stated Normanton and Whitwood estates have developed around the motorway junction (Map 2) and the Council have encouraged this trend by acquiring 80 acres of land for the purpose of creating a freight centre and a 20 acre site has been leased to Pyrex Glass, an American based firm, for the purpose of centralising the whole of their U.K. distributions and employing 200 people. The significance of Whitwood as a distributive centre has also been enhanced by the establishment on an adjoining 20 acre site of a £7½ million project by the Unilever Group


A639
PARK ROAD
CARR WOOD ROAD
PARK FIELD LANE
ELP
ELP
ELP
ELP
Tyre Depot
Transport Depot
CARR WOOD ROAD
FRONT STREET
Mortuary
Sheet Metal Works
Corporation Transport Depot
CARR WOOD ROAD
Timber Engineering Works
Glass Houghton
Corporation Highways Depot
El. Sub St.
KEY
(ELECTRICITY POST) ELP
N


Stamford House
Tanks
Bakery
Tanks
El Sub St
The Bungalow
Allotment Gardens
Foul Sewer
Electricity Cable
Water Pipe
Water Pipe
Water Pipe
COLONEL'S WALK
Warehouse
Squash Centre
HEADLANDS LANE
Globe & Simpsons
Fire Station
STUART ROAD
PARK ROAD
Colonel's Walk
HEADLANDS ROAD
ANDERSON STREET
WATERGATE
N

SCALE 1 : 1250


WEELAND ROAD
4864
9·20
6267
2·10
7860
6·83
CALDER GRANGE
9055
·34
8853
·43
CALDER NAVIGATION
WORKS
6442
22·65
COMMON LANE
BLACKBURN LANE
SOUTHMOOR LANE
3433
13·06
6423
13·86

for their toiletries subsiduary Elida Gibbs. This is a fully automated and computorised distribution centre whose design should place it amongst the leading buildings of its kind in Europe. (Photographs 1 and 2 and Map 4) Normanton Industrial Estate is jointly owned by the District Council and the West Yorkshire County Council. (Photographs 3-11) It is approximately 225 acres in size on the southern side of Junction 31.

This estate now has British Subsidiaries of Japanese[1] (Koyo), West German (Eurodive) and Finnish firms (Schauman Wood Services) and new establishments are still being built. (Photographs 3-4) Some of the other depots on the estate are Burtons (Biscuits) which is 3145m^2, Twinings (Coffee), Austin (Footwear), Associated Dairies - 7881.5m^2 who operate the Asda Supermarket Chain have recently extended their premises on the estate by the construction of a fruit and vegetable packing station and a motor maintenance depot. (Photographs 5-7)

These developments have been helped by the EEC which has given financial aid towards infrastructure work on the estate, i.e. since 1975, 30% of the cost of providing infrastructure works for the estate and surface water sewerage has been given by ERDF.[2] However, an application for assistance towards the cost of infrastructure works for the Whitwood Freight Centre was unsuccessful because the level of unemployment in the area at the time was not sufficiently high, but a new application in

1. Koyo Bearings (U.K.) Limited. Manufacturers of industrial bearings in a 70,000 sq. ft. warehouse and is an expansion from their site at Leeds.

2. European Regional Development Fund - letter from Mr. Johnson Wakefield Metropolitan District March 13, 1979.

1

Elida Gibbs Distribution Centre

Whitwood Distribution Centre

2

PROJECTED EXTENSION

WHITWOOD FREIGHT CENTRE

Corning Ltd UK (Pyrex)

Hill Lane

Taylor Woodrow Ind. Est Ltd

Elida Gibbs Ltd (Unilever)

Junction 31

M62 Motorway

PROJECTED EXTENSION

NORMANTON INDUSTRIAL ESTATE

Advance Factories

Smith Poyser Ltd

S & B Fashions

D Benson Ltd

G Hurley Ltd

Eurodrive

Associated Dairies

RIPLEY DRIVE

International Sports Co Ltd

United Fruit Shippers

Advance Factories

Sleepeezee

Associated Foods

BECK

EIEC Advance Factories

DON PEDRO AVENUE

Schaumans Ltd

Koyo(UK)Ltd

PROPOSED ROAD

Canvamore

Cape Scaffold

Nestles

N

SCALE 1: 5000

MAP 4

Whitwood & Normanton Industrial Estate

3

Koyo Bearings — Warehouse

Schauman Wood Services

4

5

Burtons, Twining and Plastiflex Depots

Associated Dairies

6

7

Asda Supermarket Depot

Bell-Fruit And Cape Insulation Depot

8

NEW DEVELOPMENTS ON NORMANTON INDUSTRIAL ESTATE

(9 – 11)

9

Sleepeezee

Canvermoor

10

(11)

Cape Scaffolding

CARRWOOD INDUSTRIAL ESTATE (12-13)

Sykes Pumps

(12)

respect of subsequent phases of the development has now been submitted.[3] There have been developments too at Carrwood Estate, Glasshoughton (photographs 12–13 and Map 5), at Bondgate, Pontefract (photograph 14 and Map 6) and Tanshelf Estate, Pontefract (photograph 15 and Map 7). Photograph 14 shows that the industrial units at Bondgate are much older than the others. An application for assistance towards the cost of developing the Tanshelf Estate some years ago was unsuccessful. Developments in Knottingley have taken place on a number of sites but especially on Weeland Road and Common Lane (photographs 16–19 and Map 8). The industrial base is more diversified here than in any other of the towns, and though traditionally coalmining always dominated the employment scene in the Division the second chapter illustrated the diversity of the economy. The percentage of people employed in mining in 1976 was 21.9%, manufacturing 29.2% and services 41.5% (Table 18). The table also shows that the percentage employed in mining declined from 25.6% to 21.9%, whereas the proportion employed in manufacturing and services increased. Table 31 reveals the change in the main manufacturing sectors and in Warehousing in Castleford T.T.W.A.

Table 31 Percentage Employed in Manufacturing and Warehousing 1961, 1971, 1976.

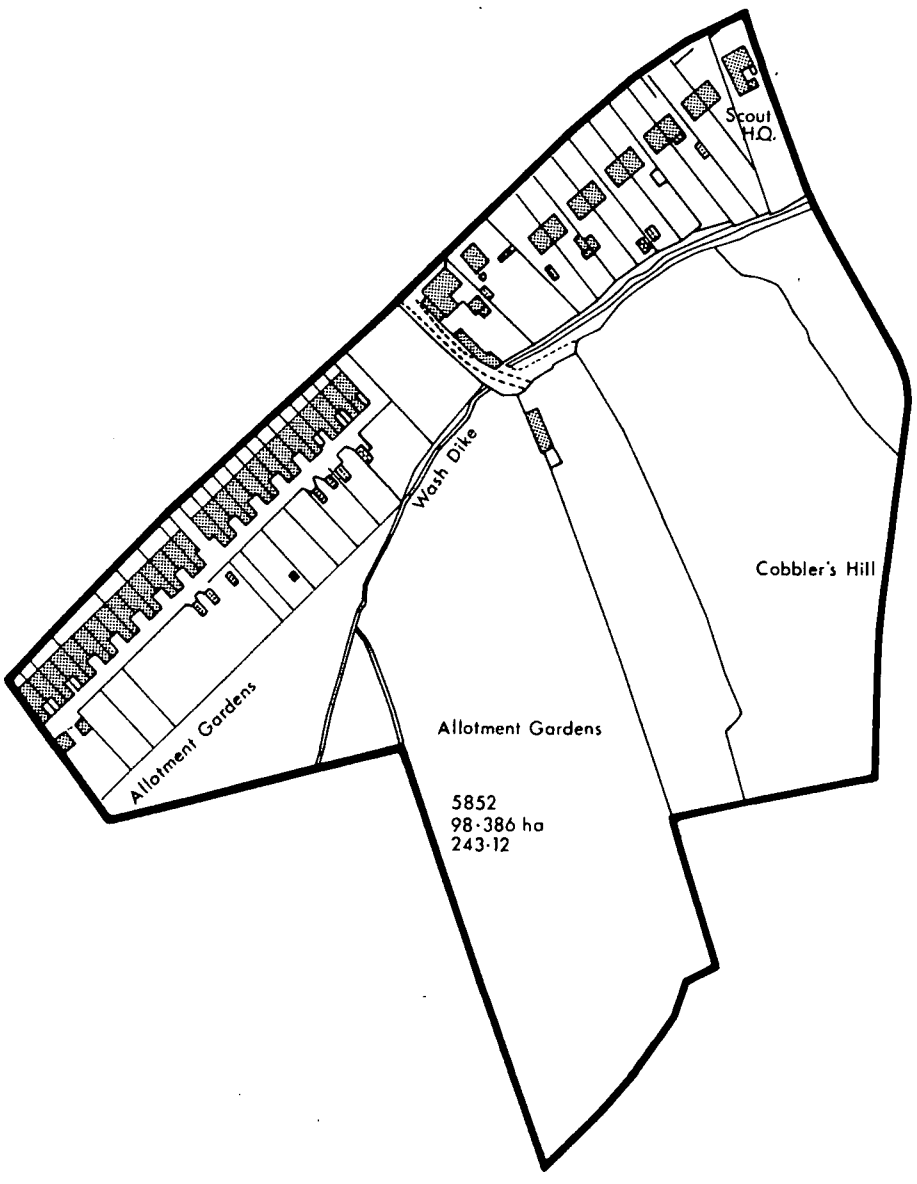
Type of Industry	1961	1971	1976
Engineering	4.9	4.5	5.1
Chemicals and Allied Industries	3.0	2.6	2.6
Clothing	5.1	4.2	3.9
Paper, printing & publishing	0.8	1.5	1.3
Food, drink and tobacco	5.9	4.6	5.8
Warehousing	6.8	6.3	6.9

Source: Manpower Service Commission

3. It is understood that the level of unemployment in the particular area at the time of application is the Key Criteria applied by the Department of the Environment when considering applications for submission to Brussels. Along with that the vast majority of the money available from the Fund is directed towards Development Areas and only a small amount is made available for Intermediate Areas such as Wakefield. However, since the recent changes in Regional policy Wakefield M.D. has even lost that status - Chapter 2, page 27

BONDGATE INDUSTRIAL SITE, PONTEFRACT

MAP 6



N

SCALE 1:2500

(13)

Southern Evans

Bondgate

(14)

(15)

Tanshelf Industrial Estate (Mainly Service Industry)

INDUSTRIAL DEVELOPMENT ON WEELAND ROAD AND COMMON LANE (16 - 19)

Croyda Synthetic Chemicals

(16)

(17)

Croyda Synthetic Chemicals

Croyda Synthetic Chemicals

(18)

(19)

Croyda Synthetic Chemicals

International Sports Company

(20)

Engineering and paper, printing and publishing are the only two industries that increased between 1961 and 1976. However, the percentage employed in food, drink and tobacco increased between 1971 and 1976. A small increase has also taken place in Warehousing.

A survey was carried out to establish the causes of the general changes in manufacturing and warehousing and to look more closely at the impact of the changes on the operation of the labour market. The analysis of 116 questionnaires was used and this method was chosen because the role of different causes is likely to vary between different firms. In the circumstances it was felt that to ask a series of specific questions within a structural analytical framework would give the best results, despite the risk of distorting the general picture of presupposing a particular 'right' way of approaching the problem and posing questions in ways which would have been quite different from the ways a proportion of firms had actually thought about it. However, the general questions on location gave respondents an opportunity to talk at length and the more specific questions were meant to crystallise their thoughts.[4] It was

4. It would have facilitated analysis and exposition if the considerations affecting the choice of location could have been identified and isolated in clearly defined and mutually exclusive categories. Unfortunately, however, for most of the firms, the process of choice was not seen in such terms. Firms tended to see factors in categories that were largely interdependent and overlapping. For instance, it is possible to make a distinction between the attraction of a factory being available for rent and a factory being available immediately; or, between labour being available with certain skills and experience; but a particular firm may not find it relevant to view these as distinct categories if one is of no use to it without the other; if what it wants is a factory that is to rent and is available immediately, and labour that has the right skills and in the right numbers and a number of other things too, in combination at the same time. On the other hand there may well also be other requirements, such as access to roads or a supply of electricity which the firm may regard as essential, but will not regard as a factor in the choice of location if they are seen as adequately available almost everywhere.

decided not to use a postal questionnaire for the survey, partly because one disigned to cover all the complex variety of circumstances of different firms would have been very cumbersome and likely to elicit only a low response rate but, more importantly, because it was felt that a reliable indication of firms attitudes and reasons was unlikely to be obtained except by direct personal contact. Accordingly, after preliminary telephone enquiries, letters were sent to 171 firms.[5]

Table 32 Number and Percentage of Firms Interviewed in Each Town

LOCATION	Number Interviewed		No Reply		Refusal		Letters Returned		Total number of Establishments
	No.	%	No.	%	No.	%	No.	%	No.
Knottingley	18	60.00	10	33.33	1	3.33	1	3.33	30
Normanton	28	93.33	1	3.33	1	3.33	1	3.33	30
Castleford	39	63.93	17	27.86	5	8.19	3	4.91	61
Featherstone	8	57.14	3	21.42	3	21.42	-	-	14
Pontefract	23	63.88	7	19.44	6	16.66	1	2.77	36

The response rate was exceptionally high for a survey of this kind. Co-operation was secured from more than half the firms in all the towns rising to 93% in Normanton. The plants who refused did so on the grounds of insufficient time or lack of interest. Map 9 shows the location of the

5. The list was compiled through (a) numerous trips to the various estates and noting the names of the plants (b) talking to local people (c) British Industry Directory (d) studying the telephone directory and 'yellow page' directory in alphabetical order (e) contact with the Planning Department (f) Directory of Trade, Industry and Commerce. The establishments were then arranged with complete address, telephone number and according to town. Though the final sample represents 77.95% of total employment the initial list is still not regarded as complete as some plants are small family business firms and are still not recorded in any directory and their locations are so inconspicious that they were discovered accidentally after the compilation of the list.

Normanton

Castleford

Pontefract

Knottingley

Featherstone

N

SCALE 1:50,000

Location of Establishments interviewed in the survey

KEY

Manufacturing Units

Warehouse Units

establishments interviewed. Most of them were on the industrial estates especially Normanton and Carrwood sites and the remainder were located in isolated areas in Featherstone, Pontefract, Knottingley and Castleford. The 116 establishments visited were then divided into 98 manufacturing plants, and 18 warehouse units and taken together, 72 of these were 'stayer plants' and 44 'migrants'[6] while 69 and 47 were 'parent' and 'branch' plants respectively.[7] Most of the stayer units were from the pre-1960's (47.22%), while 50% of the migrants were of the 1970's.

Firm Characteristics

Type and Size

The 98 manufacturing units were separated into the following categories.

Type	No.
Printers	6
Bakery and Confectionery	6
Clothing[8]	17
Chemicals	4
Miscellaneous	35

The latter group included plant pots, timber frame houses, cardboard boxes and cartons, corrugated cartons, glass works, furniture, electric blankets and golf balls.

6. A stayer is a firm which has always remained in the same location. A migrant establishment is one which was established on a site geographically separated from that at which it was operating at the time of the survey.

7. A parent is a sole plant of a firm, or the plant where major decision making is located.
A branch is a subsidiary to the parent. Some maybe autonomous in the actual running of the factory but major investment decisions are made by the parent.

8. Clothing minus footwear.

The following table shows the breakdown by age. The relatively high

Table 33 — Age of Establishments[9]

		No.	%			No.	%
'Stayer'	pre-1960	34	42.22	'Migrant'	pre-1960	12	27.27
	1960	12	16.66		1960	10	22.72
	1970	26	36.11		1970	22	50.00

percentage of pre-1960 'Stayers' were the long established family business e.g. engineering, printing, bakery and confectionery. The percentage of the 1970's in the 'Stayers' and 'Migrants' were mainly warehouse units who took advantage of the new premises in the Normanton estate and accessibility to the motorway.

The establishments varied in size and in this case the size was determined by the number employed rather than by floorspace. It would have been more helpful and realistic if the latter had also been considered. The scale of size varied from 1-10, 11-50, 51-100, 101-200 and 201+ employees, and the following table gives a detail breakdown. In general, there was a relatively high percentage of small firms (41.17%) and these were mainly the family printing business and local engineering works that had been established for many years and these units were representative of 33.33% and 15.12% respectively of employment in that particular category. However, all the units together accounted for only 7.20% of total employment. The statistics also revealed that 18.36% of all types of manufacturing establishments employed more than 201 employees and 50% of the chemicals and bakery and confectionery were represented in this category and in fact 91.81% of the total chemical employment and 92.57% of the bakery and confectionery were in establishments with more than 201 employees. Though

9. Manufacturing and Warehouse units.

the average figure looks small (18.36%) it is interesting to note that at the time of the survey the firms represented in this size accounted for 75% of all employment. There was a variety of sizes in the clothing firms with the largest proportion (41.7%) employing between 101–200 persons and the smallest (17.64%) employing 201+ persons. For the most part they depended on female labour[10] and suitable premises. 45.91% of the manufacturing firms were 'stayers' with the other half of them employing between 11–50 persons and it is interesting to note too that over half the 'migrant' firms (54.54%) were also the same size. However, in general the 'stayer' firms were much larger than the 'migrants'. No one type of firm dominated the migrant scene but it was mainly represented by about half of the printers, engineering and confectionery and about one quarter of the chemicals, clothing and miscellaneous group.

Table 34 Percentage of Employees in each size of Firm

	1–10	11–50	51–100	101–200	201+
All Manufacturing Establishments	13.26	41.83	13.26	14.28	18.36
Printers	33.33	50.00	-	16.66	-
Chemicals	-	25.00	-	25.00	50.00
Engineering	20.00	50.00	13.33	10.00	13.33
Clothing	-	23.52	35.29	41.17	17.64
Miscellaneous	14.28	51.42	5.57	8.57	17.14
Bakery and Confectionery	-	33.33	-	16.66	50.00

Employment

There are two reasons why employment changes. Firstly expansion or decline is taking place in the plants in the area or secondly firms are coming into the area. The overall change in manufacturing in the five towns

10. Most clothing firms employed between 75%–90% female employees.

from 1971-1976 was one of increase. However, within those years there was a slight decline in the total numbers employed in manufacturing from 28.2% in 1971 to 28.0% in 1973, but then there was a substantial increase from the 1973 figure to 29.2% in 1976. The following table shows the breakdown in some manufacturing employment in the Castleford T.T.W.A. The most notable increases have been in Engineering, Food, Drink and Tobacco. The former increased from 2,566 employees in 1961 to 3,608 employees in 1976, an increase of 1,042 employees (28%).

Table 35 Percentage Employed in Castleford T.T.W.A. 1961, 1965, 1971, 1976.

Type of Industry	1961			1965			1971			1976		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Engineering	4.8	5.3	4.9	5.9	7.5	6.4	4.4	4.6	4.5	5.8	3.9	5.1
Clothing minus footwear	0.5	17.0	5.1	0.7	15.2	4.8	0.7	11.4	4.2	0.5	9.9	3.9
Paper, printing and publishing	0.6	1.2	0.8	0.6	1.6	0.9	1.8	0.8	1.5	1.7	0.6	1.3
Food, drink and tobacco	2.4	15.1	5.9	2.1	11.4	4.7	2.1	9.9	4.6	2.6	11.8	5.8
Chemicals and Allied Industries	3.6	1.6	3.0	3.6	1.7	3.1	3.2	1.3	2.6	3.5	0.9	2.5

Source: Manpower Services Commission

When we look at changes in employment in the survey we see that over half the firms interviewed (55.10%) increased employment between 1960 and 1978 and about one-third (31.63%) increased employment within the last five years. The following table shows a breakdown by firms.

Table 36 Number and Percentage of Firms Increasing Employment between 1960-1978 and between 1973-1978.

Type of Firm	1960-1978 No.	1960-1978 %	1973-1978 No.	1973-1978 %	Total Number Interviewed
Printers	4	66.66	2	33.33	6
Bakery and Confectionery	5	83.33	4	66.66	6
Clothing	10	58.82	10	58.82	17
Chemicals	2	50.00	2	50.00	4
Engineering	14	46.66	13	43.33	30
Miscellaneous	19	54.28	17	48.57	35

On average 18.36% of the plants increased employment in the late 1970's and 9.18% in the late 1960's, while 16.32% had a gradual increase. Most of the firms that increased employment between 1960 and 1978 were 'stayers' e.g. printers (50%), bakery and confectionery (40%), engineering (57%) and clothing (70%), and since on the whole 'stayer' firms were much larger than 'migrants' it would seem to appear that one factor causing employment change was in situ expansion. Each type of firm that increased employment between 1960-1978 was representative of more than half the total employment in that particular sector (Table 37). In general most of the employment increases in the survey reflect those in the Division. However, there is a marked difference in the clothing industry in which over half the firms in the survey increased employment between 1960-1978 but there was a steady decline in the Division between 1961-1976.

Table 37 — Employment Increase between 1960 - 1978

Type of Firm	%	% Parent	% Branch	% Stayer	% Migrant	% Total Employment in each type of firm
Printers	66.66	50.00	50.00	50.00	50.00	74.65
Bakery & Confectionery	83.33	33.33	66.71	40.00	60.00	89.00
Clothing	64.70	30.00	70.00	70.00	30.00	81.76
Engineering	46.66	71.42	28.58	57.15	42.85	54.42
Chemicals	50.00	50.00	50.00	100	-	91.81

Location Attraction

The 'natural' advantages of the Division are based on a number of factors. Firstly the industrial economy is underpinned by small and medium size firms under local Management ready to respond quickly to changes in the economic scene. Beyond this there are certain key factors of economic geography which have greatly increased in importance in the Division's favour with soaring energy costs and unstable world markets in energy. Perhaps the most important is the Division's position at the centre of Britain, now being exploited by motorways for the first time. Perhaps the most striking feature is the ease of movement from East to West, and to the North and South. Secondly, the Division forms part of the North Yorkshire Coalfield (Map 3) which has vast reserves of coal, now economically extractable, and it seems inevitable that this reserve will become increasingly important as oil reserves are depleted. Finally, the area generally enjoys good labour relations and a stability in its labour force which compare well with many parts of the country.

In trying to identify other 'natural' advantages of the area, questions were asked on the location of raw materials and markets. These were divided into the following: Northern Division, Elsewhere in West Yorkshire, Yorkshire and Humberside, North and North West, Elsewhere in the U.K. and Overseas. The average (Table 38a) reveals that about one-third (39.79%) of the plants obtained raw materials from the United Kingdom and only 8.16% from the Northern Division with about one-quarter from overseas (26.53%). It also shows that over half the markets (57.14%) are also in the United Kingdom (U.K.) and about one-quarter (25.5%) overseas. 43.33% of the engineering plants obtained raw materials from the U.K. and 20%

overseas. In fact one firm got 60% of its Raw material from overseas countries such as Germany, France, Sweden, Italy and Brazil and most of the scrap material was obtained locally. The printing plants had a high percentage of its markets in the U.K. (66.66%) and obtained 50% of its raw material from overseas such as paper ink from Scandinavia, board from The Netherlands and paper from Sweden and Finland. Similarly over three-quarters of the clothing had markets in the U.K. (88.23%) and above average overseas (29.41%), one firm exported 99% of its finished product abroad to places like Japan, U.S.A. and Europe and others exported to Scandinavia and Africa. On the whole the relatively low representation of raw material resources (8.16%) and markets (13.26%) in the Northern Division illustrates that plants developed for other reasons such as family enterprise, good communications and availability of labour.

Table 38a

Raw Material Source (%) - Manufacturing

	Northern Division	Elsewhere in West Yorks.	Yorkshire and Humberside	North and North West	Elsewhere in U.K.	Overseas
All Manufacturing	8.16	15.30	10.20	7.14	39.79	26.53
Printers	-	33.33	-	-	-	50.00
Chemicals	-	25.00	-	50.00	-	25.00
Engineering	10.00	20.00	16.66	-	43.33	20.00
Clothing	-	29.41	17.64	5.88	29.41	35.29
Miscellaneous	13.33	2.85	5.71	11.42	42.85	22.85
Bakery and Confectionery	16.66	-	-	-	50.00	33.33

Market Location (%)

	Northern Division	Elsewhere in West Yorks.	Yorkshire and Humberside	North and North West	Elsewhere in U.K.	Overseas
All Manufacturing	13.26	5.10	10.20	1.02	57.14	25.53
Printers	16.66	-	-	-	66.66	50.00
Chemicals	25.00	-	-	-	100	25.00
Engineering	30.00	3.33	43.33	-	43.33	20.00
Clothing	-	-	-	-	88.23	35.29
Miscellaneous	20.00	11.42	2.85	2.85	51.42	22.85
Bakery and Confectionery	16.66	-	33.33	-	50.00	33.33

However, a higher percentage of warehouses obtained their materials from the U.K. and abroad (44.44%). The latter were products such as fruit, footwear, biscuits and coffee and one stated they had their own company ships. A greater percentage of their markets were also in Yorkshire and Humberside 33.33% compared with 10.20% for the manufacturing units. It would seem that good transport facilities were important for the warehouses since a substantial proportion of raw materials came from either the U.K. or from abroad.

Table 38b

Raw Material Source %

	Northern Division	Elsewhere in West Yorks.	Yorkshire and Humberside	North and North West	Elsewhere in U.K.	Overseas
Warehouse Units	-	-	22.22	-	44.44	44.44

Market Location %

	Northern Division	Elsewhere in West Yorks.	Yorkshire and Humberside	North and North West	Elsewhere in U.K.	Overseas
Warehouse Units	-	-	33.33	-	27.77	-

The survey did not include information on closures or on leaves but there are factors given which help to understand why firms move in. These account for increase in employment. The replies given by firms to the location attraction question are summarised in the following table under broad groups of influences which most closely correspond with the way the firm described them. A distinction was made between what the firms regarded as the main reasons for their choice and what they mentioned as subsidiary ones.

Table 39

The Number of Manufacturing Units and Warehouses that were attracted by the following factors

Factors influencing location	Manufacturing units (M.U.)		M.U. that increased employment	
	Major influences NO	Subsidiary influences	Major influences	Subsidiary influences
Good Transport	20	16	12	12
Site/land availability	10	37	6	6
Premises	22	14	2	2
Labour	12	18	14	14
Market	9	10	2	2
Expansion	7	20	8	8
Industrial benefits	4	-	1	1
Raw materials	4	-	-	-

Factors influencing location	Warehouse units (W.U.)		W.U. that increased employment	
	Major influences NO	Subsidiary influences	Major influences	Subsidiary influences
Good Transport	8	12	5	3
Site/land availability	2	6	4	1
Premises	3	-	-	-
Labour	-	4	-	3
Market	-	-	-	-
Expansion	2	4	1	-
Industrial benefits	-	1	-	1
Raw materials	3	-	-	-

In general the major influences have been availability of good transport facilities. Motorways were given as an attraction more often than all the others combined and the lack of interest in railways may be in part accounted for, by the fact that none of the industrial estates offer direct rail access. The lack of financial benefits as an influencing factor is quite noticeable, since some of the plants were opened at a time when financial assistance was available. The main reasons for moving from the previous locations were lack of suitable premises and shortage of labour. However, over half the moves (54.54%) were within one mile, and only 11.36% moved beyond 10 miles. 22.72% of the 'migrants' had come from Leeds and could possibly have been part of the decentralisation programme in Leeds.

Only a few of the manufacturing buildings were new with adequate room and pleasant working conditions. The Warehouses were on the whole purpose built centres (photographs 1-8) and their employment fell into neat categories which are illustrated in the following table.

Table 40	Size of Warehouse Units			
Size	1 - 10	11 - 50	51 - 100	101 - 200
% of Employees	38.88	38.88	11.11	11.11

Age, Skill and Stability

The type of employment provided was relatively young with a high percentage of skilled workers.[11] However, on closer scrutiny the skills involved were of varying quality. 43.00% of the firms had a high percentage of employees between 16-30 years, and nearly a quarter (23.65%) had a high

11. A skilled person was one who had undergone a period of training over a certain length of time (defined by the firm).

percentage between 31-45 years. (Tables 41-42)

Table 41 — Plants with a high percentage of employees between 16 - 30 years.

	%
All Manufacturing	43.00
Printers	33.33
Chemicals	-
Engineering	68.62
Clothing	37.51
Miscellaneous	35.29
Bakery and Confectionery	50.00

Table 42 — Plants with a high percentage of employees between 31 - 45 years.

	%
All Manufacturing	23.65
Printers	50.00
Chemicals	66.66
Engineering	17.24
Clothing	6.25
Miscellaneous	100.00
Bakery and Confectionery	16.66

The following table shows that 50% of the plants had a high percentage of skilled employees, but a closer look at the table reveals that Printers, Engineering and Clothing firms had above average number of skilled workers. This is probably due to the fact that very basic skills such as cutting and pressing (in the clothing industry) were regarded as 'skilled'. The percentage of skilled employees in the distribution centres posed a problem as all of them classed lorry drivers and fork lift drivers as skilled and this brought 38.88% of warehouse units who stated they had a high percentage of skilled employees and about one-third (33.33%) with a high percentage of their employees between 16-30 years compared with 43% in the manufacturing establishments.

Table 43 Plants with a high percentage of skilled employees

	%
All Manufacturing	50.00
Printers	66.66
Chemicals	25.00
Engineering	56.66
Clothing	64.70
Miscellaneous	40.00
Bakery and Confectionery	33.33

In general the plants had a relatively stable labour force with nearly half of them (43.87%) having employees remaining with them for more than five years (Table 44). However, during the time of the survey some of the clothing firms stated that they had quite a high turnover, which was

Table 44 Duration of Employment (%)

	3 years	5 - 10 years
All Manufacturing	18.36	43.87
Printers	16.66	50.00
Chemicals	25.00	25.00
Engineering	23.33	50.00
Clothing	35.29	35.29
Miscellaneous	5.71	42.85
Bakery and Confectionery	16.66	50.00

mainly due to pregnancy or illness. One firm, International Sports Company (photograph 20), gave a detailed breakdown of age, service and stability rate. The firm was seven years old and employed 215 persons. It manufactured golf balls and had a wide market exporting 50% of its produce to Europe, Far East and South America. The table shows that the average service rate for females is relatively low but the average age for female operatives is surprisingly high.

Table 45 Average Age, Average Service and Percentage Stability Rates of Employees at the International Sports Company

	Male Staff	Female Staff	Male Operatives	Female Operatives
Average Age	35	23	38	38
Average Service	7	3	3	4
Stability Rate %	13.3	50	17.5	17.2

Another degree of change in employment is the retraining programme and though it is not a facet of all firms it does feature to some extent in all industry. The average picture of plants who offered a retraining programme was low (18.36%) with an even lower percentage of firms receiving grant aid (11.22%). The chemicals and clothing establishments are well represented with three-quarters of them having a retraining programme (75%). However all of the former (100%) received grant aid and were representative of 98.84% of total employment but only 35.29% of the latter.

Table 46 Plants who offered a Retraining Programme (%)

All Manufacturing	18.36
Printers	50.00
Chemicals	75.00
Engineering	30.00
Clothing	76.47
Miscellaneous	48.57
Bakery and Confectionery	66.66

Table 47 Plants who received Grant Aid for Retraining Programme (%)

All Manufacturing	11.22
Printers	16.66
Chemicals	100.00
Engineering	16.66
Clothing	35.29
Miscellaneous	14.28
Bakery and Confectionery	50.00

The level of incentives offered to labour is usually an indication of the difficulties involved in attracting labour. The survey revealed that about one-third of the plants and warehouse units offered incentives in the form of higher wages and bonus schemes (Table 48). The latter included cheap travel, flexible hours, nursery school and productivity schemes. Generally, though, the relatively low level of incentives is expected with the high level of unemployment.

Table 48 Plants who offered Incentives, Higher Wages and Bonus Schemes (%)

	Incentives	Higher Wages	Bonus Schemes
All Manufacturing	37.75	15.30	12.24
Printers	66.66	-	50.00
Chemicals	100.00	25.00	50.00
Engineering	53.33	50.00	43.75
Clothing	60.00	20.00	40.00
Miscellaneous	14.28	5.71	5.71
Bakery and Confectionery	66.66	16.66	16.66

Travel to Work

As expected, the greater proportion of plants had their employees travelling daily within 1-5 mile radius (81.63%) and only (15.30%) travelling within 6-10 miles (Table 49). These findings correspond with the general statistics which indicate that with the exception of Normanton and Featherstone the other towns had more than half of their

Table 49 Plants with employees travelling daily between 1-5 miles and 6-10 miles (%)

	1-5 miles	6-10 miles
All Manufacturing	81.63	15.30
Printers	83.33	16.66
Chemicals	50.00	50.00
Engineering	86.66	10.00
Clothing	88.23	11.76
Miscellaneous	80.00	14.28
Bakery and Confectionery	66.66	33.33

working population employed in their home area (Table 50). Of those who commuted outside their home towns a small proportion were employed locally (Castleford, Knottingley, Normanton, Pontefract and Featherstone). The remainder worked elsewhere, (Wakefield, Leeds and Garforth).

Table 50 Journey to Work (%)

Name of Town	Residents working in Home Towns	Working locally	Elsewhere
Castleford	65.96	12.29	21.75
Knottingley	72.71	15.18	12.11
Normanton	32.88	18.77	48.35
Pontefract	50.61	29.04	20.35
Featherstone	44.01	26.10	29.89

Source: Based on 1971 Census.

CHAPTER 5

PROSPECTS FOR THE FUTURE

The purpose of this chapter is threefold. First, to get some indication of the extent of the future employment problem in the Northern Division in order to establish relative priorities and, second, from these results to relate the need for employment from 'new' industries to the amount of land made available as a check against possible imbalances. Third, to look at possible ways in which the job gap may be met, in particular, whether employment will be created locally or by migrant firms.

Forecasting Employment Need for 1986

The approach adopted is to calculate (1) Employment need estimate for the Division by estimating the working age population (16-60/65) for 1986 by making certain assumptions about migration, activity rates, journey to work and unemployment levels. (2) to compare (1) with estimates of local employment provision in 1986 with the difference between (1) and (2) being the number of additional jobs needed. Both estimates involve making a number of simplifying assumptions and it is important to be aware of the nature of these assumptions in order to interpret the results correctly. The final estimates indicate the level of new employment needed if the District and the Northern Division are to have a rate of unemployment equal to the National average.

The Employment Need estimates include an allowance for unemployment; Employment Need Estimate A assumes an unemployment rate both nationally and locally of 6.8% (May 1979 local level of unemployment) whilst Employment Need Estimate B assumes an unemployment rate of 2% ("Full" Employment). The corresponding Employment projections for 1986 Estimates

I and II are consistent with the above unemployment rates.

The two sets of estimates of course are essentially different in the extent to which the national economy and local economies have to grow in employment terms in order to achieve the estimated employment levels. It is worth considering the rates of employment growth needed to achieve these objections. These are presented in the following estimates. Estimate I represents a situation where employment growth nationally 1971 - 1986 is 3.9% in total for males, 4.3% for females and 4.1% in total with unemployment being around 6.8%. Given such a national rate of employment growth and the existing employment structure it is estimated that local employment growth or decline would be at the rate listed in column (a). Estimate II represents a higher rate of growth nationally i.e. 9.3% for males; 9.7% for females and 9.5% overall. Consequently the equivalent growth rates of local industry are also higher as shown in column (b). The national unemployment rate is only 2%.

Table 51

Estimated Employment Levels and Estimated Growth Rates Columns (a,c) (b,d)

Area	Estimate I 1986	Estimate A 1986	(a) Estimate I 1971 - 1986	(c) Estimate A 1971 - 1986	Estimate II 1986	Estimate B 1986	(b) Estimate II 1971 - 1986	(d) Estimate B 1971 - 1986
Male Employment								
Great Britain	15,181,403	15,131,403	103.96	103.96	15,916,067	15,916,067	109.35	109.35
Wakefield District	81,913	88,911	98.99	107.45	86,494	93,490	104.53	112.98
Northern Division	28,039	32,839	95.37	100.32	29,494	34,530	100.32	117.45
Female Employment								
Great Britain	9,706,585	9,706,585	104.33	104.33	10,209,933	10,209,933	109.74	109.74
Wakefield District	47,984	52,663	105.19	115.45	50,475	55,376	110.65	121.39
Northern Division	17,796	19,730	103.83	115.12	18,717	20,746	109.21	121.05
Total								
Great Britain	24,837	24,837,988	104.11	104.12	26,126,000	26,126,000	109.51	109.51
Wakefield District	129,897	141,574	101.19	110.29	136,969	148,866	106.70	115.97
Northern Division	45,835	52,569	98.49	112.96	48,211	55,276	103.59	118.77

Estimate A and Estimate B = Estimated Employment Need (Supply)
Estimate I and Estimate II = Estimated Employment Levels (Demand)

Source: Town Planning Department

Employment Need Estimates - Assumptions

The only available population estimates for 1986 are those based on natural change. Consequently, rather than try and predict migration levels (the only reliable sources currently available are the 1961 and 1971 censuses), it is assumed throughout the analysis that migration losses or gains are nil. Out migration should be unnecessary if the employment gap was closed. Furthermore, as far as estimating industrial land requirements, it is obvious that the nil migration assumptions will effectively raise the Employment Need Estimates in 1986 above the need which is likely, given some migration loss. Consequently the land requirement estimates should be treated as a maximum for that date, and the employment need estimates as a target. The second assumption is that travel to work will remain constant. The statistics based on the 1971 Census indicated that most people worked locally and this was supported too by the findings in the survey. The third assumption is that activity rates will also remain constant. The following table shows the male activity rates declining slightly from the 1971 level. This reflects the trend for earlier retirement of males and a greater proportion of younger people taking up courses of further education. Female activity rates rose both in the Northern Division and in the District and this reflects a higher proportion seeking employment due to falling birth rate, smaller families and the increasing financial need.

Table 52 Activity Rates Castleford T.T.W.A.*

Year	Males	Females
1971	81.7	39.6
1976	79.7	42.6
1977	79.3	43.2
1978	79.0	43.7
1979	78.8	43.9
1981	78.4	44.2
1986	78.6	45.9
1991	79.0	46.6

* Castleford, Knottingley, Normanton and Pontefract.

Source: Manpower Service Commission

Employment Growth Rate Estimates - Assumptions

Employment growth estimates were less straightforward than the population estimates mainly because of lack of data, but also, because of the complex changes in employment trends brought about by the present economic recession. Given limitations in data and resources it has been necessary to base the estimates on published work done by others.(1) However, two adjustments were made to this analysis. First, a projection of the growth rate beyond their final year, 1981 to 1986. Secondly an allowance was made for the change in economic recession and government policies was assumed to be equivalent to the postponement of employment growth for about 4 years. For various industries the change in economic circumstances was assumed to have different degrees of effect on growth[2]

1. Tarling, R., Allsop, C. and Woodward, V. (1975) "A view of Industrial Employment in 1981". Department of Employment Gazette, May pp. 400-405.
   Ibid - "Labour Force Projections 1973-1991". (1974) Department of Employment Gazette April pp. 304-310.
   These estimates reflected research into technological changes in industry and the effect on employment growth or decline for each industry. They were made before the 'oil crisis' and consequently did not take account of the severity of the present economic recession and the subsequent changes in government policy. The current recession and Central Government Policy changes have affected the latter analysis in two ways: First, they have slowed down the rate of employment growth envisaged by the analysis to a considerable degree. Second, they have affected the relative growth rates between sectors. Thus, employment growth has declined dramatically between 1974-1977, and sectors such as local government, have, and will have, its employment level strictly curtailed.
2. Private services were assumed to be less affected than public services, i.e. a 3 year nil growth period compared to a 4 year nil growth period. Thus having estimated the employment growth rate for each industry nationally, it was further assumed that these rates would be reasonable indications for equivalent industries locally - the one exception to this being mining. It was notable that in the past the rate of decline in mining employment in the District was significantly lower than the national rate of decline. Consequently since mining employment figures prominently in the district local employment levels were calculated independently.

and the local estimate of employment need was compared to the level of employment in 1986 and the difference between the two estimates indicated the extent of the need for new industry.

Interpretation

Estimates I and II or column (a) and (b) indicate the structural weakness of the Northern Division economy in that overall growth rates are substantially below the national rate despite the assumption that industry growth rates locally would be the same as their national equivalents. Estimates A and B or columns (c) and (d) show how the growth rate of employment needs to be substantially higher in the Northern Division. The fact that the required growth rates are higher than the national average indicates that the existing employment base in 1971 was fairly low. The actual imbalance between the two sets of estimates i.e. Employment Need (Supply) and Estimated Employment Levels (Demand), can be calculated from Table 51). These figures are reasonable indications of the additional amount of new employment needed to keep the Division's unemployment rates equivalent to the National Average.

The first point to emerge from the estimates was the similarity between them. This suggests that overall, the District employment structure has the same level of disadvantage irrespective of the rate of employment growth of the national economy. There are some slight differences, however, in the Northern Division. An additional 7,065 jobs are needed if the Division is to reach an unemployment rate of 2% and the need for "new developments" is substantial - particularly for males. These results are indications of the relative priorities and they represent the amount of employment needed if job opportunities in the Northern Division relative to the working age

population is to be brought in line with the national average.

Job Imbalance and Land Availability

Since the degree of imbalance between jobs needed in 1986 and the estimated level of employment in 1986, after allowing for local growth or decline, is a measure of the amount of new industry needed, a comparison of the latter figure with the amount of land likely to be developed during the period is still of some importance.[1] Two important influences on the speed of development emerged from a brief study[2] of allocated industrial land: the type of ownership (Local Authority or Private) of the land and the presence or absence of physical problems regarding access, drainage or other such problems. Hence, Table 53 divides the land currently available into six categories, i.e. serviced land, non-serviced land but with few physical problems, non-serviced land with significant problems (drainage, access etc.). These three categories are further subdivided by ownership, i.e. whether privately or public.

Table 53 Serviced and Non-Serviced Land in the Northern Division and Wakefield Metropolitan District

Area	Serviced		Not Serviced No problems		Not Serviced Problems		
	L.A. Ownership	Privately Owned	L.A. Ownership	Privately Owned	L.A. Ownership	Privately Owned	Total
Northern Division	94.1	17.2	147.6	10.6	5.3	141.3	416.1
District	146.8	99.2	164.5	27.9	97.3	417.9	953.5

From the table it can be seen that the Private Sector accounts for approximately 51.14% of all allocated land and the Local Authority 42.85%. The Local Authority owns 59.69% and private owners 40.30%. In the case of unserviced and problem-free land the Local Authority has a still higher proportion 85.49% while private owners have a low 14.50%. It is fairly

1. Mining is excluded and this has its own "land" need.
2. Local Planning Department.

clear, then, that the Local Authority's main concern is making land available to industry, wherever possible at a price reflecting the purchase price and cost incurred. Land in private ownership may be regarded more as a financial asset and its release to industry (if not owned by the developing company) is expected to be a profit. Expectations of changes in the land market and also tax advantages, even when the land is lying unused, can lead to the latter being held even though a willing buyer is available. Consequently, it was decided that depending on the state of the land, i.e. serviced, non-serviced and non-serviced with problems, a grading of each site as to its development potential could be made on the basis of ownership and the three categories above.

The actual values chosen for each category in the absence of any directly relevant data were based on maximum use assumptions and are as follows:

a.	Local Authority owned, fully serviced land.	100% development
b.	Privately owned, fully serviced land.	100% development
c.	Local Authority owned, not serviced, no major problems.	95% development
d.	Privately owned, not serviced, no major problems.	90% development
e.	Local Authority owned, not serviced, known major problems.	85% development
f.	Privately owned, not serviced, known major problems.	80% development

In addition to making allowances for the nature of the land it was also felt necessary to exclude smaller sites, i.e. those of 5 acres or less being more suited to the expansion of existing firms or small businesses originating locally and they are unlikely to have a major job impact.

Table 54 shows that the Northern Division has a total land allocation

of 416.1 acres. Of this 15.7 acres was deducted for local expansion on small sites.

Table 54 Land Allocation in the Northern Division

	Total	For Local Industry	For Incoming Industry	Development Value %	Estimated Developable Land
Category a	94.1	0	94.1	100	94.1
b	17.2	3.3	13.9	100	13.9
c	147.6	0	147.6	95	140.2
d	10.6	6.7	3.9	90	3.5
e	5.3	0	5.3	85	4.5
f	141.3	5.7	135.6	85	108.5
Total	416.1	15.7	400.4	-	364.7

Thus the estimated amount of land likely to be developed by 1986 assuming adequate demand for it was 364.7 acres. It would seem that if the job need estimate of the Division is to be met by current allocations of land, then, there is a need for allocations to be biased in favour of high density developments. At present manufacturing industry has a job per acre ratio of approximately 21.0 whilst warehousing is 12.5. Assuming no change in density, it is possible to use these two ratios for high and low density land allocation, to identify a minimum high density and a maximum low density land allocation, that is consistent with the entire job need being met by existing land allocations. This can be done by using the following simultaneous equations where x is the number of acres allocated to high density development and y to low density developments.

Therefore

$x + y = 364.7$ acres

$21x + 12.5y = 6{,}900$ jobs.[3]

3. Average figure of 6,734 and 7,065 jobs.

The solution is x = 274.44 acres and y = 89.26 acres. Thus the minimum area to be allocated to high density developments is 275.44 acres and the maximum to low density developments is 89.26 acres. There are limits to the applicability of this solution for although manufacturing tends to have higher job/land densities than freight it would be erroneous to interpret the above indication as meaning 275.44 acres for manufacturing and 89.26 for warehousing for several reasons. Firstly, some warehousing have high job/land densities whilst many manufacturing firms have low densities. Secondly, the above results implicitly assume that no significant additional land will be made available even if need can be demonstrated. Thirdly, the job need estimates have every possibility of not being met since employment growth regionally and the amount of development being undertaken directly depends on the national and indeed, international economic situation. In a stagnant or slow growth employment situation there is every possibility that the rate of new development could substantially fall short of the estimated job need; consequently a policy which rigidly rejected new developments on the basis of low density would be detrimental to the overall employment growth position. However, the evidence of the survey reported above suggests that it is low density activities that are most easily attracted to the area as 50% of the migrant establishments came in the late 1970's and these were mainly warehouse units.

Future Policies

It seems therefore, that industrial land is available in the Northern Division but its development for predominantly warehouse units will not be adequate to meet the Division's needs. Yet the large industrial estates with the absence of physical restraints and with access to major transport routes seem obvious choices and a policy which ignored such locational

factors would weaken the appeal of the District as a whole.

The confused situation regarding policies for growth in the Division has received attention. Meetings between the District and County Planning Authority, aimed at fixing broad lines of agreement upon this question in order that a Divisional Policy Statement may be prepared. In the meantime, work has commenced upon the preparation of a programme of interim local plans to supersede the outdated town maps. An action area plan for Altofts, and a Divisional Local Plan for Featherstone, were included as the first priorities. Map 1 indicates a suggested breakdown of the Division into areas which will be a suitable and convenient basis for the preparation of local plans.

Present policies favour the development of the service sector such as shopping centres, restaurants, cafes, licensed bars and filling stations. Any employment increase in manufacturing is likely to be generated by local firms, such as engineering, rather than from migrants. As already seen there is a real need for more jobs and in order to supply for the estimated 7,065 people there will have to be a number of policies. The Government may have to subsidise firms for every job they create, or it may have to improve transport facilities and/or subsidise travel to encourage people to work outside the area. Men may also find themselves doing jobs that were once traditionally ascribed to females. Or future employment may depend on job sharing, i.e. more people in part-time than full-time employment. There are some policies in the creation of new jobs, and the main ones are the building of industrial units, reclamation of derelict land and the promotion of the area through advertising. The area has attracted more warehouses than manufacturing units and though the Planning Department would prefer the

latter, the job creation of the former must not be underestimated. Many of the warehouses employ a number of clerical staff, and the spin-off from this can be a demand for local paper. Similarly, warehouses also require cardboard boxes and cartons, and these can be manufactured locally.

Changes are also bound to take place in mining employment. The opening of the new Selby pit will attract workers from the Northern Division but one wonders if this will take the form of out migration or commuting. A lot will depend on NCB policies such as facilities made available in Selby or/and financial inducements in the shape of travel subsidies or removal grants.

One policy of importance is that provided by the promotions team who attend exhibitions and are responsible for advertising the area. However, the success of such a policy has never been evaluated, but the Department see it as being very important. Secondly since the image of a locality is now a factor of considerable importance in influencing locational decisions, there is some effort to improve the environment. However, changes in regional policy and hence the loss of the land dereliction grant may also influence the land reclamation programme. No information was available to evaluate on this. One factor which has constantly been brought out, is the inter-relationship and inter-dependence of all facets of the District Council's functions. One of the frequent criticisms of Local Government hitherto is that there has been the tendency for Committees and Departments to work in partial isolation. The Metropolitan District Council organisation is such that this can be overcome by corporate planning and if this is carried out to the full there will unquestionably be greater benefits to the Council and public in efficiency and well-informed decision making.

Finally it needs to be remembered that for the number of new projects to increase, for projects to have more impact, and for the new factories to be more successful after they are established, there is a common requirement of crucial importance - the achievement of a faster level of employment in the national economy as a whole.

CHAPTER 6

CONCLUSION

The study has attempted to describe and explain the development of industrial employment in the Northern Division by looking at certain sectors and this final chapter now draws together the key conclusions of the earlier analysis as well as considering future policy.

At present the national economy is facing a now familiar set of problems. A low growth rate, high unemployment, difficulties with the balance of payments and an internationally high rate of inflation, are all causes of concern. Policies to control wages and prices and a general restraint on public expenditure represent government attempts to manage the domestic economy in the short run. For the longer run there is a growing consensus that the current ills of the economy are partly due to an excessive growth in the public sector, which on the whole, produces non-tradeable and non-exportable goods and services, and provides limited opportunities for productivity growth, but also to a persistent decline in the international competitiveness of manufacturing activity.

The last few years have seen the emergence of an industrial policy that emphasised problem-solving within industrial sectors, selected because of their favourable growth prospects. This has not replaced regional policy with its emphasis upon bringing greater employment opportunities to regions that have experienced persistently high unemployment. Since unemployment has been high relative to the national average in a large number of regions and since the Government has shown a desire to aid major companies in their restructuring activities regardless of their location, the overall effect has been a spreading of subsidies over a much larger

area of the nation. This has been accompanied by a marked easing of IDC controls and the operation of a number of schemes to encourage contra-cyclical investment, industrial restructuring, more rapid growth in situ and to reduce the propensity of companies to establish plants within the assisted areas. The recent change in regional policy will also have a further impact e.g. In 1969 43% of the working population of Britain was in an area receiving some form of assistance, but by the time the transitional period for changing the status of the areas affected, comes to an end in 1982-1983, that figure will have been cut to 25%. The current trend in manufacturing location within the United Kingdom can be characterized by the single word, dispersion. Whether at the inter-regional, inter-subregional, or inter-urban scales, by the late 1960's and early 1970's manufacturing industry in Britain was rapidly declining in most smaller traditionally non-industrial locations. At the broad inter-regional scale the evidence presented[1] indicates that the most important single influence upon current manufacturing employment is Government industrial locational policy. Admittedly this is not accepted by all commentators.[2]

On the whole the changes in the national economy are reflected in the Northern Division with the numbers employed in the services increasing while the picture for manufacturing is one of decline. National unemployment has risen during the study period and this too was reflected regionally and locally. In this current climate of economic uncertainty, calls have frequently been made for a general reassessment of economic policies and regional policy is not immune from such examination. The

1. Keeble, D. (1976) "Industrial Location and Planning in the United Kingdom". Methuen.
2. Chisholm, M. (1975) "Regional Policies for the 1970's". Geographical Journal Vol. 140, No. 2, pp 215-244.

recent changes in regional policy means that the Northern Division will no longer have Intermediate Area status. However, results of the survey show that the Division gained very little from such a status. On the other hand, apparent lack of interest during the interviews, in Government financial assistance, tend to make one believe that some firms did not want to admit that they had received any assistance at all. Hence, the other attractions in the area; available labour force, suitable location, plant and equipment have influenced the location of industry and may continue to act as magnets in the future. Therefore the withdrawal of financial assistance under Intermediate Area status may not be as catastrophic as imagined or reported.

Many people had hoped that the opening of the M62 would have had a profound impact on the area, attracting many new industries, and thus helping to alleviate the employment problem of the Division. Again the survey showed that the type of plants attracted to the adjacent sites at the M62 were mainly warehouse units and these have a low density of jobs. In an area of serious unemployment, industry would undoubtedly be more desirable but while warehouses offer limited employment their job creation can often be underestimated. Many of them now employ a number of clerical workers and can prove beneficial in the creation of subsidiary industries (e.g. the provision of local paper and printing works). However, most moves in the area were local (within one mile) and therefore increased employment was the result of local expansion rather than from firms moving into the area. It is thus unlikely that in the future manufacturing firms will create many new job opportunities.

One would support the hypothesis that the "image" of particular localities as attractive residential environments is now in the 1970's, a factor of major importance in manufacturing growth strongly influencing

the locational decisions of both workers and industrialists. In the course of interviewing, a number of workers expressed aesthetic appreciation of environment, as an important factor in the job situation as well as in their residential preferences. Some failed to find suitable employment in pleasant environments, but did succeed in setting up home in residentially attractive areas necessitating long commuting distances. Awareness of the environment has stimulated interest in the preservation of what is good, and in the improvement of what could be improved. Some land reclamation is taking place in the area. Derelict buildings are being demolished and their sites are being landscaped. As yet this is evident only in very small localized areas. However, future policy on the preservation and enhancement is still seen as very important in spite of the economic climate.

The Division is very conscious of its own status and actively promotes itself at Exhibitions. This is done in a rather diplomatic and often subtle way. In informal settings in London hotels, over lunch, promoters prove themselves at their best in inducing or enticing capitalists to invest in the area. The appropriate climate and social setting, create the opportunities for personnel to sell their "wares" to the advancement of their localities, in the competitive world of industrial location.

The future of employment in coalmining is very difficult to predict. However, the power stations at Ferrybridge and Drax obtain coal from the North Yorkshire Area and the completion of the second part of Drax will mean a further demand for coal. This could, of course, be met through higher productivity per man rather than increased employment. New technology here can create jobs locally. The engineering industries

interviewed in the survey were heavily dependent on demands for machinery made by the coalmining industry. Little information is available on the impact of Selby but it is safe to say that the Northern Division could well experience outmigration to Selby, whose size will depend very much on the subsidies offered by the NCB and on the allegiance the workers have to their local community.

In the future the possibility of shorter working hours is becoming greater. Hence a trend towards "job sharing" i.e. having more part-time workers than full-time employees. This will mean that future policies may have to cater for such a trend and especially for the increasing number of females seeking employment. This region, however, is one that reflects male domination. It is a distinctly traditional setting with its pits, slag heaps and terraced housing. Innovation will be very slow in an area that resents change. The latent female force is now emerging in the industrial sphere and this calling forth of the high potential in woman will challenge her beyond the confines of work. The community will be stimulated by these new experiences and its response may signal the emergence of a region alive with vision, hopes and aspirations.

Finally the facilities available locally are currently attracting new industrial firms to the area. Plants are under construction for Sleepeezee and Cape Insulation. This at a time of general industrial recession (which is not peculiar to the nation only but is a feature of the Industrial West) is encouraging. This is offset by the fact that some industries have been forced to close. Since the interviews Bekaert England Limited has closed, resulting in 75 redundancies. The Belgian Holding Company announced: "No further money to the U.K. operation" as the reason

for this move. In the Industrial sphere in the North the general picture for the future is one of gloom. This is felt among businessmen and has to be shared by public wishing to be realistic.

APPENDIX

General Background to the Questionnaire

It was felt that to ask a series of specific questions within a structural analytical framework would give the best results. It was also felt that an interview situation was more suited to obtain the type of information needed, because it afforded an apportunity for informal discussion and it gave time for the interviewees to give some background information about the firms. In most cases the interviews took place with people who had been originally involved with the location decision or were fully aware of it. Other people were also called in to clarify points. On average, meetings lasted approximately 30 minutes but a few were $1\frac{1}{2}$ hours and these were as a result of a tour round the plant.

QUESTIONNAIRE

SECTION I

1. Is this your original site?
2. How long have you been here?
3. Where were you previously located?
4. How long did you remain there?
5. Is this your parent factory?
6. What influenced your decision to locate here?
7. Which of the following had any impact?
   (a) Accessibility to transport: very important important unimportant
   (b) Accessibility to M1: very important important unimportant
   Accessibility to M62: very important important unimportant
   Accessibility to rail: very important important unimportant
   (c) Availability of site: very important important unimportant
   (d) Presence of a suitable building: very important important unimportant
   (e) Reasonable/low rent: very important important unimportant
   (f) Housing cost: very important important unimportant
   (g) Availability of labour in the area: very important important unimportant
   (h) Low wage rate: very important important unimportant
   (i) Union attitudes: very important important unimportant
   (j) Adequate supply and satisfactory type of water: very important important unimportant
   (k) Attractive environment: very important important unimportant
   (l) Room for expansion: very important important unimportant
   (m) Adequate parking facilities: very important important unimportant
   (n) Proximity to supplies: very important important unimportant

(o) New sources of supply: very important important unimportant

(p) Proximity to markets: very important important unimportant

(q) Promotion of the area by national/local authority: very important important unimportant

(r) Information from local authorities: very important important unimportant

(s) Government Financial Assistance:

1. Regional Development Grant
2. Regional Employment Premium
3. Removal Expenses
4. Others

8. What influenced your decision to leave the original site?

9. Which of the following had an influence?

(a) High transport cost in original site: very important important unimportant

(b) Site layout: very important important unimportant

(c) Poor parking facilities: very important important unimportant

(d) Labour shortage: very important important unimportant

(e) Labour attitudes: very important important unimportant

(f) Cost of labour: very important important unimportant

(g) Housing availability: very important important unimportant

(h) Housing cost: very important important unimportant

(i) Unattractive environment: very important important unimportant

(j) Restricted regional facilities: very important important unimportant

(k) Government Controls:

1. IDC policies
2. Local Authority Planning
3. Others

10. What was the role of the Local Authority in establishing you at your site?

SECTION II

EMPLOYMENT

1. What is the function of your factory?
2. Where are your main raw material supplies?
3. Where are your markets?
4. How many people do you employ?
5. What skills are involved?
6. What percentage of your labour force are:
   - (a) skilled — (i) what kind of skills?
   - (b) semi-skilled — (ii) what kind of semi-skills?
   - (c) unskilled
   - (d) clerical
7. Had your employees to undergo a retraining programme?
8. Was it government financed?
9. Have the number of employees increased during the period: 1960-1978?
10. In which year(s) has it been most marked?
11. Did you have to offer any incentives to attract employees? e.g.
    - (a) Higher wages
    - (b) Superior social facilities
    - (c) Shorter hours - longer holidays
    - (d) Flexible hours e.g. coinciding with school hours
    - (e) Cheap travel
12. Where do the majority of your workers live?
13. What is the outer limit of your catchment?
14. How many travel that distance?
15. Did you advertise for workers?

16. Where do you advertise for them now?

(a) Local paper

(b) Regional newspaper

(c) Journals

(d) Job Centre

(e) Speaking in schools

(f) Speaking in polytechnics

(g) Speaking in universities

17. How many of your employees are in the following age groups?

15 - 30 years

31 - 45 years

46 - 61 years

62+

18. How long do employees stay with you?

1 month 6 months 1 year 3 years 5 - 10 years 11 years+

19. Have you expanded (a) floorspace?

(b) employment within the last 5 years?

20. Did you receive financial assistance to do so?

21. In the light of future trends would you consider staying here?

22. Why?

23. Why not?

BIBLIOGRAPHY

BOOKS

Brown, A. (1972) The Framework of Regional Economics in the United Kingdom. Cambridge University Press.

Cameron, G. and Clark, B. (1966) Industrial Movement and the Regional Problem. Oliver and Boyd, Edinburgh.

Cameron, G. (1974) "Regional Economic Policy in the United Kingdom" in Sant, M. (ed) Regional Policy and Planning in Europe. Saxon House pp 1-41.

Chisholm, M. and Manners, G. (eds) (1971) Spatial Policy Problems of the British Economy. Cambridge University Press.

Chisholm, M. and Oeppen, J. (1973) The Changing Pattern of Employment: Regional Specialisation and Industrial Localisation in Britain. Croom Helm, London.

Coates, B. and Rawstron, E. (1971) Regional Variations in Britain: studies in economic and social geography. London, Batsford.

Collins, L. and Walker, D. (eds) (1975) Locational Dynamics of Manufacturing Activity. London, Wiley.

Diamond, D. (1974) "The Long Term View of Regional Policy" in Sant, M. (ed) Regional Policy and Planning for Europe, Saxon House, London.

Elkan, W. (1976)"Regional Aid: impressions of a decade's experience in the Northern Region" in Whiting, A. (ed) The Economics of Industrial Subsidies HMSO. pp 183-190.

Ezra, D. (1976) Coal: Technology for Britain's Future. Macmillan, London.

Great Britain (1963) National Economic Development Council Conditions Favourable to Faster Growth. London HMSO.

Great Britain (1969) Department of Economic Affairs. The Task Ahead: Economic Assessment to 1972. London HMSO.

Great Britain (1969) Department of Economic Affairs. The Intermediate Areas: Report of a Committee of Inquiry under the Chairmanship of Sir Joseph Hunt. Cmnd 3998 London HMSO.

Great Britain. Department of Trade and Industry. Investment Incentive. Cmnd 4516 London HMSO.

Great Britain (1977) Department of Industry Annual Report of the 1972 Industry Act. London HMSO.

Great Britain (1968) Industrial Expansion. Cmnd 3508 HMSO.

Great Britain (1972) Industrial and Regional Development. Cmnd 4942 HMSO.

Great Britain (1975, 1976, 1977) Central Statistics Office, Annual Abstract of Statistics, HMSO.

Great Britain (1976, 1977) Central Statistical Office. Regional Statistics HMSO.

Great Britain (1968) Central Office of Information "Regional Development in Britain" Reference pamphlet No. 80 HMSO.

Haggett, P. (1965) Location Analysis in Human Geography, London, Edward Arnold.

House, J. (1973) The U.K. Space: Resources, environment and the future, London, Weidenfeld and Nicolson.

Howard, R. (1968) The Movement of Manufacturing Industry in the U.K. 1945-1965 London HMSO.

Jackson, M. The Price of Coal. Croom Helm, London.

Keeble, D. (1971) "Industrial Mobility in Britain" in Chisholm, M. and Manners, G. (eds) Spatial Problems of the British Economy Cambridge University Press.

Keeble, D. (1976) Industrial Location and Planning in the United Kingdom. Methuen, London.

Keeble, D. (1976) "Regional Development and the Attraction of Industry" in Drury, P. (ed) Regional and Rural Development: essays in theory and practice. Chalfont St. Giles, Alpha Academic Books.

Losch, A. (1954) The Economics of Location, Yale New Haven.

Luttrell, W. (1962) Factory Location and Industrial Movement NIESR, Vol. 1 London.

Maclennan, D. and Parr, J. (eds) (1979) Regional Policy Past Experience and New Directions. Glasgow Social and Economic Research Studies 6.

Manners, G., Keeble, D., Rodgers, B. and Warren, K. (1972) Regional Development in Britain, London, Wiley.

MacKay, R. (1976) "The Impact of Regional Employment Premium" pp 225-241 in Whiting, A. (ed) The Economics of Industrial Subsidies HMSO.

McCallum, J. (1973) "U.K. Regional Policy 1964-1972" pp 271-298 in Cameron, G. and Wingo, L. (ed) Cities, Regions and Public Policy. Oliver and Boyd.

McCrone, G. (1973) "The Location of Economic Activity in the U.K." pp 299-305 in Cameron, G. and Wingo, L. Cities Regions and Public Policy.

McCrone, G. (1969) Regional Policy in Britain, London Allen and Unwin.

Moore, B. and Rhodes, J. (1974) "The Effects of Regional Economic Policy in the United Kingdom" in Sant M. (ed) Regional Policy and Planning for Europe. Saxon House, London.

Moore, B. and Rhodes, J. (1976) "A Quantitative Analysis of the Effects of the Regional Employment Premium and other Regional Policy Instruments" in Whiting, A. (ed) The Economics of Industrial Subsidies, London HMSO.

Northcott, J. (1977) Industry in Development Areas: the experience of firms opening new factories Vol. XLIII Broadsheet No. 573 P.E.P.

Odell, P. and Vallencia, L. (1978) The Pressure of Oil, Harper and Row.

Prest, A. (1976) "The Economic Rationale of Subsidies to Industry" in pp 65-76 Whiting, A. (ed) The Economics of Industrial Subsidies, HMSO.

Richardson, P. and Melliss, C. (1976) "Value of Investment Incentives for Manufacturing Industry" 1946-1974 pp 23-43 in Whiting, A. (ed) The Economics of Industrial Subsidies HMSO.

Sant, M. (1978) "Issues in Employment" pp 84-104 in Davies, R. and Hall, P. (eds) Issues in Urban Society, Penguin.

Sant, M. (1975) Industrial Movement and Regional Development. The British Case. Pergamon Press.

Smith, D. (1971) Industrial Location: An Economic Geographical Analysis Wiley and Sons.

Stafford, H. (1974) "The Anatomy of the Location Decision: content analysis of case studies" in Hamilton, F. (ed) Spatial Perspectives on Industrial Organisation and Decision-Making. London, Wiley.

Walker, D. (1975)"A Behavioural approach to Industrial Location"in Collins, L. and Walker, D. (eds) Locational Dynamics of Manufacturing Activity. London, Wiley.

Yorkshire and Humberside Economic Planning Council (1966) "A Review of Yorkshire and Humberside". London HMSO.

JOURNALS, PERIODICALS AND NEWSPAPERS.

Ashcroft, B. and Taylor, J. (1977) "The Movement of Manufacturing Industry and the Effect of Regional Policy". Oxford Economic Papers, Vol. 29 pp 84-101.

Atkins, D. (1973) "Employment Change in Branch and Parent Manufacturing Plants in the U.K., 1966-1971". Trade and Industry, Vol. 12 August 30, pp 437-439.

Beecham, A. and Osborn, W. (1970) "The Movement of Manufacturing Industry". Regional Studies Vol. 4, pp 41-47.

Breach, I. (1977) "West Yorkshire". The Guardian February 25.

Briscoe, B. (1978) "Employment and Economic Development - the West Yorkshire Experience". Paper presented to the Joint Regional Studies R.T.P.I. Conference: Employment Initiatives and Local Authorities. University of Birmingham, June.

Camina, M. (1974) "Local Authorities and the Attraction of new employment". The Planner Vol. 60, No. 2, pp 553-558.

Carter, C. (1969) "The Hunt Report". Scottish Journal of Political Economy, Vol. 16, No. 3, pp 248-255.

Chisholm, M. (1970) "On the Making of a Myth? How Capital Intensive is Industry Investing in the Developing Areas?" Urban Studies Vol. 7, pp 289-293.

Chisholm, M. (1975) "Regional Policies for the 1970's". Geographical Journal Vol. 140, No. 2, pp 215-244.

Chisholm, M. (1976) "Regional Policies in an Era of Slow Population Growth and High Unemployment". Regional Studies Vol. 10, pp 201-213.

Clark, G. (1966) "Industrial Location and Economic Potential". Lloyds Bank Review Vol. 82, pp 1-17.

Collis, C. (1979) "Manufacturing Decline and Spatial Policy in Britain". Area Vol. 11, No. 2, pp 134-136.

Cairncross, A. Sir. (1977) "The Regeneration of Manufacturing Industry". Midland Bank Review Autumn.

Daniels, P. (1969) "Office Decentralisation from London - policy and practices". Regional Studies 3, pp 171-178.

Davies, G. (1967) "Regional Unemployment, Labour Availability and Redeployment". Oxford Economic Papers, Vol. 19, pp 59-74.

Dowie, R. (1968) "Government Assistance to Industry". A review of the legislation of the 1960's Paper 11 Centre for Research in to the Social Sciences, University of Kent, Ashford Study.

Editor (1979) "Further £7M for Yorkshire from EEC". Yorkshire Post February 21.

Editor (1978) "Industry is in Optimistic Mood". Wakefield Express February 2.

Editor (1978) "80 More jobs in Prospect". Wakefield Express, December 29.

Editor (1979) "150 Job Superdeal". Focus Wakefield Metropolitan District Council, Issue No. 29.

Edwards, M. (1975) "Coal's Future". Colliery Guardian Annual Review, August, pp 281-284.

Elliott, J. (1979) "The Trimming of Industrial Aid Policies". Financial Times, July 21.

Eversley, D. (1971) "Population Changes and Regional Policies Since the War". Regional Studies Vol. 5, pp 211-228.

Ezra, D. (1974) "Coal the Fuel with Reserves". Coal and Energy Quarterly No. 1, Summer, pp 8-12.

Ezra, D. (1977) "The Role of Coal and U.K. Energy Prospects". Colliery Guardian September, pp 613-622.

Forrest, A. (1976) "West Yorkshire" Financial Times June 30.

Hart, A. (1972) "Regional Growth in Employment in the Manufacturing and Service Sectors 1960-1975. U.K. experience and expectations". Tijdschrift Voor Economische en Sociale Geografie Vol. 63, 2. pp 88-93.

Hudson, R. (1976) "Yorkshire and Humberside". Financial Times February 2.

Hudson, R. (1978) "Spatial Policy in Britain: Regional or Urban"-A Comment, Area Vol. 10, No. 2.

Hudson, R. (1978) "Spatial Policy in Britain". Area Vol. 10, No. 5.

Hughes, J. (1978) "Recent Measures to Combat Unemployment". Journal of the Royal Town Planning Institute, Vol. 64, No. 4, July, pp 108-109.

Keeble, D. (1970) "The Movement of Manufacturing Industry - Comments", Regional Studies Vol. 4, pp 399-408.

Keeble, D. (1972) "Industrial Movement and Regional Development in the United Kingdom". Town Planning Review, Vol. 43, No. 1, pp3-25.

Keeble, D. (1974) "Movement of Firms - Regional Analysis and Development" Unit 8, Course D 342, Open University Milton Keynes.

Keeble, D. (1975) "Industrial Mobility - In which Industries has plant location changed most?" - A Comment, Regional Studies Vol. 9, No. 3, pp 297-299.

Keeble, D. (1977) "Spatial Policy in Britain: Regional or Urban Area". Vol. 9, No. 1, pp 3-8.

Kuklinski, A. (1970) "Regional Development, Regional Policies and Regional Planning. Problems and Issues". Regional Studies Vol. 4, No. 3, pp 269-278.

Leicester, C. (1978) "Future Employment Trends". Journal of the Royal Town Planning Institute. Vol. 64, No. 4 July, pp 103-105.

Lomas, C. (1969) "The Hunt Report". A Geographers/Planners View. Area No. 3 p14.

Lloyd, J. (1979) "Coalmining", Financial Times, September 10.

Lloyd, J. (1979) "More U.K. Investment Planned". Financial Times September 10.

Lloyd, J. (1979) "Accepting the Reign of King Coal". Financial Times, July 24.

Mackay, D. (1968) "Industrial Structure and Regional Growth: a methodological problem". Scottish Journal of Political Economy, Vol. 15, No. 2, pp 129-143.

Mackay, R. (1974) "Evaluating the effects of British Regional Economic Policy" - a comment. Economic Journal Vol. 84, pp 87-110.

Mackay, R. (1977) "The limits to Regional Policy" Town and Country Planning, October pp 426-432.

Manners, G. (1976) "Reinterpreting the Regional Problem" The Three Banks Review, No. 111, pp 33-35.

Massey, D. (1979) "In What Sense a Regional Problem". Regional Studies Vol. 13, No. 2, pp 233-243.

Moreton, Anthony (1979) "Rolling Back the Map of Regional Aid", Financial Times, July 20.

Moore, B. and Rhodes, J. (1973) "Evaluating the effects of British Regional Economic Policy". Economic Journal Vol. 83, pp 87-110.

Moore, B. and Rhodes, J. (1977) "The Impact of Regional Policy in the 1970's". C E S Review, No. 1, pp 67-77.

Moore, B. and Rhodes, J. (1976) "Regional Economic Policy and the Movement of Manufacturing Firms to Development Areas". Economica Vol. 43, pp 17-31.

McLoughlin (1979) "Joseph Downgrades Many Aid Areas". The Guardian July 18.

McLoughlin (1979) "Industrial Aid to be Cut by £233m". The Guardian July 18.

Moxon, J. (1972) "The Industrial Development Certificate System and Employment Creation". Urban Studies Vol. 9, pp 229-233.

Needleman, L. (1965) "What are we to do about the Regional Problem?" Lloyds Bank Review, 75 pp 45-58.

Nelson, O. (1974) "Normanton's Bright Outlook for Work". Wakefield Express, January 11.

Odber, A. (1970) "Policy after Hunt". Urban Studies Vol. 7, No. 2 June.

Rawstorne, P. (1979) "Joseph spells out his Regional Policy". Financial Times, July 18.

Regional Strategy Review (1975) "Yorkshire and Humberside: The next ten years".

Richardson, H. and West, E. (1964) "Must we always take work to the workers?" Lloyds Bank Review No. 7, pp 3-48.

Riddell, P. (1979) "U.K. Unemployment expected to Soar". Financial Times July 19.

Riddell, P. (1979) "The Tightening Squeeze on British Industry". Financial Times July 23.

Smith, D. (1965) "Recent Changes in the Regional Pattern of British Industry". Tijdschrift Voor Economische en Sociale Geografie, pp 133-145.

Special Report (1976) "Coal" The Times May 19.

Tarling, R., Allsop, C. and Woodward, V. (1975) "A View of Industrial Employment in 1981". Department of Employment Gazette May pp 400-405.

Tarling, R., Allsop, C. and Woodward, V. (1974) "Labour Force Projections 1973-1991". Department of Employment Gazette April, pp 304-310.

Taylor, M. (1970) "Location Decisions of Small Firms". Area 2, pp 51-54.

Townroe, P. (1970) "Locational Choice and the Individual Firm". Regional Studies 3, pp 15-24.

Townroe, P. (1976) "The Supply of Mobile Industry" - Across Sectional Analysis. Regional and Urban Economica Vol 2, pp 371-388.

Trade and Industry (1974) "Yorkshire and Humberside Centre of Britain". Trade and Industry October, pp 158-174.

Trade and Industry (1977) "Regional Development Programme for the United Kingdom", Trade and Industry February 11, pp 358-362.

Trade and Industry (1977) "Yorkshire and Humberside the Centre of Britain" Trade and Industry, June 24, pp 590-610.

Trade and Industry (1979) "Government Support for Industry", Trade and Industry January 19, pp 1-2.

Trade and Industry (1979) "Government Announces More Selective Regional Policy". Trade and Industry July 20, pp 99-102.

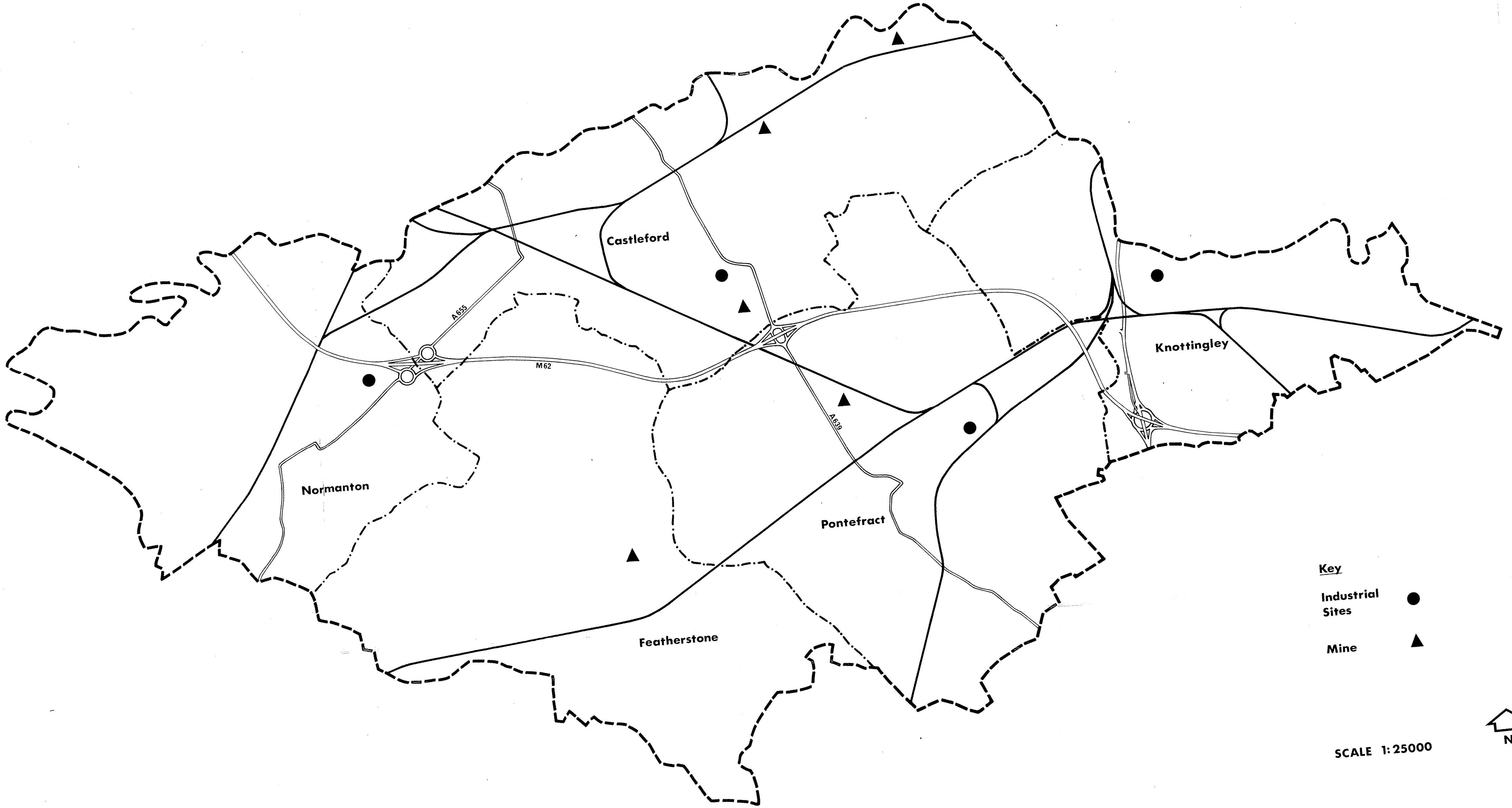
Treasury Information Division (1973) "Changing Patterns of Employment - 2" Economic Progress Report, Vol. 42, No. 4.

Wakefield Town Planning (1977) "The Monitoring of Manufacturing, Commercial Offices and Warehouse Floorspace Completions in West Yorkshire". April 1971-March 1977.

Warman, C. (1975) "Humberside" - a Special Report. The Times April 17.

West Yorkshire County Council (1979) "Economic Trends" January to June.

Woodward, V. (1971) Review of "Optimal Patterns of Location" by J. Serek Hansson, Economic Journal, 81 pp 395-397.



The Northern Division of Wakefield Metropolitan District