EVALUATING LOCAL ECONOMIC INITIATIVES : AN ASSESSMENT OF THE RURAL DEVELOPMENT COMMISSION'S ADVANCE FACTORY BUILDING PROGRAMME

VOL 2

STEPHEN JAMES MARTIN

Doctor of Philosophy

THE UNIVERSITY OF ASTON IN BIRMINGHAM

June 1988

CONTENTS

Volume II		
Chapter 14	Wider Effects Associated with the Early Stages of the Factory Building Programme	
1.0	Introduction	10
2.0	Wider effects associated with site acquisition	12
2.1	Impacts on landowners	12
2.2	Local land prices	12
3.0	Wider effects associated with site development	13
3.1	The displacement of existing on-site firms	13
3.2	Benefits to existing on-site firms	14
4.0	Wider effects associated with the construction of the units	14
4.1	Temporary employment impacts	14
4.2	Demonstration effect	17
4.3	Over-supply of industrial premises	19
5.0	Wider effects associated with the occupation of the units	19
5.1	The impacts of changes of premises	19
5.2	Increased income of local authorities	22
6.0	Summary and Conclusions	24
Chapter 15	Wider Effects Associated with the In-Movement and Growth of Occupant Firms	
1.0	Introduction	26
2.0	The impact of linkages with suppliers	26
2.1	The locations of occupant firms' suppliers	27
2.2	Linkages attributable to the programme	38
2.3	The locations of the matched firms' suppliers	38
2.4	Causes of the low level of local supplier linkages	41
3.0	Increased expenditure by employees of the firms in the units	44
3.1	Additional income in the target areas	46
3.2	Additional local expenditure	47
3.2.1	Deductions at source	48
3.2.2	Non-disposable income	49
3.2.3	Benefits which would otherwise have been received	49

3.2.4	Employees living outside the case study areas	49
3.2.5	Local employees' expenditure outside the case study areas	50
3.2.6	Total additional expenditure by employees in case study areas	52
4.0	Market share displacement	54
4.1	Methodology developed and used in the present study	55
4.2	Local competitors	56
4.3	Alternative situations of the occupant firms which had local competitors	57
4.4	The likely scale of local market share displacement	59
5.0	Labour shortages in the local economy	61
6.0	Local population size and structure	63
7.0	Summary and Conclusions	66
Chapter 16	The Analysis of Programme Impacts Over Time	
1.0	Introduction	69
2.0	Employment impacts of the programme by 1986	70
2.1	Jobs accommodated	71
2.1.1	Numbers of employees	71
2.1.2	Number of F.T.E. jobs	71
2.1.3	Employment densities	75
2.2	Jobs before and after programme implementation	76
2.3	New jobs to the case study areas	78
2.4	New jobs to the national economy	80
3.0	Anticipated changes in employment by 1988	81
3.1	Number of occupant firms likely to move out of the case study areas	82
3.2	Jobs likely to be accommodated in D.C. units by 1988	83
3.2.1	Number of F.T.E. jobs likely to be accommodated	83
3.2.2	Anticipated employment densities	85
3.2.3	Anticipated job gains to the case study areas by 1988	85
4.0	Changes in employment impacts 1984-1988	87
4.1	The need for longitudinal evaluation of employment impacts	87
4.2	Possible "employment ceilings"	88
4.3	The effect of different measures on findings	91
5.0	Types of jobs and employees accommodated in occupant firms in 1986	93

6.0	Summary and Conclusions	98
Chapter 17	The Cost Effectiveness of the Programme	
1.0	Introduction	100
2.0	Measures of cost effectiveness	101
3.0	The cost effectiveness of achieving low level objectives	103
4.0	The cost effectiveness of employment generation	106
4.1	The cost effectiveness of employement generation by 1984	107
4.2	Cost effectiveness of employment generation by 1986	109
4.3	Cost effectiveness of job generation by 1988	111
5.0	The cost effectiveness of achieving high level objectives	112
5.1	The cost effectiveness of producing impacts on the local labour market	113
5.2	The cost effectiveness of producing demographic impacts	113
6.0	Comparisons with the cost effectiveness of other similar programmes	114
7.0	Summary and Conclusions	115
Chapter 18	Comparison of Programme Effectiveness in Different Areas	
1.0	Introduction	118
2.0	Comparison of programme performance in market towns and villages	119
2.1	The scale of programme impacts	119
2.2	The cost effectiveness of the programme	126
3.0	Comparison of programme performance in different regions	127
3.1	Scale of programme impacts	128
3.2	The cost effectiveness of the programme	137
4.0	Summary and Conclusions	139
Chapter 19	Summary, Conclusions and Recommendations	
1.0	Introduction	143
2.0	Summary of findings	143
2.1	Programme costs	143
2.2	The additionality of the programme	144
2.3	Immediate impacts	144
2.4	Intermediate impacts	145
2.5	Employment impacts	146
2.6	Impacts on the local labour markets	147
2.7	Wider impacts	148

2.8	Cost effectiveness	149
2.9	Differences between case study areas	150
3.0	Recommendations relating to methodology	152
3.1	Clear explanation of approaches	154
3.2	Hierarchies of objectives	154
3.3	Defining target areas	156
3.4	The identification of net impacts	157
3.5	The identification of net costs	158
3.6	Discounting costs and impacts	159
3.7	Measuring costs and impacts longitudinally	160
3.8	Indirect and unintended outcomes	161
3.9	Comparisons between programmes	162
3.10	Future research	163
4.0	Policy recommendations	165
4.1	Continuation of the programme	165
4.2	Enhancing the performance of the programme	165
4.2.1	The location of factory units	166
4.2.2	Reducing delays in the development process	167
4.2.3	Providing a wider range of units of different sizes	167
4.2.4	Increasing occupancy rates	169
4.2.5	Selection of occupant firms	171
4.3	Enhancing the Commission's performance management systems	172

TABLES

Volume II

Table 14.1	Construction costs of units net of land prices	15
Table 14.2	Construction employment impacts of the units	16
Table 14.3	Previous locations of firms in D.C.units	20
Table 14.4	Present uses of premises previously occupied by firms in D.C.units	21
Table 14.5	Rates paid by the occupant firms up to August 1984	24
Table 15.1	The locations of occupant firms' suppliers	37
Table 15.2	Local and non-local suppliers of the occupant firms	37
Table 15.3	Comparison of local linkages of occupant and matched firms	39
Table 15.4	Proportion of matched firms' suppliers which were local firms	40
Table 15.5	Locations of matched firms' suppliers	40
Table 15.6	Comparison of local linkages of different types of firms	42
Table 15.7	Local linkages by characteristics of founder of firms	43
Table 15.8	Local linkages by type of activity	44
Table 15.9	Additional income resulting from the creation of new jobs	47
Table 15.10	Goods and services likely to be bought in Market Drayton and Ludlow	50
Table 15.11	Proportion of income spent on goods and services	51
Table 15.12	Proportion of disposable weekly income spent in local area	52
Table 15.13	Competitors identified by the managing directors of the occupant firms	56
Table 15.14	Occupant firms which had local competitors	57
Table 15.15	Changes in turnover (1984-1986) in the firms which would not have located in case study areas in the absence of the programme	58
Table 15.16	Changes in workforces of competitor firms 1980-1984	60
Table 15.17	Market areas served by occupant firms and their competitors	60

Table 15.18	Recruitment problems experienced by the occupant and matched firms	62
Table 15.19	Employees' responses to their perceived alternative situations	64
Table 15.20	Comparison of employees' perceived alternative situations to Hodge and Whitby (1979)	65
Table 16.1	F.T.E. jobs accommodated in occupant firms in 1984 and 1986	72
Table 16.2	Employment densities by case study areas in 1986	75
Table 16.3	Changes in employment densities 1984-1986	76
Table 16.4	Number of F.T.E. jobs created by the programme according to the "before / after method"	77
Table 16.5	Changes in the number of jobs "created" by the programme according to the before / after method 1984-1986	78
Table 16.6	New jobs to the case study areas 1986	80
Table 16.7	Estimate of jobs gained by the national economy 1986	81
Table 16.8	Number of jobs likely to be accommodated in D.C. units 1988	84
Table 16.9	Employment densities in factory units 1984, 1986 and 1988	86
Table 16.10	Predicted changes in jobs accommodated 1984-1988	91
Table 16.11	Estimated percentage increases in jobs accommodated 1984-1988	92
Table 16.12	Employment impacts according to different measures of job creation	93
Table 16.13	Rank order of case study areas in terms of job gains to local area by 1986	94
Table 16.14	Types of jobs provided in the units 1984 and 1986	95
Table 16.15	Age structure of employees of occupant firms 1984 and 1986	96
Table 17.1	Net Costs of Factory Developments	102
Table 17.2	Construction costs per unit area of floorspace	104
Table 17.3	Cost effectiveness measured in terms of units occupied	105
Table 17.4	Cost effectiveness measured in terms of floorspace occupied	106
Table 17.5	The cost effectiveness of employment generation 1984	108

Table 17.6	Average cost per job gained by the case study areas 1984	109
Table 17.7	The cost effectiveness of employment generation 1986	110
Table 17.8	Average cost per job gained by the case study areas 1986	111
Table 18.1	Comparison of types of occupant firms in towns and villages	119
Table 18.2	Jobs accommodated in occupant firms	120
Table 18.3	Expected employment change in occupant firms	122
Table 18.4	Number and density of new local jobs	122
Table 18.5	Number and density of jobs new to the national economy	123
Table 18.6	Characteristics of employees of occupant firms 1984	124
Table 18.7	Types of jobs accommodated in occupant firms 1984	124
Table 18.8	Place of residence of employees of occupant firms 1984	125
Table 18.9	Employees' previous employment situations	125
Table 18.10	Average cost per new job in 1984 and 1986	127
Table 18.11	Comparison of occupancy rates in different sub-regions	128
Table 18.12	Numbers of jobs accommodated and employment densities	130
Table 18.13	Employment changes in occupant firms 1984-1986	132
Table 18.14	Number and density of new local jobs	133
Table 18.15	Rates of increase in the numbers of new local jobs	133
Table 18.16	Density and number of jobs new to the national economy	134
Table 18.17	Rates of increase of new national jobs 1984-1986	134
Table 18.18	Types of jobs accommodated in the units	135
Table 18.19	Characteristics of employees of occupant firms	136
Table 18.20	Place of residence of employees of occupant firms 1984	136
Table 18.21	Previous employment situations of employees	137
Table 18.22	Average cost per square foot of factory floorspace	138
Table 18.23	Average cost per new local job	139

FIGURES

Volume II

Fig 14.1	Wider Effects Associated with the Advance Factory Building Programme	11
Fig 15.1	Raw Materials / Components - Market Drayton	28
Fig 15.2	Raw Materials / Components - Ludlow	29
Fig 15.3	Raw Materials / Components - Bakewell	30
Fig 15.4	Raw Materials / Components - Weobley	31
Fig 15.5	Raw Materials / Components - Leintwardine	32
Fig 15.6	Raw Materials / Components - Longnor, Ipstones and Waterhouses	33
Fig 15.7	Services - Market Drayton	34
Fig 15.8	Services - Ludlow	35
Fig 15.9	Services - Bakewell	36
Fig 16.1	Employment Change in Fimrs Occupying D.C.Units - Market Towns Case Study Areas	73
Fig 16.2	Employment Change in Firms Occupying D.C.Units - Village Case Study Areas	74
Fig 18.1	Employment change in firms occupying D.C.units	121
Fig 18.2	Employment changes in firms occupying D.C. units by sub-region	131

CHAPTER 14 WIDER EFFECTS ASSOCIATED WITH THE EARLY STAGES OF THE FACTORY BUILDING PROGRAMME

1.0 INTRODUCTION

The Development Commission sees itself as having a catalytic role. It intends that the construction of advance factory units will have knock-on effects which will "multiply" the impact of its original investment in the target areas. This, it is hoped, will help to lead to the achievement of the final objectives of the programme, which include enhancing the attractiveness of the target areas as places in which to live and work, thereby maintaining a "viable" population size and structure in these areas, (Figure 5.1). A range of wider impacts (both positive and negative, and intended and unintended) may have occurred at different stages in the advance factory building programme's development process, (Figure 14.1). Many of these have been overlooked in previous evaluations, and since they may have had a considerable influence on the effectiveness of the programme, this may have been a serious omission.

In the present study an attempt was therefore made to identify and measure the wider impacts which had occurred at each stage in the development process. This chapter analyses the findings which were reached regarding the nature of the wider impacts associated with the earlier stages in the development process: site acquisition, site development, and the construction and occupation of the factory units. Chapter 15 discusses the impacts which occurred at later stages in the development process as a result of the growth of the firms which had occupied the units.

FIGURE 14.1

WIDER EFFECTS ASSOCIATED WITH THE ADVANCE FACTORY BUILDING PROGRAMME

	POSITIVE	NEGATIVE
SITE ACQUISITION	Benefits to landowners	
SITE DEVELOPMENT	Spin-off benefits to on-site firms	Displacement of on-site firms
CONSTRUCTION OF FACTORY UNITS	Creation of local jobs in construction industry	Oversupply of premises
	Demonstration effect	
OCCUPATION OF UNITS	"Freeing up" of local industrial premises	
	Increased income to local authorities	
ATTRACTION OF IN-MOVERS/GROWTH OF OCCUPANT FIRMS	Increased purchases from suppliers	Market share displacement
	Increased expenditure by employees	Labour shortages
	Increased in-migration/ decreased out-migration	

2.0 WIDER EFFECTS ASSOCIATED WITH SITE ACQUISITION

2.1 Impacts on landowners

The first potential beneficiaries of the construction of the advance factory units in the case study areas, were the owners of the land on which the units were built. The evidence gathered in the present study suggests however, that unlike some programmes from which both private and public landowners have derived considerable profits, (for example the Urban Development Grant Programme, PSMRC 1988), the D.C.'s advance factory building programme, had not led to particularly important benefits for the individuals and firms which owned the case study sites. Most of the sites had previously belonged to local authorities who had passed the land to the Commission at cost price or cheaper, and had not therefore benefitted from its sale, and there was no evidence that the three sites which were previously in private ownership had been sold to the Commission for more than their market value.

2.2 Local land prices

It was possible that the demand for case study sites, stimulated by the programme, had enhanced local land values, thereby benefitting landowners more generally. This was however unlikely because most of the sites had been bought from local authorities at relatively low cost, and because the scale of the developments was so small. The English Estates and local authority officers who were interviewed in the course of the present research did not believe that the programme had had any impact at all on local land values in the case study areas and it seemed clear that this potential wider effect could therefore be disregarded.

3.0 WIDER EFFECTS ASSOCIATED WITH SITE DEVELOPMENT

3.1 The displacement of existing on-site firms

Most of the sites on which the units had been built were either vacant or used as farmland prior to their acquisition by the Commission. Since most of them were very small, (none were more than a few acres in size), the loss of land by the farms in question was likely to have had little impact on their profitability or on the number of people they employed. The only instance in which it seemed there may have been any significant disruption of pre-existing activities was the development of the Station Road site in Bakewell. Prior to the construction of the factory units, the site had been occupied by seven businesses which included two car repair workshops, a haulage firm, a scrap merchant, a monumental masons, a plasterer and a coal merchant. The managing directors of each of these firms were therefore interviewed in order to discover what impact the development of the site had had upon their firms.

These interviews demonstrated that only one firm was likely to have experienced any problems as a result of the development. Three of them had been forced to move to the edge of the site but had continued to operate from the Station Yard site, and claimed not to have suffered any adverse effects as a result of the construction of the units. Two of the firms had moved onto a site owned by the local authority, less than a mile from the Station Yard site, and another had moved to Darley Dale. None of these reported any problems as a result of their relocation. The only firm which might have been adversely affected was therefore the plasterers. This business could not be traced, and was known by the local authority officers who were interviewed in the course of the present research, to have encountered difficulties in finding new premises. However, since this firm employed only two people, even if it is assumed that it went out of business as a result of being forced to move from the site, it is clear that the disbenefits associated with the redevelopment of the Station Yard site had been minimal.

Further, several other agencies had plans for the development of the Station Road site, one or more of which would certainly have been put into effect if the units had not been built, (Peak District National Park Planning Board, personal communication, 1984, section 2.3 chapter 8). It was clear therefore that the firms would probably have been forced to move even if the D.C. units had not been built, and it is therefore doubtful if any disbenefits which may have occurred as a result of the displacement of the plasterer can be considered to be net impacts of the programme.

3.2 Benefits to existing on-site firms

As shown in the preceding section, some of the firms which previously occupied the sites on which the units were built were not displaced by the programme. However, they are unlikely to have benefitted from the programme. The only possible exceptions were two cases where access to their premises had been improved by the provision of new service roads which were provided as part of the factory building programme.

4.0 WIDER EFFECTS ASSOCIATED WITH THE CONSTRUCTION OF THE UNITS

4.1 Temporary employment impacts

Construction companies, architects, and surveyors had all been employed in the construction of the units, and if these had been local firms it was likely that the construction phases would have had employment and income effects in the case study areas. The only previous study in which an estimate of the employment impacts of the construction of the units was taken into account was that conducted by Hodge and Whitby (1979). Their estimate was based on the total labour costs of the construction of the units which they were studying, divided by the average wage in the construction industry. This was clearly no more than a very approximate estimate of the employment impact, and in the present study, a slightly different approach was therefore developed. This used the detailed

estimates concerning the number of F.T.E. jobs which are provided for each £1,000 spent on the construction of small industrial units which are provided by the research conducted by the Building Research Establishment.

The estimated cost of providing one F.T.E. job for one year through the construction of small industrial units was calculated by the B.R.E. researchers to be between £27,000 and £28,000, at 1984 prices (DOE personal communication 1986). Since the average working year in the construction industry is, according to the B.R.E., between 250 and 260 days, it follows that each £1,000 spent on the construction of small industrial units will generate approximately nine man / woman days of employment. Using these figures, it was possible to calculate the approximate number of man year F.T.E. construction jobs that had been created by the construction of the units in the case study areas.

The costs on which the B.R.E. estimates are based include both labour and material costs, but not the price of land acquisition. The construction costs for the eight case study areas at 1984 prices were as shown on table 14.1.

Table 14.1 Construction costs of units net of land prices

Case study area	Cost (1984 prices)
Market Drayton	£ 829,446
Ludlow	£ 555,467
Bakewell	£ 451,808
Weobley	£ 218,344
Leintwardine	£ 179,944
Ipstones	£ 302,218
Waterhouses	£ 243,156
Longnor	£ 157,356
Total	£ 2,937,739

Source : English Estates records 1984

According to the B.R.E. estimates, the approximate number of jobs which had been created in the construction of the units, was therefore as shown on table 14.2.

Table 14.2 Construction employment impacts of the units

Case study area	Man day F.T.E. jobs	Man Year F.T.E. jobs
Market Drayton	7,465	29.9
Ludlow	4,999	20.0
Bakewell	4,066	16.3
Weobley	1,965	7.9
Leintwardine	1,620	6.5
Ipstones	2,720	10.9
Waterhouses	2,188	8.8
Longnor	1,416	5.7
Total	26,439	106.0

It was clear that a significant number of temporary jobs were likely to have been created as a result of the construction of the factory units. There was no evidence that the units would have been built in the absence of the programme, (section 4 chapter 8), and most of these jobs were therefore likely to have been new to the national economy. The fact that previous researchers have frequently overlooked them, suggests that in the past the employment impacts of the programme may have been significantly underestimated. However, since the main aim of the programme was to benefit the target areas, the most important consideration was the extent to which the temporary jobs were likely to have been taken by local people. This important distinction has been overlooked by previous researchers (c.f. Hodge and Whitby 1979).

The English Estates officers who were interviewed in the course of the present study, stated that although the contractors used to build and maintain the units were usually based in the same region the units themselves, there was no positive discrimination in favour of local firms.

Records concerning the locations of the contractors which had built the units were available for only two of the case study areas, Ipstones and Longnor. However, these confirmed that local firms had not been used to build the units in either area. The builders of the units at Ipstones were based in Newcastle under Lyme, the architects were from Ashbourne, the surveyors were based in Warrington, and the engineers in Sheffield. The architects responsible for the units built in Longnor were based in Wirksworth, and the builders came from Buxton. According to English Estates officers the construction companies rarely sub-contracted out the work to local firms, and it is clear therefore, that few if any of the 100 or so man / women year F.T.E. construction jobs provided were likely to have been taken by people living in the case study areas.

4.2 Demonstration effect

The Commission sees its main role as providing some initial finance for factory developments, and hopes that the success of these will encourage the private sector (and other public agencies) to sponsor further developments in the target areas. There is evidence that in some areas this has in fact happened, (for example, in Leek in Staffordshire), (Tricker and Martin 1985), but such a response was not evident in any of the case study areas. There were a few privately funded industrial developments in the case study areas, (section 4 chapter 8), but these had all been underway before the D.C. had even given approval for the finance to build factory units, and were therefore very unlikely to have been inspired by the Commission's example.

Neither is there any evidence of greater local authority involvement in the provision of industrial premises in the case study areas, following construction of the units. Several of the local authorities portrayed themselves as having actively partnered the D.C. and English Estates in their programmes, but in reality their role has usually been limited to the original application for assistance, the granting of planning permission, and in some instances the sale of the land and / or the servicing of the site. Even in cases where the authority has serviced the sites, the cost of

this was usually passed on to the D.C. in the form of an increased purchase price for the land.

The generally passive attitude of local authorities is in marked contrast to that of some urban authorities, which have, in recent years, adopted a much more pro-active stance. This is a reflection of their political complexion and traditional attitudes towards the type of activities which are considered to be appropriate in rural areas, (section 7 chapter 2).

The lack of response from the private sector is not altogether surprising. Large development companies and financial institutions seek sound investments with high yields, and industrial property developments in marginal rural areas offer neither of these. One of a developer's first requirements is a readily available site which can be developed without a great deal of preparatory work. There are very few of these in the case study areas. The shortage of sites, has meant that in some of the areas where the finance for advance factory units was approved by the D.C. a decade ago, development has still not taken place, (section 3.3 chapter 9). Even where they are available, rural sites usually require major up-front expenditure, to service them and private developers are unwilling to undertake this without the prospect of substantial returns. Similarly, local authorities prefer to hand over the few sites that are available to the D.C. rather than developing them themselves. None of the case study areas had Assisted Area status and this may also have discouraged private sector investment.

The 1986 survey of the occupant firms, undertaken as part of the present study, showed that many local firms were keen to build their own premises, and that several believed that it was the only way in which they would be able to continue to expand without moving out of the case study areas. However, most were unable to do so either because of the lack of suitable sites, or because they could not raise sufficient finance. It seems clear therefore, that the Commission could help to promote private developments in the case study areas, by providing sites for small and medium-sized businesses which had outgrown the units which they occupied, and in some cases, by providing the financial assistance to enable them to build their own premises. These firms could then move out of the D.C. units, releasing

these for the use by new small firms. This strategy would have the merit of not involving the Commission directly in the provision of large premises, which it has in the past regarded as a high risk activity.

4.3 Over-supply of industrial premises

It is possible that initiatives such as the advance factory building programme which involve the use of public funds to provide new premises, may create an excess supply of premises in the local area. In these circumstances, the publicly funded developments may attract tenants which would otherwise have moved to existing privately owned sites, thereby taking potential revenue away from private developers. However, the evidence collected in the course of the present research clearly shows that there was an undersupply of premises in all of the case study areas, (section 4 chapter 8), and that it was therefore highly unlikely that the provision of the D.C. units had displaced private developments.

5.0 WIDER EFFECTS ASSOCIATED WITH THE OCCUPATION OF THE UNITS

5.1 The impacts of changes of premises

When firms moved to the D.C. units, the premises which they previously occupied became available to other firms. Firms which moved into these vacated premises, may in turn have vacated their previous premises, which would then be available to other firms. Although previous studies of the programme have ignored the possible effects of these changes of premises, it is clear they could have had a significant impact on a considerable number of firms, both within and outside of the target areas, and that they should therefore be included in evaluations of the advance factory building programme and other similar initiatives.

The survey of the occupant firms during the present study showed that half of them had, as a result of moving to the D.C. units, vacated the

premises which they had previously occupied. Of the remainder, 15 had started up in the D.C. units, 3 had continued to operate from their previous premises having opened branches in the units, and 2 had previously operated from home, (table 14.3).

Table 14.3 Previous locations of firms in D.C. units

Previous location	Number of firms	% of sample
Premises in local area	10	25 %
Premises outside of local area	10	25 %
D.C. premises used as branch factory	3	8 %
Operated from owner's home	2	5 %
Started up in D.C. units	15	38 %

Source : Survey of occupant firms 1984

The owners of the premises which the firms had vacated, were contacted in order to discover what had happened to them since the firms had moved out. In this way it was possible to obtain accurate information about the use being made of 14 (70 %) of the premises which had been vacated by firms which had moved to the D.C. units. By 1984, six were occupied by other firms, five were vacant, two were in non-economic use and one had been demolished, (table 14.4). The type of premises involved varied enormously. They included farm outbuildings, the backyard of a public house, a Pentecostal church hall and the corner of a field. Many were not therefore, ideal locations for small businesses, and it is not surprising that less than half were in economic use by 1984.

In spite of their unsuitability, many of these premises had nevertheless been re-let after being vacated by the firms which moved to the units, and this confirmed that as concluded in section 4 chapter 8, there was a general shortage of industrial premises in the case study areas. Prior to the D.C.'s intervention in the local property markets, it seems that the only premises available for rent tended to be poor quality buildings many

of which were not suited to industrial uses, and in which activities were being undertaken without planning permission.

Table 14.4 Present uses of premises previously occupied by firms in D.C. units

Present use	Number of premises	% of premises
Occupied	6	30 %
Vacant	5	25 %
Non economic use	2	10 %
Demolished	1	5 %
Not known	6	30 %

Source : Survey of replacement firms 1984

Ten of the firms in D.C. units had previously occupied premises in the case study areas. The present uses of all of these were traced, and it was found that in 1984, five were occupied by other firms, two were not in economic use, two had been retained by the firms which had moved into the D.C. units, and one had been demolished. The managing directors of the firms in the five premises which were occupied were interviewed to find out what effect moving to the premises had had upon their firms. These interviews revealed that two of them had taken on a total of nine new workers, whom they would not have been able to employ if the premises had not been available. Nine F.T.E. jobs which were new to the case study areas, had therefore been created by the first round of changes of premises resulting from the provision of the D.C. units.

Similar interviews were conducted with the firms which occupied premises outside the case study which had been vacated by firms moving to the D.C. units. These revealed that one of them had, as a result of moving into the premises, taken on 4 F.T.E. workers which it would not have employed if their new premises had not been available. If this figure was factored up to allow for the fact that it was not possible to find out what use was

being made of six of the premises which had been vacated by firms moving to D.C. units, (all of which were located outside the case study areas), it was likely that a further 6 F.T.E. jobs had been created as result of the availability of the premises vacated by firms now in D.C. units. In total approximately 19 F.T.E. jobs were therefore likely to have been created as a result of the premises changes initiated by the provision of the D.C. units.

Clearly, it was possible that the firms moving into the premises which had been vacated by firms which had moved to the D.C. units, might in turn have vacated their previous premises, which may then have been used by other firms. However, it was also apparent that if these second round changes were similar to the first round, such changes would involve only two or three firms, and therefore have had only a minimal effect. Previous research indicates that this is likely to be the case. For example, the work of Valente and Leigh (1982) suggested that the sequences of premises changes initiated by the provision of advance factories in urban areas were very short. Tracing these further changes would have been a time consuming process, and since their exclusion was very unlikely to have a significant effect on the findings of the present study, it was decided to disregard them. It was clear however that a modest number of new local jobs had been created as a result of the first round knock-on effects of the premises changes, and that since previous researchers have not taken these into account, it is likely that they have underestimated the effectiveness of the programme.

5.2 Increased income to local authorities

Some American researchers have emphasised the potential fiscal benefits which may accrue to a local area as a result of rural industrialisation, (section 2.3 chapter 4), and it has been claimed by some evaluators that such benefits might result from the advance factory building programme, for two reasons. Firstly, it has been argued that the attraction of in-moving firms to the D.C. units will have increased the rates received by local authorities. Secondly, it has been claimed that if the programme has led to a reduction in local levels of unemployment, this will have reduced the

level of housing benefit, and rate and rent rebates which the local authorities have had to pay.

An analysis of local authority rating records undertaken in the present study showed that by August 1984, the occupant firms had paid a total of approximately £ 100,000, (table 14.5). Some researchers would therefore have subtracted this amount from the costs of the programme, thereby increasing its apparent cost-effectiveness. However, a closer examination of the way in which local authority funding actually operates, shows that this procedure cannot be justified, because the level of rate support grant which is paid to local authorities depends in part upon the level of income that they receive from local residents and businesses. Any increase in the level of local rate income is therefore offset by an equivalent reduction in the level of R.S.G. and has no affect on the amount received by the local authority in question. The only exception to this relates to cases where the local authority is "in penalty", when increased rates income would be retained by the Government.

Since none of the local authorities which were responsible for the case study areas had been in penalty up to 1984, it was clear that they would not have benefitted from the rates paid by the occupant firms. Further, it was made clear by the Treasurers' Departments of the local authorities which were contacted in the course of the present research, that the rates paid by the occupant firms were such a small proportion of their total rates income that even if their authorities had been in penalty the extra income would have been insignificant.

The Treasurers' Departments also claimed that the amounts which the local authorities had saved as a result of the reduction of unemployment by the programme were also insignificant, because the D.H.S.S. reimburses local authorities with between 80 % and 100 % (the exact amount depends on the type of benefit involved), of any benefit payments it makes.

Table 14.5 Rates paid by the occupant firms up to August 1984

Location	Rates received
Market Drayton	£ 55,436
Ludlow	£ 5,578
Bakewell	£ 6,479
Weobley	£ 15,050
Leintwardine	£ 4,922
Ipstones	£ 11,400
Waterhouses	£ 2,490
Longnor	£ 1,740
Total	£ 103,095

Source : Local authority rating records up to 1984

It is clear therefore that savings to local authorities had not been a significant benefit of the advance factory building programme. In most instances it was doubtful that savings of any sort had been made, and in the few cases where they may have been, they were likely to have been so small as to be of very little significance to local authority finances, which are primarily determined by central government's decisions regarding R.S.G. allocations, rather than by changes in the local rate base.

6.0 SUMMARY AND CONCLUSIONS

The results of the present study indicated that the wider effects associated with site acquisition, site development, construction and occupation of the units had been negligible. There had been no discernable affect upon local land values, and little benefit to the previous owners of the sites on which the units had been built. Few if any, of the firms which had previously occupied the sites on which the units were built had been

adversely affected by enforced moves to other locations. Although approximately 100 man / woman year F.T.E. jobs had probably been created by the construction of the units, it seemed that very few were likely to have been taken by people living in the case study areas. There was no evidence that the units had encouraged similar private sector developments, since neither the local authorities nor the private sector had, as a result of the initiatives, undertaken new building in the case study areas. The occupation of the units had made some local premises available, as the firms which had previously occupied them had moved to the units. There was no evidence however, that the local authorities in the case study had derived extra income as a result of the programme, and it seems clear that they are very unlikely to do so in the future.

The present study was the first attempt to measure the impacts associated with the earlier stages in the development process empirically. Although it is clear that those associated with the case study projects had been insignificant, it is possible that in other areas, or other programmes, they may have been more important, and they should therefore be taken into account in all evaluations rather than assuming that they are insignificant, as have most previous researchers.

CHAPTER 15 WIDER EFFECTS ASSOCIATED WITH THE IN-MOVEMENT AND GROWTH OF OCCUPANT FIRMS

1.0 INTRODUCTION

The later stages in the advance factory building programme's development process were likely to have a number of wider impacts, (Figure 14.1). Some of these may have had a greater impact on the extent to which the programme's objectives were achieved, than the direct impacts considered in earlier chapters, and it was therefore important to take account of them. In previous studies, measures of many of these wider effects have been based largely on assumptions about their likely scale, rather than upon accurate empirical work. As a result, little is known about their true size or importance. In the present study, an attempt was therefore made to develop approaches which were based, at least in part, on empirical measurement, and which were therefore likely to provide more reliable information about the wider effects of the programme than has previously been gathered.

2.0 THE IMPACT OF LINKAGES WITH SUPPLIERS

As well as providing new job opportunities in the D.C. units, the Commission anticipates that the programme will indirectly create new local jobs as a result of the linkages which exist between the occupant firms and their suppliers. It might be expected that by encouraging occupant firms to expand, the advance factory building programme will cause them to purchase more goods and services from their suppliers. As a result of this, the firms' suppliers should also increase their turnovers, and as a result recruit more workers. However, research undertaken in North America has suggested that very few firms based in rural areas purchase their supplies locally, and that as a result, rural economies are particularly "leaky", (section 2.2.2 chapter 4). Since the target areas of the advance factory building programme are small and tend to be underindustrialised, it is unlikely that many of the occupant firms' suppliers are located in them.

As a result it seems likely that most of the impact of increased purchases by occupant firms will have leaked out from the target areas.

However most previous evaluators of local economic initiatives in the U.K. have overlooked this, and have assumed that regional multiplier values can be used to provide an accurate estimate of the size of the employment effect which is likely to have resulted from increased purchases by the occupant firms. It seems likely therefore, that they have over-estimated the significance of such knock-on employment impacts. In the present study, rather than relying on regional multipliers, an attempt was made to assess the likely importance of increased purchases by the occupant firms, on the basis of detailed data regarding the location of their suppliers.

The indirect employment effects of the programme were not the main focus of the present work, and there was therefore insufficient time available to develop an approach which enabled the employment effect of increased purchases by the occupant firms in each of the case study areas, to be quantified. However it was at least possible to develop a "feel" for the likely size of these impacts, and thus to reach some tentative conclusions about the extent to which the programme had benefitted local firms which had not occupied the D.C. units.

2.1 The locations of occupant firms' suppliers

In the course of the first survey of occupant firms, their managing directors were asked about the location of all their main suppliers, and the extent to which their firms suppliers had changed since they moved to the D.C. units. The information they provided showed that, as had been expected, the degree of linkage between the occupant firms and other local businesses was rather low. Very few of the firms used local suppliers of raw materials and components, (table 15.1, Figures 15.1 to 15.6). Some of the occupant firms used local firms for services such as banking and transport, (table 15.1 and Figures 15.7 to 15.9), but the majority used non-local suppliers even of these services, (table 15.2).

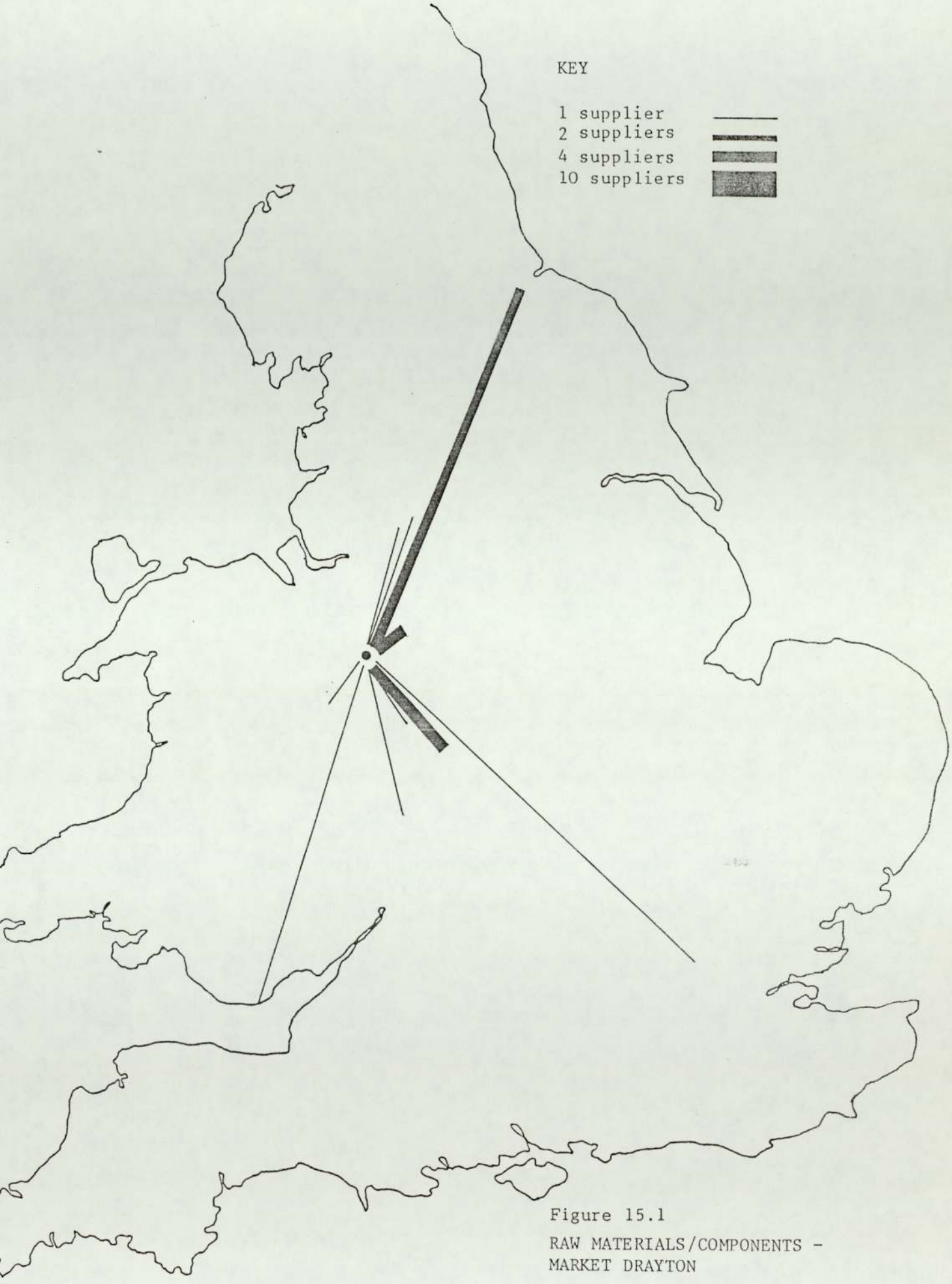


Figure 15.1

RAW MATERIALS/COMPONENTS - MARKET DRAYTON

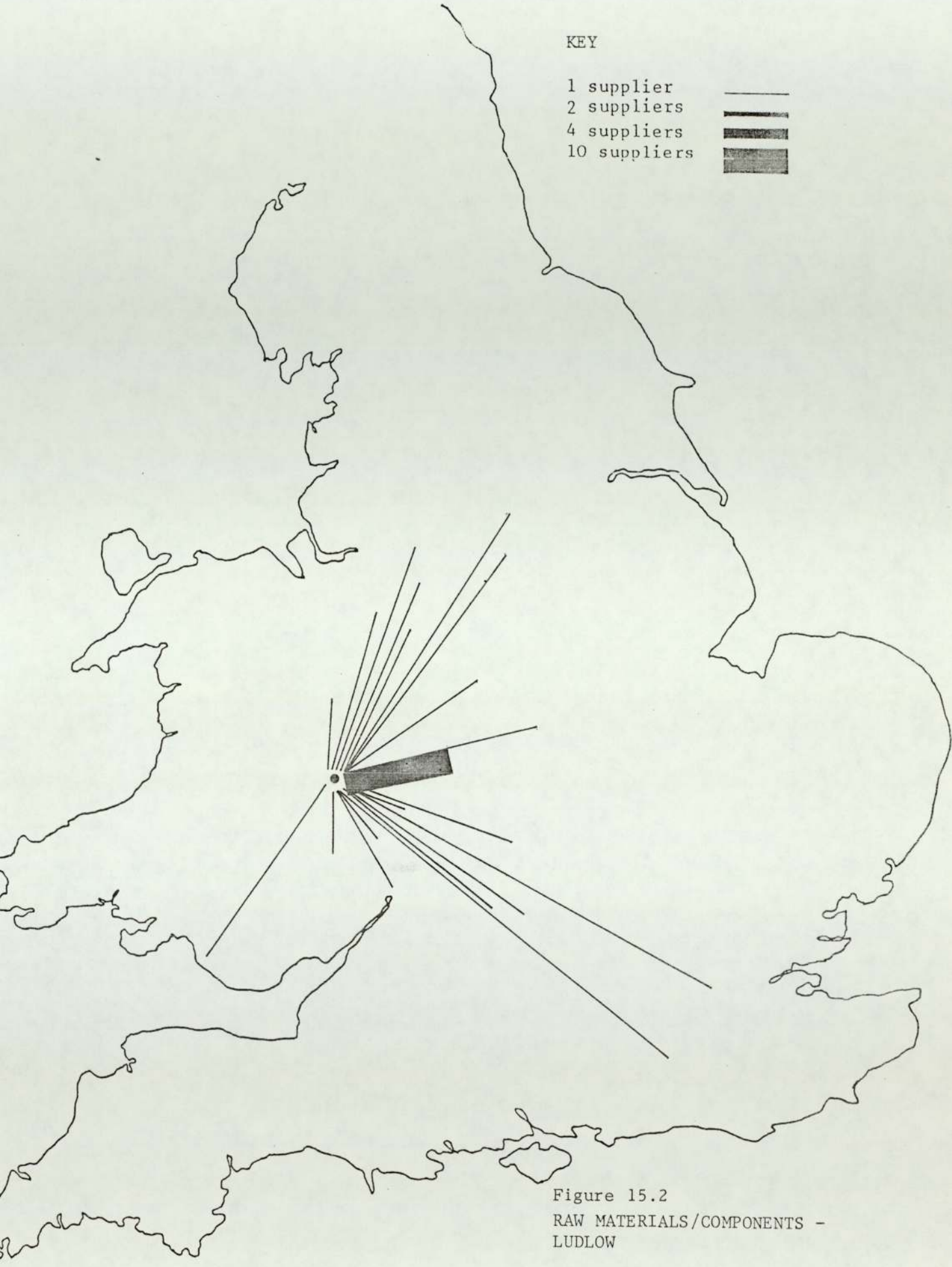


Figure 15.2
RAW MATERIALS/COMPONENTS - LUDLOW

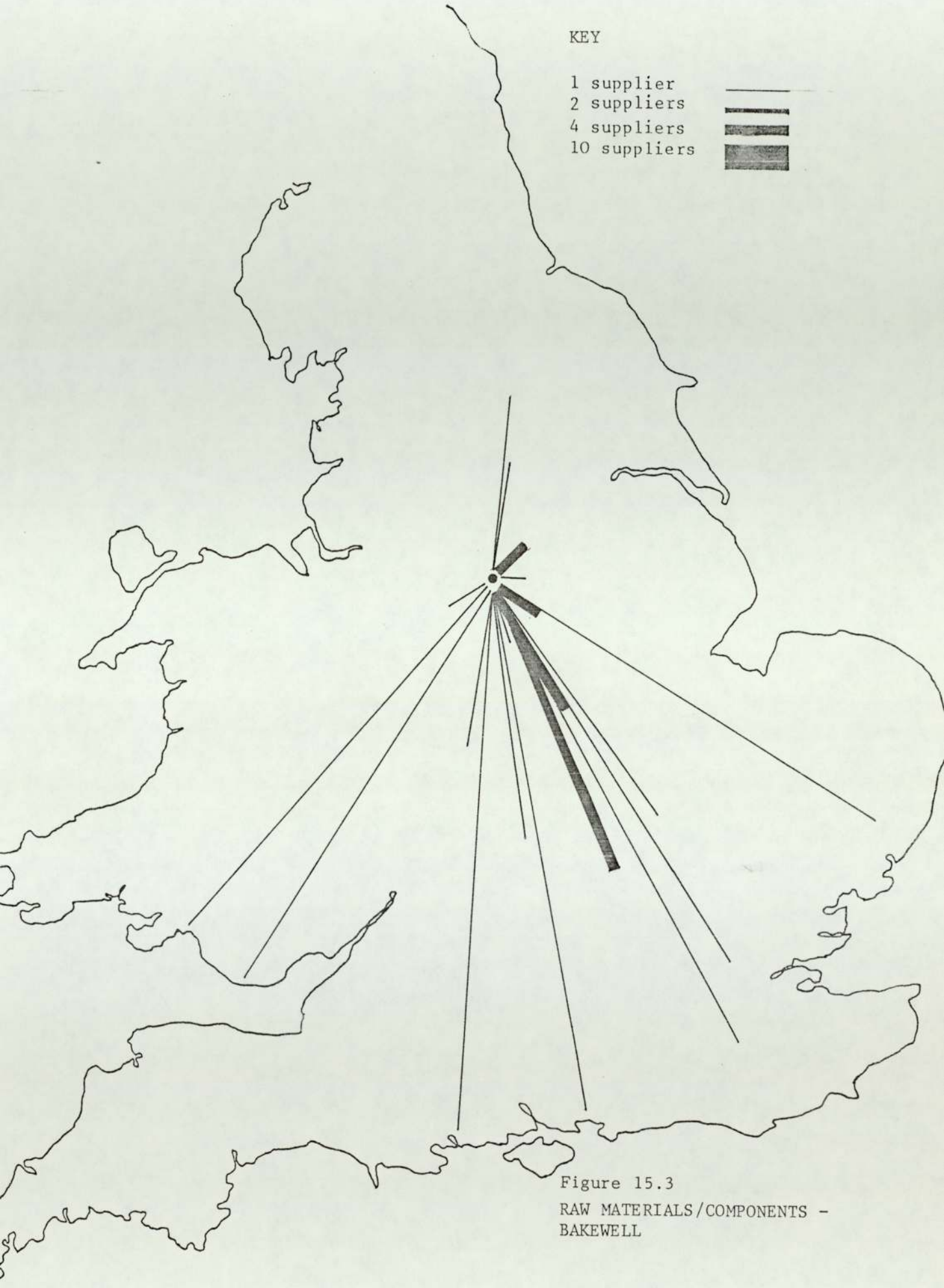


Figure 15.3
RAW MATERIALS/COMPONENTS - BAKEWELL

Figure 15.4
RAW MATERIALS/COMPONENTS - WEOBLEY

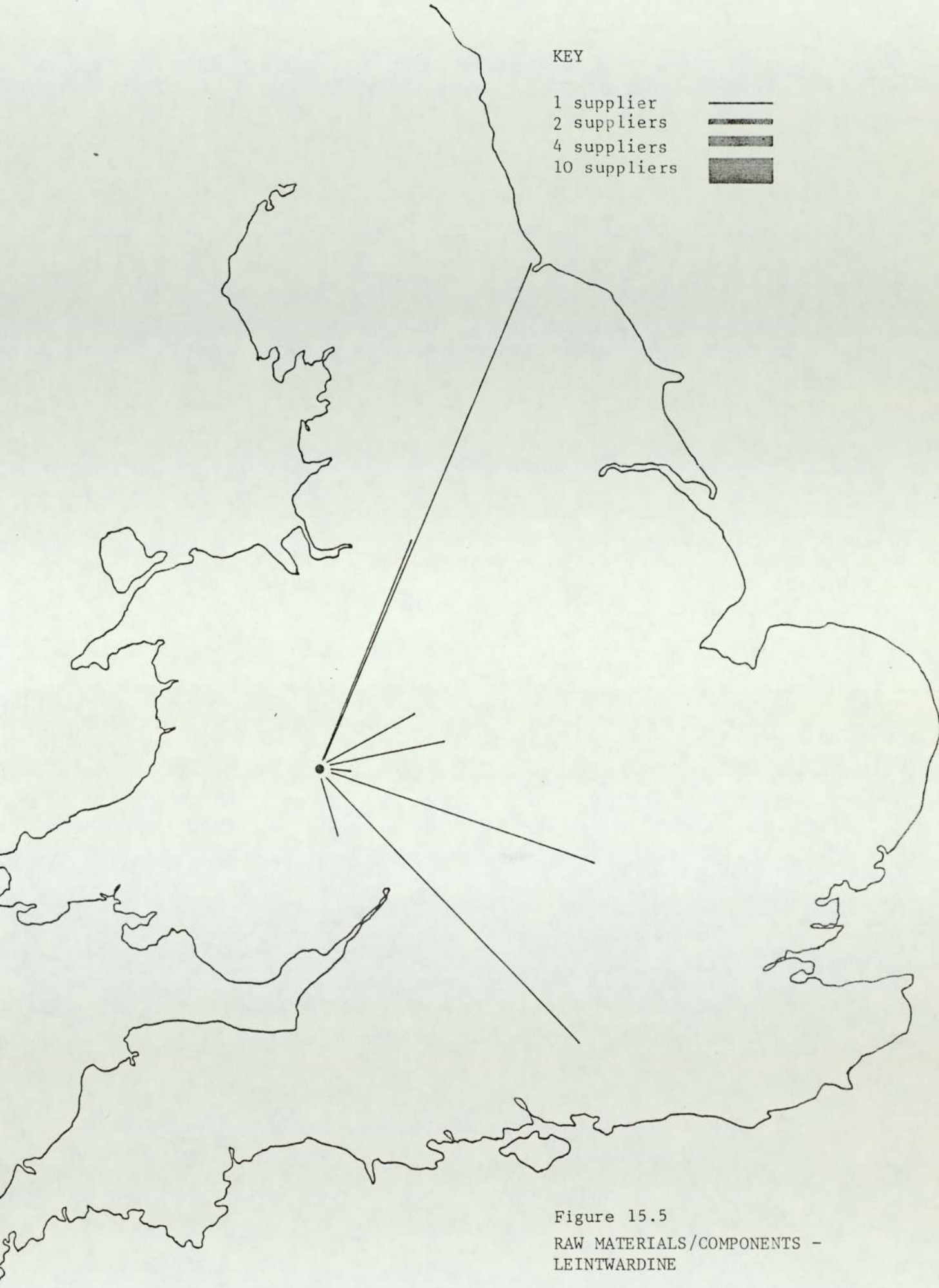


Figure 15.5
RAW MATERIALS/COMPONENTS - LEINTWARDINE

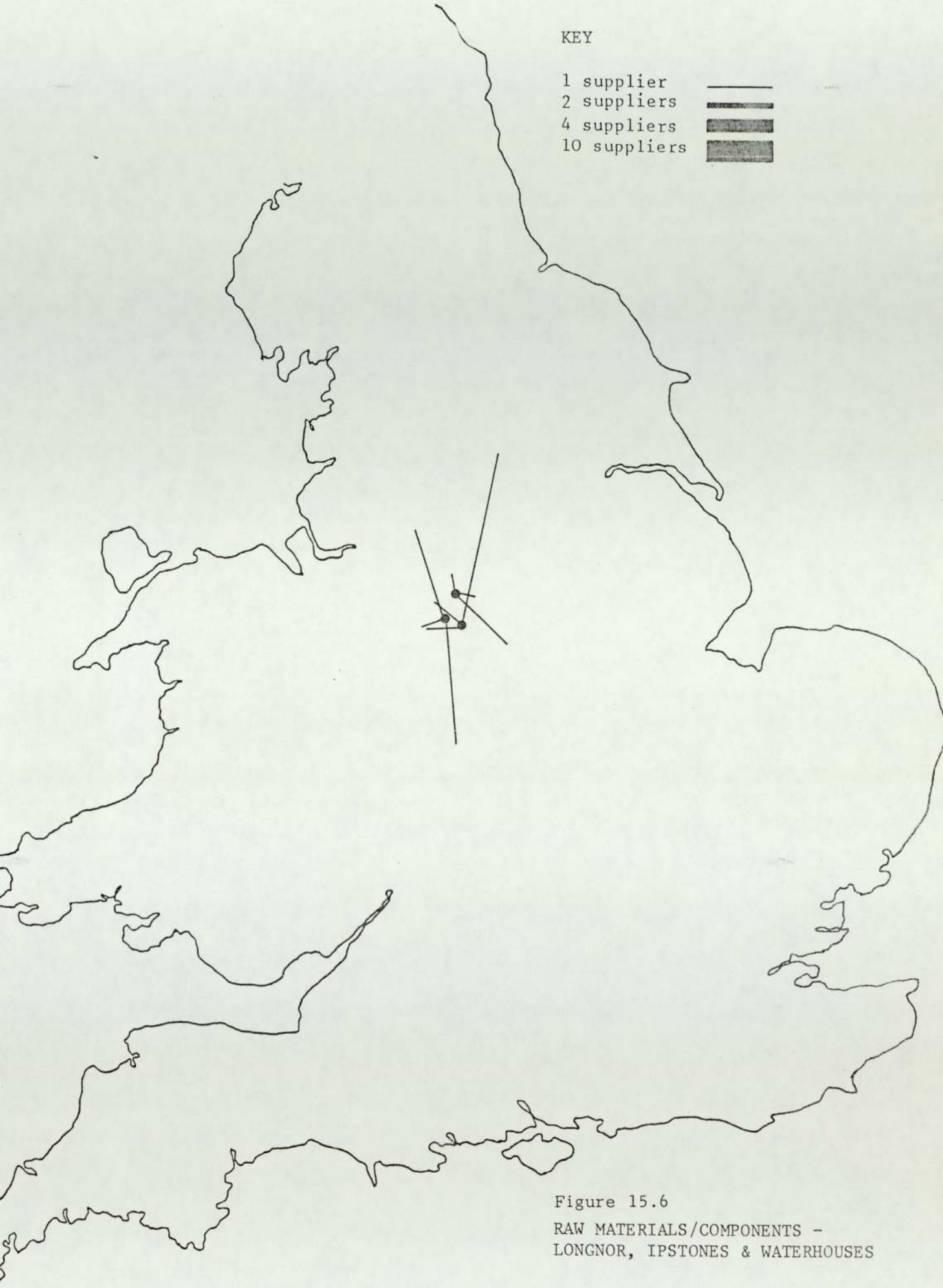


Figure 15.6

RAW MATERIALS/COMPONENTS -
LONGNOR, IPSTONES & WATERHOUSES

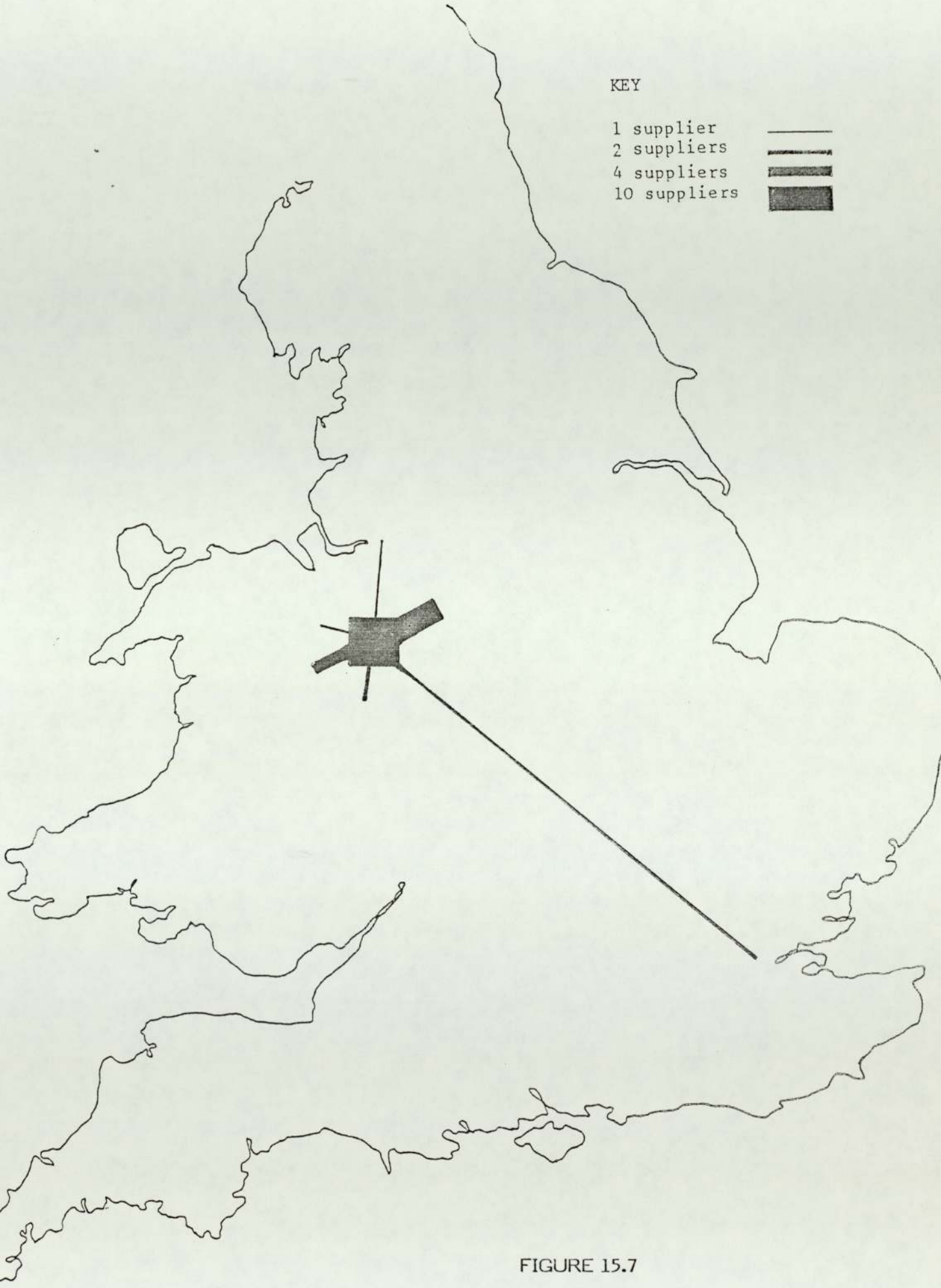


FIGURE 15.7

SERVICES - MARKET DRAYTON

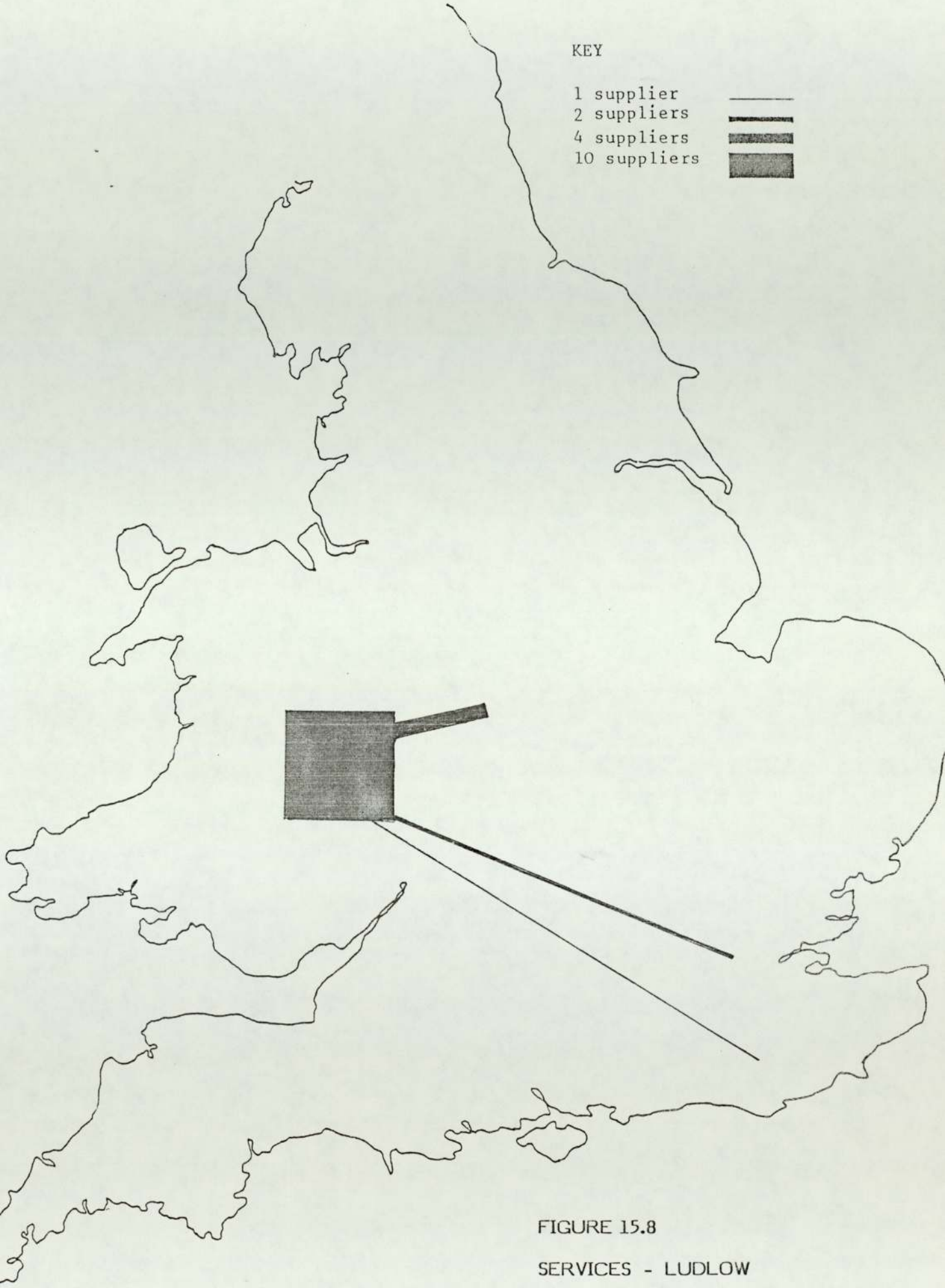


FIGURE 15.8

SERVICES - LUDLOW

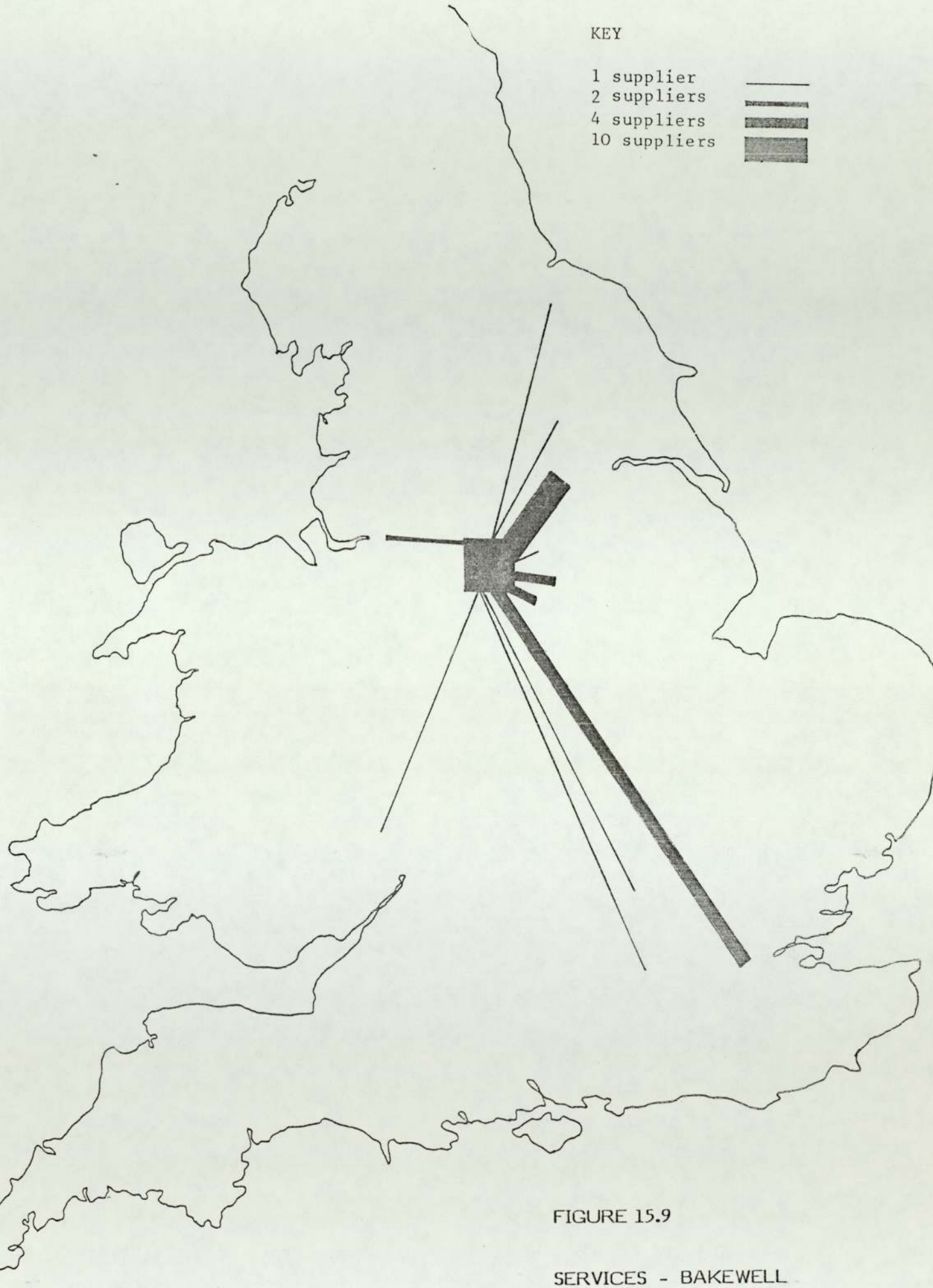


FIGURE 15.9

SERVICES - BAKEWELL

Table 15.1 The location of occupant firms' suppliers

	Local area	County	Region	U.K.	Abroad
Raw materials	2	4	8	23	4
Components	4	12	8	34	5
Transport	24	15	11	12	0
Legal	11	12	5	10	0
Financial	8	16	5	11	0
Bank	15	15	4	6	0
Printing	13	16	4	5	0
Advertising	6	8	2	7	0
Other	8	7	2	2	1
Total	91	105	49	110	10

Source : Survey of occupant firms 1984

Table 15.2 Local and non-local suppliers of the occupant firms

	Local firms		Non-local firms	
	%		%	
Raw materials	2	(5)	39	(95)
Components	4	(6)	59	(94)
Transport	24	(39)	38	(61)
Legal	11	(29)	27	(71)
Financial	8	(20)	32	(80)
Banking	15	(38)	25	(62)
Printers	13	(34)	25	(66)
Advertising	6	(26)	17	(74)
Other	8	(40)	12	(60)
Total	91	(25)	274	(75)

Source : Survey of occupant firms 1984

2.2 Linkages attributable to the programme

The present work showed that the level of linkage between the occupant firms and other local businesses was low, but since the availability of the D.C. units was known to have attracted firms into the case study areas, (section 2.1 chapter 11), it was likely that it had nevertheless led to increased business for some suppliers based in the target areas. The results of the 1984 survey indicated that sixteen of the occupant firms would probably have located in the case study areas even if the units had not been provided, (section 2.1 chapter 11), and it seemed unlikely that their choice of suppliers had been affected by the programme. However, it was equally unlikely that many of the remaining firms would have used suppliers from the case study areas in the absence of the programme, since four of them would probably not have existed by 1984 if the D.C. units had not been available to them, and the rest would have located outside the case study areas, (section 2.1 chapter 11).

Between them these 24 firms used 59 local suppliers, which was 45 % of the total number of local suppliers used by the occupant firms. Therefore, although the number of linkages between the occupant firms and local suppliers was relatively small, nearly half of those which did exist had probably been established as a result of the programme. Few of the in-moving firms had changed suppliers since moving into the case study areas, (section 2.4 below). The main impact of the programme had been to encourage new firms to develop local supplier linkages.

2.3 The locations of the matched firms' suppliers

In order to find out whether the low level of linkage between the occupant firms and local suppliers was typical of other local firms, the linkages between local firms and the occupant firms was compared with those which existed between local suppliers and the matched firms. Information about the location of their suppliers was obtained from the managing directors of the matched firms during the course of the interviews which were conducted with them in 1984. The data which was collected showed that

the matched firms had a larger number of local suppliers than the occupant firms, and that a greater proportion of their suppliers were based in the local area, (table 15.3). A majority of the matched firms (56 %), used local garages, haulage firms and other transport services, 59 % used local printers, 55 % used local solicitors, 52 % used local banks and 44 % used local accountants, (table 15.4). However, only one of the matched firms obtained raw materials from a local source, and none used local component suppliers. In total 46 % of their suppliers were based in the same local areas as the matched firms themselves, (table 15.5).

Table 15.3 Comparison of local linkages of occupant and matched firms

	% suppliers based in local area		Number of local suppliers	
	Occupant firms *	Matched firms	Occupant firms *	Matched firms
Raw materials	1 %	6 %	1	1
Components	4 %	0 %	2	0
Transport	36 %	65 %	13	15
Legal	41 %	58 %	11	15
Financial	30 %	40 %	8	12
Banking	52 %	52 %	14	14
Printing	38 %	62 %	10	16
Other	46 %	33 %	7	8
Total	28 %	44 %	66	81

* occupant firms in market town case study areas only

Source : Surveys of occupant and matched firms 1984

Table 15.4 Proportion of matched firms' suppliers which were local firms

	Local firms		Non-local firms	
		%		%
Raw materials	1	(6)	15	(94)
Components	0	(0)	43	(100)
Transport	15	(65)	8	(35)
Legal	15	(58)	11	(42)
Financial	12	(40)	11	(42)
Banking	14	(52)	13	(48)
Cleaning	1	(50)	1	(50)
Printing	16	(62)	10	(38)
Building	5	(100)	0	(0)
Other	2	(33)	4	(66)
Total	81	(44)	103	(56)

Source : Survey of matched firms 1984

Table 15.5 Locations of matched firms' suppliers

	Local area	County	Region	U.K.	Abroad
Raw materials	1	2	4	9	0
Components	0	5	8	8	2
Transport	15	2	2	2	2
Legal	15	0	9	2	0
Financial	12	5	8	5	0
Banking	14	1	10	2	0
Cleaning	1	1	0	0	0
Printing	16	4	6	0	0
Building	5	0	0	0	0
Other	2	1	2	1	0
Total	81	21	49	29	4
%	44 %	11 %	27 %	16 %	2 %

Source : Survey of matched firms 1984

2.4 Causes of the low level of local supplier linkages

There are a number of possible explanations of the fact that the occupant firms had so few local suppliers, and of the differences between the occupant and the matched firms. Firstly, by 1984, the occupant firms had been located in the units for an average of less than two years, whereas the matched firms had on average, been located in their present premises for almost nine years. It was possible therefore that the differences between the two groups, were at least in part, a result of the fact that occupant firms had not been located in the target areas long enough to develop linkages with local firms.

If this was the case, then it would be expected that the firms which had been located in the case study areas the longest, and had therefore had the longest time to establish links with other local firms, would have the largest number of local suppliers. It would also be expected that the new and in-moving firms in the units would develop increasing linkages with local suppliers over time. There was however little evidence of either of these two trends having occurred in the case study areas.

In 1984, 19 of the occupant firms had been located in the case study areas for more than three years, and between them, these firms used a total of 188 suppliers, 26 % of which were based in the case study areas. The twenty one firms which had been located in the case study areas for less than three years by 1984, used 177 suppliers, and 24 % of these were located in the same local areas as the occupant firms which they supplied. By 1986, only five firms had changed any of their suppliers since moving to the units, and two of these had decreased rather than increased the number of local suppliers which they used. In both cases this had been because the non-local firms' prices had been more competitive than those of the local companies which they had previously used.

A second possibility was that occupant firms had not used local suppliers simply because suitable firms did not exist within the case study areas. While this was undoubtedly true of raw material and component suppliers, it is not a satisfactory explanation of the low level of linkage between the occupant firms and local banking, accountancy, legal and

printing services, all of which were available within the case study areas.

A third possibility was that the differences between the matched and occupant firms was caused by the fact that many of the in-moving occupant firms had historical links with suppliers outside the case study areas. The managing directors of many of these firms reported that they preferred to use established suppliers rather than untried local firms, and this was reflected in the fact that the in-moving firms had far fewer local suppliers than either the indigenous or the new firms, (table 15.6). Since a larger number of the occupant firms were in-movers than was the case for the matched firms, (23 % compared to 4 %), it follows that a larger number of these had historical links with non-local suppliers, than did the matched firms.

Table 15.6 Comparison of local linkages of different types of firms

Origin of firm	Local suppliers		Non-local suppliers	
	number	%	number	%
New firms	43	35 %	80	65 %
Indigenous firms	37	25 %	111	75 %
In-moving firms	11	12 %	83	88 %

Source : Survey of occupant firms 1984

Fourthly, the present study suggested that many of the managing directors of the occupant firms had chosen to use suppliers which were owned and / or managed by personal friends of theirs. This sort of "networking" was particularly common in cases where the founders of the occupant firms were first time entrepreneurs, who had previously worked for another firm in the same industry, and therefore relied on their former contacts for supplies. As a result, firms which had been founded and were owned by local people used far more local suppliers than firms whose

founders lived outside the case study areas or had worked outside the case study areas before setting up the firm.

The greater propensity of local owners and managing directors to use local suppliers is reflected in the fact that in-moving firms had fewer local linkages than indigenous firms, and that the new firms which were founded by local people also had more local suppliers than the new firms whose founders came from outside the local areas. On average, more than a third of the suppliers of occupant firms which had been founded by local people were based in the case study areas, whereas only 14 % of the suppliers of firms which had been founded by non-local people were local businesses, (table 15.7). The firms which had been founded by local people used an average of 2.9 local suppliers each, whereas those owned by non-local people used an average of only 1.4 local suppliers each. The differences between these two groups of firms is statistically significant at the 0.01 level of probability.

Table 15.7 Local linkages by characteristics of founder of firms

Founder / owner characteristics	Local suppliers		Non-local suppliers	
	number	%	number	%
Local	69	34 %	137	66 %
Non-local	22	14 %	137	86 %

Source : Survey of occupant firms 1984

A fifth reason for the low level of local supplier linkages was that it is usually the suppliers of materials and components which meet the cost of delivery, and it was not in the interests of the occupant firms in the units to buy locally when they could obtain their supplies from larger, well established nationally-based firms at no extra cost. This seems to have been particularly true because, at the time of the present study, the national economy was in the grip of a severe recession, and most suppliers were willing to travel considerable distances in order to secure orders.

Sixthly, three of the firms in the units were owned by much larger companies, whose products they distributed, and in these cases suppliers were chosen at company headquarters, which were based outside the local area. There was therefore, no particular reason for these firms to choose suppliers from the target areas.

Finally, it seemed that service firms used a higher proportion of local suppliers than did manufacturing firms, although the differences between the two groups were relatively small (table 15.8). It is possible that this was due to the fact that a higher proportion of the service firms which had moved into the units, were indigenous businesses.

Table 15.8 Local linkages by type of activity

Type of firm	Local suppliers		Non-local suppliers	
	number	%	number	%
Manufacturing firms	54	23	181	77
Service firms	37	29	93	71

Source : Survey of occupant firms 1984

3.0 INCREASED EXPENDITURE BY EMPLOYEES OF THE FIRMS IN THE UNITS

In addition to creating new jobs in the firms which supplied the occupant firms, the Development Commission anticipates that the advance factory building programme will lead to increases in the incomes of the employees of the occupant firms. It is hoped that as a result of this, there will be increased expenditure in the case study areas, which will help to safeguard existing jobs and to create new jobs in local shops and services.

Many previous researchers have ignored this potential impact. Others have attempted to measure the extent to which the programme has led to

increases in expenditure by the employees of occupant firms by applying regional multipliers to the total number of jobs which they believed had been created in the occupant firms by the programme. Unfortunately, it is unlikely the latter studies have produced accurate estimates of the impact of employee expenditure. There are two reasons for this. Firstly, most researchers based their calculations on the total number of jobs accommodated in the units, rather than upon the number of jobs which had actually been created as a result of the programme, (section 7.2 chapter 5). They are therefore likely to have overestimated the amount of new expenditure which resulted from the programme.

Secondly, research into the shopping patterns of people living in the D.C.'s priority areas has shown that most people travelled out of the target areas to towns and cities to buy all but the lowest order goods, and there is therefore a high degree of leakage from the local economies, (Tricker and Martin 1983). As with the estimates of increased purchases from suppliers, (section 2.0 above), it is therefore likely that the regional multipliers used by previous researchers, overestimate of the size of the local multiplier in the target areas.

In the present study, estimates of the programme's impact upon the level of expenditure in the case study areas, were based on first hand empirical data regarding the likely level of increased expenditure by the employees of the occupant firms. There were two possible ways in which such data could be obtained. The first was to ask the managers of local shops, garages and places of entertainment which were likely to serve the employees of the occupant firms, what affect increased expenditure by employees who had taken up new jobs in the D.C. units had had upon their businesses. Unfortunately, when this approach was tested in a pilot study, which was undertaken in 1982-1983 in three market towns (different from those used in the present study), it was shown to be unworkable, because the managers of local shops and services were unable to give any idea of the programme's impact upon their businesses. Some were vaguely aware of the fact that D.C. units had been built in their town, and expressed opinions such as "I suppose it must be good for the area", but none had noticed any affect on their businesses.

As a result an alternative approach was adopted and tested. This relied upon first hand information obtained from the occupant firms, about the extent to which they had been able to pay increased wages, as a result of moving into the units, and about the areas in which their employees lived and were therefore likely to spend their incomes, and upon secondary data sources such as the Family Expenditure Survey.

3.1 Additional income in the target areas

As with the evaluation of all other aspects of the initiatives, since the main aim of the programme was to benefit the target areas, it was important to focus on the impact of the employees' expenditure upon these localities. Only expenditure that was additional to that which would have occurred in the target areas if the units had not been provided, can be considered to be attributable to the initiatives. This additional income can occur in two ways: either because new jobs were created as a result of the programme, and / or because the firms which occupied the units were, as a result of doing so, able to pay higher wages to existing employees.

It was known that by 1984, the programme had led to the provision of approximately 348.5 new F.T.E. jobs in the case study areas, (section 2.5.2 chapter 12). Most of the managing directors of the firms in which these jobs had been created were willing to provide information about the level of wages which they had paid, and assuming that the wages which had been paid to the employees who had filled the new jobs were typical of those paid to all the employees of these firms, it was therefore possible to calculate how much additional weekly income had resulted from the provision of the units in 1984, (table 15.9 and appendix 9). (The managing directors of four of the occupant firms were unwilling to give details about the wage rates which they paid, and these firms had therefore to be excluded from the present analysis. However since only 10 (2.6 %) of the new F.T.E jobs had been provided in these four firms, their exclusion is unlikely to have had any significant affect on the conclusions which were reached).

Table 15.9 Additional income resulting from the creation of new jobs

Case study area	New FTE jobs	Additional weekly income
Market Drayton	180.0	£ 23,624
Ludlow	14.5	£ 1,467
Bakewell	35.0	£ 5,241
Weobley	28.5	£ 3,094
Leintwardine	10.0	£ 1,353
Ipstones	44.0	£ 3,300
Waterhouses	16.5	£ 1,238
Longnor	10.0	£ 750
Total	339.5	£ 40,067

Source : Survey of occupant firms 1984

In addition to increases in local income as a result of the creation of new jobs, it is clear that the provision of the units had helped some occupant firms to increase their profitability (section 3.5.3 chapter 11), and that this may have enabled some to pay higher wages to their existing employees. According to their managing directors, a quarter of them had increased the real wage levels which they paid since moving to the units. However, none attributed this to the availability of the factory units, and for this reason increases in the wages paid to those employees whose jobs would have existed even if the units had not been provided, were excluded from the analysis.

3.2 Additional local expenditure

Not all of the additional income resulting from the programme, was likely to have resulted in additional expenditure in the case study areas.

This is because part of the total increases in wages paid to new employees would have been lost as tax and non-disposable income, and much of it was likely to have been spent outside the case study areas. In addition, in order to accurately measure the programme's net impact on local income, it was necessary to deduct the benefit payments which would have been received by the occupant firms' employees in the absence of the programme.

Many of these deductions were made on the basis of the Family Expenditure Survey (F.E.S.) for 1984/85. Since the F.E.S. only provides details of the average breakdown of expenditure patterns for different levels of household income, it was assumed that the only source of income possessed by the households to which the employees belonged, was that which they derived from the firms in the D.C. units. It was unlikely that this was true of every household, but since the F.E.S. showed that expenditure patterns would not have changed drastically unless the households' income had been considerably higher than was assumed, it seemed that the assumption was unlikely to have introduced a significant source of error into the calculation of additional local expenditure.

3.2.1 Deductions at source

The survey of occupant firms showed that in 1984, the average weekly income of the employees of the occupant firms was £130. According to the F.E.S., in 1984-1985, households with a gross weekly income of between £125 and £149, paid an average of 13.5 % of it as tax and national insurance. In order to obtain an accurate estimate of the likely increase in local expenditure which was attributable to the programme, it was therefore necessary to deduct this proportion from the additional income which had been brought into the case study areas as a result of the new jobs which had been directly created by the programme.

3.2.2 Non-disposable income

The F.E.S. also showed that the average household spent a further 6.5 % of its gross weekly income on mortgage repayments, life assurance, savings and investments. Since this represents non-disposable income, it must also be deducted from the total income injection.

3.2.3 Benefits which would otherwise have been received

In 1984-85, the unemployed received an average of £2,331 each in unemployment, supplementary, housing and other benefits (Sinfield and Fraser 1985). Since the programme had led to a reduction of 57 in the level of registered unemployment, (section 8 chapter 13), and these people would have received about £ 2,331 each in the absence of the programme, it is clear that £ 132,867 (57 x 2331) should therefore be deducted from the figures shown on table 14.13, in order to ascertain the amount of increased local expenditure which could be attributed to the programme.

3.2.4 Employees living outside the case study areas

Nearly a third (32 %) of the employees of the occupant firms lived outside the case study areas, (section 3.1 chapter 12), and since none of the case study areas possessed particularly attractive shopping facilities, (section 3.2.5 below), it was unlikely that much of their income would have been spent in the case study areas. The amount of additional income which had been brought into the areas as a result of the programme was therefore further reduced to take account of this.

3.2.5 Local employees' expenditure outside the case study areas

The amount of income likely to have been spent outside the case study areas by the two thirds of the employees living in them, was estimated on the basis of the types of goods and services which could be purchased locally, and of information from the F.E.S. about the proportion of household income which was spent on each of these types of item.

On the basis of Shropshire County Council's Five Yearly Shops Surveys which gave detailed information concerning the types and sizes of the shops which existed in 1984 in both Market Drayton and Ludlow, and of the first hand knowledge of these areas which was acquired in the course of the present work, it was possible to make informed judgements about the types of goods which could have been bought in Market Drayton and Ludlow, (table 15.10). It was necessary to rely on estimates because of the limited time and resources available for the present study, and future work might usefully test the accuracy of these estimates, by for example, undertaking a more detailed, first hand survey of the shopping facilities in the areas.

Table 15.10 Goods and services likely to be bought in Market Drayton and Ludlow

Type of good or service	% likely to be bought locally
Housing	75
Fuel, light & power	0
Food	75
Alcoholic drink	100
Tobacco	100
Clothing & footwear	50
Durable household goods	50
Other goods	25
Transport and vehicles	50
Miscellaneous services	20

Source : Estimates based on Shropshire County Council Shops Survey 1984

The F.E.S. gives details of the amount of gross weekly income which would have been spent on each of these categories of goods and services by the average family with an income of £ 125 to £ 149, in 1984/85. The figures given in the F.E.S. were converted to percentages of total disposable income (table 15.11).

Table 15.11 Proportion of income spent on goods and services

Type of good or service	% of disposable weekly income spent
Housing	17 %
Fuel, light & power	7 %
Food	22 %
Alcoholic drink	5 %
Tobacco	4 %
Clothing & footwear	7 %
Durable household goods	8 %
Other goods	9 %
Transport & vehicles	13 %
Miscellaneous services	8 %

Source : F.E.S. 1984-1985

Using the information concerning goods and services which could be bought locally and about the proportion of income which was likely to have been spent on these goods and services, it was estimated that 58 % of the income of the employes of the occupant firms who lived in Market Drayton and Ludlow would have been spent in the case study areas, (table 15.12).

Table 15.12 Proportion of disposable weekly income spent in local area

Type of good or service	% weekly income spent in local area.
Housing	13 %
Fuel, light & power	0 %
Food	17 %
Alcoholic drink	5 %
Tobacco	4 %
Clothing & footwear	4 %
Durable household goods	4 %
Other goods	2 %
Transport & vehicles	7 %
Miscellaneous services	2 %
Total	58 %

The proportion of disposable income which was spent in the other six case study areas is likely to be less than 58 %, because Market Drayton and Ludlow were the two largest of the eight case study areas, and contained the best range of shopping facilities. A survey conducted in 1983 showed that people living in Bakewell regularly travelled to Chesterfield to shop, which is more than thirty minutes drive away, (Derbyshire County Council 1983), and it seemed clear that an even smaller proportion of the additional income generated in the five village case study areas, would have been spent locally, than was the case in Market Drayton or Ludlow.

3.2.6 Total additional expenditure by employees in case study areas

When all the deductions which have been discussed in the preceding sections, were made, it became clear that only a relatively small proportion of the new income paid to employees of the occupant firms who had taken jobs created as a result of the programme, was likely to have been spent in the case study areas. It was estimated that the people who had taken the new jobs were paid £ 2,083,000 gross in 1984. When

allowances were made for all the leakages which have been discussed above, it was clear that only about 27 %, i.e. £ 558,000, was in fact likely to have been spent in the case study areas.

Since the estimate produced in the present study was based on a number of assumptions which were not fully tested, no attempt was made to estimate what impact the additional £558,000 of annual expenditure in the case study areas might have had on employment levels in local businesses. Such an estimate would require information about the number of additional workers taken on in different types of local service and retailing firms per additional pound spent, (something which might be measured by using the Census of Distribution, and some estimate of the number of employees per unit area in different businesses). However this type of analysis might rapidly become a quagmire of untested assumptions of the type for which other studies have been criticised in earlier chapters of this thesis.

It seems however, that as expected, much of the economic advantage associated with increased expenditure by the employees of the occupant firms, was likely to have "leaked" out of the case study areas, and that previous studies based on regional multipliers, are likely to have considerably overestimated their importance in localities the size of the areas on which the advance factory building programme is targeted. Clearly, proof of this tentative conclusion would require further detailed research which focused specifically on this issue, and for which sufficient time and resources were available to allow detailed first hand data about employee expenditure patterns, and the links between increased expenditure and employment creation in local shops and services, to be collected.

The present research did not aim to solve all of the methodological and technical problems surrounding the measurement of increased local expenditure, attributable to an initiative such as that of the D.C.'s factory building programme. It did however provide a number of new pieces of evidence regarding the likely scale of local multiplier effects, which may have helped to advance the present state of knowledge, but more importantly which point the way to an alternative approach to the evaluation of these effects which is empirically-based and which is

therefore likely to be more reliable than the highly deductive methodologies used in past studies.

4.0 MARKET SHARE DISPLACEMENT

It was possible that the provision of the factory units may, as a result of assisting the firms which had occupied them, have had a harmful affect on other firms in the same industries as those in the units. The present study showed that many of the firms which moved into the units were able to expand more rapidly than they would otherwise have done, (section 4 chapter 11), and it was clear therefore that unless the market for their products had increased, their success must have been achieved at the expense of other firms in the same industries.

The advance factory building programme was designed to benefit specific target areas. Market share displacement of firms located outside these areas was therefore not relevant to the present study. However since many of the occupant firms had located in the case study areas as a result of the programme, (section 2.1 chapter 11), and had quite localised markets, it was possible that the programme had had a deleterious affect on some local businesses. It was important that this was taken into account when evaluating the programme's effectiveness.

No previous studies of the advance factory building programme, (and very few evaluations of any type of economic initiative), have considered the issue of market share displacement. However, it is clear that by neglecting it, previous researchers have run the risk of overestimating the effects of the initiatives which they have evaluated, (particularly at the national scale). In the present work an attempt was therefore made to assess the scale and likely importance of market share displacement. The approach which was developed did not to solve all of the problems relating to the measurement of this negative impact, but it does provide a basis on which it is hoped that future work can build.

4.1 Methodology developed and used in the present study

In order to prove that market share displacement has occurred in the case study areas as a result of the programme, it had to be demonstrated that the provision of the D.C. units benefitted the firms which had moved into them in a manner which had worked to the disadvantage of other local firms, and which would not have happened in the absence of the units. It is much easier to prove that market share displacement cannot have occurred, than to prove that it has, and therefore in the present study, those instances where it could not have taken place were identified first. In those cases where it could not be proved that market share displacement had not occurred, its likely extent was assessed using detailed information which was gathered in the course of the interviews with the managing directors of the firms in the units and from their local competitors.

Market share displacement could only have occurred in the case study areas as a consequence of the initiatives, if:

1. the firms in the units were in competition with other firms in the case study areas.

and 2. the location of the firms in the units was affected by the provision of the units.

or 3. the turnover of the firms in the units was increased as a result of the initiatives.

Using the detailed information about both the occupant firms and their local competitors, gathered in the course of the interviews with their managing directors, it was possible to identify those instances where these conditions did not apply, and where market share displacement was therefore unlikely to have occurred.

Local firms which might have been in competition with the firms in the units, were identified by a number of different methods. The managing directors of the occupant firms were asked which firms they considered to be their competitors, and where these firms were located, and their perceptions were then checked in three ways. Firstly, since many of the matched firms were local businesses involved in the same industries as

those in the units, they were often in competition with the occupant firms, and their managing directors were therefore able to provide information about other firms which might be in competition with the occupant firms. Secondly, searches of secondary data sources, (particularly Market Location, Yellow Pages, and local business directories) were undertaken in order to identify competitors which had not been mentioned, either by the managing directors of the firms in the units, or by those of the control group firms. Finally, competitors were identified by first-hand knowledge (which was obtained over the years in which the research was undertaken), of the range of firms located the case study areas.

4.2 Local competitors

Very few of the competitors identified by the managing directors of the firms in the units, were based in the case study areas, (table 15.13). The managing directors of the matched firms and secondary data sources, confirmed that the perceptions of the managing directors of the firms in the units, were largely accurate. Only two of the competitors which were identified from these sources, were not mentioned by the managing directors of the occupant firms.

Table 15.13 Competitors identified by the managing directors of the occupant firms

Location	Number of competitors	%
Local area	8	12 %
County	6	9 %
Other rural areas in U.K.	13	20 %
Non-rural areas in U.K.	32	49 %
Foreign	6	9 %

Source : Survey of occupant firms 1984

It seemed therefore that only nine (23 %) of the occupant firms, had any local competitors (table 15.14). This is not surprising in view of the small size of the "areas of pull" and the fact that a number of the occupant firms were involved in specialised manufacturing processes, and therefore had very few competitors in the country as a whole let alone in the case study areas.

Table 15.14 Occupant firms which had local competitors

Firm Number	Number of competitors identified
3	1
4	1
7	1
8	1
10	1
13	1
15	2
18	1
19	1

Source : Surveys of occupant and matched firms, plus secondary sources

4.3 Alternative situations of the occupant firms which had local competitors

Since 31 of the occupant firms had no local competitors, they could not have caused local market share displacement. The extent to which the programme had caused the remaining firms to displace other local firms' market shares, depended on the impact of the provision of the units on their location decisions and on their turnover. In cases where the programme had no impact on either, it could not have led to market share displacement. The present study indicated that the programme had no impact on the the turnover or location of one of the remaining nine occupant

firms, and this was therefore excluded from further analysis. Another of the nine firms was excluded because although it had been attracted into one of the case study areas as a result of the programme, it seemed clear that the programme had had no affect on its turnover, and since most of its products were exported, it was unlikely that its location in one of the case study areas due to the programme, had harmed its local competitors.

Of the seven remaining firms, two would according to their managing directors, have been located in the case study areas even if the units had not been available, but the programme had allowed them to increase turnover, and it was therefore possible that it had led to local market share displacement in these cases as well. The other five would not have located in the case study areas in the absence of the programme, and it was therefore possible that by attracting them to the areas, the programme had brought them into competition with local firms, particularly because at least part of their customer base was local, and because all of them had expanded between 1984 and 1986 (table 15.15).

Table 15.15 Changes in turnover (1984-1986) in the firms which would not have located in case study areas in the absence of the programme

Firm number	Turnover 1984 £ 000's	Turnover 1986 £ 000's	% Change
4	-	-	150
8	30	120	300
10	30	250	733
15	215	250	16
18	60	90	50

Source : Survey of occupant firms 1984

4.4 The likely scale of local market share displacement

The seven occupant firms which it seemed might have displaced local firms' market shares as a result of the programme, had a total of eight local competitors. The managing directors of these eight firms were interviewed in order to discover whether there was any evidence that their market share had in fact been adversely affected by competition from the occupant firms. They were asked about the market areas which they served, about recent changes in the size of their firms' turnovers and / or workforces. None of them believed that their firms had suffered market share displacement as a result of expansion by the occupant firms. However, in marked contrast to the occupant firms, only one of their firms had increased turnover in real terms over the preceding three to four years. Similarly, only two firms had increased their workforces over that time, and four had actually laid off workers, (table 15.16). It seemed therefore that although the managing directors were either unaware of the fact, or unwilling to admit that their firms had suffered a decline in their market share as a result of competition from the occupant firms, more objective indicators showed that it was likely that at least some had done so.

According to their managing directors, six of the eight competitor firms served national markets, and two served only the local market area. It would seem that the former were likely to be less susceptible to market share displacement as a result of the programme, since their market areas were as large or larger than the occupant firms, and they were therefore more likely to be able to compensate for any business which they lost to the occupant firms. The latter however, were vulnerable because they were in competition with the occupant firms for the same small market areas, (table 15.17).

Table 15.16 Changes in workforces of competitor firms 1980-1984

Occupant firm	Employment in competitor firm 1980	1984	Change 1980-1984
4	8	4	- 4
8	6	12	+ 6
10	2	3	+ 1
13	2	2	0
* 15	6	6	0
* 15	8	6	- 2
18	3	2	- 1
19	4	2	- 1
Total	39	37	- 2

* occupant firm number 15 had two local competitors

Source : Survey of competitor firms 1984

Table 15.17 Market areas served by occupant firms and their competitors

Occupant firm	Market area of occupant firm	Market area of competitor(s)
4	International	U.K.
8	Local area	U.K.
10	Local area	U.K.
13	Local area	Local area
* 15	U.K.	U.K.
* 15	U.K.	U.K.
18	Local area	Local area
19	County	U.K.

* occupant firm number 15 had two local competitors

Source : Survey of competitor firms 1984

5.0 LABOUR SHORTAGES IN THE LOCAL ECONOMY

Given the levels of unemployment and activity rates in the case study areas, it was unlikely that the in-movement and growth of the occupant firms would have led to general labour shortages. However, it was also possible that shortages of particular types of workers already existed, and that the programme may have exacerbated these. In order to identify the programme's impact on local labour shortages, the managing directors of both the occupant firms and the matched firms were asked, in the course of the interviews conducted with them, about the degree to which they had experienced difficulties recruiting workers.

Their replies suggested that with the exception of skilled male workers, no significant labour shortages had occurred in the target areas by 1984. Only 38 % of the occupant firms had experienced recruitment problems since they had moved to their present premises. A fifth had found it difficult to recruit skilled male workers, and 15 % of the managing directors reported that they had found it difficult to recruit unskilled labour "of the right kind", by which they usually meant people with what they considered the right attitude to work. Nearly half of the matched firms, had experienced some difficulties recruiting staff, and as with the occupant firms, the most frequently mentioned problem was that of recruiting skilled men, (table 15.18).

More than two thirds (68 %) of the managing directors of the occupant firms had recruited workers through their personal contacts, and 44 % of the respondents to the survey of employees stated that they had become aware of the job in the units through a friend or other personal contact. Fifteen of the occupant firms had used advertisements and 13 firms had used job centres or careers offices. Only nine firms had waiting lists, and the size of these varied from two to fifty people, and averaged fifteen.

Table 15.18 Recruitment problems experienced by the occupant and matched firms

Type of worker	All occupant firms	Occupant firms in market towns	Matched firms
Skilled male workers	20 %	15 %	26 %
Unskilled male workers	15 %	4 %	4 %
Technical male workers	8 %	8 %	8 %
Office female workers	8 %	4 %	4 %
Unskilled female workers	8 %	0 %	4 %
Technical female workers	5 %	4 %	4 %
Skilled female workers	5 %	8 %	4 %

Source : Surveys of occupant and matched firms 1984

It was clear that recruitment problems reported by the matched firms, were very similar to those of the occupant firms in the market towns with which they were paired, (table 15.18). It was also apparent that, as might have been expected, the occupant firms in the village case study areas had experienced greater problems than those in the towns, presumably because of the smaller populations in the former.

The follow up survey of the occupant firms indicated that the number of people employed by the occupant firms almost doubled between 1984 and 1986, and the number of skilled workers accommodated in the firms increased by 89. Since both the occupant and the matched firms had experienced most difficulty recruiting skilled male workers, this may have exacerbated the problem. The managing directors of the occupant firms were not asked specifically about recruitment problems in 1986, however nearly a third of them mentioned labour shortages when asked about the current problems facing their firms. This was the most frequently cited problem (no other problem was mentioned by more than two firms). The fact that so many of the managing directors mentioned this problem without prompting, suggests that

they were probably more concerned about recruitment than they had been in 1984.

Therefore the present study suggests that the provision of the units was unlikely to have had any major adverse affect on the ability of local firms to recruit labour by 1984, but that since the occupant firms had recruited workers mainly from the target areas, (section 3.1 chapter 12), and a large proportion of their workforces were skilled people, it is possible that by 1986, the programme may have exacerbated the shortage of skilled labour, and that since the occupant firms were expected to continue to expand, (section 3 chapter 16), the problem may increase in the future.

6.0 LOCAL POPULATION SIZE AND STRUCTURE

The overall objective of the advance factory building programme from the mid-1970's onwards has been to ensure that populations of sufficient size and balance to maintain the "viability" of the rural areas, continue to live within them, (section 4 chapter 5). A large number of exogenous factors (for example, counter-urbanisation), are likely to have swamped the effects of such a small local programme such as the advance factory building programme, and it is therefore impossible to measure them on the basis of secondary sources such as census returns, particularly because few of the factory units in the case study areas had actually been occupied by the time of the last census in 1981.

The net impacts of the programme on the demography of the case study areas, could be determined by comparing the existing situation with what was likely to have happened in the absence of the programme. In the present study the alternative situation was constructed on the basis of detailed empirical evidence concerning the number of jobs which had been created in the occupant firms, and where the employees who had taken the new jobs would have chosen to live if they had not been provided. This information was derived from the surveys of the occupant firms and their employees.

The survey of employees indicated that nearly two thirds of the employees believed they would have continued to live in the case study

areas in the absence of the programme. A quarter believed the they would have been unemployed in the absence of the programme, but would nevertheless have remained in the local area, 9 % believed they would have retained their previous job in the local area, and 27 % believed they would have found an alternative local job. However nearly a third of the employees believed they would have left the case study areas in the absence of the programme, 20 % would have moved away either to take new jobs or to seek work, and 9 % stated that they would have remained in their previous job outside the area, and thus would not have moved into the case study areas, (table 15.19).

Table 15.19 Employees' responses to their perceived alternative situations

Unemployed but remained in local area	25 %
Retained previous job in local area	9 %
Found a new job in local area	27 %
Retained previous job outside local area	9 %
Found a new job outside local area	16 %
Moved out of local area in search of employment	4 %
Economically inactive	6 %
No answer	3 %

Source : Survey of employees 1984

Assuming that the employees' perceptions of their alternative situations were reasonably accurate, it was possible to weight and factor up the survey so as to make them as representative as possible of the total number of employees, (in the same manner as was described in section 5.2 chapter 13). If those employees who had filled jobs in the occupant firms which would have existed in the case study areas even in the absence of the programme, were then excluded from the analysis, it seemed that about 86 of the employees of the occupant firms would have moved out of the case study

areas in the absence of the programme. Since many of these employees would have had families, who they would presumably have taken with them, this might have involved a reduction in the populations of the eight case study areas by a total of about 200 to 250 people.

The accuracy of the estimate of the demographic impacts of the programme developed in the present study is clearly dependent on the accuracy of the employees' perceptions regarding where they would have lived in the absence of their present jobs. A comparison of the responses obtained in the present study were compared with those received by Hodge and Whitby (1979) who asked a similar set of questions (though for different reasons). It showed that the employees interviewed in the course of the present research were much more pessimistic about the chances of finding alternative employment than those interviewed by Hodge and Whitby (1979), (table 15.20). This may have been because of the rise in unemployment between 1977 (when Hodge and Whitby's work was undertaken) and 1984, and may therefore indicate that the employees' perceptions of the state of the labour market were reasonably accurate. However, it was impossible to confirm this on the basis of the evidence available in the present study.

Table 15.20 Comparison of employees' perceived alternative situations to Hodge and Whitby (1979)

	Survey of employees	Hodge and Whitby
Unemployed	25 %	11 %
Retained job in local area	22 %	29 %
Economically inactive	6 %	2 %
Found another job in local area	27 %	46 %
Moved out of area	20 %	11 %

Sources : Survey of employees 1984 and Hodge and Whitby 1979

7.0 SUMMARY AND CONCLUSIONS

Previous researchers have tended to ignore the wider impacts of local economic development initiatives such as the advance factory building programme, and therefore little is known about their effect on the extent to which the programme's objectives have been achieved. Some are likely to be relatively insignificant but others may be more important than the direct impacts upon which most previous evaluators of economic initiatives have concentrated. The present study identified a range of possible wider impacts of the D.C.'s advance factory building programme, and developed a number of pioneering approaches for measuring their importance, most of which were based on first hand empirical data collected through a range of surveys.

It was clear from the present study, that the occupant firms bought a large proportion of their supplies from non-local firms, that the local economies of the case study areas were characterised by a high level of leakage, and that this was unlikely to change even in the medium / long term future. This was partly due to the fact that there were relatively few potential suppliers in the case study areas, but also to the way in which the managing directors of in-moving firms had continued to use established non-local suppliers, after moving to the units.

It was not possible, in the time and with the resources available for the present study, to collect sufficiently detailed evidence to quantify the likely size of the programme's indirect employment impacts in the target areas as a result of having stimulated the growth of the occupant firms. However, the present study showed that much of the economic advantage associated with the expansion of the occupant firms had leaked out of the case study areas. It seems clear therefore that the multiplier values which have been used in previous studies have probably been too large.

However, the study also showed that as many as 45 % of the linkages which did exist between the occupant firms and local suppliers, were unlikely to have existed in the absence of the programme. It was known that many of the occupant firms had increased their turnovers rapidly since

moving to the D.C. units, and were therefore likely to have increased purchases from suppliers.

It was clear that firms which had started up in the units had more linkages with local suppliers than the established indigenous firms which had moved into the units, and that the in-moving firms had very few local suppliers. This suggests that the programme would be more likely to stimulate the local economies of the target areas through supplier linkages, if the Commission were to discriminate in favour of new firms when allocating space in the units. Alternatively, it might attempt to increase in-moving firms' awareness of local suppliers, by for example providing them with local buyers guides and business directories.

The present study indicated that the indirect effects on the case study areas of increased spending by both the occupant firms' and their employees was likely to have been significantly smaller than has been assumed by previous researchers. Although the programme seemed to have led to an increase in the local income of approximately £40,000 per week in 1984, only about a quarter of this was likely to have been spent in the case study areas. The total amount of additional income which was likely to be spent in the local areas as a result of the initiatives in 1984 was likely to have been of the order of £558,000. Only a quarter of the occupant firms' suppliers were local firms, compared to 44 % of the matched firms suppliers, and it seemed clear that the case study areas were very "leaky" both with respect to expenditure by the occupant firms and by their employees.

There were a number of exogenous factors which may have affected the turnovers and workforces of the competitor firms. It was therefore impossible to make definitive statements about the likely scale of market share displacement which had occurred as a result of the programme in the case study areas, on the basis of the evidence collected in the present study. However, it was clear that the incidence of market share displacement in the case study areas was low. It seemed that in total only eight local firms were likely to have suffered increased competition from the occupant firms as a result of the programme.

The low level of market share displacement may have been at least in part due to the fact that the occupant firms had moved to the case study areas only two or three years before the present study was undertaken, and the full scale of market share displacement had not therefore become apparent. However, it seemed unlikely that significant displacement would occur even in the long term as a result of the programme, because 78 % of the occupant firms had no local competitors.

Although market share displacement was not important in the present context, it is likely to be much more significant at the national scale. It may therefore be important to take it into account in evaluations of programmes which are intended to benefit the national economy. The approach used in the present study is far from being the definitive method of measuring market share displacement, but it may provide such evaluations with a basis on which to measure a potentially important phenomenon which has until now been largely ignored by researchers and policy makers.

The main negative impact of the programme may in the long term be upon the availability of skilled workers in the case study areas. A significant proportion of both the matched and the occupant firms had found it difficult to recruit skilled male workers, and this is likely to become an increasingly important problem if, as expected, the occupant firms continue to expand. There may therefore be a need for the Commission to consider ways of easing the situation, for example, by sponsoring training initiatives to raise skill levels in the target areas.

It seemed that the programme had achieved its ultimate objective, of helping to maintain a sufficiently large population in the case study areas to ensure the areas' future viability accurately. It seemed that about 80 of the employees of the occupant firms who lived in the case study areas in 1984, may not have done so in the absence of the programme. Since it is reasonable to assume that many of these employees had dependents, it may be that this represented a total of about 200 people who had been encouraged to live in the target areas as a result of the provision of the factory units.

CHAPTER 16 THE ANALYSIS OF PROGRAMME IMPACTS OVER TIME

1.0 INTRODUCTION

The surveys which were undertaken in 1984, facilitated a comprehensive analysis of the costs of the advance factory building programme and of its impacts in the case study areas, up to that date. Like previous evaluations however, this provided only a "snap-shot" view of the programme's cost effectiveness. The extent to which the advance factory building programme had achieved its higher level objectives (such as the maintenance of balanced rural communities in the priority areas), was likely to depend more on the nature of its long term impacts, than those in the short term. It was therefore necessary not only to measure the costs and impacts of the programme at one point in time, but also to study how they have changed over time, particularly because many of the units had only recently been completed by 1984, and the surveys which were undertaken at that time were therefore unlikely to have shown the full extent of the programme's longer term impacts.

The few previous researchers who have attempted to evaluate costs and employment impacts over time, (e.g. Hodge and Whitby 1979, and Hubbard 1981), did so on the basis of assumptions, rather than empirical evidence. Since the validity of these assumptions has never been tested, very little is known about the way in which the employment impacts of the advance factory building programme actually vary over time. Since most previous researchers have relied almost entirely on the programme's employment impacts, as a measure of its effectiveness, this is clearly a very important gap in existing knowledge of the relative merits of alternative programmes.

Therefore in addition to considering programme impacts at one point in time (1984), the present study also analysed the way in which programme impacts had varied over time. The information for this analysis was derived from a follow up survey of the occupant firms, undertaken in August 1986, (two years after the first survey). The primary aim of the follow up survey was to gather first hand information from the managing directors about the

extent to which the occupant firms' situations had changed since 1984. The interviews therefore covered many of the same issues which were investigated in 1984, and which have been discussed in previous chapters. As a result, the same performance indicators could be used to measure the impacts of the case study projects in 1986 as had been used in the earlier analysis. It was therefore possible to analyse the extent to which they had changed over the two year period. A secondary aim was to study the likely scale of the programme's impacts in the future, and to this end the managing directors were asked about the situation which they expected their firms to be in by 1988, particularly regarding their anticipated employment levels.

Many of the results of this analysis have been described in earlier chapters. For example, the analysis of the way in which the occupant firms' investment levels, turnover and profitability had changed over time, is found in section 3.5 chapter 11. This chapter analyses the information from the follow up survey, regarding the way in which employment levels in the occupant firms had changed over time, and demonstrates how this provided a more comprehensive evaluation of the programme's employment impacts than has been contained in previous studies, most of which have been concerned only with the evaluation of employment impacts at one point in time.

2.0 EMPLOYMENT IMPACTS OF THE PROGRAMME BY 1986

The analysis of the programme's employment impacts by 1986 was based, as far as was possible, on the same range of performance indicators as was used in 1984. This meant that it was possible to compare the usefulness of different indicators for measuring impacts over time, and to analyse the way in which the employment impacts of the programme had changed between 1984 and 1986. As with the 1984 analysis, some of the inappropriate measures used in previous studies were also calculated in order to show how the choice of methodology affected the accuracy of the results which are obtained.

2.1 Jobs accommodated

2.1.1 Numbers of employees

By 1986, one of the forty firms which had occupied the factory units in the case study areas in 1984, had moved to an alternative location, and another had gone into liquidation, (section 4.2 chapter 7). The follow up survey showed that the remaining 38 firms employed a total of 728 people, which was substantially more than they had done at the time of the first survey, in 1984. Half of the firms had increased the size of their workforce over the two year period, and only four employed fewer people in 1986 than they had done in 1984. Nevertheless most firms were still relatively small businesses ; 68 % employed less than ten people, and only three firms had more than 50 employees. Four firms had moved into D.C. units in the case study areas since 1984, and they employed a total of 31 people.

2.1.2 Number of F.T.E. jobs

In 1986, the 38 firms which still occupied units in the case study areas, and had also done so in 1984, provided 620.5 F.T.E. on-site jobs. The firms which had moved into the units in the case study areas between 1984 and 1986 provided a total of 30 F.T.E. jobs. In total therefore, the 42 firms which occupied the units in the case study areas at the time of the follow up survey, accommodated 650.5 F.T.E. jobs. Of these, approximately 100 were off-site, casual jobs, and 550.5 were on-site and permanent.

Therefore if it had been assumed, (as it has been in many previous studies, section 2.1 chapter 12), that all the jobs accommodated in the occupant firms had been created as a direct result of the programme, it would have been concluded that by 1986, the programme had created 550.5 permanent on-site F.T.E. jobs. However, as has been demonstrated in earlier chapters, this is a fallacious assumption since a significant proportion of

the accommodated jobs would have existed in other areas in the absence of the programme, (and have therefore simply been transferred from outside the case study areas), and some would have existed in the case study areas in the absence of the programme, (section 2.4 chapter 12).

The number of jobs accommodated had increased in all of the case study areas, and overall the number of F.T.E. jobs accommodated had increased by 230 (more than 50 %), in just two years. However, there were significant differences between areas in terms of the rates at which the number of jobs accommodated had increased, and as a result there continued to be marked differences between the number of jobs accommodated in different areas, (table 16.1). The number of jobs provided had increased fastest in those areas in which most jobs had been accommodated in 1984. Between 1984 and 1986, the number of jobs accommodated in the D.C. units increased by more than 120 % in Market Drayton and by 250 % in Longnor, but by only 10 % in Bakewell and 15 % in Weobley, (Figures 16.1 and 16.2).

Table 16.1 F.T.E. jobs accommodated in occupant firms in 1984 and 1986

Location	Total F.T.E. jobs in 1984 *	Total F.T.E. Jobs in 1986 *	Increase 1984-86
Market Drayton	119.0	267.0	148.0
Ludlow	39.5	52.5	13.0
Bakewell	49.5	54.5	5.0
Weobley	30.0	34.5	4.5
Leintwardine	11.0	13.0	2.0
Ipstones	44.0	65.0	21.0
Waterhouses	16.5	29.0	12.5
Longnor	10.0	35.0	25.0
Total	319.5	550.5	231.0

* excluding outworkers

Source : Surveys of firms in D.C. units 1984 and 1986.

FIGURE 16.1

EMPLOYMENT CHANGE IN FIRMS OCCUPYING D.C. UNITS -
MARKET TOWNS CASE STUDY AREAS

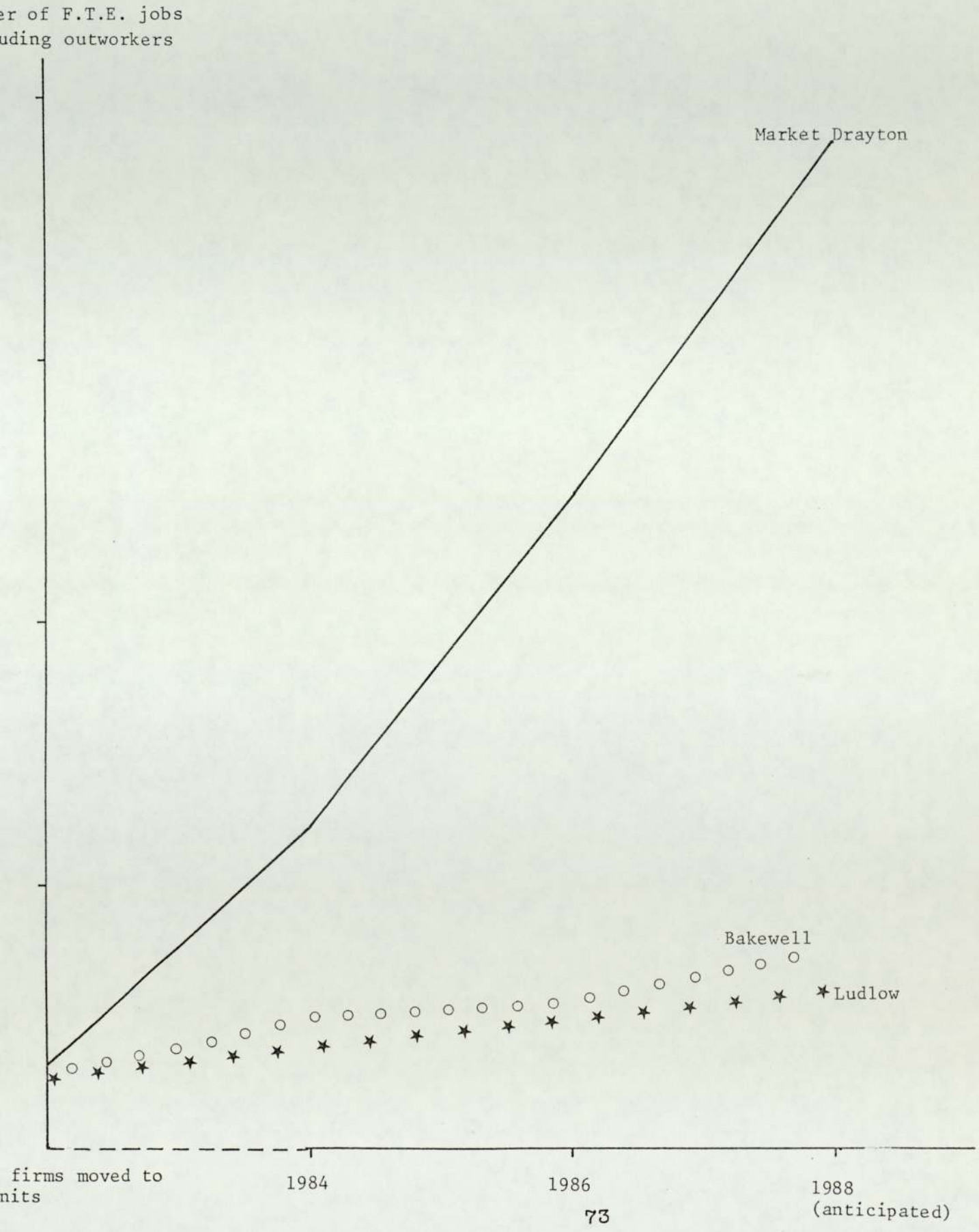
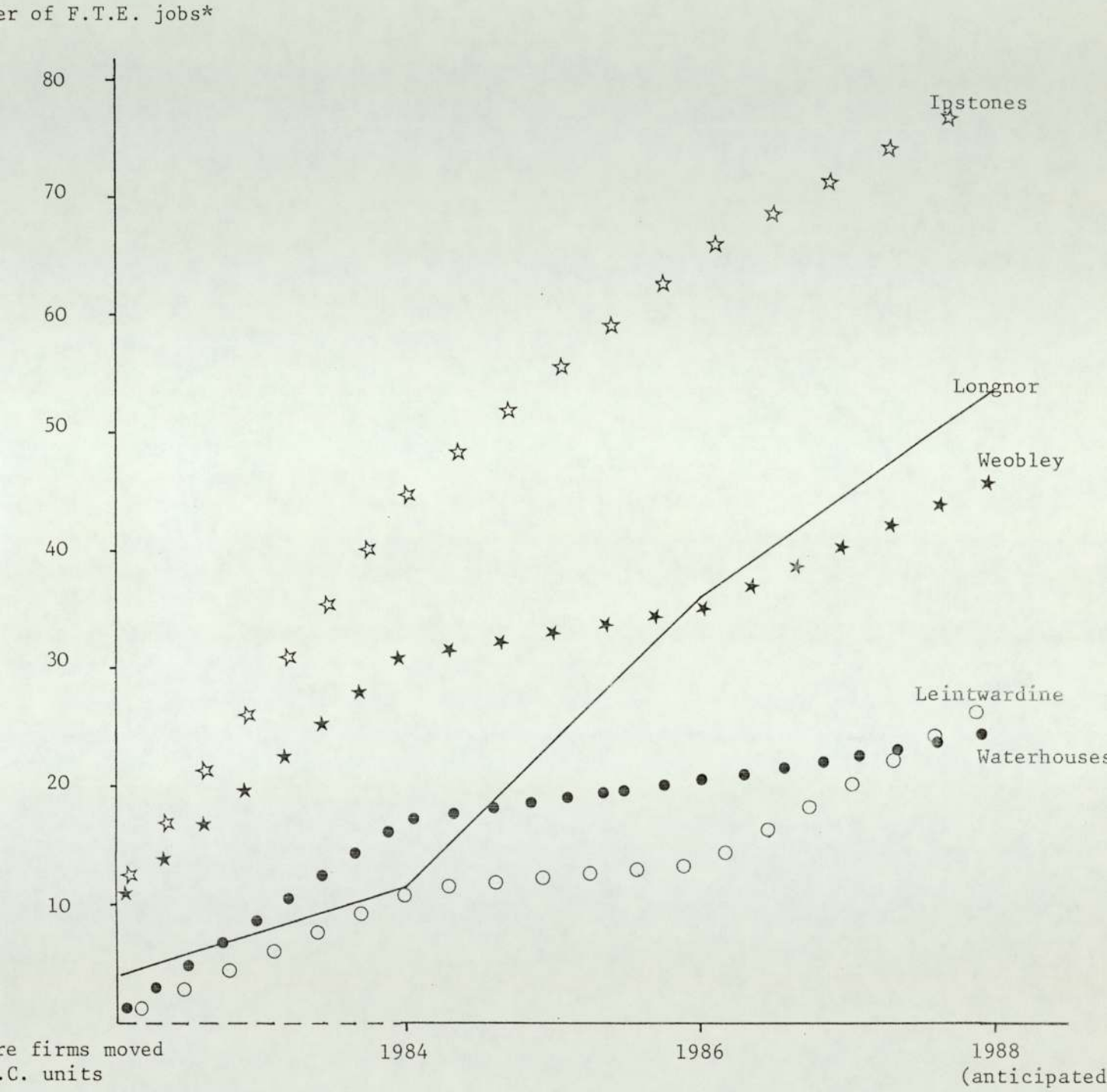


Figure 16.2

EMPLOYMENT CHANGE IN FIRMS OCCUPYING D.C. UNITS -
VILLAGE CASE STUDY AREAS



* Excluding outworkers

2.1.3 Employment densities

By 1986, employment densities in Market Drayton, Longnor and Ipstones had risen to more than twice the figure of 4 per 1,000 square feet of factory floorspace which the D.C. aims to achieve. However, in the other five case study areas, employment levels still fell short of the Commission's target density, (table 16.2).

Table 16.2 Employment densities by case study area in 1986

Location	Total F.T.E. Jobs in 1986. *	Total floorspace square feet.	Employees per 1,000 sq. ft.
Market Drayton	267.0	27,500	9.7
Ludlow	52.5	18,500	2.8
Bakewell	54.5	16,650	3.3
Weobley	34.5	10,630	3.2
Leintwardine	13.0	6,000	2.2
Ipstones	65.0	8,320	7.8
Waterhouses	29.0	9,281	3.1
Longnor	35.0	2,000	17.5
Total	550.5	98,881	5.6

* excluding outworkers

Source : Survey of firms in D.C. units 1986.

Overall employment densities in the eight case study areas increased rapidly from 3.2 jobs per 1,000 square feet of factory floorspace in 1984 to 5.6 in 1986, (table 16.3). They had increased most rapidly in the areas which had the highest employment densities in 1984. In Longnor (which had the highest density both in 1984 and 1986), the employment density more than trebled over the two year period, and in Market Drayton it more than

doubled. However in Bakewell and Weobley, employment densities increased by only 14 % between 1984 and 1986. As a result the differences between areas in terms of employment densities increased over the two year period.

Table 16.3 Changes in employment densities 1984-1986

Location	Employment density per 1,000 sq ft 1984	Employment density per 1,000 sq ft 1986	% increase 1984-1986
Market Drayton	4.3	9.7	126 %
Ludlow	2.1	2.8	33 %
Bakewell	2.9	3.3	14 %
Weobley	2.8	3.2	14 %
Leintwardine	1.8	2.2	22 %
Ipstones	5.3	7.8	47 %
Waterhouses	1.8	3.1	72 %
Longnor	5.0	17.5	250 %
Total	3.2	5.6	75 %

* excluding outworkers

Source : Surveys of firms in D.C. units 1984 and 1986.

2.2 Jobs before and after programme implementation

Many researchers have attempted to identify the number of jobs created by local economic programmes, by comparing the number of jobs accommodated in a firm immediately before it was affected by the programme, with the number which it employed at the time of the evaluation, (the "before/after" approach), (section 2.2 chapter 12). Immediately before they had moved into the units, the 42 firms which occupied them in 1986 had provided a total of 138.0 F.T.E. jobs. Since by 1986, they accommodated 550.5 F.T.E.'s., the

programme had according to the before / after method, created 412.5 F.T.E. jobs by 1986, (table 16.4).

Table 16.4 Number of F.T.E. jobs created by the programme according to the "before / after method"

Location	F.T.E.'s before moving into units *	F.T.E.'s in 1986 *	increase
Market Drayton	38.0	267.0	229.0
Ludlow	30.0	52.5	22.5
Bakewell	28.0	54.5	26.5
Weobley	10.0	34.5	24.5
Leintwardine	0.0	13.0	13.0
Ipstones	10.0	65.0	55.0
Waterhouses	20.0	29.0	9.0
Longnor	2.0	35.0	33.0
Total	138.0	550.5	412.5

* excluding out-workers

Source : Surveys of occupant firms 1984 and 1986

As with accommodated jobs, the before / after method suggested that there were significant differences between the case study areas in terms of the numbers of jobs which had been created by the programme. Again, the largest number of new jobs had apparently been created in Market Drayton, Longnor and Ipstones. However, the rates of increase between 1984 and 1986 suggested by the before / after method were in many instances, quite different from those which the analysis of changes in the number of jobs accommodated had indicated. Thus for example, the before / after method suggested that the number of new jobs in Market Drayton had increased by about 170 %, compared to the 120 % increase suggested by the analysis of

accommodated jobs, and whereas the analysis of accommodated jobs suggested that the number of new jobs in the units in Waterhouses had increased by 75 % between 1984 and 1986, the analysis of before / after jobs, suggested that it had actually decreased over the two year period, (table 16.5). These differences illustrate the importance of careful selection of the method used to measure the employment impacts of a programme, in order to ensure that meaningful results are obtained.

Table 16.5 Changes in the number of jobs "created" by the programme according to the before / after method 1984-1986

Location	New / retained F.T.E. jobs 1984 *	New / retained F.T.E. jobs 1986 *	Difference
Market Drayton	85.5	229.0	+ 143.5
Ludlow	11.5	22.5	+ 11.0
Bakewell	21.5	26.5	+ 5.0
Weobley	20.0	24.5	+ 4.5
Leintwardine	11.0	13.0	+ 2.0
Ipstones	34.0	55.0	+ 21.0
Waterhouses	16.5	9.0	- 7.5
Longnor	8.0	33.0	+ 25.0
Total	208.0	421.5	+ 213.5

* excluding outworkers

Source : Surveys of occupant firms 1984 and 1986

2.3 New jobs to the case study areas

It is clear that the most reliable method of calculating the number of new jobs created by a programme is to identify those which it seems would

have existed in the absence of the programme, and to subtract them from the number of jobs which are accommodated in the factory units at the time of the evaluation, (section 4.0 chapter 12).

It was known from the 1984 and 1986 surveys of the occupant firms, and the 1986 survey of the four firms which had moved into the units between 1984 and 1986, that many of them would not have located in the case study areas in the absence of the programme, (section 2.1 chapter 11). It was clear therefore that none of the jobs accommodated in these firms would have existed in the case study areas if the units had not been provided. In 1986 these firms accommodated a total of 447 F.T.E. jobs. In addition to these it was known from the 1984 survey that at that time, 32 of the 71 jobs which were accommodated in the occupant firms which would have located in the case study areas even in the absence of the units, would not have existed at all, and were therefore also new jobs to the case study areas. The survey of the four firms which had moved into the units since 1984, showed that two of these would have been located in the case study areas in the absence of the programme but would have provided 2.5 fewer jobs. Therefore adding these three categories of new local jobs together, it was clear that in total, at least 481.5 of the F.T.E. jobs accommodated in the units by 1986 were new to the case study areas, (table 16.6).

Between 1984 and 1986 employment levels in the firms which would have located in the case study areas even in the absence of the programme, rose from 71 to 127.5. It was possible that if they had not been able to move to the units, these firms might have provided only some of the 56.5 additional jobs which they had accommodated. The figures shown on table 16.6 may therefore slightly underestimate the number of new local jobs which had been created in the case study areas as a result of the programme by 1986. However, it is likely that at least some of the firms would have been able to expand and thus take on new workers in their alternative locations in the case study areas, between 1984 and 1986, and that it is therefore unlikely that none of the 56.5 jobs would have existed therein. In any case, it was clear that the number of new local jobs directly created as a result of the programme lay in the range 481.5 to 538, which is a difference of only 12 % between the maximum and minimum estimates.

Table 16.6 New jobs to the case study areas 1986

Location	New jobs in firms not in local area	New jobs in firms in local area		Total
		1984	1986 *	
Market Drayton	229.5	15.0	2.0	246.5
Ludlow	24.0	2.5	0.5	27.0
Bakewell	43.0	0.0	0.0	43.0
Weobley	29.5	1.0	0.0	30.5
Leintwardine	12.0	0.0	0.0	12.0
Ipstones	65.0	0.0	0.0	65.0
Waterhouses	0.0	13.5	0.0	13.5
Longnor	44.0	0.0	0.0	44.0
Total	447.0	32.0	2.5	481.5

* firms moving into units between 1984 and 1986

Source : Surveys of occupant firms 1984 and 1986

2.4 New jobs to the national economy

Clearly, it would have been possible to estimate how many of the jobs accommodated in the units by 1986 were new to the national economy, by the same approach as was employed in the 1984 survey. However, this would have required the collection of further detailed information from the managing directors of the occupant firms, and a considerable amount of extra time and effort. In view of the time and resource constraints on the present research, this was not considered worthwhile, particularly because the main aim of the programme was to benefit local target areas rather than the whole economy, and therefore the primary focus on the present study was upon local employment impacts.

Assuming that in 1986, the proportion of the jobs accommodated in the occupant firms which were new to the national economy, was similar to that

in 1986, it was clear that by 1986, a total of about 113 (20.5 % of 550.5) of the F.T.E. jobs might be considered to be new to the national economy (ignoring possible displacement effects), (table 16.7). However, since there was no evidence to support this assumption, it does not provide a satisfactory basis on which to evaluate national employment impacts over time, and the matter must remain an issue for further research.

Table 16.7 Estimate of jobs gained by the national economy 1986

Location	% jobs accommodated in 1984 which were new to national economy *	Number of jobs accommodated by 1986 *	Jobs gained by national economy *
Market Drayton	26 %	267.0	69.5
Ludlow	35 %	52.5	18.0
Bakewell	0 %	54.5	0.0
Weobley	3 %	34.5	1.0
Leintwardine	64 %	13.0	8.0
Ipstones	0 %	65.0	0.0
Waterhouses	82 %	29.0	24.0
Longnor	0 %	35.0	0.0
Total	21 %	550.5	120.5

* F.T.E.'s excluding outworkers

Source : Surveys of occupant firms 1984 and 1986

3.0 ANTICIPATED CHANGES IN EMPLOYMENT BY 1988

In the course of the 1986 survey, the managing directors of the occupant firms were also asked whether they thought their firms would be located in the case study areas two years later, i.e. in 1988, and about how many jobs

they thought their firms would provide at this time. It is clear that the estimates of the likely employment impacts of the programme on which their replies were based were only best guesses. Unlike the analysis of the programme's employment impacts by 1984 and 1986, they did not provide a rigorous basis on which to evaluate its performance. This would have required further post-hoc empirical work undertaken in or after 1988. However, together with the much "firmer" evidence from analysis of employment impacts in 1984 and 1986, the data did provide a longitudinal analysis of the programme's employment impacts over several years.

3.1 Number of occupant firms likely to move out of the case study areas

All of the managing directors believed that their firms would still be in existence by 1988, however, sixteen stated that they might have moved at least part of their firms out of the case study areas. Four expected to move their entire operations out of the case study areas. Most stated that they expected to have to move because there was insufficient space in the D.C. units to permit expansion at the rate which they wished to achieve. This was a problem which had already been encountered by 1986. The managing directors of 26 firms stated that they had considered moving their firms to new premises between 1984 and 1986, and the vast majority, (81 %), had said that this was primarily because of the lack of space in the D.C. units.

Of the 26 firms whose managing directors had considered moving between 1984 and 1986, 18 had either moved to another D.C. unit on the same site, or opened a branch factory in an adjacent unit. None of the others had actually moved. By 1986, no firms had in fact moved out of the case study areas. It is therefore clear that many of the managing directors who believed that they would have to move to new premises by 1988 might not in fact move their firms at all, or if they did so, they might opt for other sites within the case study areas. A stated intention to move did not therefore mean that the jobs which these firms accommodated would actually be lost by the case study areas. However, since it was known that there was a shortage of suitable industrial premises in the case study areas, (section 4.3 chapter 8), it seemed unlikely that firms would be able to find alternative premises (either for complete re-locations or for new

branch plants), within the case study areas. It would not therefore be surprising if some of them did leave the case study areas.

In order to assess the seriousness of their intentions to re-locate and to discover what effect any such moves were likely to have on the number of jobs provided in the case study areas, the managing directors who claimed that they were likely to move, were asked in detail about where they intended to move to, and whether they had actually entered into negotiations for leases on new premises. The managing directors' answers to this further questioning suggested that at least three firms would almost certainly move out of the case study areas by 1988, and that two others would definitely open branch factories located outside of the case study areas which would accommodate most or all of the new workers taken on between 1986 and 1988. Therefore all of the jobs accommodated in the first three firms, and all of the new jobs which were expected to be provided between 1986 and 1988, in the two firms which were likely to open branch factories outside the case study areas, were subtracted from the job gains by 1988, predicted by the managing directors.

3.2 Jobs likely to be accommodated in D.C. units by 1988

3.2.1 Number of F.T.E. jobs likely to be accommodated

Two thirds of the managing directors of the 42 firms which occupied D.C. units in the case study areas in 1986, expected that the number of people they employed would increase over the next two years. Twelve expected that they would employ the same number of people in 1988 as they did in 1986, and only two (5 %) expected that they would employ fewer people. By 1988, the managing directors of the 42 firms expected to employ a total of 895.5 F.T.E. jobs, of which 792.5 would be on-site permanent jobs, (table 16.8).

The three firms which it seemed clear were likely to move out of the case study areas, were expected to provide a total of 30 F.T.E. jobs by 1988. The two managing directors who intended to open branch factories

outside the case study areas, stated that they were likely to employ about 58 F.T.E.'s in these branches. In total, therefore at least 88 of the 792.5 F.T.E. jobs which the managing directors of the 42 firms expected to provide by 1988 were unlikely to exist in the case study areas. As a result it seemed likely that by 1988 the D.C. units in the case study areas would accommodate approximately 704.5 F.T.E. jobs, (table 16.8).

Table 16.8 Number of jobs likely to be accommodated in D.C. units 1988

Location	Jobs in all 42 occupant firms *	Jobs in firms which would re-locate or in branch plants *	Jobs accommodated in units 1988
Market Drayton	408.5	40.0	368.0
Ludlow	64.5	0.0	64.5
Bakewell	77.5	0.0	77.5
Weobley	45.5	4.0	41.5
Leintwardine	27.0	26.0	1.0
Ipstones	78.0	0.0	78.0
Waterhouses	39.0	0.0	39.0
Longnor	53.0	18.0	35.0
Total	792.5	88.0	704.5

* F.T.E.'s excluding out-workers

Source : Survey of occupant firms 1986

It was possible that more than the five firms mentioned above would have moved out of the case study areas by 1988, and that the figures shown on table 16.8 over-state the number of jobs which would be accommodated by the occupant firms by 1988. Conversely, however, if existing occupant firms did vacate the factory units, it seems likely that, in view of the quite high occupancy rates which have occurred in the case study areas in the past (section 4.2 chapter 9), that new firms would occupy them within a fairly

short space of time. These replacement firms would themselves provide new job opportunities which would compensate at least in part for the jobs lost through the re-location of existing firms. However, reliable estimates of the number of new jobs accommodated in the units by 1988 could only be obtained by future research which surveyed the firms for a third time, in or after 1988, to discover what their employment profiles had actually been.

3.2.2 Anticipated employment densities

If the managing directors' expectations of future employment levels in their firms were accurate, by 1988 the overall employment density in the eight case study areas would be 7.1 F.T.E. jobs per 1,000 square feet of factory floorspace provided, (table 16.9). This is well in excess of the Commission's target density of 4 employees per 1,000 square feet. It also represents more than double the employment density which existed in the units in 1984, and an increase of nearly 27 % since 1986.

3.2.3 Anticipated job gains to the case study areas by 1988

An estimate of the number of new local jobs which might have been created by the programme by 1988 could be calculated on the basis of the information provided in the 1986 survey. It was necessary firstly to exclude expected employment increases in the five firms which were likely to have moved out of the case study areas or to have opened branch factories outside them. As with the 1986 analysis the remaining firms were then divided into two groups, those which would have located in the case study areas in the absence of the programme and those which would not. The latter were expected by their managing directors to accommodate 572 F.T.E. jobs by 1988. Since none of them were likely to have been in the case study areas in the absence of the programme, they could all be considered to be new jobs to the local areas. It was known that in 1984, the firms which would have located in the case study areas in the absence of the programme, would have provided 32 fewer F.T.E. jobs if the units had not been

available. If the managing directors' expectations about the likely sizes of their workforces by 1988 were realised, the minimum number of new local jobs created by the programme would therefore be 604 F.T.E.'s (32 + 574).

Table 16.9 Employment densities in factory units 1984, 1986 and 1988

Location	F.T.E. jobs per 1,000 sq. ft. of floorspace *			% increase	
	1984	1986	1988	1984-86	1986-88
Market Drayton	4.3	9.7	13.4	125 %	38 %
Ludlow	2.1	2.8	3.5	33 %	25 %
Bakewell	2.9	3.3	4.7	14 %	42 %
Weobley	2.8	3.2	3.9	14 %	22 %
Leintwardine	1.8	2.2	0.7	22 %	- 214 %
Ipstones	5.3	7.8	9.4	47 %	21 %
Waterhouses	1.8	3.1	4.2	72 %	35 %
Longnor	5.0	17.5	17.5	250 %	0 %
Total	3.2	5.6	7.1	75 %	27 %

* excludes outworkers

Source : Survey of occupant firms 1986

The managing directors of the firms which would have located in the case study areas in the absence of the programme expected that by 1988 their firms would accommodate 132.5 F.T.E. jobs. This would be an increase of 61.5 jobs between 1984 and 1988. If all of these additional jobs were attributed to the programme, the total number of new local jobs provided in the case study areas by 1988 would therefore be 665.5 (572 + 32 + 61.5). The actual number of jobs gained by the case study areas by 1988 therefore seemed likely to be between 604 and 665.5 F.T.E.'s.

4.0 CHANGES IN EMPLOYMENT IMPACTS 1984-1988

Figures 16.1 and 16.2 show how the employment levels in the firms occupying the factory units may be expected to change between the time when the firms moved in and 1988. It is clear from these that the numbers of people employed by the occupant firms may change quite rapidly over short periods of time, and also that employment levels in nearly all the case study areas are likely to continue to increase several years after the factory units were built. The present study suggests that the number of F.T.E. jobs accommodated in the D.C. units in the case study areas, is likely to increase by 385 (120 %) between 1984 and 1988, (tables 16.10 and 16.11). This is clearly very encouraging for the D.C. since it suggests that far from diminishing with time, the employment impacts of the programme appear to continue to increase for several years after the completion of the factory units. This does however, have important methodological implications.

4.1 The need for longitudinal evaluation of employment impacts

The present study clearly showed that the number of jobs accommodated in the units had increased rapidly between 1984 and 1986 and was likely to continue to do so over the next two years. As a result "once-off" evaluations, (such as those undertaken by previous evaluators), would not have provided an adequate measure of the programme's employment impacts, since their findings vary greatly according to the time at which they are undertaken. This is true regardless of the method used to measure the number of jobs created. The present study shows for example, that a once-off evaluation of the programme undertaken in the case study areas in 1984 using the with / without method would have indicated that it had created about 280.5 new local F.T.E. jobs, (section 4.0 chapter 12), but that an evaluation undertaken just two years later, using the same method, would have suggested that the programme had created at least 481 new local jobs, (section 2.3 above).

An evaluation using the before / after method undertaken in 1984 would have indicated that the programme had created 208 F.T.E. jobs, (section 2.2 chapter 12). In 1986 it would have suggested that the programme had created more than twice as many new jobs, (section 2.2 above), (table 16.5). Similarly, an evaluation based on the number of jobs accommodated in the occupant firms would have suggested that 319.5 jobs had been created by 1984, (section 2.1.2 chapter 12), but in 1986, it would have suggested that 550.5 F.T.E.'s had been created, (table 16.1). Further, the anticipated increases in employment levels in the occupant firms between 1986 and 1988 suggest that evaluations undertaken in 1988 would produce quite different findings from those conducted two or four years earlier.

It is clear that such variations would have a very significant affect on the conclusions which were reached about the programme, and that previous studies which have relied upon once-off evaluations of the employment impacts of a programme, are very unlikely to have provided a comprehensive picture of the programme's medium and long term employment impacts. This is particularly important in view of the fact that employment measures have been by far the most widely used performance indicator in past studies, and that policy makers seem to be almost totally pre-occupied with them. Rather than measuring employment levels at one point in time, it seems that in the future, employment impacts should be measured in terms of "job flows" over time, expressed as man / woman F.T.E. jobs over the lifetime of the programme. This is likely to provide a much better performance indicator than those which have been used to date.

4.2 Possible "employment ceilings"

It is clear that in 1986 the managing directors of the occupant firms expected that the numbers of jobs accommodated in the D.C. units would continue to increase. By 1988 they expected the units to accommodate 154 more F.T.E. jobs than they had done two years previously, (table 16.10). However this is a slower rate of increase than had occurred between 1984 and 1986 when the number of jobs accommodated in the units increased by 231 F.T.E.'s, (table 16.10).

This slowing down of the rate of increase in the numbers of jobs accommodated in the units was most marked in the case study areas in which the highest employment densities had been achieved, i.e. Market Drayton, Longnor and Ipstones, (Figures 16.1 and 16.2). The number of F.T.E. jobs accommodated by occupant firms in these areas had increased by 148, 21 and 25 respectively between 1984 and 1986, (table 16.10). This represented an increase of 124 %, 48 % and 250 %, (table 16.11). Between 1986 and 1988, the numbers of jobs accommodated seemed likely to increase 101 in Market Drayton, 13 in Ipstones, and to remain unchanged in Longnor, percentage increases of just 38 %, 20 % and 0 %.

The reason for this slower anticipated rate of growth was that the firms occupying units in these areas, were beginning to reach "employment ceilings", whereby they could not accommodate any more workers in the units which they occupied. For example, the managing director of the largest occupant firm in Ipstones, stated in the course of the interview conducted with him in 1986, that because of the lack of space he did not anticipate increasing the size of his workforce or the level of turnover at all in the future. For the same reason, one of the larger occupant firms in Market Drayton seemed certain to move out of the area in the near future. The only occupant firm in Longnor had taken over both the units on the site, and because it had no further room for expansion, was making plans at the time of the 1986 survey to open a branch factory thirty miles away.

The fact that much slower rates of employment growth were expected in the future in the three areas in which the programme has been most successful in creating new jobs, has important implications for D.C. policy in the future. If the experiences of the occupant firms in Market Drayton, Ipstones and Longnor are shared by firms in other parts of the country, it seems that the Commission has been successful in attracting firms into its priority areas, but that these firms are unlikely to be able to achieve their full employment potential because of the size of the D.C. units. As a result many are likely to move out of priority areas just at the time when they might provide a substantial number of new jobs for local people, and existing jobs in the firms could be taken away from local people. This evidence adds further support to the argument, (put forward in section 2.0 chapter 9), that the Commission should consider providing larger premises

in its target areas for firms which prove to be successful and thus outgrow existing D.C. units.

If "employment ceilings" are reached, it should be possible to predict the maximum number of jobs which could accommodated in the units, and therefore to predict the likely future levels of the programme's employment impacts. This would facilitate a more accurate appraisal of the impacts of the units, than has been possible in the past, and therefore seems to be a promising area for future research.

It is clear that not only are judgements about the programme's overall effectiveness affected by the time at which a once-off evaluation is conducted, but that this might also influence the conclusions which are reached about the relative merits of projects in different areas. Thus for example, in Bakewell and Weobley the increases in employment levels between 1984 and 1986 were relatively modest, but more rapid increases were expected to occur between 1986 and 1988, (tables 16.10 and 16.11). This may be because unlike the firms in Market Drayton, Ipstones and Longnor, the firms in these areas were not approaching the carrying capacities of their units. It is clear that if this trend continues over a number of years, the programme might eventually prove to be as successful in Bakewell and Weobley as it has been in Market Drayton, Ipstones and Longnor.

It was clear that the relative effectiveness of the programme in different areas did not change significantly between 1984 and 1986, nor (in spite of the slowing down of growth rates in Market Drayton, Longnor and Ipstones,) between 1986 and 1988. It seemed that the highest rates of increase in the number of jobs accommodated between 1984 and 1988 were likely to occur in the areas which had the highest employment densities in 1984. With the exception of Waterhouses, the areas which had been least successful in terms of the number of people employed per unit area, were likely to continue to be the least successful even four years later.

Table 16.10 Predicted changes in jobs accommodated 1984-1988

Location	F.T.E. jobs accommodated			Increase
	1984	1986	1988	1984-88
Market Drayton	119.0	267.0	368.0	249.0
Ludlow	39.5	52.5	64.5	25.0
Bakewell	49.5	54.5	77.5	28.0
Weobley	30.0	34.5	41.5	11.5
Leintwardine	11.0	13.0	1.0	- 10.0
Ipstones	44.0	65.0	78.0	34.0
Waterhouses	16.5	29.0	39.0	22.5
Longnor	10.0	35.0	35.0	25.0
Total	319.5	550.5	704.5	385.0

* excludes out-workers

Source : Surveys of occupant firms 1984 and 1986

4.3 The effect of different measures on findings

The analysis of the employment impacts of the advance factory programme in the case study areas by 1986 re-iterates the conclusions which emerged from the analysis of the employment impacts of the programme by 1984 regarding the need for appropriate measures of "new" jobs to be used. The 1986 survey confirmed that the choice of methodology which is used to analyse the employment impacts of a programme, greatly affects the accuracy of the findings which are obtained, and therefore the conclusions which are reached about the programme's effectiveness. For example, it was clear that (just as in 1984), only a proportion of the jobs which were accommodated in the units would not have existed in the case study areas in the absence of the programme. It seemed that about 87 % of the accommodated jobs were new to the target areas, (table 16.12). It was also clear that the before / after approach was not an accurate method of measuring net employment impacts.

Table 16.11 Estimated percentage increases in jobs accommodated 1984-1988

Location	% increase in FTE jobs accommodated in units *		
	1984-86	1986-88	1984-88
Market Drayton	124 %	38 %	209 %
Ludlow	33 %	23 %	63 %
Bakewell	10 %	42 %	57 %
Weobley	15 %	20 %	38 %
Leintwardine	18 %	- 1200 %	- 91 %
Ipstones	48 %	20 %	77 %
Waterhouses	76 %	34 %	136 %
Longnor	250 %	0 %	250 %
Total	72 %	28 %	120 %

* excludes out-workers

Source : Surveys of occupant firms 1984 and 1986

The differences obtained by the three methods of estimating employment impacts are particularly significant because the total numbers of jobs involved are relatively small. What appear to be quite small differences in the results obtained by the different methods, may therefore greatly affect the conclusions which are reached about the relative performance of the projects in the different case study areas. This is demonstrated by the way in which the rank order of some of the case study areas in terms of the number of new jobs provided by the programme, varied according to the output measure used, (table 16.13).

Table 16.12 Employment impacts according to different measures of job creation

Location	Jobs accommodated measure *	Before / after measure *	Gains to case study areas *
Market Drayton	267.0	229.0	246.5
Ludlow	52.5	22.5	27.0
Bakewell	54.5	26.5	43.0
Weobley	34.5	24.5	30.5
Leintwardine	13.0	13.0	12.0
Ipstones	65.0	55.0	65.0
Waterhouses	29.0	9.0	13.5
Longnor	35.0	33.0	44.0
Total	550.5	412.5	481.5

* F.T.E.'s excluding out-workers

Source : Surveys of occupant firms 1984 and 1986

5.0 TYPES OF JOBS AND EMPLOYEES ACCOMMODATED IN OCCUPANT FIRMS IN 1986

The analysis of the employment impacts which the programme had had by 1986 has thus far been based on an analysis of the number of jobs provided, but the employment impacts of a programme cannot be adequately measured solely in terms of the numbers of jobs created. The types of jobs and the characteristics of the individuals who take up the jobs are also important influences on the extent to which a local economic programme is likely to achieve its objectives. It was therefore important to take account of how the types of jobs and employees in the units have changed between 1984 and 1986, and detailed information about them was collected in the course of the second survey of the occupant firms.

Table 16.13 Rank order of case study areas in terms of job gains to the local area by 1986

Rank	Accommodated jobs *	Before / after *	With / without *
1	Market Drayton	Market Drayton	Market Drayton
2	Ipstones	Ipstones	Ipstones
3	Bakewell	Longnor	Longnor
4	Ludlow	Bakewell	Bakewell
5	Longnor	Weobley	Weobley
6	Weobley	Ludlow	Ludlow
7	Waterhouses	Leintwardine	Waterhouses
8	Leintwardine	Waterhouses	Leintwardine

* F.T.E.'s excluding out-workers

Source : Surveys of occupant firms 1984 and 1986

In 1986, 51 % of the on-site employees of the occupant firms were men and 49 % were women. In 1984, 59 % of the employes were men and 41 % women. It was clear therefore that there had been a significant shift towards female employees, over the two year period. This was largely the result of the increasing demand in the firms which had expanded since 1984, for semi or unskilled labour to undertake assembly work. A trend which is also clear from the analysis of the types of jobs which were provided by the occupant firms in 1986. As in 1984, the largest single category of jobs provided in the units was for skilled labour; 43 % of the jobs were classified as being "skilled". This was however, only a slight increase compared on the proportion of jobs which had been "skilled" in 1984, (table 16.14). The major change between 1984 and 1986, had been in the proportion of the jobs provided by the occupant firms which were semi-skilled or unskilled, which increased from 29 % in 1984 to 36 % in 1986, (table 16.14).

Although the absolute numbers of professional and clerical jobs increased between 1984 and 1986, the percentage of workers who were engaged in professional, technical / sales and clerical jobs all declined. Although

it is difficult to make definitive judgements after only two years, it seems that the professional and technical workers (often the founders of the firms) had been with the firm from its inception, whereas production workers were only taken on as the firms expanded.

Table 16.14 Types of jobs provided in the units 1984 and 1986

Types of job	Number of on-site jobs		% of total on-site jobs	
	1984	1986	1984	1986
Professional	33	38	9 %	7 %
Technical / sales	39	31	11 %	6 %
Clerical / office	39	51	11 %	9 %
Skilled	145	239	40 %	43 %
Unskilled	104	200	29 %	36 %

Source : Surveys of occupant firms 1984 and 1986

It was also clear from the 1986 survey of the occupant firms that the proportion of young people they employed increased rapidly between 1984 and 1986. The total number of employees in the firms increased by 199 between 1984 and 1986, and of these 144 were under 25 years of age. As a result, the proportion of employees aged under 25 increased from less than a third to nearly half between 1984 and 1986, (table 16.15). This may also be the result of the increasing numbers of semi-skilled and unskilled workers required by the firms.

Table 16.15 Age structure of employees of occupant firms 1984 and 1986

Age	Number of on-site employees		% of on-site employees	
	1984	1986	1984	1986
Less than 25	106	254	29 %	45 %
25 - 45	221	270	48 %	61 %
45 +	33	35	9 %	6 %

Source : Surveys of occupant firms 1984 and 1986

Apart from the large increases which occurred in the total number of jobs provided by the occupant firms, the change in the age structure of the workforces of the occupant firms was possibly the most important change which occurred between 1984 and 1986, because this is likely to have determined the nature of the programme's impacts on the level of local income, the local labour markets and the population structure of the case study areas.

It is clear for example, that semi-skilled and unskilled jobs, were likely to be associated with relatively low rates of pay. Since a much larger proportion of the workers recruited between 1984 and 1986 had taken up unskilled / semi-skilled jobs than had been the case up to 1984, it was likely that the increases in aggregate incomes in the case study areas will have been smaller per new job provided, than had been the case before 1984.

It was clear from the analysis of the programme's effects on the local labour markets in the case study areas by 1984, that a high proportion of the women who took up jobs in the factory units had not been in paid employment immediately prior to moving to these jobs. The fact that the proportion of female employees had increased between 1984 and 1986 suggests that the programme was likely to have had led to increased activity rates in the case study areas over this time period. The large numbers of young people who had been taken on since 1984 suggested that the programme was also likely to have helped to reduce local rates of youth unemployment.

This is in contrast to the situation in 1984, when many of the new jobs provided in the units had soaked up concealed unemployment, (section 7 chapter 13).

The characteristics of the employees who had taken up jobs in the occupant firms since 1984 would also have determined the nature of the programme's demographic impacts. It is likely that most of the unskilled jobs provided in the firms between 1984 and 1986, will have been taken up by local people. Firstly, because local people are likely to have been able to do the jobs, and the occupant firms would not therefore have had to recruit people from outside the case study areas. Secondly, because they are likely to have been relatively low paid jobs, and it is therefore unlikely that potential employees will have been willing to move or commute from long distances from outside the case study areas, to take them.

The fact that a large proportion of the jobs provided between 1984 and 1986 were unskilled or semi-skilled, means that the main demographic impact of the programme between 1984 and 1986, was likely to have been to discourage local people from leaving the case study areas, rather than to attract large numbers of non-indigenous people to move into them. It seems likely therefore that to the extent that the programme has helped to maintain local population levels, it will have done so primarily as the result of prevented out-migration rather than by increasing the rate of immigration.

Since young people are less likely than the middle aged, to have dependents, the fact that most of the new jobs provided in the occupant firms between 1984 and 1986, were taken up by young people suggests that the short term impact on the population balances of the case study area may not have been as great as it had been up to 1984, when the majority of new jobs had been taken up by older people. However, the retention of local young people will have helped to maintain a balanced age structure within rural communities, which might be seen as an "investment" for the future, when they will have families of their own, and therefore create additional demand for local services.

6.0 SUMMARY AND CONCLUSIONS

It was clear from the present study that the number of jobs accommodated in most of the occupant firms had increased rapidly between 1984 and 1986, and that such increases were expected to continue over the following two years. Whereas in 1984 only 280.5 new local F.T.E. jobs had been created as a direct result of the programme, by 1986, at least 481 new jobs had been provided in the case study areas. As a result, quite different conclusions might have been reached about the effectiveness of the programme from studies undertaken just two years apart. It is clear therefore that the results of once-off evaluations are largely dependent on the time at which the analysis is undertaken, and that they are therefore an inadequate basis on which to assess programme performance, or to make policy decisions. Since the full extent of a programme's employment impacts is likely to be manifested over a number of years, it is necessary to measure them in terms of "job flows" of man / woman F.T.E. years of work provided throughout the lifetime of the programme.

The rates of increase in the number of accommodated jobs varied significantly between the case study areas. As in 1984, the employment densities in Market Drayton, Ipstones and Longnor continued to be much greater than those in other areas. However, there was clear evidence that by 1986, some of the firms in these areas lacked sufficient space to continue to expand at the same rates as they had in previous years. As a result it seemed clear that some were likely to be forced to move out of the case study areas. The likely rate of increase in the number of jobs accommodated in the firms in these areas was therefore likely to be lower between 1986 and 1988 than it had been between 1984 and 1986.

By contrast, the numbers of jobs accommodated in the factory units in Bakewell and Weobley was likely to increase more rapidly between 1986 and 1988, than they had done in the previous two years. Since the number of jobs provided in the units in Waterhouses had increased quite rapidly between 1984 and 1986, it seemed clear that by 1988 the programme was likely to have created a substantial number of jobs in at least six of the case study areas. However, it seemed that employment levels in the occupant firms in the other two areas, (Ludlow and Leintwardine), would continue to

increase only quite slowly, and that there was a possibility that by 1988 almost no jobs would be provided in the units in Leintwardine, because of the clear intention of the two occupant firms which employed the largest numbers of people to move to other areas.

As with the analysis of the results of the 1984 survey, it was clear that the number of jobs which appeared to have been created or retained as a direct result of the programme, depended greatly on the measure of new jobs which was used. Therefore the findings of previous studies which have used approaches other than the with / without method are unlikely to have been accurate.

There were significant changes both in mix of different types of jobs provided by the occupant firms, and the characteristics of their employees between 1984 and 1986. A greater proportion of the jobs provided by the firms were unskilled or semi-skilled than had been the case in 1984, and a larger percentage of the employees were female and / or under 25 years of age. These shifts had probably occurred largely because many of the occupant firms had found it necessary to recruit more production workers due to expansion.

It seems likely that as a result of these changes, more of the new jobs provided in the occupant firms between 1984 and 1986 would have led to increases in local activity rates, and decreases in the level of local registered unemployment, (especially among the young), than had been the case up to 1984. It was also likely that more local people benefitted from the programme between 1984 and 1986 and that the main positive demographic impact of the programme over that period was to prevent out-migration, rather than attract new people to live and work within the case study areas.

CHAPTER 17 THE COST EFFECTIVENESS OF THE PROGRAMME

1.0 INTRODUCTION

Many previous studies have been concerned only with the impacts which local economic programmes have had. As long as programme impacts have been accurately identified and measured, and in particular, so long as an accurate distinction has been made between the jobs whose existence actually depended on the programme, and those jobs which would have existed even in the absence of the programme, such studies can be used to evaluate programmes in terms of the objectives which were they were expected to achieve. However, since they do not take into account the costs of the programmes, they do not enable comparisons of its effectiveness in different areas to be made, nor do they facilitate comparisons between the effectiveness of the programme which is being evaluated and alternative programmes.

Since the launch of the Financial Management Initiative in 1982, programmes throughout the public sector have increasingly come under scrutiny, to ensure that they are efficiently managed and that they provide "good value for money". Value for money has generally been interpreted as achieving the maximum possible scale of impact(s) at the lowest possible cost to the public purse. As a result, policy makers have increasingly required evidence from evaluators which provides them with a basis for determining which programmes are the most cost effective and therefore worthy of continued support, and which are not and should therefore be discontinued. The present study therefore included an analysis not only of programme impacts, but also of the costs of the programme in the case study areas, (section 3.0 chapter 8), so that its cost effectiveness could be evaluated.

2.0 MEASURES OF COST EFFECTIVENESS

There are a number of different ways in which the cost effectiveness of an initiative such as the advance factory building programme can be measured. Some researchers have measured the gross costs of a programme. It is important however to identify net costs and impacts (those which would not have occurred in the absence of the programme or project) and to use these for cost effectiveness measures. Costs can be measured over at least three different time periods: either as a "snap-shot" view at just one point in time, or over the lifetime of the programme / project up to the time of the evaluation, or over a future time period on the basis of estimates of the net present value of its future benefits. Finally, cost effectiveness measures can be based on the costs of producing a variety of different impacts.

The present study was concerned with the costs of the case study projects rather than of the programme as a whole. As a result the costs of administering the programme nationwide were excluded. The analysis was therefore based on the **marginal** costs of the **programme**, and on the **average** costs of the case study **projects**. The marginal cost of the projects themselves were not calculated because although marginal project costs may have provided a useful way of determining the most **economical** way of providing additional impacts, they would not represent an adequate measure of cost **effectiveness**. This is because they would not take account of the fact that different areas face problems of differing magnitudes and as a result although projects in "problem" areas may have greater marginal costs they may still represent the most effective way of assisting them.

Some previous researchers have measured cost effectiveness in terms of an analysis of the costs and benefits of a programme at just one point in time. Since both costs and benefits can vary over the lifetime of a project this is likely to give a misleading impression of the true size of costs and benefits. Therefore in the present study the net costs of the case study projects were calculated from the beginning of the projects up to the time of the evaluation. Net costs were calculated by subtracting the value of income (derived from rents paid by occupant firms and from sale of the

units) from the costs of site acquisition, site development and servicing, construction costs and the cost of maintaining the units up to 1984.

By mid 1984 the total costs of the programme had amounted to £.3,372,204 (at 1984 prices) (section 3.1 chapter 8). Total receipts from rents and sales up to mid 1984 had totalled to £396,223. Therefore the net costs of the advance factory programme in the case study areas by 1984 had been £2,975,981 (at 1984 prices) (table 17.1), and it was against this figure that the impacts of the programme were compared, to provide measures of the cost effectiveness.

Table 17.1 Net costs of factory developments (1984 prices)

Case study areas	Construction costs	Receipts	Net costs
Market Drayton	£ 890,946	£ 179,011	£ 711,935
Ludlow	£ 633,467	£ 28,302	£ 605,165
Bakewell	£ 524,376	£ 39,078	£ 485,295
Weobley	£ 406,241	£ 59,157	£ 347,084
Leintwardine	£ 188,444	£ 23,781	£ 164,663
Ipstones	£ 310,718	£ 56,193	£ 254,525
Waterhouses	£ 253,656	£ 8,334	£ 245,322
Longnor	£ 164,356	£ 2,367	£ 161,989
Total	£ 3,372,204	£ 396,223	£ 2,975,981

Source: Analysis of English Estates records 1984

In order to take account of the future costs and benefits of initiatives some researchers have calculated the net present value of the likely future costs and impacts of projects (see for example section 3.2.5 chapter 4). Such an analysis is likely to find favour with the Treasury. However since it is clear from the present study that the impacts of the programme can change very rapidly over a short period of time (section 2 chapter 16), previous researchers' estimates of the future level of impacts are unlikely

to have been reliable. Given the present state of knowledge of the scale of future benefits such projections are unlikely to be a useful means of determining the likely level of the future cost effectiveness of programmes. There is a need for projects to be monitored over several years in order to discover what benefits they actually produce in the medium / long term until this is conducted however it seems better to avoid speculative estimates of future benefits, and to focus instead upon accurate measures of known costs and benefits up to the time of the evaluation (section 3.6 chapter 19).

Many previous studies of the cost effectiveness of programmes such as the advance factory programme have used measures of cost effectiveness based on lower level outputs (for example the cost per unit area of floorspace provided by a programme). However, like many publicly funded programmes, the advance factory building programme also produces higher level outputs such as new jobs and attracting people to live and work in the target areas, (section 5 chapter 5). Measures of the low level outputs on their own are not therefore an adequate basis on which to judge its cost effectiveness. Since many of the higher level impacts of the programme were identified in the present study, it was possible to use cost effectiveness measures which were directly related to higher level objectives. Like many similar programmes, the advance factory building programme has multiple and somewhat contradictory objectives, the present analysis therefore measured cost effectiveness in terms of a range of outputs. In this way it was possible to provide policy makers with several criteria against which decisions regarding future funding for the programme could be made.

3.0 THE COST EFFECTIVENESS OF ACHIEVING LOW LEVEL OBJECTIVES

The lowest level objective of the D.C.'s advance factory building programme was to provide new factory units. The simplest measure of its cost effectiveness was therefore the cost per unit area of floorspace which had been provided in the case study areas. Since the net costs of the programme had amounted to £ 2,975,981 (at 1984 prices), and the 56 units in the case study areas had provided a total of 102,161 square feet of floorspace, (section 2 chapter 9), the average cost per square foot of

floorspace provided by 1984 had been £ 29.13 (at 1984 prices), (table 17.2).

There were significant variations between the construction costs which had been incurred in different case study areas. In Market Drayton for example, the average cost of factory floorspace constructed by 1984 was nearly £ 4 per square foot less than the average for the eight case study areas, whereas in Longnor it was more than three times the average figure, (table 17.2). These variations in the costs of the units are likely to have been the result of the fact that in some areas, site preparation costs had been much higher than in others. For example, in Weobley the units had been built on split sites, and the need to prepare two sites, was likely to have increased the overall construction costs. The costs of providing the units in Longnor had been increased by the fact that they had to be built from stone which was considered to be in keeping with its location in the National Park.

Table 17.2 Construction costs per unit area of floorspace

	Floorspace provided (square feet)	Net direct costs *	Average cost * per sq. ft.
Market Drayton	28,250	£ 711,935	£ 25.20
Ludlow	20,500	£ 605,165	£ 29.52
Bakewell	16,650	£ 485,298	£ 29.15
Weobley	11,400	£ 347,084	£ 30.45
Leintwardine	6,000	£ 164,663	£ 27.44
Ipstones	8,080	£ 254,525	£ 31.50
Waterhouses	9,281	£ 245,322	£ 26.43
Longnor	2,000	£ 161,989	£ 81.00
Total	102,161	£ 2,975,981	£ 29.13

* 1984 prices

Source: Analysis of English Estates records 1984

At the next level in the hierarchy of objectives, the Commission anticipates that the units which it finances will prove to be attractive to firms, and will therefore be occupied. In the present study, occupancy rates had been measured in the units up to 1984, (section 4.0 chapter 9), and the cost effectiveness of the programme could therefore be considered in terms of the cost of providing each unit and / or each square foot of floorspace per month for which they had been occupied. The average cost of providing the units per month for which they had been occupied since the time when they were completed up to 1984 had been £2,745 (at 1984 prices), (table 17.3). The average cost of providing each square foot per month occupied had by 1984 amounted to £1.11 (table 17.4).

Table 17.3 Cost effectiveness measured in terms of units occupied

Case study area	Cost of programme*	Months units occupied	Cost per month unit occupied*
Market Drayton	£ 711,935	288	£ 2,472
Ludlow	£ 605,165	114	£ 5,308
Bakewell	£ 485,298	131	£ 3,705
Weobley	£ 347,084	206	£ 1,685
Leintwardine	£ 164,663	131	£ 1,257
Ipstones	£ 254,525	158	£ 1,844
Waterhouses	£ 245,322	22	£ 11,151
Longnor	£ 161,989	34	£ 4,764
Total	£ 2,975,981	1084	£ 2,745

* 1984 prices

Source : Survey of occupant firms 1984 and E.E. records

The costs of the programme could also be compared with the numbers of particular types of firm which have been accommodated in the units, to provide a series of measures of effectiveness. Thus for example, the average cost per new firm accommodated in the factory units in 1984 had

amounted to £198,399, the cost of each established non-local firm which had been attracted into the case study areas by 1984 had been £ 297,598, and the cost per manufacturing firm accommodated in the units had been £ 119,039.

Table 17.4 Cost effectiveness measured in terms of floorspace occupied

Case study area	Cost of programme *	1,000 sq. ft. months occupied *	Cost per 1,000 sq ft per month occupied *
Market Drayton	£ 711,935	1134.8	£ 627
Ludlow	£ 605,165	151.5	£ 3,994
Bakewell	£ 485,298	258.3	£ 1,879
Weobley	£ 347,084	563.4	£ 616
Leintwardine	£ 164,663	196.5	£ 838
Ipstones	£ 254,525	272.5	£ 934
Waterhouses	£ 245,322	66.1	£ 3,711
Longnor	£ 161,989	34.0	£ 4,764
Total	£ 2,975,981	2677.0	£ 1,112

* 1984 prices

Source : Survey of occupant firms 1984 and E.E. records

4.0 THE COST EFFECTIVENESS OF EMPLOYMENT GENERATION

One of the main aims of local employment programmes has been to create new jobs. Measures of the cost effectiveness of employment generation, (such as the cost per new job created), have therefore been the most commonly used performance indicators. Their main appeal to policy makers has been that they provide quantitative performance indicators which have

the appearance of precision and accuracy. However, the present study has shown that the employment impacts of the advance factory building programme have rarely been measured accurately in previous studies. As a result, the cost per job figures reported by previous researchers are unlikely to have been accurate.

In these cases lower level cost effectiveness measures may provide the only reliable basis on which policy makers can compare the cost effectiveness, either of one programme in different areas, or between alternative programmes. However, in the present study, the programme's employment impacts were measured more accurately than in most previous studies, and the cost per job measures used were therefore likely to provide an accurate indication of the programme's performance.

4.1 The cost effectiveness of employment generation by 1984

The present study showed that by 1984, 319.5 on-site F.T.E. jobs were accommodated in the occupant firms, (section 2.1.2 chapter 12), which employed a total of 360 permanent workers, (section 2.1.1 chapter 12). By 1984, the average cost per employee provided with an on-site job had therefore amounted to £ 8,267 (at 1984 prices), and the average cost per on-site F.T.E. job accommodated in the units by 1984 had been £ 9,314, (table 17.5). The average cost per employee provided with an on or an off-site job had amounted to £ 5,315, and the average cost per F.T.E. job provided by the occupant firms (including off-site jobs) had been £ 7,680.

Table 17.5 The cost effectiveness of employment generation 1984

	Average cost per on-site job / employee *
Employees accommodated	£ 8,267
F.T.E. jobs accommodated	£ 9,314
New local F.T.E. jobs	£ 10,610
F.T.E. jobs gained by national economy	£ 45,091

* at 1984 prices

Source : Survey of occupant firms 1984 and E.E. / CoSIRA records

The present study has showed that the only way of accurately measuring a programme's employment impacts is to identify those jobs which would not have existed in the absence of the programme. The most useful measures of its cost effectiveness therefore relate to the cost per new job, either to the local area, or to the national economy. By 1984, 280.5 of the F.T.E. jobs accommodated in the occupant firms were unlikely to have existed in the case study areas in the absence of the programme, (section 2.5.2 chapter 12), and (disregarding the possible effects of local market share displacement and multipliers), 66 of them were probably new to the national economy (section 2.5.1 chapter 12). The average cost per new local on-site F.T.E. job had therefore amounted to £10,610, (at 1984 prices), (table 17.6), and the average cost per job gained by the national economy had been £45,091, (table 17.5). Including off-site jobs, the average cost per new local job had been £8,539, and that of each job new to the national economy had been £21,565.

Table 17.6 Average cost per job gained by the case study areas 1984

Location	New local on-site FTE jobs	Net programme costs by 1984 *	Average cost per new local on-site job *
Market Drayton	115.0	£ 711,935	£ 6,191
Ludlow	21.5	£ 605,165	£ 28,147
Bakewell	35.0	£ 485,298	£ 13,866
Weobley	28.5	£ 347,084	£ 12,178
Leintwardine	10.0	£ 164,663	£ 16,466
Ipstones	44.0	£ 254,525	£ 5,785
Waterhouses	16.5	£ 245,322	£ 14,868
Longnor	10.0	£ 161,989	£ 16,199
Total	280.5	£ 2,975,981	£ 10,610

* 1984 prices

Source : Survey of occupant firms 1984 and English Estates records

4.2 Cost effectiveness of employment generation by 1986

The initial, fixed costs, (those involved in acquiring land, preparing the sites and constructing the units), were by far the largest component of the programme costs in the case study areas; on-going costs, (such as those incurred in maintaining the units), had been a relatively small proportion of the total costs of the programme, (section 3.0 chapter 8). Therefore the gross costs of the programme by 1986 were unlikely to be substantially different from those which had been calculated in 1984. However, since the occupant firms had paid £ 262,594 (at 1984 prices) in rents between 1984 and 1986, the net costs of the programme had decreased to £ 2,713,387 by 1986.

By 1986 the firms in the factory units employed a total of 759 people. The average cost per employee provided with a job by 1986 had therefore

amounted to £ 3,575 (at 1984 prices). A total of 550.5 F.T.E. permanent on-site jobs were accommodated in the factory units in the case study areas, (section 2.1 chapter 16), and the average cost per job accommodated by 1986 had therefore been £ 4,929. It seemed likely that a minimum of 481.5 of these had been job gains to the case study areas, (section 2.3 chapter 16), and the average cost per new local F.T.E. job had by 1986, amounted therefore to £ 5,635, (table 17.7). It was estimated that in 1986 120.5 of the accommodated jobs might be new to the national economy, (section 2.4 chapter 16), and if this was the case, the average cost per new job to the national economy had been £ 22,518.

Table 17.7 The cost effectiveness of employment generation 1986

	Average cost per on-site job / employee *
Employees accommodated	£ 3,575
F.T.E. jobs accommodated	£ 4,929
F.T.E. jobs gained by local areas	£ 5,460
F.T.E. jobs gained by national economy	£ 22,518

* at 1984 prices

Source : Survey of occupant firms 1986 and E.E. / CoSIRA records

Table 17.8 Average cost per job gained by the case study areas 1986

Location	New local on-site FTE jobs	Net programme costs by 1984 *	Average cost per new local on-site job *
Market Drayton	256.0	£ 664,009	£ 2,594
Ludlow	40.0	£ 547,515	£ 13,688
Bakewell	28.5	£ 425,908	£ 14,944
Weobley	31.5	£ 318,356	£ 10,107
Leintwardine	12.0	£ 147,263	£ 12,272
Ipstones	65.0	£ 232,425	£ 3,576
Waterhouses	29.0	£ 226,322	£ 7,804
Longnor	35.0	£ 151,589	£ 4,331
Total	497.0	£ 2,713,387	£ 5,460

* 1984 prices

Source : Survey of occupant firms 1986 and English Estates records

4.3 Cost effectiveness of job generation by 1988

Although the data relating to expected employment levels in 1988 was necessarily less "firm" than that regarding the number of jobs which had been provided by 1984 and 1986, and therefore needed to be treated with some caution, it provided a basis on which projections of the likely future cost effectiveness of employment generation under the programme could be made.

By 1988, the occupant firms would have paid a further two years rent, which therefore had to be deducted from programme costs. The costs of the programme were unlikely to have risen significantly, because (as explained above), on-going costs (such as maintenance costs), comprised a very small proportion of the total costs of the programme. Therefore, just as the overall net costs of the programme had decreased between 1984 and 1986,

they were likely to diminish further by 1988. In addition, since some of the firms were likely to have moved out of the case study areas by 1988, (section 3.1 chapter 16), the rent paid by these firms and the jobs they provided were excluded from the analysis. Having taken these two factors into account, it seemed likely that the net costs of the programme by 1988 would have amounted to approximately £ 2,476,343.

The 1986 survey of occupant firms showed that by 1988, the occupant firms in the case study areas might accommodate approximately 704.5 F.T.E. permanent on-site jobs, (section 3.2.1 chapter 16), of which at least 604 were unlikely to have existed in the case study areas by that time in the absence of the programme, (section 3.2.3 chapter 16). Thus the average cost per job accommodated in the units by 1988 might amount to about £ 3,515, (at 1984 prices), and the average cost per new local F.T.E. job which had been created as a direct result of the programme might be £ 4,100.

5.0 THE COST EFFECTIVENESS OF ACHIEVING HIGH LEVEL OBJECTIVES

Most previous studies have been based solely upon measurements of the cost effectiveness of employment generation as an indicator of a programme's performance. This is understandable in the light of the considerable problems involved in measuring higher level outputs. However, since the creation of jobs per se is very rarely, if ever, more than a means of achieving final objectives of a programme, the cost effectiveness with which these final outcomes have been achieved is likely to be the best basis on which to compare the relative merits of alternative programmes, or of the same programmes in different areas. Since in the present study, some of the higher level outputs of the programme (for example, the impacts on the local labour market, and on population levels in the case study areas), had been measured, it was possible to calculate the cost effectiveness with which the programme had produced these final impacts.

5.1 The cost effectiveness of producing impacts on the local labour market

The analysis of the sequences of job changes which had been initiated by the provision of new jobs indicated that by 1984, the programme was likely to have led to an increase of 56 in local activity rates, a decrease in the level of local registered unemployment of 57, and a decrease in concealed unemployment in the case study areas of 26, (section 7.0 chapter 13, table 13.9). The costs of the factory building programme in the eight case study areas, net of receipts (from the sale of units and rents paid by the occupant firms), had amounted to £2,975,981 by 1984, (section 2.0 above).

Therefore by 1984, the average cost per person removed from the unemployment register in the case study areas had been approximately £52,210, (at 1984 prices). The average cost of having brought each person who was previously economically inactive but not registered as unemployed into the labour market had been £53,143, (1984 prices). The average cost of each reduction in concealed unemployment had been £114,461. If it was assumed that concealed unemployment would in the medium / long term have led to commensurate increases in the level of local registered unemployment, (section 7.0 chapter 13), the reductions in registered unemployment, and concealed unemployment might be added together, and in this case the average cost per person removed from the unemployment register in the long term had amounted to £35,855.

5.2 The cost effectiveness of producing demographic impacts

The overall objective of the advance factory building programme has been to ensure the maintenance of stable population levels in the target areas, (section 5.0 chapter 5). The highest level indicator of its cost effectiveness is therefore, the cost with which the programme had done this. The findings of the present study suggested that by 1984, 86 of the employees would not have lived in the case study areas if the factory units had not been provided, (section 6.0 chapter 15). The average cost per employee retained within or attracted to the local areas had therefore

probably amounted to about £ 34,605 (at 1984 prices). The majority of these employees were between the ages of 25 and 45, and were therefore likely to have a number of dependents, (section 3.2 chapter 12). It therefore seemed likely that in total, between 200 and 250 people might have been retained in, or attracted to, the case study areas by 1984. If this was the case, the average cost per person retained in, or attracted to, the areas would have been between £ 12,000 and £ 15,000, (at 1984 prices).

6.0 COMPARISONS WITH THE COST EFFECTIVENESS OF OTHER SIMILAR PROGRAMMES

One of the potential benefits of cost effectiveness studies is that they should enable comparisons to be made between the merits of alternative programmes and between the operation and effectiveness of the same programme in different areas. Although, such comparisons have to be made with caution because different researchers have used different evaluation methodologies, it should therefore be possible to compare the cost effectiveness of the advance factory building programme with that of other programmes.

The methodology developed in the present study differed from those used in most previous studies of local economic initiatives in a number of ways, two of which are of particular importance when comparing the results of the present studies with those obtained by previous researchers who have evaluated other similar programmes. Firstly, in the present study, cost effectiveness was measured at a number of different levels in the hierarchy of objectives. Previous researchers have tended however to measure cost effectiveness only in terms of the cost per job provided by the programme. It was therefore only possible to compare the cost effectiveness of the advance factory building programme and other programmes in terms of their employment impacts. Secondly, many previous researchers have failed to measure the employment impacts as accurately as was possible in the present study, and comparisons may therefore be potentially misleading.

An evaluation of the Urban Development Grant programme carried out by the present writer and colleagues based on the methodology developed in the present study, suggested that three years after the programme was launched,

the cost of creating new local jobs under the U.D.G. programme had amounted to about £15,455 (at 1986 prices), and that the average cost per new job to the national economy had been approximately £ 18,338, (Martin 1988). A recent evaluation of another locally based initiative, the Enterprise Zone Experiment, found that new jobs within the Enterprise zones had been provided at an average cost of between £ 23,000 and £ 30,000 each, (PA Cambridge Economic Consultants 1987). An evaluation of the employment benefits of economic development projects funded under the Urban Programme, suggested that the provision of new factory units similar to those provided by the D.C., had led to the creation of "new jobs" (no distinction was made between new local jobs and new national jobs), at an average cost of £ 10,933, (ECOTEC 1986).

The present study suggested that by 1984, the average cost of each new local F.T.E. job provided as a direct result of the advance factory building programme had been £ 10,610 (at 1984 prices), and that the average cost per new job to the national economy had amounted to £ 45,091, (section 4.1 above). By 1986 the average cost per new local job was £ 5,460 and the average cost per new job to the national economy was likely to have been approximately £ 22,518 (at 1984 prices), (section 4.2 above). It seemed clear therefore that in as much as comparisons could be made between the results of the present study and the other recent evaluations described above, the advance factory building programme had been a cost effective method of creating jobs within particular target areas, but that it may be a less attractive policy instrument if the main policy objective is to create jobs which are new to the national economy.

7.0 SUMMARY AND CONCLUSIONS

By comparing the scale of programme impacts at different levels in the hierarchy of outputs, with the net costs of the programme, it was possible to calculate a range of measures of cost effectiveness. Lower level measures (such as the cost per unit area of floorspace) may prove to be useful in comparing the cost effectiveness of the advance factory building programme with programmes for which rigorous analyses of employment and other higher level impacts have not been undertaken. However, since higher

level outputs relate more closely to overall programme objectives, it is preferable to use them to compare the cost effectiveness of programmes where possible.

A range of cost per job measures can be used to assess the cost effectiveness of the programme, but given the objectives of the programme, policy makers are most likely to be interested in the cost effectiveness of creating new jobs. The most appropriate measure is likely to be the average cost per new local job created by the programme. The present study suggests that by 1984 the average cost of each new job created in the case study areas had amounted to £10,610 (at 1984 prices), and that by 1986 it had fallen to £5,460.

This has two important implications. Firstly the fact that the apparent cost per new job almost halved in just two years, re-iterates the importance of evaluating programmes over a period of several years. Secondly, it seems that the advance factory building programme compared favourably with other similar programmes in terms of the cost effectiveness with which it had attracted new jobs to the areas at which it was targeted. It seems however that it has not been as cost effective a way of creating jobs which were new to the national economy as have some similar programmes have.

These findings must be interpreted with caution for two reasons. Firstly, there were differences between the methodologies used in the present study and those by which other programmes were evaluated. Secondly, the fact that the programme seems to have provided new jobs at a lower average cost than some similar programmes is open to a number of possible interpretations. It might for example, be concluded that the lower cost per new local job created shows that the advance factory building programme is a "better" policy instrument than some other programmes, or that it has been more efficiency managed than them. It seems more likely however, that it is a reflection of the fact that the case study areas had less severe problems than for example, the inner city areas which the U.D.G. programme was intended to benefit, and that as a result it had been easier to attract new firms (and thus new jobs) to the target areas.

It was also clear that the cost effectiveness of the programme had varied between the case study areas at all levels in the hierarchy of objectives. Since the same methodology was used to evaluate the programme in each of these areas, such differences are likely to point to real variations in the programme's performance. The mix of case study areas used in the present study was selected so as to enable the performance of the programme to be compared in a range of settlements of different sizes, and in different geographical settings, (section 3.1 chapter 6). A comparison of its cost effectiveness in these areas therefore provides an excellent basis on which to identify those areas where the programme had been most effective, and might therefore be considered to be a suitable policy response, and those areas in which it had provided a poor return (in terms of intended benefits) on the public money which had been spent, and where alternative strategies might therefore need to be considered. These important policy issues are examined in the next chapter.

CHAPTER 18 COMPARISON OF PROGRAMME EFFECTIVENESS IN DIFFERENT AREAS

1.0 INTRODUCTION

One of the important policy issues facing the Commission is that of where to provide factory units in the future, in order to meet its objectives most effectively. To date the Commission has financed the construction of factory units in settlements of varying sizes, ranging from large market towns with populations of several thousand people, to small villages with populations of only a few hundred. There is some evidence that the programme may have been less effective in smaller settlements than in larger towns, (for example, the units in a number of villages have proved to be difficult to let). However, very few previous researchers have studied the effectiveness of the programme in village case study areas, and most have been concerned only with projects in the same sub-region. As a result, there is very little reliable information about differences in the programme's performance in settlements of different sizes, or in different regional settings.

The Commission's recent strategy has been to provide new factory units in smaller settlements, in preference to market towns, (section 2 chapter 9). In order to assess the likely effects of this policy and to identify the optimum locations for future building, the present study evaluated the programme's effectiveness in a mix of town and village case study areas, which were located in three different sub-regions. This chapter describes the differences which were found to exist between settlements of different sizes, and between the case study areas which were located in different regional settings, (section 3.1 chapter 6).

2.0 COMPARISON OF PROGRAMME PERFORMANCE IN MARKET TOWNS AND VILLAGES

2.1 The scale of programme impacts

It has been shown that by 1984, more factory units had been provided in each of the three market town case study areas than in any of five villages which were matched with them, but that somewhat surprisingly, the average size of the units in the towns was a little less than that of the units which had been built in the villages, (section 2.0 chapter 9). It was also clear that average occupancy rates had been higher in the village case study areas than in the towns, (section 4.3 chapter 9). There were also differences between the types of firms which had occupied the units in different areas. A greater proportion of the firms which had occupied factory units in the village case study areas were manufacturing concerns than was the case in the towns, and a much higher proportion were also new start ups or non-indigenous in-movers, (sections 3 and 4 chapter 10), (table 18.1).

Table 18.1 Comparison of types of occupant firms in towns and villages

	% manufacturing firms	% new firms	% established local firms	% established non-local firms
Towns	48 %	30 %	59 %	11 %
Villages	92 %	54 %	23 %	23 %

Source: Survey of occupant firms 1984

The findings of the present study suggested that 77 % of the occupant firms in the villages had moved into them as a direct result of the programme, compared to only 52 % of the firms which had occupied factory units in the market town case study areas. Between 1984 and 1986, the firms which had occupied D.C. premises in the market towns had increased turnover

by an average of 143 % since moving into the factory units. Whereas over the same time period, the turnovers of the firms occupying units in the villages had increased at an average rate of only 125 %, starting from a similar average level of turnover in 1984.

In 1984 there was little difference between the employment densities in the factory units in the towns and villages. The occupant firms in the three market towns accommodated 208 on-site F.T.E. jobs, at an average density of 3.3 F.T.E.'s per 1,000 square feet, whilst the occupant firms in the village case study areas accommodated a total of 111.5 on-site F.T.E. jobs, at an average density of 3.1 per 1,000 square feet, (table 18.2). However, between 1984 and 1986, the workforces of the occupant firms in the towns grew much faster than those of the firms in the villages, (Figure 18.1, table 18.3). As a result, by 1986 the former accommodated an average of 6.0 on-site F.T.E. jobs per 1,000 square feet, whereas the latter provided only 4.9 on-site F.T.E.'s per 1,000 square feet, (table 18.2). According to the managing directors' predictions of future growth rates, the difference were likely to widen over the following two years. It seemed that by 1988, the units in the market towns were likely to employ an average of 8.1 on-site F.T.E.'s per 1,000 square feet of factory floorspace, while those in the villages would accommodate an average of 5.4 F.T.E.'s per 1,000 square feet, (table 8.2).

Table 18.2 Jobs accommodated in occupant firms

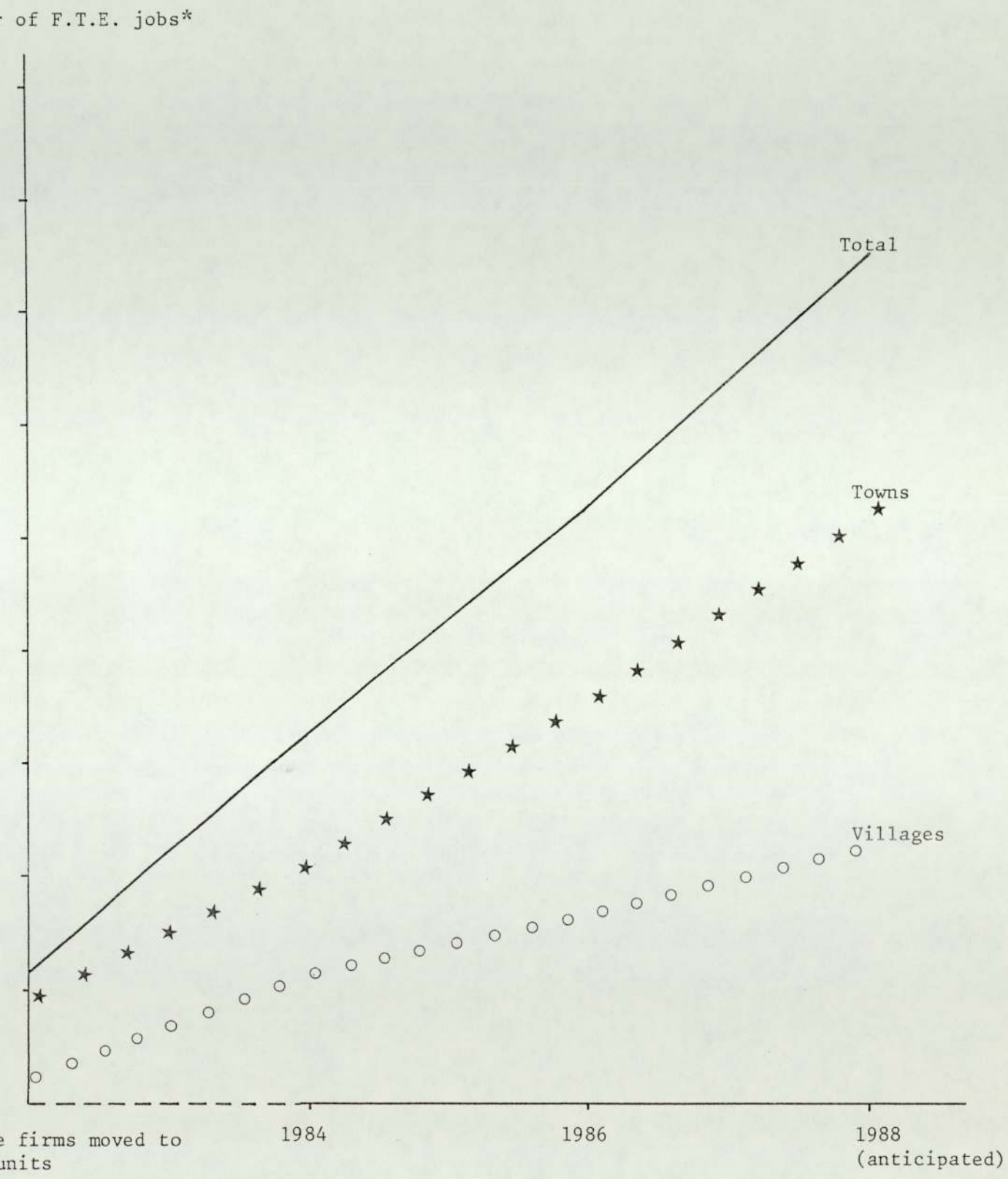
	F.T.E. jobs accommodated			Average employment density (per 1,000 square feet)		
	1984	1986	1988*	1984	1986	1988*
Towns	208.0	374.0	510.0	3.3	6.0	8.1
Villages	111.5	176.5	194.5	3.1	4.9	5.4

* anticipated employment levels

Source: Surveys of occupant firms 1984 and 1986

FIGURE 18.1

EMPLOYMENT CHANGE IN FIRMS OCCUPYING D.C. UNITS



*Excluding outworkers

Table 18.3 Expected employment change in occupant firms

	% increase in jobs accommodated	
	1984 - 1986	1984 - 1988
Towns	80 %	145 %
Villages	58 %	74 %

Source: Surveys of occupant firms 1984 and 1986

It was clear that 171.5 (82 %) of the 208 F.T.E. jobs accommodated in the units in the market towns would probably not have existed in the case study areas in the absence of the programme, compared to 109 (98 %) of the jobs accommodated in the villages. An average of 3.0 new local F.T.E. jobs had therefore been provided in the villages per 1,000 square feet of factory floorspace compared to 2.7 F.T.E.'s per 1,000 square feet in the market towns, (table 18.4). By 1986, this had increased to 4.7 in the towns and 4.6 in the villages.

Table 18.4 Number and density of new local jobs

	Number of F.T.E. jobs gained by local areas		F.T.E. jobs per 1,000 square feet of factory floorspace	
	1984	1986 *	1984	1986 *
Towns	171.5	313.0	2.7	4.7
Villages	109.0	168.5	3.0	4.6

* estimated minimum

Source: Surveys of occupant firms 1984 and 1986

It seemed likely that in 1984, 44.5 of the on-site F.T.E. jobs accommodated in the occupant firms in the market towns, and 21.5 of those

accommodated in the firms in the villages, were new to the national economy, (disregarding multiplier and displacement effects). This represented an average density of 0.7 new F.T.E. jobs to the national economy per 1,000 square feet of floorspace in the market towns, and an average density of 0.6 jobs per 1,000 square feet in the units in the villages, (table 18.5). It was estimated that by 1986, these densities might have increased to 1.4 and 0.9 respectively.

Table 18.5 Number and density of jobs new to the national economy

	Number of F.T.E. jobs gained by national economy		F.T.E. jobs per 1,000 square feet of factory floorspace	
	1984	1986 *	1984	1986 *
Towns	44.5	87.5	0.7	1.4
Villages	21.5	33.0	0.6	0.9

* estimated

Source: Surveys of occupant firms 1984 and 1986

There were clear differences between both the types of jobs and the characteristics of the employees accommodated in the occupant firms in the five village case study areas, compared to the market towns. In 1984, two thirds of the employees of the occupant firms in the village case study areas were female, nearly two thirds of the jobs were unskilled, and a relatively high proportion were part time, (tables 18.6 and 18.7). In contrast, almost 60 % of the employees of the firms in the market towns were engaged in skilled occupations, and nearly three quarters were men. Forty two percent of the employees of the firms in the villages lived outside of the target areas, compared to only 26 % in the case of the firms in units in the three towns, (table 18.8), and several of the employees who were interviewed in the course of the survey of employees, lived in the neighbouring market towns but commuted to work in factory units in the villages.

Table 18.6 Characteristics of employees of occupant firms 1984

	Sex		Age		
	Male	Female	Less than 25	25–45	Over 45
Towns	70 %	30 %	27 %	63 %	9 %
Villages	44 %	66 %	33 %	58 %	9 %

Source: Survey of occupant firms 1984

Table 18.7 Types of jobs accommodated in occupant firms 1984

	Professional	Technical	Office	Skilled	Unskilled
Towns	10 %	13 %	13 %	57 %	8 %
Villages	9 %	9 %	8 %	15 %	60 %

Source: Survey of occupant firms 1984

It seemed therefore, that the programme may have had only a limited affect on the types of job opportunities available in the villages, and that many of the jobs which had been created were probably not sufficiently highly paid to provide the main household income, and would not, of themselves, have prevented out-migration. It was also clear from the interviews with the managing directors, that some of the occupant firms in the villages had been forced to recruit workers from the surrounding market towns, because of skills shortages in the villages.

Table 18.8 Place of residence of employees of occupant firms 1984

Employees' place of residence	Firms in towns	Firms in villages	Total
In local area	74 %	58 %	68 %
In county	20 %	38 %	27 %
Outside county	6 %	4 %	5 %

Source: Survey of occupant firms 1984

The present study showed that 43 % of the employees of firms occupying factory units in the three market towns in 1984 had previously been registered unemployed, and 15 % had not been economically active immediately before they had taken jobs in these firms. By comparison only 24 % of the employees of the occupant firms located in the village case study areas had previously been registered as unemployed and 38 % had not been economically active, (table 18.9). This suggests that the programme was likely to have had a greater impact on local activity rates in the villages than in the market towns, where its main effect was likely to have been upon levels of registered unemployment. It was also likely that much more of the programme's local labour market impact had "leaked out" of the smaller settlements, since a greater proportion of the employees of the occupant firms in these areas lived outside the target areas.

Table 18.9 Employees' previous employment situations

	Employed	Registered unemployed	Economically inactive
Towns	43 %	43 %	15 %
Villages	38 %	24 %	38 %
Total	40 %	33 %	27 %

Source: Surveys of employees and previous employers 1984

2.2 The cost effectiveness of the programme

One of the most useful aspects of an evaluation which includes an assessment of a programme's cost effectiveness, is that it can be used to compare the performance of the programme in different situations. Such a comparison is a very effective way of highlighting differences between the operation of the programme in settlements of different sizes, particularly if measures are drawn from a number of levels in the hierarchy of outputs.

By 1984, the total cost of having provided the thirty six factory units which had been constructed in the three market town case study areas, (net of receipts from sales and rents), had amounted to £ 1,802,398, (at 1984 prices). The cost of the twenty units which had been built in the five village case study areas had been £ 1,173,583. By 1984, 65,400 square feet of floorspace had been provided in the market towns and 36,761 feet had been provided in the villages. The average cost of per square foot of factory floorspace provided had therefore been £ 27.65 in the towns and £ 31.92 in the villages, (at 1984 prices).

The reasons for the higher cost of having provided factory units in the village case study areas were twofold. Firstly, the few sites which were available in the villages had usually been more expensive to prepare and service than had sites in the market towns. Secondly, the sites in villages accommodated fewer units, and since site preparation and servicing costs were relatively constant regardless of the number of units built, the average cost per unit had been greater in the villages.

The higher cost of providing units in the village case study areas is reflected in the lower relative cost effectiveness of the programme in these areas at all levels in the hierarchy of outcomes. It is illustrated by the differences in the average cost per job provided in the market towns compared to the villages. Thus although the occupant firms in the five village case study areas accommodated a larger number of new local on-site F.T.E. jobs per unit area of floorspace than those in the market towns, (section 2.1 above), the average cost of creating each of these jobs had been £ 10,767 in the village case study areas, (at 1984 prices), compared to £10,510 in the market towns, (table 18.10). Similarly, the average cost

per new job to the national economy, created by the programme (disregarding displacement and multipliers), had been £ 40,503 in the towns compared to £ 54,585 in the villages, (table 18.10). Since the number of new jobs accommodated in the occupant firms between 1984 and 1986 had increased more rapidly in the market towns than in the villages, the gap between the average costs of each new job created by the programme had widened by 1986, (table 18.10).

Table 18.10 Average cost per new job in 1984 and 1986

	Average cost per job gained by local area		Average cost per job gained by the national economy	
	1984	1986 *	1984	1986
Towns	£ 10,510	£ 5,174	£ 40,503	£ 18,714
Villages	£ 10,767	£ 6,521	£ 54,585	£ 30,605

* estimated minimum

Source: Surveys of occupant firms 1984 and 1986, and E.E. records

3.0 COMPARISON OF PROGRAMME PERFORMANCE IN DIFFERENT REGIONS

In order to test the extent to which the effectiveness of the programme was dependent on the socio-economic setting in which units were provided, the eight study areas selected for the present study were drawn from three different sorts of regional settings, (section 3.1 chapter 6). The findings regarding the analysis of the variations which existed between the programme's performance in these different types of area must be interpreted with caution because they were based on quite small samples, and also because there was clearly some co-variation between the variables which were identified as having been important influences on the scale of impacts and the programme's cost effectiveness. Nevertheless clear differences in the way in which the programme has operated in the three different regional settings were identified, and these should provide

policy makers with some initial evidence on which to formulate policy, and also form a basis for future more detailed investigation.

3.1 Scale of programme impacts

By 1984, the Development Commission had provided twenty four factory units comprising 37,900 square feet in the case study areas in the "Welsh Borders" sub-region, (Ludlow, Weobley and Leintwardine), twenty one units comprising 45,611 square feet in the three case study areas which were located near to the Potteries (Market Drayton, Ipstones and Waterhouses), and eleven units comprising 18,650 square feet of floorspace in the two case study areas in the Peak Park (Bakewell and Longnor). These differences reflect the difficulties that had been encountered in finding suitable sites in the Peak Park, (section 3.3 chapter 9).

The average size of the units varied between the areas in different sub-regions, being 2,172 square feet in the areas in the Potteries sub-region, 1,695 square feet in those in the Peak Park and 1,579 in the areas close to the Welsh border. The present study showed that, contrary to what might have been expected, occupancy rates had been slightly higher in Bakewell and Longnor, than in Market Drayton, Ipstones and Waterhouses. As anticipated the occupancy rates had however, been lowest in the case study areas in the areas in the Welsh Borders sub-region, (table 18.11), (section 4.3 chapter 9).

Table 18.11 Comparison of occupancy rates in different sub-regions

Sub-region	% occupancy (up to 1984)
Potteries	63 %
Welsh Borders	58 %
Peak Park	64 %

Source : English Estates records

Three quarters of the firms which occupied units in the case study areas located in the Peak Park, 67 % of the firms located in units in the case study areas in the Potteries region, and only 55 % of those occupying units in Ludlow, Leintwardine and Weobley were primarily manufacturing concerns. A greater proportion of the firms which had occupied units in the areas in the Welsh Borders sub-region were new businesses, than was the case in either of the other two regions, and a much higher proportion of the existing firms which had located in the units in these areas were local firms rather than in-movers, (section 4 chapter 10). Sixty percent of the firms in the case study areas in the Peak Park had moved into the case study areas from more than 20 miles away. Most of the occupant firms which had located in the units in Market Drayton, Ipstones and Waterhouses had moved from towns in the Potteries or from Telford.

Sixty seven percent of the occupant firms in the case study areas in the Potteries region, 63 % of those in the Peak Park areas and only 55 % of those in the case study areas in the Welsh Borders sub-region would have been unlikely to have located in these areas in the absence of the programme. The turnovers of the occupant firms in the case study areas close to the Potteries had increased by an average of 212 % between 1984 and 1986. Those of the firms occupying units in the Welsh Borders areas had average rates of increase in turnover of 132 %, and those in Bakewell and Longnor had increased turnover by only 62 %.

Occupant firms in the case study areas in the Potteries sub-region accommodated a much larger number of jobs both in 1984 and 1986 than those in the other two sub-regions. In 1984, they accommodated more than three times as many jobs as those in the Peak Park areas, and more than twice as many as those in the Welsh Borders. The units in the areas in the Potteries sub-region were the only ones where the Commission's target employment density of an average 4 jobs per 1,000 square feet of factory floorspace had been achieved.

Between 1984 and 1986, the number of jobs accommodated in the firms in the areas in the Potteries sub-region increased twice as quickly as those in the units in the Peak Park areas, and four times as fast as those in the units in the Welsh Borders, (Figure 18.2, table 18.13). As a result, the

differences between the average employment densities in the three sub-regions increased, and by 1986, the units in the case study areas close to the Potteries accommodated more than three times as many jobs as those in either of the other two regions, i.e. almost twice the density achieved in the Peak Park case study areas, and nearly three times that which existed in the Welsh Borders areas, (table 18.12). The firms occupying units in the Peak Park areas employed almost as many F.T.E. jobs as those in the Welsh Borders areas, but in only just over half the total amount of floorspace. Thus, as in 1984, the average employment density in the Peak Park areas was considerably higher than in the Welsh Borders areas. The expectations of the managing directors of the occupant firms suggested that the same trends could be expected to continue between 1986 and 1988.

Table 18.12 Numbers of jobs accommodated and employment densities

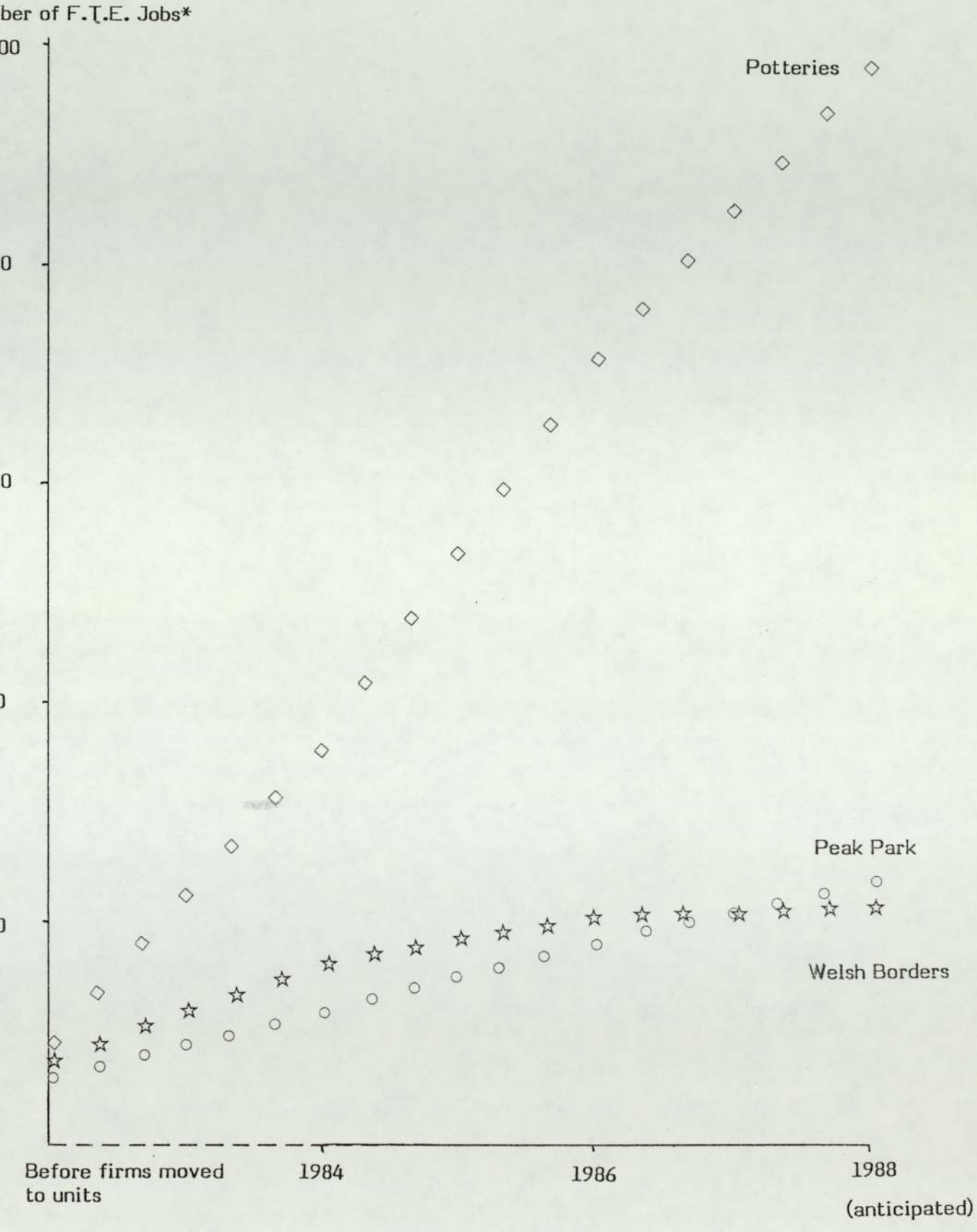
	Number of F.T.E. jobs accommodated			Average employment density (per 1,000 square feet)		
	1984	1986	1988 *	1984	1986	1988 *
Potteries	179.5	361.0	485.0	4.0	8.0	10.8
Welsh borders	80.5	100.0	107.0	2.3	2.8	3.1
Peak Park	59.5	89.5	112.5	3.2	4.8	6.0

* anticipated employment levels

Source: Surveys of occupant firms 1984 and 1986

FIGURE 18.2

EMPLOYMENT CHANGES IN FIRMS OCCUPYING D.C. UNITS BY SUB-REGION



* Excluding Outworkers

Table 18.13 Employment changes in occupant firms 1984-1986

	% increase in jobs accommodated	
	1984 - 1986	1984 - 1988 *
Potteries	101 %	170 %
Welsh Borders	24 %	33 %
Peak Park	50 %	89 %

* anticipated employment levels

Source: Surveys of occupant firms 1984 and 1986

The present study suggested that similar differences to those observed in the numbers of accommodated jobs, existed between the number of new local jobs created by the programme in the case study areas in the three sub-regions. Thus by 1984, 175.5 new local F.T.E. on-site jobs had been created in the areas in the Potteries sub-region, compared to just 60 in the areas in the Welsh Borders sub-region, and 40 in those in the Peak Park, (table 18.14). The differences increased further between 1984 and 1986, (table 18.15), and as result, by 1986, more than 70 % of the jobs accommodated in the eight case study areas were provided by occupant firms located in the case study areas close to the Potteries.

The programme had led directly to the creation of more jobs which were new to the national economy in the case study areas close to the Potteries, than in either of the other two sub-regions, (disregarding the possible effects of displacement and multipliers), (table 18.16). However, whereas the local employment impacts of the programme had been greater in the two case study areas in the Peak Park, than in those in the Welsh Borders region, (above), the situation was reversed with respect to national employment impacts. This illustrates the way in which the conclusions which are reached about the effectiveness of the programme are dependent on the nature of performance measures which are used.

Table 18.14 Number and density of new local jobs

	Number of F.T.E. jobs gained by local areas		F.T.E. job gains per 1,000 sq ft of factory floorspace	
	1984	1986 *	1984	1986 *
Potteries	175.5	337.0	3.9	7.7
Welsh Borders	60.0	82.0	1.7	2.4
Peak Park	45.0	62.5	2.4	3.4

* estimated minimum

Source: Surveys of occupant firms 1984 and 1986

Table 18.15 Rates of increase in the numbers of new local jobs

	Number of F.T.E. job gains to local areas		% increase in number of local job gains 1984-86
	1984	1986 *	
Potteries	175.5	350.0	99 %
Welsh Borders	60.0	83.5	39 %
Peak Park	45.0	63.5	41 %
Total	280.5	497.0	77 %

* estimated minimum

Source: Surveys of occupant firms 1984 and 1986

Table 18.16 Density and number of jobs new to the national economy

	Number of F.T.E. jobs gained by national economy		F.T.E. job gains per 1,000 sq ft of factory floorspace	
	1984	1986 *	1984	1986 *
Potteries	44.0	93.5	1.0	2.1
Welsh Borders	22.0	27.0	0.6	0.8
Peak Park	0.0	0.0	0.0	0.0

* estimated

Source: Surveys of occupant firms 1984 and 1986

Table 18.17 Rates of increase of new national jobs 1984-1986

	F.T.E. jobs gained by national economy		% increase
	1984	1986 *	
Potteries	44.0	93.5	113 %
Welsh Borders	22.0	27.0	23 %
Peak Park	0.0	0.0	0 %
Total	66.0	120.5	83 %

* estimated

Source: Surveys of occupant firms 1984 and 1986

Clear differences emerged between the case study areas in the three sub-regions in terms of the types of jobs accommodated in the factory units. One third of the employees of the occupant firms in case study areas in the Peak Park, were engaged in either technical or sales work, compared to just 2 % in the areas close to the Potteries, and 14 % in the areas in the Welsh Borders sub-region, (table 18.18). A much lower proportion of the jobs in

the occupant firms in the case study areas in the Peak Park were skilled manual jobs, than in the areas in either of the other two sub-regions. A much larger proportion of the employees of the occupant firms in the areas close to the Potteries were engaged in unskilled work, than in the other sub-regions, (table 18.18).

Table 18.18 Types of jobs accommodated in the units

	Professional	Technical	Office	Skilled	Unskilled
Potteries	7 %	2 %	8 %	42 %	41 %
Welsh borders	13 %	14 %	12 %	51 %	12 %
Peak Park	14 %	34 %	19 %	18 %	15 %

Source: Survey of occupant firms 1984

There were also clear differences between the regions in terms of the characteristics of the employees who had taken up jobs in the factory units. The occupant firms in the Potteries case study areas employed almost equal proportions of male and female workers, whereas 60 % of the workforce of the firms located in D.C. factory units in the Peak Park areas and 75 % of the employees of the occupant firms in the Welsh Borders areas were men, (table 18.19). A much higher proportion of the employees of occupant firms in case study areas in the Potteries region were under the age of 25, than was the case in either of the other regions, and a much higher proportion of the employees of firms in the Welsh Borders areas were over the age of 45 than in the areas in the Peak Park or Potteries regions, (table 18.19).

Table 18.19 Characteristics of employees of occupant firms

	Sex		Age		
	Male	Female	Less than 25	25–45	Over 45
Potteries	52 %	48 %	35 %	60 %	5 %
Welsh Borders	75 %	25 %	23 %	57 %	20 %
Peak Park	60 %	40 %	20 %	69 %	11 %

Source: Survey of occupant firms 1984

Three quarters of the employees of the occupant firms in the case study areas close to the Potteries lived in the local areas, compared to 63 % in the Welsh Borders areas, and only just over 50 % in the Peak Park, (table 18.20). A quarter of the employees of firms which had occupied factory units in the Peak Park areas, lived outside the county in which the units they worked in, had been provided.

Table 18.20 Place of residence of employees of occupant firms 1984

	Live in local area	Live in county	Live outside county
Potteries	75 %	24 %	1 %
Welsh Borders	63 %	37 %	0 %
Peak Park	51 %	25 %	24 %

Source: Survey of occupant firms 1984

The findings of the present study regarding the previous employment situations (table 18.21) and the places of residence of the employees of the occupant firms, suggested that the programme's impacts on local labour markets had also varied between the three regions. The main effects in the Potteries region were likely to have been a reduction in the rates of case study areas in registered unemployment, and an increase in local activity rates. In the Welsh Borders, the main impacts had been upon

concealed and registered unemployment. In the Peak Park, a much larger proportion of the employees who had previously been employed, had worked locally, and thus the impact of the programme was more evenly spread between effects on concealed unemployment, registered unemployment and activity rates.

Table 18.21 Previous employment situations of employees

	Employed	Registered unemployed	Economically inactive
Potteries	33 %	35 %	33 %
Welsh Borders	50 %	33 %	17 %
Peak Park	46 %	25 %	29 %
Total	40 %	33 %	27 %

Source: Surveys of employees and previous employers 1984

3.2 The cost effectiveness of the programme

The average cost per unit area of floorspace was lowest in the areas close to the Potteries, and highest in areas located in the Peak Park, (table 18.22). There were two reasons for this. Firstly, the costs of site preparation in the case study areas close to the Potteries were lower than those in the case study areas in the other two sub-regions, both of which were more remote, and lacked suitable sites for development. Secondly, the units provided within the Peak District National Park had to conform to standards laid down by the Park Planning Board, which increased the construction costs, (section 2.8 chapter 8).

Table 18.22 Average cost per square foot of factory floorspace

	Floorspace provided by 1984, (sq ft)	Net programme costs 1984 *	Cost per sq ft of floorspace *
Potteries	45,101	£ 1,211,782	£ 26.87
Welsh Borders	35,130	£ 1,116,912	£.31.79
Peak Park	18,650	£ 647,287	£ 34.71
Total	98,881	£ 2,975,981	£ 30.10

Source: Analysis of English Estates records 1984

The average cost per new local job accommodated in the occupant firms varied significantly between the case study areas located in each of the three regions. This was partly as a result of the differences in construction costs, but more importantly, as a consequence of the variations in the numbers of jobs provided in each of the three regions. By 1984, the average cost per new local F.T.E. on-site job, provided in the case study areas close to the Potteries, had amounted to £ 6,905, (1984 prices). The average cost per new local job in the areas in the Peak Park sub-region, was more than double this, and the average cost of each job gained in the areas close to the Welsh Borders was more than two and a half times as much (table 18.23).

By 1986, the number of new local jobs accommodated in the factory units had increased significantly, and the average cost per job had therefore fallen in all three sub-regions. However, because the number of new local jobs had increased most rapidly in the areas close to the Potteries, the differences between these and the other case study areas had increased, (table 18.23).

Table 18.23 Average cost per new local job

	Average cost per job gained by local area		Average cost per job gained by the national economy	
	1984	1986 *	1984	1986 *
Potteries	£ 6,905	£ 3,543	£ 27,541	£ 12,008
Welsh Borders	£ 18,615	£ 13,704	£ 50,769	£ 37,523
Peak Park	£ 14,384	£ 11,160	-	-

* estimated minimum

Source: Surveys of occupant firms 1984 and 1986, and E.E. records

As with new local jobs, it was clear that by 1984, the programme had proved to be most effective in terms of the creation of jobs which were new to the national economy, in the case study areas close to the Potteries. Since none of the jobs accommodated in the occupant firms in the case study areas in the Peak Park by 1984 were new to the national economy, (section 3.1 above), the programme had proved to be more cost effective in terms of this performance measure in the areas in the Welsh Borders than in the Peak Park, (table 18.23).

4.0 SUMMARY AND CONCLUSIONS

The findings of the present study showed, that most of the firms which had occupied units in the market town case study areas, had expanded more rapidly than those which had occupied units in the village case study areas. As a result, the number of jobs accommodated per unit area of floorspace in the units in the towns, had exceeded those in the units located in village settlements, both in 1984 and 1986. However, it was also clear that a smaller proportion of the firms which had occupied units in the market towns, had been attracted to these locations through the programme. As a result, in 1984, the units in the towns accommodated fewer new local jobs per unit area of floorspace, than those in the market towns.

Due to rapid increases in the turnovers and therefore increases in the workforces of many of the occupant firms in the towns, this situation had however, been reversed by 1986.

These findings demonstrate the value of comprehensive evaluation, within the framework of a hierarchy of objectives, since by studying how the programme's delivery system had operated at a number of different levels, it was possible not only to recognise differences between the scale of employment impacts in the market towns and villages, but also to explain how they had occurred. The findings also suggest, that if the manner in which an initiative operates is understood, it is possible to make predictions concerning the nature of high level impacts on the basis of information regarding lower level outcomes. Since the latter are generally much easier to measure, such predictions could be used in evaluation studies in cases where it was not possible to measure higher level outputs.

The differences between the local labour market impacts in the towns and villages, suggest that if the Commission wished to reduce rates of registered unemployment, it would be best advised to build future units in market towns, whereas if the primary purpose of the programme was to increase activity rates, it would be more appropriate to provide additional floorspace in smaller settlements. It was also clear however that a greater proportion of the local labour market impacts was likely to leak out of the "areas of pull" around the villages.

The costs of providing the factory units had been higher in the village case study areas than in the towns. As a result, according to almost every performance indicator, the programme had proved to be less cost effective in the villages than the towns. If this is the case for the programme across the country as a whole, it would seem that the Commission could achieve its objectives more cost effectively, by building future units in larger settlements, and that its present emphasis on providing units in more remote, smaller settlements, is unlikely to maximise the effectiveness of the programme. It is clear that the greatest potential employment growth exists in larger settlements, and seems likely therefore that alternative methods of meeting the needs of the residents of outlying villages should be sought. For example, it might be more cost effective to provide people

living in the villages, with cheap transport to travel to work in market towns, and to build future units in the towns. Clearly, in order for this policy to be successful it would be necessary to co-ordinate decision making across a number of policy areas, but given the Commission's present emphasis on integrating Rural Development Programmes, (section 6.1.6 chapter 2), it may be possible to do this, and thereby maximise the number of jobs provided by the programme whilst at the same time ensuring that the needs of people living in the whole of a Rural Development Area are safeguarded.

The present study demonstrated that according to nearly all the performance indicators used the programme had proved to be more successful in the case study areas close to the Potteries than in the more remote case study areas. It was also clear that according to most of the indicators, the programme had been more effective in case study areas in the Peak Park than in those in the Welsh Borders sub-region. This suggests that the socio-economic characteristics, policy context and remoteness of the settlements in which factory units are provided are probably at least as important as the size of the settlements in determining the programme's performance.

If the results of the present study apply to the Commission's priority areas across the whole country, it is clear that the programme is capable of providing large numbers of new jobs at very low cost, in rural areas which are located in quite close proximity to manufacturing centres, but that the impacts of the programme are likely to be far more modest, and programme costs are likely to be higher in the more remote areas.

It can of course be argued that the remoter areas are those with the most severe problems, and that the cost of any ameliorative action will therefore inevitably be higher in these areas than in less peripheral locations, and that as a result it may be necessary to increase demand for the units in remoter settlements, by for example, reducing rents and advertising their availability more widely, (section 4.2.1 chapter 19). However, it may be that the advance factory building programme is not the most cost effective way of safeguarding the economies and social fabric of the more remote rural areas, and that alternative solutions should be considered.

It is also clear that if the results of this study apply to the Commission's priority areas nationwide, they provide a basis on which it would be possible to predict who would be the principal beneficiaries of the programme in different types of regional setting. The Commission could then use this information to make rational choices about the optimum locations of future factory building, in order to meet the needs of specific target groups, and / or localities in the most cost-effective way.

CHAPTER 19 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

1.0 INTRODUCTION

The aim of the present study was to develop an approach which enabled the impacts of local economic initiatives to be evaluated more accurately than has been possible until now, and to then test the methodology by using it to evaluate the Development Commission's advance factory building programme. Previous chapters have described both the methodology which was developed, and the present study's findings regarding the impacts, delivery system and cost effectiveness of the programme, in the eight case study areas which were selected for the present study. A number of conclusions regarding the most appropriate methods of evaluating initiatives like the advance factory building programme, and ways of enhancing the performance of the programme, can be drawn from these findings.

This final chapter summarises the main findings of the present study. It then makes a series of recommendations about the ways in which evaluation methodologies and the effectiveness of the advance factory building programme could be improved. These recommendations will clearly be of interest to policy makers and in-house evaluators, and are also likely to be helpful to those sections of the academic community that are increasingly becoming involved in policy analysis and programme evaluation.

2.0 SUMMARY OF FINDINGS

2.1 Programme costs

By 1984, the total costs of site acquisition, preparation, servicing, and the construction of the units in the eight case study areas had been £ 3,372,204, (at 1984 prices). In addition approximately £ 5,000 had been spent in refurbishing the units. The costs of staff time could not be

quantified and were therefore excluded from the analysis. Although a number of agencies had made small contributions, the vast majority of the costs of the programme had been met by the Commission.

2.2 The additionality of the programme

There was clear evidence that the advance factory building programme had filled an important gap in the market for industrial premises in all of the case study areas, and that there was therefore almost certainly little or no deadweight in the programme. There were very few other industrial developments in these areas, and prior to the D.C.'s intervention, both the occupant firms and those in the control group had experienced difficulties in finding suitable premises. Detailed questioning revealed that few managing directors had known of suitable alternative premises in the case study areas when they moved to their present locations, and that a quarter of them felt that even their present premises were not well suited to their firms' requirements.

2.3 Immediate impacts

By 1984, a total of 56 units had been built in the case study areas, amounting to a total of 102,161 square feet of factory floorspace. These had been occupied by a total of 40 firms, some of which occupied two or more units on the same site. Occupancy rates have previously been measured at just one point in time. The present study indicates that this is unlikely to produce accurate findings, and a new approach which measured occupancy rates over time, since the completion of the units, was therefore developed. This showed that by August 1984, the average occupancy rate in the case study areas had been 69 % which is somewhat lower than has been suggested by previous studies which have used "once-off" measures of occupancy.

2.4 Intermediate impacts

The advance factory programme is intended to provide accommodation for small manufacturing companies. However, in 1984, more than a third of the occupant firms in the case study areas were in the service sector. Only a third of the firms in the units were new businesses, and a majority were local companies; most had previously been located within ten miles of the units to which they had moved, and nearly three quarters were owned by people who lived in the case study areas.

It seemed likely that the provision of the units had enabled three firms to start up and saved one from going into liquidation. It had also encouraged many of the firms to locate in the case study areas. According to their managing directors, 60 % of the new firms and 44 % of the pre-existing firms would not have located in the case study areas if the units had not been available.

It seemed that the programme may also have helped to increase the viability of the occupant firms. Only one went into liquidation between 1984 and 1986, and by 1986, the managing directors of 95 % of the firms felt that they were highly unlikely to fail. More than half of the managing directors of the occupant firms believed that their companies had grown at a faster rate than they would have done in the absence of the programme, and only two managing directors felt that their growth rates had been adversely affected as a result of having occupied the factory units. The turnovers of nearly 40 % of the occupant firms had more than doubled between 1984 and 1986, and more than two thirds of the firms had simultaneously increased their product ranges. Existing local firms had on average grown much slower than either new firms or in-movers.

It seemed that the programme had not lowered the firms' operating costs in the way that was hypothesised in section 5 chapter 5. Instead it had facilitated the expansion of the firms by providing them with sufficient space in which to take on new orders, something which had been unavailable in many of the firms' previous premises.

2.5 Employment impacts

In mid-1984, the occupant firms employed a total of 560 workers in mid-1984, 200 of whom worked off-site. Between them these workers filled 387.5 F.T.E. jobs, 319.5 of which were permanent and on-site. The overall average on-site employment density in the eight case study areas in 1984 was 3.2 F.T.E.'s per 1,000 square feet of factory floorspace, i.e. a little less than the D.C.'s specified target employment density of 4 jobs per 1,000 square feet.

By 1986, nearly all the occupant firms had taken on new workers and in total they accommodated 550.5 F.T.E. on-site jobs, at a density of 5.6 F.T.E. jobs per 1,000 square feet of factory floorspace. The firms' managing directors expected further increases to occur between 1986 and 1988, although because of space constraints in the units, the rates of increase were expected to be somewhat less than they had been between 1984 and 1986. On the basis of the managing directors' expectations, it seemed that by 1988, the occupant firms would accommodate 704.5 F.T.E. jobs on-site, an average employment density of 7.1 F.T.E. jobs per 1,000 square feet, which is well in excess of the Commission's target density.

It seemed that in 1984, 66 of the on-site F.T.E. jobs accommodated in the firms had been created as a direct result of the programme, (i.e. disregarding possible market share displacement), and that 280.5 of them would not have existed in the case study areas in the absence of the programme. By 1986, it seemed that approximately 480 on-site F.T.E. jobs had been gained by the case study areas as a result of the programme, of which approximately 120 were likely to be gains to the national economy.

The initial employment levels in the units, and the rates at which they had increased varied significantly between the case study areas. Employment densities in Market Drayton, Ipstones and Longnor were much higher than those in other areas. There was however, some indication that in the long term, the differences between the numbers of jobs provided in the units in these areas and those in Bakewell, Waterhouses and Weobley were likely to narrow. It seemed unlikely that employment densities in the remaining two

areas, Ludlow and Leintwardine, would reach these levels in the foreseeable future.

In 1984, nearly two thirds of the permanent on-site employees of the occupant firms were aged between 25 and 45. This was a higher proportion than was the case in the matched firms. A higher proportion of the jobs provided by the firms occupying the units were "skilled" or "professional" jobs than was the case in the matched firms. More than two thirds of the people employed in the units lived in the case study areas, and it was clear that in many cases, the jobs in the occupant firms represented improved working conditions, and provided higher wage rates than had the employees' previous jobs. It seemed clear that the programme had not only increased the number of local jobs, but had also increased the range of opportunities which were available in the case study areas. By 1986, the proportion of the jobs in the units which were unskilled or semi-skilled had increased, as had the proportion of the firms' employees who were female, and / or under 25 years of age.

2.6 Impacts on the local labour markets

By leading directly to the creation of new jobs, the programme had had a number of important impacts on the local labour markets in the case study areas. Many of the new jobs provided in the units had been taken by local people who had previously been unemployed or not been economically active, and as a consequence the programme had led to an increase in local activity rates by 56, and a reduction in the local level of registered unemployment by 57. In addition as a result of sequences of job changes initiated by the programme, concealed unemployment in the case study areas had been reduced by at least 26.

The changes in the composition of the workforces of the occupant firms which occurred between 1984 and 1986, suggest that a larger proportion of the new jobs provided by the programme between these dates, were likely to have led to increases in local activity rates or decreases in the level of local registered unemployment, (especially among the young), and fewer were likely to have led to decreases in concealed unemployment, than had been

the case before 1984. It is also likely that more of the impacts from job changes initiated by the programme, will have been experienced in the case study areas between 1984 and 1986, than had been the case by 1984.

2.7 Wider impacts

In addition to the direct impacts outlined above, the programme had had a number of wider effects by 1984. Some of these were positive (i.e. they were likely to have contributed to the achievement of the Commission's objectives), others were negative (i.e. they were likely to have detracted from the achievement of programme objectives). Many were less clearly related to the programme than the impacts discussed above, and were therefore more difficult to identify and measure, or to attribute directly to the programme. However, some of them may have had a significant influence on the the extent to which the programme contributed towards the achievement of the Commission's final objectives, and it was therefore important that they were taken into account.

The findings of the present study showed that on the whole, the wider effects of the programme were less significant than might have been expected. In some cases this was encouraging, since the absence of negative indirect effects was likely to increase the chances of programme's objectives being achieved. Equally however, the small scale of some of the positive wider impacts of the programme may be a matter for concern amongst policy makers.

There was clear evidence that the programme had resulted in few deleterious effects on other local firms either as result of market share or site displacement. It also seemed that few, if any, of the jobs associated with the construction of the factory units had been taken up by local people. The programme had done little to stimulate the private sector to undertake similar developments, and had not had a significant impact on local authority income in the case study areas.

Partly because of the lack of suitable suppliers in the case study areas, but also because of their preference for suppliers with whom they

had previously dealt, the managing directors of the occupant firms purchased the majority of the goods and services which their firms required from businesses located outside the case study areas. It was also clear that because a large proportion of the firms' employees either lived and / or shopped outside of the target areas, a large proportion of the new income created by the programme was likely to have "leaked" out of the case study areas. As a result the effect of local multipliers had probably been quite small, and much of the increased activity promoted by the programme had benefitted businesses located outside the case study areas.

There was some evidence that by recruiting local workers, the firms which had occupied the units had exacerbated labour shortages in the case study areas, and that this may have led to recruitment problems for other local firms. If the occupant firms continue to grow at the rates at which they have done in the recent past, there is a clear danger that in the absence of training initiatives, skills shortages could become a serious problem within the case study areas.

The present study suggested that by 1984, approximately 86 of the employees of the occupant firms had been retained within, or attracted to, the case study areas as a direct result of the programme. Since it was likely that many of them had dependents, this may have represented the retention / attraction of a total of about 200 to 250 people.

2.8 Cost effectiveness

The present study showed that the average cost of each permanent on-site F.T.E. job accommodated in the factory units had by 1984, amounted to £8,267 and that by 1986 this had fallen to £4,929. It seemed likely that this would decrease further in the future, and might by 1988, have been as little as £3,500. The average cost per permanent on-site F.T.E. job gained by the case study areas as a direct result of the programme by 1984 was £10,610, and the cost per job gained by the national economy was about £45,091. It was clear that the cost per new local job had decreased by approximately 50 % between 1984 and 1986, and it seemed likely that it would fall further over the next two years.

In as far as it was possible to compare the results of the present study with those reported by other researchers, it seemed that the advance factory building had proved to be a relatively cost effective way of attracting new jobs into the case study areas, but that it might have been a less cost effective way of creating jobs which were new to the national economy than had some other schemes.

2.9 Differences between case study areas

The findings of the present study showed clearly that both the scale of impacts, and the cost effectiveness with which they had been achieved, had varied considerably between the eight case study areas. For example, the cost per square foot of factory floorspace provided, varied from £ 25.20 in Market Drayton, to over £ 80 in Longnor. Similarly, the overall average cost per job gained by the eight case study areas as a result of the programme by 1984 was £ 10,610, but varied from just £ 5,785 in Ipstones to £ 28,147 in Ludlow, and by 1986, the average cost of each job gained in the case study areas ranged from £ 2,594 (at 1984 prices), in Market Drayton to £ 14,944 in Bakewell. It was clear that the programme had proved to be particularly cost effective in terms of nearly all the performance indicators used, in Market Drayton and Ipstones. By 1986, there was evidence that it had also produced significant benefits in Waterhouses, Longnor, Weobley and Bakewell. In Ludlow and Leintwardine the programme had not performed very well at any level in the hierarchy of objectives and it seemed unlikely to do in the foreseeable future.

There were clear differences between the cost effectiveness of the programme in the market town case study areas compared to the villages, and between the areas in each of the three different regional settings. The costs of the programme had been higher in the village case study areas than in the towns, and as a result, the programme had, in general, been less cost effective in the smaller settlements. This seemed likely to be the case for the foreseeable future.

Since fewer of the firms which had occupied units in the village case study areas would have located in the areas in the absence of the

programme, in 1984, these units accommodated more new local jobs per unit area of floorspace than those in the market towns. However, by 1986 the situation was reversed because the firms in the units in the market towns expanded faster between 1984 and 1986 and therefore took on a greater number of workers. In 1984, the average cost per local job in the villages was approximately £ 250 more in the villages than in the towns. By 1986, the difference had increased to nearly £ 1,350. In 1984, the average cost per new job to the national economy was £.14,000 greater in the villages than the towns.

It seemed that the programme was likely to have had more of an impact on registered unemployment in the towns than in the villages, but conversely more of an impact on activity rates in the smaller settlements than in the towns. It was also apparent that much of the programme's local labour market impact had "leaked out" of the local economies of the village areas.

The programme had been extremely cost effective in the areas close to the Potteries, and it was clear that in terms of most output and cost effectiveness measures, (with the exception of those relating to the number and cost of new jobs to the national economy), it had been more effective in the case study areas in the Peak Park than in the areas in the "Welsh Borders" sub-region.

By 1984, the cost per new local job in the Potteries had amounted to £6,905, (1984 prices), which was less than half the average cost of each job gained by the case study areas in the Peak Park areas and almost a third of the average cost per local job gained by the case study areas in the Welsh Borders region. By 1986, the equivalent costs were estimated to be £ 3,208 in the Potteries, £ 9,904 in the Peak Park and £ 12,133 in the Welsh Borders. By 1984 the average cost of each job which had been gained by the national economy and was accommodated in the units provided in the Potteries region was £ 27,541, compared to £ 50,769 in the Welsh Borders. It was estimated that by 1986, these costs would have fallen to about £ 12,000 and £ 37,500 respectively. No jobs which were new to the national economy had been created by 1984 in Bakewell.

The main effect of the programme on the local labour market in the Potteries region had been a reduction in the rate of registered unemployment and an increase in local activity rates. It seemed likely that in the Welsh Borders, the main impact had been upon concealed and registered unemployment, but in the Peak Park, the programme's impact on the local labour market was more evenly spread between effects on concealed unemployment, registered unemployment and activity rates.

3.0 RECOMMENDATIONS RELATING TO METHODOLOGY

It is clear that as a consequence of the increasing importance attached to ensuring that public sector programmes provide good value for money, the evaluation of public programmes and the measurement of their cost effectiveness will continue to be of considerable importance for the foreseeable future. However, both internal and independent evaluators have so far lacked a methodology which facilitates accurate assessments of effectiveness to be made. As a result, the current focus of the F.M.I. continues to be upon economy and efficiency rather than effectiveness.

The simplest method of measuring the cost effectiveness of a programme is in monetary terms. Most of the costs of the advance factory building programme, for example site acquisition and construction costs, can be measured in monetary terms, as can some programme impacts (for example receipts from rents paid by occupant firms, or from the sale of factory units). Therefore by deducting these receipts from the costs of the programme, it is possible to produce a statement of the financial return which a public agency has received as a result of its sponsorship of a particular initiative. Target rates of return are often specified for development agencies by the Treasury, however, they are an inappropriate way of measuring the cost effectiveness of activities such as the advance factory building programme, because few of the intended outcomes of the programme can be meaningfully expressed in monetary terms. It is therefore necessary to evaluate such programmes in terms of ratios of programme costs (usually in monetary terms), compared to "bundles of impact", such as the amount of floorspace provided or the numbers of jobs generated.

Unfortunately, in spite of the increasing number of evaluations which have been commissioned by government, there is very little agreement between evaluators about the ways in which such ratios should be calculated and about which of the multitude of such measures that can be used, represent the best indicators of a programme's cost effectiveness. Most researchers have developed their own approaches to the evaluation of programmes, and since each approach has differed, the results of different studies are rarely comparable. This in turn has meant that policy makers have not been able to use programme evaluations as a means of comparing the cost effectiveness of alternative programmes, and evaluation research has therefore failed to produce one of its potentially most useful outputs.

The growing concern in official circles about the lack of consistency between the approaches taken in different studies, has recently led to the establishment of an interdepartmental group chaired by the Treasury, (the Reid Group), which it is hoped will produce recommendations about ways of developing a standard methodology which departments will then be required to use, to evaluate the cost effectiveness of employment generation, by a wide range of their programmes, (H.M. Treasury personal communication 1988). Unfortunately, for at least two important reasons, this attempt to impose a standard methodology on departments and future evaluators is unlikely to be either welcome or successful.

Firstly, the degree of sophistication of an evaluation should be determined by the use to which the findings are to be put. In some circumstances it is appropriate to produce detailed empirical studies, (such as the present study), but in others, the use to which the study is to be put does not justify such intensive effort. Since evaluation studies are undertaken for a variety of different purposes, no one methodology can be appropriate for all studies. Secondly, the Reid Group is apparently only concerned with ways of measuring the cost effectiveness of employment generation. This is likely to perpetuate the problem that too many evaluations have in the past been based exclusively on cost per job measures, and have ignored the wide range of other programme outputs, many of which may be of more direct relevance to a programme's overall objectives, than the creation or protection of jobs.

Therefore whilst there is undoubtedly a need to improve the ways in programmes are evaluated, the imposition of a standard methodology is not a practical method of doing this. It is more likely to be achieved by incorporating into future evaluation studies, the key findings of the present study, regarding the ways in which the impacts, delivery systems and cost effectiveness of programmes, can be more accurately assessed. These are summarised in the remainder of this section.

3.1 Clear explanation of approaches

The first of the key methodological findings of the present study is that there is a need for evaluators to explain the approaches which they use much more clearly than they have done in the past. This is particularly important because previous researchers have used a variety of different approaches, and because of the lack of a generally agreed terminology. For example, as the present study has shown, the phrase "net new job" has had a number of different meanings in previous studies. Clearer explanations of the methodologies employed by researchers and definitions of the terms used, will enable policy makers to gauge the extent to which comparisons between different studies, and the programmes which they evaluate are justified.

3.2 Hierarchies of objectives

It is clear that an effective system of performance management requires the achievements of a programme to be measured against its objectives. In practice, the objectives of local economic development programmes have frequently either not been stated at all, or framed in very superficial terms, (Martin, Bovaird and Gregory 1987). As a result, they have often been bland, meaningless, vague, ambiguous, conflicting, and partial. It is usually unsatisfactory to evaluate a programme simply against a of list of an agency's stated objectives, since this gives no sense of logical cause and effect relationships, between the levels of objectives. Therefore, a preferable approach is to formulate a hierarchy of objectives.

This involves relating the way in which the ultimate objectives of a programme are intended to be achieved to lower level objectives. Starting with the lowest level objectives, it is necessary to determine what the agency is attempting to achieve. The answer will be provided by the objective at the immediately higher level in the hierarchy of objectives, until the ultimate aims (which form the top of the hierarchy) are reached. This hierarchical approach allows the inter-relationships between activities and objectives to be explicitly identified, and a model of the programme's intended delivery system to be developed. Such a model can prove to be extremely useful in four ways.

Firstly, as has been shown by the present study, the delivery systems of economic development programmes, have frequently been developed on an ad hoc basis, and are often only rationalised long after their implementation, as was the case with the D.C.'s advance factory building programme. In these circumstances, policy makers have all too often assumed that the existing programme provides the optimum way of producing the desired impacts, without any examination of alternative options. Making the hierarchy explicit, provides an opportunity for examination (or re-examination) of this assumption, and for alternative methods of achieving desired outputs to be identified. Priorities can be related to objectives rather to activities or policies (as is often the case), and a clear understanding of the best ways of achieving these objectives can be developed.

Secondly, once the delivery system has been specified, it is possible to systematically test its validity. In the present study, it was possible to investigate the strength of hypothesised links between levels in the hierarchy of objectives, and thereby discover how the programme's delivery system had actually operated. In this way, weak or non-existent links in the hierarchy can be identified, and the programme can be modified to enhance its performance.

Thirdly, as was shown by the present study, once the delivery system of an initiative is understood, it may be possible to predict the likely scale of high level outputs on the basis of a knowledge of lower level outcomes. Since lower level outputs are frequently much more readily measured than those at the top of the hierarchy, this can save valuable time and effort.

Fourthly, as the present study has shown, specifying the hierarchy of objectives demonstrates that there are a wide range of impacts associated with the economic programmes, which can not be measured in terms of the most commonly used performance indicators, such as cost per job ratios. Specification of the full range of intended outcomes, and performance measures therefore facilitates more comprehensive evaluation than has usually been achieved in previous studies.

Most previous studies have relied on just one or two output measures, (usually related to job generation), and it seems from discussions with officials closely connected with the work of the Reid Group, that their recommendations will follow this tradition. Many of the costs and impacts considered in the present study will therefore be ignored. The results of the present study therefore probably provide the best basis yet available on which to identify those impacts which it is most important to take account of, and those which have relatively little effect on the conclusions which are reached regarding programme performance, and which are therefore unlikely to justify detailed study. As such, future researchers may be able to use these findings as guide to the issues which are likely to be crucial to an evaluation.

3.3 Defining target areas

The present research has confirmed that it is important to specify not only the hierarchy of objectives, but also to define the priority areas and / or groups at which an initiative is targeted. In particular, it showed that the employment impacts attributed to the advance factory programme varied greatly, depending on the spatial scales at which they were investigated. By 1984, the programme had led to the creation of nearly 300 local F.T.E. on-site jobs, whereas a maximum of only 60 of the jobs which were accommodated in the units were new to the national economy. As a result the average cost per new local job amounted to less than a quarter of the average cost of each new job created within the national economy. It is clear therefore that the conclusions which were reached about the cost effectiveness of the programme depended greatly on the what area it was assumed the programme had been targeted on.

3.4 The identification of net impacts

One of the central concerns of the present study has been to develop ways of accurately measuring the direct impacts of schemes such as the advance factory building programme. The reasons for this are twofold. Firstly, the evidence of the present study suggests that direct local impacts of the advance factory building programme considerably out-weigh the indirect impacts. Secondly, it is clear that any estimate of the size of a programme's indirect impacts depends crucially upon the estimates which are made of the size of the direct impacts. It is clear therefore that the accuracy with which the direct impacts are measured determines the accuracy of all of the findings of an evaluation, and is as a result the most important methodological issue relating to the evaluation of local economic initiatives.

The present study showed that it is vital that researchers identify and measure net outcomes. It has also shown that many researchers have in fact failed to do this because they have not attempted to measure the extent to which programme funding had been additional, i.e. contained no "deadweight". There are two possible causes of deadweight in the advance factory programme. The first relates to the possibility that in the absence of the programme, similar units would have been provided in the case study areas by the private sector or another public sector agency. The second to the fact that some or all of the observed changes (for example, increases in the number of local jobs) would have occurred if alternative premises had not been available.

The methodology used in the present study enabled both sources of deadweight to be tested for, and showed the vital importance of taking them into account. For example, it was clear that failure to exclude jobs which would have existed in the absence of the programme from the analysis, would have led to the employment impacts and the cost effectiveness of the programme being significantly overestimated. If no account had been taken of deadweight, the average cost per new job to the national economy in 1984, would have been calculated as £ 9,315 ; in fact it was over £ 45,000. Had new jobs to the national economy been identified on the basis of the

"before / after" approach (which has been used in a number of previous studies), the apparent average cost per new job would have been £ 14,308.

It is very likely that many local economic initiatives incorporate such deadweight, particularly at the national scale, and it is clear that the failure of most researchers to take this into account, is likely to have led them to greatly overestimate the scale of programme impacts and the cost effectiveness of programmes.

3.5 The identification of net costs

A variety approaches can be taken to the calculation of the costs of a programme. The approach advocated in the present study is to subtract from programme costs those impacts which have a clear monetary value, such as rent paid by occupant firms. The present study showed that the rent paid by the occupant firms, and the proceeds from the sale of some of the units, in the case study areas had amounted to approximately £ 400,000 by 1984, and that by 1988, they might be worth about £ 921,000, (at 1984 prices). The latter is more than a quarter of the size of the costs of the programme, and it is clear therefore, that excluding the proceeds from rent and the sales of the units from the assessment of the programme's cost effectiveness would have had a significant effect on the findings reached.

The cost of the time spent by programme managers and local authority officers in administering the programme were not included in the present study, because it was clear that in the absence of the programme the officers would not have been made redundant, but would have undertaken other activities. Their time therefore represented an opportunity rather than a monetary cost, and could not be meaningfully quantified.

Many local economic development programmes result in physical outputs which have a monetary "end value", for example the completed factory units provided by the advance factory building programme. The value of the units could be measured on the basis of the prices which had been charged by English Estates for those which had been sold to occupant firms. Two units in the case study areas which had been sold by 1984, one had been sold for

approximately £13 per square foot (1984 prices) and the other (a smaller unit), had fetched £17 per square foot (at 1984 prices). On this basis the remaining 54 units (comprising 95,600 square feet of floorspace) were likely to be worth approximately £1,400,000 (at 1984 prices). This was equal to roughly half of the total costs of the programme in 1984.

As far as is known, no previous study of a local economic initiatives has included end values, and because of their size, including them in the present study would have made it totally impossible to compare the findings reached with those of other evaluations. It is clear however that end values may be a very significant output of the programme and that their importance may far outweigh impacts (such as multiplier values), which researchers have spent a great deal of time and effort attempting to measure. It seems clear therefore, that the issue of end values merits much more careful consideration in future research than it has been accorded until now, particularly if they vary significantly between alternative programmes.

3.6 Discounting costs and impacts

There are clear grounds for discounting programme costs over time; namely that because of inflation, costs incurred in different years need to be standardised, and for this reason, in the present study all costs were converted to 1984 prices. Many researchers have however failed to allow for inflation when calculating programme costs, and the present study suggests that this is likely to have significantly distorted their findings.

Failure to convert the costs of the advance factory building programme to 1984 prices in the present study would for example, have led to much lower cost per job figures having been obtained. The direct costs of the programme in the case study areas (disregarding inflation), had by 1984 amounted to £2,802,515. Receipts from rents and sales had been £344,522. The undiscounted net costs of the programme were therefore £2,457,993, which is over £500,000 less than the discounted cost of the programme. The average undiscounted cost per new local on-site F.T.E. job by 1984 would have been £8,763 compared to the inflation-adjusted cost of

£10,610, and the average undiscounted cost per job gained by the national economy would have been only £37,242, compared to £45,091.

It can be argued most that policy makers place a higher value on a new job provided "today" than the guarantee of a new job provided in the future, and that an adjustment ought therefore to be made in order that present jobs are valued more highly than future jobs. Some researchers have therefore, discounted the value of programme impacts as well as of programme costs, (e.g. Hodge and Whitby (1979) and Willis (1983)). However as has been shown in the present study, their measures of the number of jobs that had been created were based on untested, and somewhat dubious assumptions. It is therefore impossible to determine how much confidence can be placed in their results. It seems clear that the use of sophisticated discounting procedures is unlikely to produce reliable findings if the basic data used is inaccurate. In these circumstances all that is obtained is an appearance of precision which belies a lack of accuracy.

The Treasury assumes that all new jobs created by economic development programmes would have been created in any case within a four year period, and therefore that each new F.T.E. job represents four man or woman years of full time employment, (DOE personal communication 1987). Unfortunately, there is as little empirical basis for this assumption as there is for those adopted by Hodge and Whitby. The only reliable method of evaluating the likely long term benefits of a programme would therefore seem to be to actually measure them over time, as was done in the present study.

3.7 Measuring costs and impacts longitudinally

In contrast to previous "once-off" evaluations, the present study measured both the costs and impacts of the programme over several years. Profiles of costs from the time when the units were completed up to 1986 were obtained from English Estates records, as were longitudinal measures of occupancy rates. Information about the firms' employment profiles from the time when they had moved into the units up to 1986 was obtained from

the interviews with their managing directors, and estimates of future employment levels were also obtained.

The results demonstrated the need to evaluate programmes over a period of years. It was clear for example, that in some case study areas, there had been considerable delays between the completion and letting of many of the units. Once-off studies of occupancy rates undertaken several years after the completion of the units did not take account of these, and as a result, overestimated overall occupancy rates, failed to show differences in programme performance in different areas, and concealed the problem of these delays from policy makers. It was also clear that the scale of the programme's employment impacts had increased rapidly over a very short space of time, and was likely to continue to do so in the foreseeable future. The number of new local jobs accommodated in the factory units had for example increased by 70 % between 1984 and 1986, and the average cost per new local job had almost halved over the same time period. Very different findings would therefore have been reached about the programme's performance from studies undertaken just two years apart.

For this reason it seems clear that future evaluations of local economic development programmes should attempt to measure employment impacts in terms of flows of man / woman year F.T.E. jobs. The present study showed that in 1986, the occupant firms in some of the case study areas were beginning to reach "employment ceilings", beyond which they could not expand without moving to alternative premises, or opening branch factories. It may therefore be possible to predict the future maximum employment levels in the factory units, and thus gauge "job flows" over time, on the basis of the premises' observed "carrying capacities".

3.8 Indirect and unintended outcomes

A local economic initiative is likely to have a number of impacts which are not caused directly by, or which were not expected to result from it. Such impacts can be very important in determining the success or failure of a programme. However, few researchers have attempted to measure the full range of possible outcomes, and those that have attempted to do so have

generally used techniques derived from regional economics which are unlikely to be appropriate for evaluating local initiatives. For example, the Treasury relies entirely on guesstimates of the size of wider impacts. It assumes that 50 % of the new activity generated by a programme will merely have displaced other existing activities, and estimates local multipliers from general figures derived from past studies of regional multipliers, (H.M. Treasury 1988 personal communication).

In the present study alternative empirically based "bottom-up" approaches were developed to measure the wider effects associated with the Development Commission's advance factory building programme. These suggest that both the Treasury approach and those used in previous evaluations are likely to over-estimate the importance of indirect effects associated with local economic initiatives such as the advance factory building programme. It is clear for example, that at the local level, the scale of market share displacement and local multiplier effects associated with the programme are so small that both can be excluded from the evaluation of the advance factory building programme without significantly affecting the findings that are reached about its cost effectiveness. Similarly, Exchequer savings which occur in the form of reduced unemployment and social security payments, are of only marginal importance to the calculation of the programme's cost effectiveness. By 1984, the programme had at most led to Exchequer savings of around £ 200,000, which is about 7 % of total programme costs. It seems therefore that the measurement of these impacts should be a low priority in future evaluations.

3.9 Comparisons between programmes

Researchers tend to have developed their own individual methodologies for evaluating programmes, and as a result it has been difficult to compare the conclusions which have been reached by different studies and thus to compare the cost effectiveness of different programmes. Further, since most researchers have been concerned with the costs and impacts of one programme in just one area and at only one point in time, it has not been possible to use their findings to compare the effectiveness of even the same programme over a period of time, or in different situations.

If evaluation studies facilitate neither comparisons between alternative programmes or between the same programmes in different areas and over time, they will be of very little value to policy makers. However, if appropriate and consistent measures of programme costs and impacts can be developed, they provide an excellent basis on which to compare both the relative effectiveness of different programmes, and the relative effectiveness of the same programme in different situations. It is therefore important that some consensus is reached about the essential features of an evaluation methodology, and that the inputs, operation and outputs of programmes are studied in a number of different areas and over several years.

The findings of the present study suggest that many previous researchers have devoted considerable time and effort to the measurement of programme costs and impacts (for example indirect programme impacts such as multiplier effects), which have had little or no relation to the objectives of the programme, and very little influence on the conclusions reached concerning the programme's effectiveness. At the same time they have ignored a number of key considerations which are likely to have had very important effects on the programme's performance. The approach used in the present study has provided accurate measures of a range of direct programme outputs, and enabled the programme's performance to be compared in different areas, and over a number of years. It therefore seems to provide a means of assessing the cost effectiveness of a programme much more accurately than have approaches which have been adopted in the past, and may, as a result, provide a basis on which future research can build.

3.10 Future research

The need for further research has been highlighted in several of the earlier chapters. Policy evaluation remains in its infancy in the U.K.. There is therefore a need for comparative studies of different programmes using rigorous approaches, which enable their cost effectiveness to be properly evaluated. There are also a number of technical problems which have yet to be completely resolved.

There is a need to examine the future employment impacts of the programme, in order to see if the expected levels of growth were achieved by 1988, and to discover whether the space constraints experienced by the occupant firms actually formed "employment ceilings" beyond which they were unable to expand. There is also scope for examining the extent to which lower level performance indicators provide a basis on which to predict the likely scale of higher level outputs.

Since with the time and resources available for the present research, it was only possible to study the programme in eight areas, there is a need to verify its findings, and to test the preliminary conclusions which were reached about the differences in the advance factory building programme's effectiveness in different sized settlements and in different regional settings, across a wider range of case study areas.

Further studies of the local labour market impacts of local economic initiatives at different times and in different settings are necessary in order to discover whether those of the advance factory building programme were atypical. In particular it would be interesting to discover whether the incidence of such a high level of concealed unemployment as was revealed in the present study, is typical of rural economies, or whether it was the product of the recession of the late 1970's and early 1980's.

It is clear that there is further scope for the development of an approach which enables the wider effects of the programme to be quantified accurately on the basis of empirical data, and which enables the linkages between employment creation and higher level outputs, such as demographic changes and improvements in the "quality of life" in target areas to be identified more accurately than was possible in the present study.

Finally, there is a need to use the methodology developed in the present study to evaluate other local economic initiatives in order to discover whether it can be adapted to other contexts, and if so, how widely applicable it is.

4.0 POLICY RECOMMENDATIONS

There are number of important policy orientated conclusions which can be drawn from the present study. They suggest a number of ways in which the programme's performance could be enhanced and also demonstrate the value of rigorous evaluation studies.

4.1 Continuation of the programme

It is clear from the present study that the advance factory building programme has produced a number of significant and beneficial impacts in the case study areas, and has resulted in relatively few negative impacts. In contrast to the local impacts of the programme, the impact of the initiatives on the national economy appear to have been small. Had the Commission's objectives been to benefit the national economy as a whole, the programme would therefore be hard to justify. However, since it seems to have had a significant impact in the small rural localities on which it was primarily targeted, it is recommended that the programme should be continued.

4.2 Enhancing the performance of the programme

One of the main advantages of evaluation research which studies the way in which the programme's delivery system has operated is that it enables weaknesses in the way in which the programme operates, to be identified. Several such deficiencies were apparent from the present study, and it is clear that there are a number of ways in which its delivery system could be changed in order to enhance the programme's performance, thereby improving the chances that its ultimate objectives would be achieved.

4.2.1 The location of factory units

It was clear from the findings of the present study that the characteristics of the areas in which units had been built, affected the impacts which they had. Many of the lower level measures suggested that by 1984, in terms of impacts per unit area of floorspace which had been provided, the programme had performed more effectively in the village case study areas than in the market towns. However, because development costs had been higher in the villages, the programme had been more cost effective in the towns. It was also clear that in the medium term, the impacts of the programme in the market towns were likely to be much greater than those achieved in most of the villages.

It seems therefore, that there may be a case for providing the majority of future units in larger settlements, since these are on the whole, more attractive to in-moving firms. However, it will also be necessary to provide people living in surrounding villages with access to the jobs provided in the towns. Given that one of the aims of the R.P.D. process introduced in 1984, was to facilitate the integration of different policies within the priority areas, it might now be easier for economic and transport programmes to be coordinated in this way. Nevertheless, in view of the past failure of some key settlement policies, such a strategy would need to kept under review in order to ensure that the interests of village residents were safeguarded.

It was clear that the programme had proved to be most successful in the most accessible areas. In more remote areas, the programme had not only been more expensive, but had also resulted in far fewer positive impacts. Therefore the evidence of the present study suggests that if programme performance is to be measured solely in terms of its cost effectiveness, the Commission should concentrate future factory building in rural towns close to major industrial areas. The higher costs and lower level of impacts in remoter areas reflect the greater needs and problems which exist in these areas. It may be possible to enhance the programme's performance in these areas by adapting it, for example by increasing the demand for the units by lowering rents, and by advertising their availability more aggressively to manufacturing firms outside of the area. Alternatively, it

may be that the problems and potential of remoter rural areas, are quite different from those of less remote areas, and could be better addresses by alternative policies.

4.2.2 Reducing delays in the development process

The present study showed that long delays had often occurred between the time at which financial backing for the construction of units had been given by the Commission, and the start of the construction phase, and in some areas, units had not been provided several years after approval had been given. Such delays are of concern because they postpone achievement of the benefits of the programme. It has been shown that they were usually related to problems identifying and servicing suitable sites. It is therefore recommended that in order to minimise such delays in the future, applications for assistance are appraised more rigorously, in order to discover whether there are sites within the proposed areas of pull which could be rapidly made available for development if approval were to be given. The Commission could in fact make it a pre-condition of the approval of funding for factory building that R.D.P. committees which bid for new units are able to demonstrate that such sites exist.

4.2.3 Providing a wider range of units of different sizes

It seems from the evidence of the present study that the design of the units currently provided has little effect on the level of demand for them. In several of the case study areas the supply of the industrial premises was so restricted that indigenous firms had little or no choice of alternative local premises. However, the quality of the D.C.'s units seems to have been a factor in attracting non-indigenous firms to move into the case study areas, and it might therefore be possible for the Commission to enhance the attractiveness of some of the areas in which occupancy rates have been low, by providing more high class units at relatively low cost. Given the differences between the levels of demand for premises in different case study areas, it would also seem that there is more scope for

varying the level of rents charged between areas in order to increase demand for premises in "problem areas", than English Estates have exercised to date, (section 3.2.1 above).

The views of the managing directors regarding the costs of the units which they occupied varied according to the type of firm involved. It was clear that different firms had quite different requirements, and that the effectiveness of the programme could therefore be enhanced by providing a much greater range of sizes and types of unit. Many new firms would be better served by providing low cost, lower specification units. At the same time, the Commission should continue to build high quality units in order to attract established in-moving firms. In addition, a range of interior lay-outs could be provided, so that occupant firms could be offered a choice between units with varying amounts of office space, heights of roof, types of doors and so on. Alternatively, the Commission might consider providing flexible modular designs of the types that have been provided in most Science Parks.

There was evidence of a need for a wider range of units of different sizes to be provided. In some of the case study areas, all of the units were of the same size, and in most, the choice of unit sizes was severely restricted. Most areas lacked a sufficient number of larger premises, to accommodate firms which had expanded and thus required more space, and it was apparent that many of the occupant firms were likely to be forced to move out of the case study areas in order to facilitate continued growth. If this occurs, substantial numbers of new jobs would be lost from the priority areas.

This problem is likely to be exacerbated by the Commission's recent policy of encouraging the construction of smaller units, particularly since the present study suggests that occupancy rates have been higher in larger units than in smaller premises. It is therefore recommended that the Commission attempts to provide a "workspace ladder" of units of different sizes which a firm can ascend as it becomes established, and increases its level of turnover and the size of its workforce. In some small villages, it will clearly be impossible to provide a full range of different designs and sizes. However, in these cases a range of different types and sizes of

unit could be provided throughout a R.D.A., such that complementary units are built in neighbouring settlements.

It is clear that it will be impossible to satisfy the requirements of all of the firms all of the time, particularly when units are constructed in advance of known demand. However, there is a need for the Commission to give more attention to the degree of user satisfaction with their premises. One way of doing this would be to regularly monitor the views of the managing directors of occupant firms regarding the suitability of their premises, in order to identify design improvements which would be universally welcomed.

4.2.4 Increasing occupancy rates

The present study showed that occupancy rates in the case study areas were lower than was suggested by the Commission's own figures. The difference between the findings of the present study and the Commission's figures result from the fact that the latter are based on measurements of occupancy rates at only one point in time. **It is therefore recommended that the Commission monitor occupancy rates over time rather than at a point in time.** In order to do this it will be necessary for English Estates to introduce a more accurate method of recording the dates on which units are occupied and vacated, than that which existed at the time of the present study.

It was clear that occupancy rates varied considerably between the case study areas. The simplest way of increasing occupancy levels, is to manipulate the supply side of the equation. The Commission already does this by stipulating that factories must be built on a rolling programme, whereby new units are provided only as existing ones are occupied. However, it can be argued that this policy penalises the most "needy" areas. A more appropriate response might therefore be to attempt to increase the demand for units, in those areas in which they have been difficult to let.

To date, the Commission has tended to deal with the problem of low occupancy rates by relaxing the criteria which are supposed to govern the

selection of tenants. As a result, in a number of areas, a very high proportion of occupant firms are involved in services rather than manufacturing, and many had not created the number of jobs which it was hoped they would at the time when they were given space in the units. It is clear therefore that although relaxing the criteria has helped to increase occupancy rates, it has reduced the effectiveness of the programme. It is therefore recommended that in the future, criteria regarding the types of firms which are eligible to occupy units, be adhered to more rigorously, and that alternative ways of increasing demand are implemented.

One of the best ways of doing so would be to attempt to attract a greater number of non-indigenous firms into priority areas. This strategy has a number of advantages. It would be "swimming with the tide" of the urban-rural shift. It would also, if successful, bring in-moving firms into "problem areas", and as a result be likely to both widen the existing economic base and create significant future employment growth; (the present study shows that non-local firms grow fastest and therefore provide the largest numbers of new jobs). As has been explained in section 3.1 (above), there is a need for the availability of units to be advertised outside of the immediate locality, and to target promotional activities on non-indigenous manufacturing firms, which are likely to have the greatest potential for employment growth.

The present study shows that areas in which units have proved to be unattractive to non-indigenous manufacturing firms, have a number of common characteristics. It should therefore be possible to identify these in advance and therefore advertise the units more vigorously. Finally, since it is also clear from the present study that in areas with low occupancy rates, the main period of vacancy occurs between completion and the first time a unit is occupied, it is recommended that the availability of units is advertised in advance of completion in order to increase the chances that firms move into them as soon after completion as is possible.

4.2.5 Selection of occupant firms

As noted above, the present study has shown that the impact of the programme varies according to the types of firms which occupy the units. Established non-indigenous firms are for example, likely to grow more rapidly (both in the short and the long term), than indigenous firms or new firms. As a result they are likely to provide a greater number of new employment opportunities. It is also clear that they provide the greatest range of new types of employment opportunity. By influencing the types of firms which are attracted to the units (by selective advertising outside of the priority areas, as recommended above) and carefully selecting those which are allowed to occupy them, the Commission may therefore be able to increase the effectiveness of the programme.

4.3 Enhancing the Commission's performance management systems

Many of the existing weaknesses of the programme are the result of the inadequacy of the Commission's present arrangements for appraising, monitoring and evaluating both individual projects, and the programme as a whole. One of the major policy recommendations of the present study is therefore that improved arrangements for appraisal, monitoring and evaluation be adopted by the Commission.

It is clear, (both from the present study, and other work currently being undertaken by the present writer and colleagues), that there is a need for the Commission to appraise applications for assistance against criteria which are likely to influence the success or failure of proposed projects, for example, the amount of deadweight, the availability of suitable sites for development, the likely level of demand for units, and the pool from which future occupant firms are likely to be drawn.

It is also clear that there is a need for the programme to be monitored more systematically than it has been to date, in order to provide policy makers with sufficiently up to date information to "fine tune" the delivery system. Until now they have tended to rely on once-off evaluation studies

in particular areas. Although these have provided some useful information, many have contained serious methodological weaknesses, and none have been sufficiently comprehensive to show how the programme has actually worked, and therefore to highlight potential improvements in its design. There are also doubts concerning the extent to which the results of these case studies have been representative of the programme as a whole. All have been undertaken in areas in which it seems that the programme has been relatively successful, and none have evaluated impacts over time.

The present study has shown the records which are kept by English Estates and the Commission, of the outputs of the programme, do not constitute a sufficiently comprehensive management information system to meet the needs of policy makers. They lack the output measures which proved to be most useful in the present study, and are sometimes inaccurate, apparently because they are not up-dated sufficiently regularly. It is clear therefore that a more comprehensive monitoring system is required.

Low cost computerised systems have already been introduced to assist with the management of other locally based economic programmes, (for example the PriSM system used by many local authorities to monitor their Urban Programme expenditure and outputs). It would seem that even if such a system used only the output measures from low levels in the hierarchy of objectives developed in the present study, (for example, the number of completed units, occupancy rates, types of occupant firms, and numbers of jobs accommodated in the units), it would provide policy makers with much better information than is available to them at the present time, and would therefore be likely to improve the quality of decision making.

It is clear from the findings of the present study that information about lower level outputs, could be used to predict the likely scale of higher levels outcomes. such as job generation. It would also provide an "early warning system", which would identify problems in the implementation of the programme, (either nationally or in specific areas), sufficiently early for ameliorative action to be taken. It would also facilitate longitudinal analyses of the nature of programme impacts. Since (as has been shown by the present study), the scale of impacts can vary substantially over a relatively short period of time, this would provide a

much better source of information than the present ad hoc system of record keeping.

A comprehensive monitoring system would also facilitate much better evaluation than has been possible to date, since it would no longer be necessary to rely entirely on a case study approach. The database provided by the monitoring system could be used to test the extent to which the findings of the present study and other evaluations applied to the programme as a whole. An on-going monitoring system would also provide information for future evaluations which could then be undertaken on a regular basis, and with reference to common output and effectiveness measures. It would then be possible to compare the performance of the programme both in different areas, and at different times, in a way which has not possible to date.

Finally, aside from the important operational advantages of such a system, there are sound political reasons for improving existing performance management systems. Several central government departments have recently come under the scrutiny of the National Audit Office and the Public Accounts Committee, and have, as a result, found it necessary to introduce more rigorous arrangements for performance management, (for example the Urban Programme Monitoring Initiative within the Department of the Environment). It seems clear that both the Treasury and the Cabinet Office are set to continue to pursue the F.M.I. principles, and that as central departments up-grade their performance management systems, the spotlight will increasingly be turned on sponsored bodies, such as the D.C.. Although the Commission has so far been "shielded" from the Treasury by the Department of the Environment, it is clear that, in order to maintain its current level of funding and quasi-autonomy, the Commission will eventually be forced to adopt a comprehensive performance management system such as that advocated in the present study.

APPENDICES

Appendix 1 Costs of land acquisition, site development and construction

Market Drayton

Phase 1	Land acquisition and development costs (actual)	£ 64,500
Phase 2	Land acquisition and development costs (actual)	£ 89,000
Phase 3	Land acquisition and development costs (actual)	£129,000
Phase 4	Land acquisition and development costs (actual)	£112,833
Phase 5	Land acquisition costs (actual)	£ 25,000
	Development costs (actual)	£233,000
Total land acquisition costs (actual)		£ 64,000
Total development costs (actual)		£588,833
Total Project costs		£653,333

Ludlow

Phases 1 and 2	Land acquisition costs (actual)	£ 78,000
Phases 1 and 2	Site servicing (actual)	£ 54,000
Phase 1	Development Cost (approved)	£289,000
Phase 2	Development Cost (actual)	£173,000
Total land acquisition cost (actual)		£ 78,000
Total development and servicing cost (mixed)		£516,000

Bakewell

Phase 1	Land acquisition costs (actual)	£ 20,867
	Construction costs (actual)	£116,738
Phase 2	Land Acquisition costs (actual)	£ 30,452
	Construction costs (actual)	£144,470
Phase 3	Land acquisition costs (actual)	£ 21,249
	Construction costs (actual)	£159,464
Total land acquisition costs (actual)		£ 72,568
Total construction costs (actual)		£420,672

Weobley

Kington Road	Land acquisition costs (actual)	£ 9,500
	Development costs (approved)	£127,500
Whitehill Park	Land acquisition costs (actual)	£ 22,500
	Development costs (approved)	£132,000
Total land acquisition costs (actual)		£ 32,000
Total development costs (approved)		£259,500

Leintwardine

Land acquisition costs (actual)	£ 8,500
Development costs (approved)	£ 141,800

Ipstones

Land acquisition costs (actual)	£ 5,300
Site preparation costs (actual)	£ 750
Development costs	£ 255,150

Waterhouses

Phases 1,2 and 3	Land acquisition costs (actual)	£ 10,500
Phases 1,2 and 3	Site preparation costs (actual)	£ 600
Phase 1	Development costs (actual)	£ 144,223
Phase 2	Development costs (actual)	£ 72,114
Phase 3	Development costs (actual)	£ 72,114

Total land acquisition costs	£ 10,500
Total development costs	£ 289,055

Longnor

Land acquisition costs (actual)	£ 7,000
Development costs (approved)	£ 124,000

Appendix 2 Programme costs at 1984 prices

Case study area	Phase	Year constructed	1984 prices
Market Drayton	1	1977	£ 102,519
	2	1978	£ 136,790
	3	1979	£ 179,490
	4	1982	£ 255,368
Ludlow	1	1982	£ 375,928
	2	1983	£ 179,000
Bakewell	1	1982	£ 127,945
	2	1982	£ 158,339
	3	1983	£ 165,524
Weobley	1	1978	£ 218,344
	2	1981	£ 155,897
Leintwardine	1	1980	£ 179,944
Ipstones	1	1981	£ 302,218
Waterhouses	1	1981	£ 171,042
	2	1984	£ 72,114
Longnor	1	1980	£ 157,356

Appendix 3 Timing of approval, completion and first letting of units

Location	Unit ID number	Date Finance approved	Date of Practical completion	Date first occupied
Market Drayton	1	Dec. 1975	Feb. 1977	June 1978
	2	March 1977	March 1978	Oct. 1978
	3	March 1977	Aug. 1979	Sept 1979
	4	Sept. 1978	Aug. 1979	Sept 1979
	5	March 1980	Sept. 1982	Dec. 1983
	6	March 1980	Sept. 1982	May 1984
	7	March 1980	Sept. 1982	Sept 1984
	8	March 1980	Sept. 1982	Sept 1984
	9	March 1980	Sept. 1982	June 1983
	10	March 1980	Sept. 1982	June 1983
	11	March 1980	Sept. 1982	July 1983
	12	March 1980	Sept. 1982	Dec. 1983
Ludlow	1	March 1979	Aug. 1982	Sept 1982
	2	March 1979	Aug. 1982	May 1983
	3	March 1979	Aug. 1982	May 1983
	4	March 1979	Aug. 1982	Sept 1982
	5	March 1979	Aug. 1982	Aug. 1982
	6	March 1979	Aug. 1982	July 1984
	7	March 1979	Aug. 1982	Mar. 1984
	8	March 1979	Aug. 1982	Sept 1984
	9	March 1979	Aug. 1982	Mar. 1984
	10	March 1979	Aug. 1982	-
	11	March 1979	Feb. 1983	Feb. 1984
	12	March 1979	Feb. 1983	Oct. 1984
	13	March 1979	Feb. 1983	May 1984
	14	March 1979	Feb. 1983	Sept 1984
	15	March 1979	Feb. 1983	Aug. 1984
Bakewell	1	Feb. 1978	Feb. 1982	Mar. 1982
	2	Feb. 1978	Feb. 1982	Mar. 1982
	3	Feb. 1978	Feb. 1982	Apr. 1982
	4	Feb. 1978	Jan. 1984	May 1984
	5	Feb. 1978	Jan. 1984	Feb. 1984
	6	Feb. 1978	Jan. 1984	Feb. 1984
	7	Feb. 1978	Jan. 1984	Apr. 1984
	8	Feb. 1978	March 1982	Sept 1982
	9	Feb. 1978	Sept. 1982	Aug. 1983
Weobley	1	Sept. 1975	July 1978	Jan. 1979
	2	Sept. 1975	July 1978	May 1979
	3	March 1979	May 1981	July 1981
	4	March 1979	May 1981	Feb. 1983
	5	March 1979	May 1981	June 1982
Leintwardine	1	Sept. 1975	June 1980	Apr. 1983
	2	Sept. 1975	June 1980	Aug. 1980
	3	Sept. 1975	June 1980	Apr. 1983
	4	Sept. 1975	June 1980	Apr. 1984
Ipstones	1	June 1977	April 1980	Mar. 1981
	2	June 1977	April 1981	Feb. 1983
	3	June 1977	April 1981	Oct. 1982
	4	June 1977	April 1981	Spet 1981
	5	June 1977	May 1980	May 1980

Waterhouses	1	June 1977	Nov. 1981	May 1983
	2	June 1977	Nov. 1981	Nov. 1983
	3	June 1977	April 1984	-
	4	June 1977	April 1984	-
Longnor	1	June 1977	June 1980	Oct. 1982
	2	June 1977	June 1980	June 1983

Appendix 4 Occupancy Rates

Market Drayton

*Unit	Time Unit in Existence (months)	Time Occupied (months)	Time Vacant (months)	% Time Occupied
1	89	73	16	82
2	76	60	16	79
3	60	54	6	90
4	60	47	13	78
5	22	7	15	32
6	22	2	20	9
7	22	0	22	0
8	22	0	22	0
9	22	13	9	59
10	22	13	9	59
11	22	12	10	55
12	22	7	15	32
Total	461	288	173	65

*Unit	Time Unit in Existence (months)	Time Occupied (months)	Time Vacant (months)	% Time Occupied
1	24	23	1	96
2	24	14	10	58
3	24	14	10	58
4	24	23	1	96
5	24	24	0	100
6	24	1	23	4
7	24	4	20	17
8	24	0	24	0
9	24	3	21	13
10	24	0	24	0
11	17	5	12	29
12	17	0	17	0
13	17	2	15	12
14	17	0	17	0
15	17	1	16	6
Total	325	114	211	35

Bakewell

*Unit	Time Unit in Existence (months)	Time Occupied (months)	Time Vacant (months)	% Time Occupied
1	29	26	3	90
2	29	28	1	97
3	29	26	3	90
4	6	2	4	33
5	6	5	1	83
6	6	5	1	83
7	6	4	2	67
8	28	23	5	82
9	23	12	11	52
Total	162	131	31	81

Weobley and Leintwardine

*Unit	Time Unit in Existence (months)	Time Occupied (months)	Time Vacant (months)	% Time Occupied
Weobley				
1	72	66	6	92
2	72	62	10	86
3	38	36	2	95
4	38	17	21	45
5	38	25	13	66
Total	296	206	52	80
Leintwardine				
1	49	49	0	100
2	49	48	1	98
3	49	15	34	31
4	49	19	30	39
Total	196	131	65	67

Ipstones, Waterhouses and Longnor

*Unit	Time Unit in Existence (months)	Time Occupied (months)	Time Vacant (months)	% Time Occupied
Ipstones				
1	51	40	11	78
2	39	17	22	44
3	39	21	18	54
4	39	30	9	77
5	50	50	0	100
Total	218	158	60	72
Waterhouses				
1	32	14	18	44
2	32	8	24	25
3	3	0	3	0
4	3	0	3	0
Total	70	22	48	31

Longnor

*Unit	Time Unit in Existence (months)	Time Occupied (months)	Time Vacant (months)	% Time Occupied
1	49	21	28	43
2	49	13	36	27
Total	98	34	64	35

*NOTE: Unit numbers not those designated by E.E.

Appendix 5 Products and Services provided by occupant firms

Firm code	Location	Product / Service	S.I.C.
1	Market Drayton	Chemical Production	E
2	----- " ------	Cables & Circuit Boards	I
3	----- " ------	Sheet Metal Manufacture	K
4	----- " ------	Electrical Contractors	I
5	----- " ------	Importing of Giftware	R
6	----- " ------	Autoelectrical Repairs	Z
7	----- " ------	Suppliers to Dairy Industry	W
8	----- " ------	Fibreglass Mouldings	S
9	Ludlow	Wholesale of Vet. Supllies	W
10	"	Fibreglass Mouldings	S
11	"	Supply of Church Furnishings	W
12	"	Car Radiator Repairs	K
13	"	Tool and Plant Hire	Z
14	"	Hiring of Scaffolding	T
15	"	Carpet and Furniture Removals	W
16	"	Precision Engineering	G
17	"	Servicing of Garden Machinery	V
18	"	Carpentery and Joinery	R
19	"	Supppliers & Fitters of Window	L
20	"	Suppliers of Amusment Machines	W
21	Bakewell	Manufacture of Tea-Making Equipment	I
22	"	Manufacture Industrial Instruments	H
23	"	Production of Confectionary	C
24	"	Manufacture of Adhesive Tapes	W
25	"	Importing of Food Machines	W
26	"	Marketing of Sealing Products	W
27	"	Production of Waste Compactors	L
28	Weobley	Production of Timber Housing Frames	Q
29	"	Production of Silicon Rubber Moulds	S
30	"	Design of Electronic Equipment	I
31	"	Manucfature of Yoghurts & Creams	C
32	"	Production of Audio- Equipment	I
33	Leintwardine	Production of Sheet Metal-work	G
34	"	Production of Pigment Dispersion	G
35	"	Design of Agricultural Equipment	Z
36	Ipstones	Production of Terracotta Novelties	P
37	Waterhouses	---------- " ----------	P
38	Ipstones	Manufacture of Rubber Mouldings	S
39	Waterhouses	Sale of Greetings Cards & Giftware	R
40	Longnor	Production of Young Plants	I

Appendix 6 Standard industrial classifications

C - Food / drink / tobacco,
E - Chemicals,
G - Mechanical engineering,
H - Instrument engineering,
I - Electrical engineering,
K - Vehicles,
L - Other metal goods,
P - Bricks / pottery / glass,
Q - Timber / furniture,
R - Printing / paper,
S - Other manufacturing,
T - Construction,
V - Transport / communication
W - Distributive trades,
Z - Services / unclassified.

Appendix 7 Changes in occupant firms' turnovers 1984–1986

Firm number	Turnover 1984 £ 000's	Turnover 1986 £ 000's	% Change in turnover 1984–1986
1	1 000	3 000	200
2	250	1 500	500
3	–	–	75
4	–	–	150
5	1 400	2 300	64
6	–	–	400
7	–	–	0
8	30	120	300
9	–	–	100
10	30	250	733
11	–	–	10
12	80	112	40
13	33	100	239
14	60	85	42
15	215	250	16
16	55	85	55
17	45	65	44
18	60	90	50
19	–	–	200
20	40	35	-13
21	100	50	-50
22	600	750	25
23	47	70	49
24	145	358	147
25	1 000	1 000	0
26	600	850	42
27	150	350	133
28	1 200	1 200	0
29	375	650	73
30	–	–	0
31	22	45	105
32	–	–	260
33	–	–	5
34	–	–	300
35	–	–	300
36	220	315	43
37	100	145	45
40	–	–	200

Appendix 8 Weekly wages paid to employees taking new jobs in D.C. units

Firm number	Average wage paid by firm * £	Number of new FTE local jobs in firm	New income to local area weekly £	New income to local area p.a. * £
1	151-200	15.5	2720	141453
2	< 50	28.5	713	37050
3	101-150	22.0	2750	143000
4	201-500	32.0	11216	583232
5	50-100	82.0	6150	319800
6	50-100	1.0	75	3900
10	50-100	4.5	338	17550
11	50-100	1.5	113	5850
14	50-100	1.0	75	3900
15	101-150	7.5	941	48945
22	151-200	15.5	2720	141453
23	151-200	6.0	1053	54756
26	101-150	9.0	1130	58734
27	50-100	4.5	338	17550
28	50-100	13.5	1013	52650
29	151-200	10.5	1843	95823
30	50-100	1.5	113	5850
31	50-100	1.0	75	3900
32	< 50	2.0	50	2600
33	151-200	6.0	1053	54756
34	50-100	4.0	300	15600
36	50-100	38.0	2850	148200
37	50-100	13.5	1013	52650
38	50-100	6.0	450	23400
39	50-100	3.0	225	11700
40	50-100	10.0	750	39000
Total		339.5	40067	2083302

* 1984 prices

REFERENCES

Adams P. (1979) "Changing attitudes : a new role for rural areas ?" Planning and Building Developments. May / June Vol. 38 pp.67-79.

Alden J., Lehmann L., Martin M. and Newcombe V. (1983) Regional development policies for rural areas : Mid Wales. Department of Town Planning. UWIST. Cardiff.

Alexander K.J.W. (1978) "The Highlands and Islands Development Board : characteristics, aims and policies". in The future of upland Britain, Ed Tranter R. pp. 519-526. C.A.S. Reading University.

Allen C. and Yuill B. (1983) European regional incentives. Centre for the Study of Public Policy. University of Strathclyde. Glasgow.

Andrieu M. (1977) "Cost benefit analysis" in Evaluation research methods. Ed L. Rutman. Sage. London.

Anon (1978) "Shires muscling in on employment planning act". Surveyor No. 4496. p.10

Anon (1980) "Countryside Conference Report". The Planner. July 1980. pp. 102-103.

Ashcroft B. (1982) "The measurement of the impact of regional policies in Europe : a survey and critique". Regional Studies 16 (4) pp. 287-305. Cambridge University Press.

Ashcroft B. and Taylor J. (1979) "The effect of regional policy on the movement of industry in Great Britain". in Maclennan M. and Parr J. (Eds) Regional policy: past experience and future trends. Glasgow University, Department of Economics.

Ashton J. and Long W.H. (1972) The remoter rural areas of Britain. Oliver and Boyd. Edinburgh.

Association of District Councils (1978) Rural recovery strategy for survival. A.D.C. London.

Association of District Councils (1981) Survey of district council employment initiatives. ADC London.

Ayeni B. (1979) Concepts and techniques in urban analysis. Croon Helm. London.

Ayton J. (1976) "Rural settlement policy" in Regional and Rural development. Ed Drudy P. Alpha Academic London.

Ayton J. (1980) "Settlement policies can bring stabilisation" The Planner. July pp. 98-99.

Bailey K. (1980) "Methods of Social Research" 2nd Edition New York Free Press. London.

Ball M. (1979) "Cost benefit analysis: a critique" in Green F. and Nore P. (Eds). Issues in Political Economy. Macmillan. London.

Barkley D.L. (1978) "Plant ownership characteristics and the locational stability of rural Iowa manufacturers". Land Economics 54 pp. 92-99.

Beale C.L. (1975) "Renewed growth in rural communities". The Futurist (August) pp. 196-202.

Beeston M. (1986) "Justifying Departmental expenditure programmes" Public Money. December pp. 43-47.

Begg H.M. (1972) "Remoteness and the location of the firm". Scottish Geographical Magazine 88 pp.48-52.

Bennett S. (1976) "Rural Housing in the Lake District"

Berk R.A. and Rossi P.H. (1976) "Doing good or worse: evaluation research re-examined". Social Problems 23 pp. 337-349.

Bernstein I. and Freeman H. (1975) Academic and entrepreneurial research. Russell Sage. New York.

Bertrand A.L. (1978) "Rural social implications of technology and industry" in Rural America: persistence and change. Ford T.R. (Ed) pp. 75-88. Iowa State University Press.

Bessell J.E. (1972) The younger worker in agriculture: projections to 1980. NEDO Discussion Paper 2. NEDO London.

Best R.H. and Rodgers A.W. (1973) The Urban Countryside. London. Faber.

Birch D. (1979) The job generation process. MIT program on neighborhood and regional change. MIT Cambridge, Mass.

Bivand R. (1979) "Contemporary research emphases in Poland" in Non metropolitan industrial growth and Community Change. Eds. Summers G.F. and Selvik A. Lexington books. New York.

Blackwood L.G. and Carpenter E.H. (1978) "The importance of anti-urbanism in determining residential preferences and migration patterns" Rural Sociology 43 (1) pp. 31-47.

Blacksell M. and Gilg A.W. (1981) The Countryside : planning and change. Allen and Unwin, London.

Boody M. (1982) "Local Government and Industrial development. SAUS. Bristol University.

Boddy M. and Barrett S. (1979) Local government and the industrial development process. SAUS, Bristol.

Bonham-Carter (1976) "The changing rural community" in Future Landscapes. Ed MacEwen M. pp. 26-38. Council for the Protection of Rural England. Chatto and Windus. London

Bourne L.S. and Simmons J.W. (1978) Systems of cities: Readings on structure, growth and policy. New York. Oxford University Press.

Bovaird A.G. (1978) "Planning by local authorities for employment within their areas: a framework for the monitoring and evaluation of local employment measures". Working Paper Series No.15 JURUE, Aston University.

Bovaird A.G. (1981) "An evaluation of local authority employment initiatives". Local Government Studies 7 (4), pp. 37-52.

Bovaird A.G. (1981) "Recent developments in output measurement in local government". Local Government Studies 7 (5) pp. 35-53.

Bowers J.K. and Cheshire P. (1983) Agriculture, the countryside and land use: an economic critique. Methuen. London.

Bowler I.R. (1981) Social problems in rural commuities. Proceedings of the IBG Rural geography study group. Leicester University. January 1981.

Bowler I.R. (1985) "Some counsequences of the industrialisation of agriculture in the EEC" in The Industrialisation of the countryside. Eds Healey M. and Ilbery B. pp. 75- 98. Geobooks. Norwich.

Bozeat N. and Tricker M. (1982) "Planning problems of small firms in rural areas". Planning (June). pp 9

Bracey H.E. (1958) "A note on rural depopulation and social provision". The Sociological Review 6 (1) New Series pp. 67-74.

Bracey H.E. (1959) English Rural Life. RKP Chapter IV Rural Migration

Bracey H.E. (1970) People and the countryside. Routledge and Keagan. London.

Bracken I. and Hume D. (1980) "The future of employment: some questions about local initiatives" in Planning and Employment. Eds Harrison A. and Harrison S. Gloucestershire Papers in Local and Rural Planning. Special Issue. Gloucester College of Further Education.

Bradley D. (1983) "Management in government : a note on some recent analysis and evaluation in British Government" in Gray A. and Jenkins B. Policy analysis and evaluation in British government. pp. 37-45.

Bradley T. (1983) "Segregation and marginality in rural local labour markets". Paper presented at the Conference on deprivation and Welfare in rural areas. Rural Economy and Society Group / IBG. University of Keele. Septemeber 1983.

Braithwaite R.B. (1968) Scientific Explanation. Cambridge University Press.

Bramley G., Stewart M. and Underwood J. (1979) "Local economic initiatives : a review". Town Planning Review 50 (2) pp. 131-147.

Bramley G., Stewart M. and Underwood J. (1979) Local economic initiatives. SAUS. Bristol.

Breathnach P. (1984) "The industrialisation of Western Ireland" paper presented to the IBG conference on Industrialisation of the countryside. Lancester Polytechnic. September.

Breathnach P. (1985) "The industrialisation of Western Ireland" in Healey M. and Ilbery B. (Eds) The Industrialisation of the countryside. pp. 173-198 Geobooks. Norwich.

Briggs R. and Rees J. (1982) "Control factors in the economic development of non metropolitan America". Environment and Planning A 14 pp. 1645-1666.

Brittan S. (1976) "Full employment policy: a re-appraisal" in Worswick G.D.N. (Ed) The concept and measurement of involuntary unemloyment. pp. 249-278.

Broady M. (1980) "Mid Wales: a classic example of self help" The Planner 66 (3) pp. 94-96.

Brownrigg M. (1982) "The rural cooperative: an economist's viewpoint". The Planner 66 (3) pp. 86-88.

Brownrigg M. and Grieg M.A. (1974) The economic impact of tourist spending in Syke. Special Report 13. HIDB. Inverness.

Buildings Research Team (1983) Small advance factories in rural areas. Oxford Polytechnic.

Busteed M.A. (1976) "Small scale economic development in Northern Ireland". Scottish Geographical Magazine 92 pp. 172-181.

Butler R. (1987) "Programme evaluation : a central perspective" in Policy Management and Policy assessment. pp. 20-30 Public Finance Foundation. London.

Cain G.C. (1975) "The challenge of dual and radical theories of the labour market to orthodox theory". Papers and Proceeding of the American Economic Association 65 (2) pp.16-22.

Cameron S. J. and Clark B.D. (1966) Industrial movement and the regional problem. Social and Economic Studies. Glasgow University Occassional paper No. 5

Cameron S.J., Dabinett G.E., Gillard A.A., Williams R.H. and Willis K.G. (1982) Local authority aid to industry an evaluation in Tyne and Wear. HMSO. London.

Camina M.M. (1974) "Local authorities and the attraction of industry". Progress in Planning 3 Part 2.

Campbell D.S. (1978) "The encouragement of rural based industry a the local level" in The future of upland Britain. Tranter R. (Ed) pp.261-264.

Campbell D.T. (1978) "Qualitative Knowing in action research" in The Social context of method. Brenner, Marsh and Brenner . (Eds)

Campbell D.T. and Stanley J.C. (1966) "Experimental and Quasi-Experimental designs for research" Skokie, Rand McNally

Carmichael C.L. (1978) "Local labour market analysis: its importance and a possible approach". Geoforum 9 pp. 127-148.

Carter I. (1980) "The Highlands and Islands as an undeveloped region" in The rural sociology of advanced societies. Buttel H. and Newby H. (Eds) pp.353-385.

Caulson A. (1988) "The evaluator : inquisitor, comrade or spy ?" Local Economy 2 (4) pp. 229-236

Champion A.G. (1979) Counter-urbanisation and rural rejuvination in rural Britain. Newcastle University Geography Department Seminar Paper 38.

Champion A.G. (1981) Counterurbanisation and rural rejuvination in rural Britain : an evaluation of population trends since 1971. Seminar paper 38. Department of Geography. University of Newcastle upon Tyne.

Champion A.G. (1983) "Population Trends in the 1970's" In Goddard J and Champion A (Eds) The urban and regional transformation of Britain Methuen. London.

Chandler J.A. and Lawless P. (1985) Local authorities and the creation of employment. Gower. london.

Cheshire P.C. (1979) "Inner areas as spatial labour markets : a critique of inner area studies" Urban Studies 16 pp. 29-43.

Cheshire P.C. (1981) "Inner areas as spatial labour markets : a rejoinder" Urban Studies 18 pp. 227-229.

Chisholm M. (1964) "Must we all live in South East England " Geography 49 pp. 1-14.

Chisholm M. (1985) "The Development Commission's employment programmes in rural England" in The Industrialisation of the countryside. Eds Healey M. and Ilbery B. pp. 173-198 Geobooks. Norwich.

Chisholm M. (1984) "The Development Commission's factory programme" Regional Studies 18 (6) pp.514-517.

Clark D.M. (1980) "Can voluntary services sustain rural services at risk ?" The Planner (July) pp. 100-101.

Clark D.M. (1980b) "The decline of rural services" in Small industries in rural areas. Ed Breakall M. pp. 35-39. Oxford University Department for External Affairs.

Clark D.M. (1984) Rural housing problems and solutions. Housing Review 32 Nov / Dec. pp 185-187

Clark G.L. (1982) "Institutions for rural development" in Institutions and geographical patterns. Ed Flowerdew R. pp. 75-101.

Clark G.L. (1980) "Critical problems in geographical unemployment models". Progress in Human Geography 4 (2) pp. 157-180.

Clarkson S. (1980) "Jobs in the countryside : some aspects of

the work of the Rural Industries Bureau and the Council for Small Industries in Rural Areas". Occassional Paper 2. Department of Environmental Studies and Countryside Planning. Wye College. University of London.

Cleveland County Council (1982) Monitoring economic initiatives: the practical approach. Report 213. County Planning Department.

Cloke P.J. (1977) "An index for rurality in England and Wales" Regional Studies 11 pp. 31-46.

Cloke P.J. (1978) "Changing patterns of urbanisation in rural areas of England and Wales". Regional Studies 12 pp. 603-617.

Cloke P.J. (1980) "The key settlement approach: the theoretical argument". The Planner (July) p. 98.

Cloke P.J. (1980) "New emphases in applied rural geography". Progress in Human Geography 4 (2) pp. 181-217.

Cloke P.J. (1983) "An introduction to Rural Settlement Planning" Methuen. London and New York.

Cloke P.J. (1987) Rural plaaning: policy into action. Harper and Row. London.

Cloke P.J. and Woodward N. (1981) "Methodological issues in the evaluation of rural settlement planning strategies". Rural Settlement Policy and Economics Gloucestershire papers in Local and Rural Planning. 12. Ed Curry N. pp. 34-45. Gloucestershire College of Further Education.

Clout H.D. (1971) "The end of the road for the Northern Pennines Rural Development Board". Geographical Magazine 43 p. 443.

Clout H.D. (1972) Rural geography.

Cmnd (1977) Local Government Finance. Cmnd 6813.

Cmnd (1981) Efficiency in the Civil Service Cmnd 8293.

Cmnd (1982) Efficiency and Effectiveness in the Civil Service. Cmnd 8616.

Cmnd (1983) Financial Management in Government Departments Cmnd 9058.

Coates V.T. (1977) "The future of rural small towns: are they obselete in post-industrial society" Habitat 2 (12) pp. 247-258.

Commins P. (1978) "Socioeconomic adjustments to rural depopulation" Regional Studies 12 pp. 79-94.

Commins P. (1980) "Rural renewal and regional development" Regional Studies Association Discussion Paper 11 Regional Studies Association.

Commins P. (1983) "Community based cooperatives and rural development in the west of Ireland". Paper presented to the Conference on Changing problems and policy responses in rural development. Regional Studies Association.

Committee on Depopulation in Mid Wales (1964) Beacham Report. Depopulation in Mid Wales. HMSO. London

Cook T., Cook F., and Mark M.M. (1977) "Randomised and quasi-experimental designs in evaluation" in Evaluation Research Methods. Ed L. Rutman. Sage. Beverley Hills.

Cooper C. (1980) Economic evaluation and environment.

Coopers and Lybrand (1980) Internal report for the Development Commission

Cornwall County Council (1980) The Development Commission: a review of its workshop programme in Cornwall. County Planning Department. Truro.

Council for National Parks (1982) National Parks an the rural economy. Proceedings of a conference. March 1982. Council for National Parks.

CoSIRA (1983) County Committees Handbook. CoSIRA Salisbury, Wiltshire.

Country Landowners Association (1980) Report of the Working Party on Employment in rural areas. C.L.A. London.

County Planning Officers Society (1980) The Rural Economy: a handbook of ideas. County Planning officers Society London.

Countryside Commission (1983) What future for the Uplands ? Countryside Commission.

Countryside Commission (1984) A better future for the Uplands. Countryside Commission. Cheltenham.

Countryside Review Committee (1976) The countryside - problems and policies. HMSO. London.

Countryside Review Committee (1979) Conservation and the countryside heritage : a discussion paper. Topic Paper 4. HMSO. London.

Cowie W.J.G. and Giles A.K. (1957) "An inquiry into the reasons for the "drift from the land"". Selected Papers in Agricultural Economics 5 (3) pp. 70-113.

Craig J. (1983) "Town and country : current changes in the distribution of population in England and Wales". Rural Society of Arts Journal 131 No. 5321. pp. 242-244.

Crawley M.E. (1979) "Rural industrialisation and social change in Western Ireland". Sociolgica Ruralis 29 pp. 43-59.

Cripps J. (1980) "Development in the rural areas : the economic and social context" in Small industries in rural areas. Ed Breakell M. pp.1-7. Oxford University department of External Studies.

Croxton C. (1983) An evaluation of the work of the Development Commission in North Herefordshire and South Herefordshire. Unpublished MA dissertation. Regional Planning Department. Lanchester Polytechnic.

Cumbria County Council (1980) Kirkby Stephen Impact Study. County Planning Department. Kendal.

Curry N. (1981) Rural settlement: policy and economics. Gloucestershire Papers in Local and Rural Planning 12. Gloucestershire College of Further Education.

Curry N. (1982) "Community-led rural development : lessons from the Belgium experience" The Planner 68 (6) pp. 186-188.

Curry N. and Stoakes C. (1979) "Restructuring the countryside Planning 46. pp.8-9.

D'Abbs P. (1975) North Devon 1966-1974: aspects of social and economic change. Community Council of Devon.

Dart P.R. and Prince J. (1978) "ADAS socio-economic cooperation in rural planning: the Staffordshire Moorlands Development Project". ADAS Quarterly Review 31 pp.228-236.

Dartington Amenity Research Trust (1976) Okehampton and its hinterland : an initial appraisal. Dartington Trust.

Dartington Amenity Research Trust (1979) Community development in the Okehampton area of Devon: a pilot study. DART Publication 58.

Davis N. (1982) Demographic trends and labour supply. O.P.C.S. Occassional paper 28 pp.1-7. OPCS. London.

Davies J.R. and Kelly M. (1972) Small firms in the manufacturing sector. Committee of inquiry on small firms Research Report 3. HMSO. London.

Davies H., Campbell J. and Barnes I. (1986) "An evaluation of local authority financial assistance to small firms" Local Government Studies. May / June pp 37-50

Deaton B.J. and Landes M.R. (1978) "Rural industrialisation and the changing distribution of family incomes". American Journal of Agricultural Economics 60 (5) pp. 950-954.

Deines V.P. (1980) "Planning in small towns and rural America : an overview of the literature". Journal of the American Planning Association 46 pp. 367-368.

Dench S. (1984) "The rural youth market: an example from Devon" Paper presented to the IBG Conference on the industrialisation of the countryside. Lanchester Polytechnic, Coventry. September 1984.

Dench S. (1985) "Rural labour markets: with particular reference to young people in Devon" in The Industrialisation of the countryside. Eds Healey M. and Ilbery B. pp. 243-262 Geobooks. Norwich.

Dennis N et al "Coal is our life". London. Eyrie and Spootiswoode.

Department of the Environment (1977) The causes of rural depopulation. Review of Research. C.S.R. 5. Department of the Environment. London.

Derounian J. (1980) "The impact of structure plans on rural communities". The Planner (July). pp.87-90.

Development Commission (1972) Guidelines for the designation of Trigger areas

Development Commission (1975) Guidance notes on the preparation of Action Plans. Development Commission. London.

Development Commission (1978) 36th Annual Report. Development Commission. London.

Development Commission (1979) "Encouraging Enterprise in the Countryside" 37th Annual report. HMSO. London.

Development Commission (1980) 38th Annual report. HMSO. London.

Development Commission (1981) 39th Annual report. HMSO. London.

Development Commission (1982) 40th Annual report. HMSO. London.

Development Commission (1983a) 41st Annual report. HMSO. London

Development Commission (1983) Internal D.C. memo. Unpublished.

Development Commission (1984a) The Development Commission : the next ten years. Development Commission. London.

Development Commission (1984b) 42nd Annual report. Development Commission. London.

Development Commission (1984c) Guidelines for the preparation of Rural Development Programmes. Development Commission. London.

Development Commission (1984d) Internal D.C. memo. Unpublished.

Development Commission (1985) Annual report. Development Commission. London.

Development Commission (1986) Annual report. Development Commission. London.

Doeringer P.B. and Piore M.J. (1971) Internal labour markets and manpower analysis. Heath Lexington.

Dower M. (1980) Jobs in the countryside : prospects for rural employment. N.V.C.O. London.

Dower M. (1980) "The Rural Voice". Town and Country Planning 49 pp. 177-178.

Drudy P.J. (1978a) "Depopulation in prosperous agricultural sub-regions". Regional Studies 12 pp. 49-60.

Drudy P.J. (1978b) "Population exodus and community aspirations : a study of secondary school children in North Norfolk" in Social issues in rural Norfolk. (Ed) Moseley M. pp. 1-12. Centre for East Anglian Studies. Norwich.

Drudy P.J. (1980) "The rural problem and regional planning in East Anglia" in Problem rural regions. Regional Studies Association. Discussion Paper 11. pp. 21-34.

Drudy P.J. and Drudy S.M. (1979) "Population mobility and labour supply in rural regions". Regional Studies 13 pp. 91-99.

Drudy P.J. and Wallace D.B. (1971) "Towards a development programme for remote rural areas : a case study in North Norfolk". Regional Studies 5 pp. 281-288.

Duncan-Mitchell G. (1950) "Depopulation and rural social structure". The Sociological Review 42 (4) Section 4

Dungate M. (1980) "Rural self help" Voluntary Action. (Spring). pp. 17-20.

Dunn M.C. (1979) Rates of population changes and movement in Herefordshire 1951-1971, and their implications for rural planning. Unpublished PhD thesis. Department of Geography. University of Birmingham.

Durham P. (1987) Output and performance measurement in central goverment : some practical achievements. H.M. Treasury. London.

East Anglian Economic Planning Council and CoSIRA (1978) Rural development issues and problems in East Anglia : transcript of a seminar sponsored by the East Anglian Economic Planning Council and CoSIRA. Churchill College. Cambridge. January.

Economic Committee of the Community Council of Devon (1969) An economic and social survey of North Devon : rural depopulation. ECCCD.

Ecotech (1987) Developing the rural economy. Ecotech. Birmingham.

Erickson R.A. (1976) "The filtering down process : industrial location in a non-metropolitan area". Professional Geographer 28 (3) pp. 254-260.

Essex County Council (1979) Study of small industries in rural areas. Essex County Planning Department. Chelmsford.

Etzioni A. (1964) Modern orgnisations. Englewood Cliffs N.J.Prentice Hall.

Falk N. (1978) Local authorities and industrial development - results of a survey. URBED Research Trust.

Farquharson (1978) "The future role of the Highlands an Islands Development Board in the encouragement of rural based industries" in The Future of Upland Britain. Ed Tranter R.B. pp. 283-293.

Fielding A.J. (1982) "Counterurbanisation in Western Europe". Progress in Planning 17. pp. 1-52.

Financial Management Unit (1985) Policy work and the FMI. F.M.U. London.

Fladmark J.M. (1980) "Scottish countryside : planning in changing circumstances". The Planner 66 pp. 70-72.

Flynn N. (1986) Performance measurment in the public sector serivces. Policy and Politics 14 (3) pp. 389-404

Ford T.R. (1978) Contemporary rural America : persistence and change. Iowa State University Press. Ames.

Forrester T. (1979) "The great jobs hunt : trying to begger regional neighbours". New Society 3.5.79. pp. 10-15.

Fothergill S. (1983) : The growth of manufacturing industry in small towns and rural areas ". Royal Society of Arts Journal. 31 No. 5321 pp.244-246.

Fothergill S. and Gudgin G. (1979) The components of rural growth and urban decline in the East Midlands 1968-1975.

Fothergill S. and Gudgin G. (1979) "Regional employment : a sub-regional explanation". Progress in Planning 12 pp. 155-219

Fothergill S. Gudgin G. (1982) Unequal growth : urban and regional employment change in the U.K. Heinemann Educational Books. London.

Fothergill S., Kitson M. and Monk S. (1983) "Changes in industrial floorspace and employment in cities, towns abd rural areas". Working paper No. 4. Department of Land Economy. Cambridge University.

Fothergill S., Kitson M. and Monk S. (1983) "The industrial building stock and its influence on the location of employment change". Working paper No. 5. Department of Land Economy. Cambridge University.

Fothergill S., Kitson M. and Monk S. (1983) "Industrial land availability in cities, towns and rural areas". Working paper No. 6. Department of Land Economy. Cambridge University.

Fothergill S., Gudgin G., Kitson M. and Monk S. (1984) "Rural industrialisation : trends and causes". Paper presented at the I.B.G. Conference on

Industrialisation of the Countryside. Lanchester Polytechnic. 14th-15th September 1984.

Fothergill S., Monk S. and Perry M. (1987) "Property and industrial development" Hutchinson. London.

Fulton M. (1974) "Industry's viewpoint of rural areas" in Whiting L.R. (Ed) Rural Industrialisation pp. 68-78.

Garbett-Edwards D.P. (1976) "Development in Mid-Wales". 1957-1973 in Drudy P. (Ed) Regional and rura development pp.91-103
London. Alpha Academic Books.

Garbett-Edwards D.P. (1972) "The establishment of new industries". in Ashton J. and Long W.H. (Eds) The remoter rural areas of Britain. pp.50-73.

Gareth Thomas J. (1972) "Population changes and the provision of services" in Ashton J. and Long W.H. (Eds) The remoter rural areas of Britain.

Garrison C.B. (1972) "The impact of new industry : An application of the Economic Base Mutliplier to small Rural areas" Land Economics 47 No.4 pp 329-337

Gaskin M. (1972) "The remoter rural areas in the national context" in Ashton J. and Long W.H. (Eds) The remoter rural areas of Britain. pp. 165-185.

Gasson R.M. (1973) "Rural induatrialisation and farm workers in East Anglia". Journal of Agriculture Labour Science 2 (2).

Gasson R.M. (1974) Mobility of farm workers. Occasional paper No. 2. Department of Land Economy. Cambridge Univ.

Georgiou P. (1973) "The Gaol Paradigm and Notes towards a counter Paradign" Administrative science quaterly 18 No.3 pp 291-319

Getz D. (1982) The impact of tourism in Badenoch and Strathspey Highlands and Islands Development Board. May 1982.

Gilder I. (1981) "Comments on the economic evaluation of scale economies in rural settlement planning strategies". in Rural Settlement Policy and Economics. in Curry N. (Ed) pp 46-48. Gloucestershire Papers in Local Rural Planning.

Gilder I. (1980) "Do we need key settlement policies". The Planner. July pp. 99-112.

Gilg A.W. (1976) "Rural Employment" in Cherry G.E. Rural planning problems.

Gilg A.W. (1978) "Needed : a new Scott inquiry". Town Planning Review. 49 (3). pp.353-370.

Gilg A.W. (1978) Countryside Planning - the first three decades 1945-1978. Newton Abbott. David and Charles.

Gilg A.W. (1980) "Planning for employment in a changed economy". The Planner July 1980 pp. 93-95.

Gilg A.W. (1983) "Population and employment" in Pacione M. (Ed) Process in rural geography. pp. 74-105. Croon Helm.

Ginther J.D., Lindon H.E., Hornberger G.A., and Shively R.W. (1974) "Corporate and community decision making for locating industry" in Whiting L.R. (Ed) Rural industrialisation. pp. 79-93.

Glasgow Planning Exchange (1980) Development in remote rural areas. A note of the proceedings of a three day conference 23-25th September 1980. Stornaway.

Glyn-Jones A. (1982) Small firms in a country town. Devon C.C. and Exeter University.

Glynn J.J. (1985) "Value for money auditing - an international review and comparison" Financial Accountability and Management 1 (2) pp. 113-118.

Goodman J.F.B. (1970) "The definition and analysis of local labour markets : some empirical problems" in British Journal of industrial relations 8 (2) pp. 179-196.

Goodrum A. (1980) "Small and minifactories: do they create jobs and encourage new businesses" The Planner 66 (5) pp. 122-123

Gould A. and Keeble D. (1983) "New firms and rural industrialization in East Anglia" Regional Studies 18 (3) : 189-201

Gray A. and Jenkins B. (1983) Policy analysis and evaluation in British government. RIPA London

Gray A. and Jenkins B. (1985) Administrative politics in British government.

Gray I. (1969) "Employment ffect of a new industry in a rural area" Monthly Labour Review June 1969. pp. 29-30.

Gregory D. and Martin S.J. (1988) "Issues in the evaluation of inner city programmes" Local Economy 2 (4) pp.237-250

Green D.H. (1971) "The impact of local authority in the attraction of industry". Working Paper. Reading University.

Green D.H. (1977) "Industrialist's information levels of regional incentives". Regional Studies 11 pp. 7-18

Green R. (1981) "The drift to the land". in N. Curry (Ed). Rural Settlement Policy and Economics pp. 6-17.

Grieg M.A. (1972) The economic impact of the Highlands and Islands Development Board Investment in Fisheries. HIDB. February.

Grimwood M. and Tomkins C (1986) "Value for money auditing - towards a naturalistic approach" Financial Accountability and Management 2 (4) pp. 251-273

Gwilliam S. (1982) The village shop. Development Commission. London

Guardian (1981) "The urban-rural shift and all that goes with it". 1/7/81. pp.12-13.

Haigh J. (1980) "Case study - the Lockinge Estate" in Breakall M. (Ed) Small industries in rural areas pp. 70-72. Oxford University . Department of External Affairs.

Hale S. (1971) The Idle Hill : a prospect for young workers in a rural area. Bedford Square press. London.

Hale S. and Hale M. (1976) Rural depopulation in England. Community Council of Hereford and Worcester.

Hall P. (1981) "The geography of the fifth Kondratietff cycle" New Society 55 (958) pp.535-537

Hall P., Gracey H., Drewett R. and Thomas R. (1973) The Containment of Urban England. Allen and Unwin. London.

Hall R. (1982) Organisations : structure and process. Englewood Cliffe N.J. Prentice Hall.

Hall P. and Hay D. (1980) "Growth centres om the European Urban System" London. Heinmann Educational Books.

Hamilton F.E.I. (1978) "Aspects of industrial mobility in the British Economy" Regional Studies 12 pp. 156-167.

Hancock T. (1980) "The countryside in the 1980's" Town and Country Planner 49 pp. 142-144

Hancox A. (1978) An exploratory study of intervention by local authorities into the economies of their administrative areas. Unpublished Masters Dissertation. A.P.U.S. Aston Universtiy.

Hannan D. (1970) Rural Exodus. Geoffrey Chapman. London.

Hansen N.M. (1973) The future of nonmetropolitan America. Lexington books. D.C. Heath and Co. Massachusetts.

Hansen N.M. (1974) "Factors determining the location of industrial activity" in Whiting L.R. (Ed) Rural industrialisation. pp. 27-45.

Haren C.C. (1970) "Rural industrial growth in the 1960's" American Journal of Agricultural Economics 52 pp. 431-437.

Haren C.C. (1974) "Location of industrial production and distribution" in Whiting L.R. (Ed) Rural Industrialisation. pp. 8-26.

Harrison A. and Harrison S. (1980) Planning and employment : a conference on national and local approaches to tackling employment problems. Gloucestershire Papers in Local and Rural Planning Special Issue.

Heady E.O. (1974) "Rural development and rural communities of the future" in Whiting L.R. (Ed) Rural Industrialisation pp. 136-150.

Healey M. (1983) Urban and regional industrial research : the changing U.K. data base. Geobooks, Norwich.

Heath C.E. and Whitby M.C. (1970) The changing agricultural labour force. Report for the Agricultural Training Board.

Hedger M. (1981) "Reassessment in Mid-Wales" Town and Country planning 50 (10) pp. 261-263.

Henshaw J. (1984) "The south Shropshire and north Herefordshire Joint Development Committee". Paper presented to the RSA seminar March 1984. Aston University.

Highlands and Islands Development Board (1982) 17th Annual Report.

Highlands and Islands Development Board (1983) 18th Annual Report.

Hillier J. (1982) "The role of CoSIRA factories in the provision of employment in rural Eastern England" in Power, Planning and People in rural East Anglia Mosley M. (Ed). pp. 177-198. CEAS. Norwich.

H.M. Treasury (1976) Rural depopulation : an interdepartmental study group report. London.

Hobbs D.L. (1980) "Rural development : intentions and consequences" Rural sociology 45 (1) pp.7-25.

Hodge I.D. (1982) "The social opportunity cost of labour" Regional studies 16 (2) pp. 113-120.

Hodge I.D and Whitby M.C. (1979) New jobs in the Eastern Borders : an economic evaluation of the Development Commission factory building programme. Agricultural adjustment unit.
University of Newcastle-upon-Tyne

Hodge I.D. and Whitby M.C. (1981) Rural employment : trends, options ans choices.

Holbeche E. (1983) "Planning for rural economy". Chartered Surveyor Weekly 7.7.83. p. 31.

Holt K. and Platt J. (1974) "Company officials and community leaders" in Whiting L.R. (Ed) Rural industrialisation. pp. 119-126.

Hopwood J. (1982) "Value for money: practice in other countries" in Value for Money R.I.P.A. pp. 37-44. R.I.P.A. London.

House (1965) "Rural North East England (1951-1961)" Report to the D.C. Papers on migration and mobility in North East England

Hubbard L.J. (1982) New jobs in west Durham. Agricultural Adustment Unit. Newcastle University.

Hughes J. (1983) "The Highlands and Islands development Board" Paper presented to the RSA conference on rural employment initiatives. Aston University.

Hughes J. (1985) "In search of the 3 E's" Local Goverment Studies 11 (1) pp. 1-6.

Hunt Committee (1969) The intermediate areas. Report of a Committee under the Chairmanship Lord Hunt. March. HMSO. London

Hyde A.C. and Shafnitz J.M. (1979) Program evaluation in the public sector.

Jackson M.P. and Hanby V.J.B. (1982) British work creation programmes. Gower. London.

Jackson P. (1987) "Performance measurement and value for money in the public sector" Paper presented to the Public expenditure policy unit Conference. 26.1.87 Public Finance Foundation. London.

James C. (1980) "From village school to workshops" Planning 390 p.8.

Jenkins K., Oates G. and Stott A. (1983) Making things happen a report on implementation of government efficiency scrutinies. H.M.S.O. London.

Jenson R.C., Mandeville T.P. and Karinaratne N.P. (1979) Regional economic planning.

John B. (1981) "A plea from the Welsh Wilderness" Town and Country Planning 50 (10) pp.256-260.

Johnson B. (1980) "Rural enterprise" Planning 360 pp.8-9.

Jones R.M. (1970) "Local labour markets, the journey to work, and government location policy" Town Planning Review 41 pp.168-177.

Jones G.E. and Peberdy M.A. (1979) Into work : a study of young people entering employment in the agricultural industry. Research Report for the Agricultural Training Board.

Jones H. (1980) County Planning Officers Society - a handbook of ideas.

Jordan M.F. (1967) "Rural industrialisation in the Ozarks" Agricultural Economic Report 123. Washington D.C. US Government printing office

J.M.U. (1986) Policy work and the FMI. Report by the Cabinet Office. JMU. London.

J.U.R.U.E. (1980) Industrial renewal in the inner city : an assessment of potential and problems. HMSO. London.

J.U.R.U.E. (1981) A review of local economic initiatives in the U.K. Aston University.

J.U.R.U.E. (1981) Assessing the cost effectiveness of local economic initiatives.

J.U.R.U.E. (1981) A guide to resources available for economic development in England.

J.U.R.U.E. (1983) The effectiveness of the Development Commission's activities in selected areas of England. Aston University.

Keeble D.H.(1974) "The movement of firms" O.U. Paper 8. The Open University.

Keeble D.H. (1976) " Regional development and the attraction of industry". in Drudy P.J. Regional and rural development.

Keeble D.H. (1977) "Spatial policy in Britain : regional or urban ?" Area 9 (1) pp.3-8.

Keeble D.H. (1980) "Industrial decline, regional policy and the urban-rural manufacuring shift in the U.K" Environment and Planning A 12 pp. 945-962.

Keeble D.H., Owens P.L. and Thompson C. (1983) "The urban-rural manufacturing shift in the European Community". Urban Studies 20 pp. 405-418.

Keeble D.H. and Gould A. (1984) "New manufacturing firms and enterprises in East Anglia" Paper given to the Conference on the industrialisation of the countryside. Lanchester Polytechnic. Septemeber.

Keil E.T. (1976) Becoming a worker : the induction of school leavers into work in Leicestershire. Leicestershire Committee for Education and Industry

Kennett S. and Spence N. (1979) "British population trends in the 1970's" Town and Country Planning 48 pp. 220-223.

Lassey W.R. (1977) Planning in rural environments. McCraw Hill Book Co. London.

Law D. and Howes M. (1972) Mid-Wales : an assessment of the Development Commission factory programme. HMSO London.

Law D. and Perdikis N. (1978) The effectiveness of current policies in allieviating the problems of upland Britain. in Tranter R.B. (Ed). The future of upland Britain. pp. 527-536. CAS Reading Univ.

Layard R. (1972) Cost-benefit analysis.

Levin K. (1968) Feedback problems in social diagnosis and action. in Buckley W. (Ed) Modern systems for the behaviour scientist.

Leviton L. and Hughes E. (1981) "Research on the utilisation of evaluations : a review and synthesis" Evaluation Review 5 pp. 525-548.

Lewis G.J. (1983) "Rural communities" in Pacione M (Ed) Progress in rural geography. Croon Helm. London.

Lewis J.A. (1983) An appraisal of employment problems and policies at the micro-economic level. Unpublished PhD thesis. Aston University.

Lewis S. (1980) Rural Development in Wales : the M.W.I.D.A. Unpublished Masters thesis. Oxford Polytechnic Department of Town Planning

Lewis S. (1986) Output and performance measurement in central government : progress in departments. H.M.Treasury. London.

Loveridge R. and Mok A.L. (1979) Theories of labour market segregation : a critique. Martinus Nijhoff. London.

Lowe P. and Goyder J. (1981) "The land lobby : a political analysis" Town and Country Planning 50 pp. 16-17.

Lucey D.I.F. and Kaldor D.R. (1969) Rural industrialisation : the impact of industrialisation on two communities in western Ireland. Geoffrey Chapman. London.

Lund P.J., Morris T.G., Temple J.D. and Watson J.M. (1982) Wages and employment in agriculture : England and Wales 1960-1980. Government Economic Service W.P. 50. MAFF. London.

MacEwen M. (1976) Future landscapes. Chatto and Windus. London.

MacEwen M. and Sinclair G. (1983) New life for the hills. Council for National Parks. London.

MacEwen A. and MacEwen M. (1982) National Parks : conservation or cosmetics ? Allen and Unwin. London.

Mackay D.I., Boddy D., Brack J., Diack J.A. and Jones N. (1971) Labour markets under different employment condition George Allen and Unwin. London.

Mackay G.A. (1979) A study of the economic impact of the Invergordon aluminium smelter. Highland and Islands Development Board.

Mackay G.A., Sadler P.G. and Sewell J.B. (1979) "Contemporary research emphases in Great Britain" in Summers G.F. and Selvik A. (Eds) Nonmetropolitan industrial growth and community change.

Mackay R.R. (1976) "The impact of the regional employment premium" in A Whiting Ed The economics of industrial subsides. London. HMSO.

Mackay R.R. (1978) "The effectiveness of current regional policies : are they relevant to the problems of upland areas " in Tranter B. (Ed) The future of upland Britain.

MacLeary A.R. (1980) "Rural planning problems and policies" Journal of Agricultural Economics 32 (3) pp.317-329.

MacLennan G. and Parr J.B. (1979) Regional policy : past experiences and new directions. Department of Economics. Glasgow University.

MacKinnon N.F.R. (1980) Employment opportunities in rural areas Village 35 (4) pp.83-85

Manion T. and Flowerdew R. (1982) "Institutional approaches in geography" in Flowerdew R. (Ed) Institutions and Geographical patterns. pp.1-50

Martin S.J. (1984) Employment initiatives in rural areas : a survey of nonmetropolitan counties. Working paper 33. J.U.R.U.E. Aston University.

Martin S.J. (1986) Methodologies for the evaluation of rural employment initiatives. DWPS 100. Aston UNiversity.

Martin S.J. (1988) "New jobs in the inner city : an evaluation of the Urban Development Grant Programme". Paper presented to the ESRC Regional and urban economics seminar. Glasgow University. January.

Martin S.J. and Tricker M. (1986) "The impact of rural employment initiatives on local labour markets". Paper presented to the Second Anglo-Dutch symposium on rural geography. Amsterdam. September.

Martin S.J., Bovaird A.B. and Gregory D. (1987) "Changing approaches to the performance management of local economic development programmes". Paper presented to the PAC / ESRC Conference. York University. September.

Mason C. (1983) "Some definitional difficulties in new firm research" Area 15 (1) pp.53-60.

Mason P. (1981) "Animating villages" Town and Country Planning 50 (7/8) pp. 205-209.

Massey D.B. and Meegan R.A. (1978) "Industrial restructuring versus the cities" Urban Studies 15 pp.273-288.

Massey D.B. and meagan R.A. (1979) "The geography of industrial reorganisation" Progress in Planning 10 pp. 152-237

Mayston D. J. (1985) " Non profit performance indicators in the public sector" Financial Accountability and Management 1 (1) pp. 35-50

Mawson J. and Miller I. (1982) Agencies in regional and local development. RAS Conference Novemeber 1982

McAllister D.M. (1980) Evaluation in environmental planning. MIT press. London.

McCallum J.D. and Adams J.G.L. (1981) "Employment and unemployment statistics for rural areas". Town Planning review 52 pp. 157-166.

McLaughlin B.P. (1981) "Rural deprivation" The Planner 67 (2) pp. 31-33.

McLaughlin B.P. (1980) "Rural industries : a broader perspective" in Breakall M. (Ed) Small industries in rural areas. pp. 25-34. Oxford University Department for External Affairs.

McNichol I.H. (1976) "The Shetland Economy" Glasgow Fraser of Allander Institute

Medhurst J. (1982) Economic evaluation of local economic initiatives : a critique of the evaluation of the Development Commission factory programme. Working Paper. 15 J.U.R.U.E. Aston University.

Miles N.J.D. (1982) "The spatial decentralisation of manufacturing growth and the restructuring of the labour process" L.S.E. Discussion Paper.

Mills E. (1986) Counterurbanisation in Western Europe. Unpublished PhD thesis. Department of Geography. Bristol University.

Minay C. (1977) " The M.W.I.D.A." Town and Country Planning

Minay C. (1985) The Development Commission's rural industrial development programmes. Oxford Polytechnic Dept. of Town Planning. Working Paper 87.

Ministry of Works and Planning (1942) Report of the Committee on land utilisation in rural areas.

Minns R. and Thornley J. Local governemnt economic planning and the provision of risk capital for small firms CES Policy Series 6. CES London

Moore B.C. and Rhodes J.C. (1973) "Evaluating the effects of British regional policy" Economic Journal 83 pp. 87-110

Moore B.C. and Rhodes J. (1976) "Regional policy and the movement of manufacturing firms to development areas" Economica 43 (1) pp. 17-31

Moore B.C., Rhodes J. and Tyler P. (1977) "The impact of regional policy in the 1970's" CES Review 1 pp. 67-77

Moore B. and Rhodes J. (1980) The impact of regional policy. O.U. Unit D323. Oxford University.

Moore B., Rhodes J. and Tyler P. (1983) The impact of regional policy HMSO London.

Morrison P.A. and Wheeler J.P. (1976) "Rural renaissance in America? The revival of population growth in remote areas" Population Bulletin 31 pp 3-26

Moseley M.J. (1973) "The impact of growth centres on rural regions. Part 2. Analysis of spatial flows in East Anglia" Regional Studies 7 pp. 77-94.

Moseley M.J. (1976) "The role of small towns in rural areas" in Drudy P. (Ed) Regional and rural development.

Moseley M.J. (1978) Social issues in rural Nofolk. Centre for East Anglian Studies. Norwich.

Moseley M.J. (1980) Rural development nd its relevance to the inner city debate. S.S.R.C. London.

Moseley M.J. (1980) "Is rural deprivation really rural ?" The Planner July 1980 pp.97.

Moseley M.J. (1981) "Changing values in the British Countryside". Geographical Magazine 53 (9) pp. 581-586.

Moseley M.J. (1982) Power, planning and people in rural East Anglia. Centre for East Anglian Studies. Norwich.

Moss G. Associates (1982) Rural services : report of a pilot study of statutory provision and accessibility in Leicestershire.

Mushkin S.J. (1973) "Evaluations : use with caution" Evaluation 1 (2) pp.30-35.

M.W.I.D.A. (1984) Strategy statement

N.A.O. (1985) The department of the environment : the Urban Programme. HC 513. London.

N.A.O. (1986a) The financial management initiative. HC 588. London.

N.A.O. (1986b) Finacial reporting to Parliament. HC 576.

London.

Nash J.B. (1982) "Redundant farm buildings and rural employment". Village 37 (2) pp.37-39.

Needham D.B. (1981) "Inner areas as spatial labour markets : a comment" Urban Studies 18 pp. 225-226.

Needham D.B. (1982) Choosing the right policy instruments. Gower. London.

Neilson A. (1986) "Value for money auditing in local government" Public Money 6 (1) pp. 52-54.

Newby H. (1976) The Deferential Worker. Allen Lane. London.

Newby H. (1980) "Rural Sociology" Current Sociology 28 pp. 1-109 and 117-141.

Nicholls D.C. (1976) "Agencies for rural development in Scotland" in Drudy P.J. (Ed) Regional and rural development.

Nielson V.G. (1975) "Why evaluation does not improve programme effectiveness" Policy studies Journal 3/4 pp. 385-389

Norfolk County Planning Department (1979) Rural areas in England and Wales. A report based on county planning surveys. Norfolk C.C. Norwich.

Northfield (Lord) (1978) "Rescuing rural England" Countryman Summer pp. 36-41.

Northumberland County Council (1981) An evaluation of the Councils loans to small firms. County Planning Department.

Nuttall T. (1980) Methods to stop rural depopulation and to involve citizens in the development of these regions. Study series No.22 Local and regional authorities in Europe. Council of Europe Strasbourg.

N.C.V.O. (1982) Country work : a guide to rural employment initiatives. N.C.V.O. London.

Oakey R.P. (1981) High technology industry and industrial location. Gower. London.

Oakey R.P. (1983) "New technology, government policy and regional manufacturing employment" Area 15 (1) pp. 61-65.

Oakeshott (1978) "Industrial cooperatives - the middle way" Lloyds bank review 127

Oates G. (1983) "Financial management in central government" Public Finance and Accountability 10 (9) pp. 16-18.

Ogilvie D.A. (1978) "Opportunities for rual based industries in upland Scotland" in Tranter R.B. (Ed) The future of upland Britain. pp. 265-276.

O'Riodan T. (1983) "Town and country : home and work". Royal Society of Arts Journal 131 (5321) pp. 239-242.

Owen D.W., Coombes M.G. and Gillespie A.E. (1983) The differential performance of urban and rural areas in the recession. Discussion paper No.49. Centre for urban and regional development studies. Newcastle universtiy.

Oxford Polytecnic Buildings Research Team (1983) Small advance factories in rural areas. Oxford.

O.E.C.D. (1983) Small-scale job creation at the local level. I.L.E. (83) 1.

O.E.C.D. (1983) The economic and social role of local level employments initiatives. I.L.E. (83) 2.

O.E.C.D. (1983) Employment creation in the United States. I.L.E. (83) 5.

O.E.C.D. (1983) Directing committee of the co-operative action action programme on local initiatives for employment creation. Draft programme of work and budget for 1984. I.L.E. (83) 9.

P.A.C. (1983) Sixth report from the Committee for Public Accounts. HC 107.

P.A.C. (1984) Twenty first report from the Committee for Public Accounts. HC 378.

P.A. Consultants (1988) An evaluation of the enterprise zone experiment. H.M.S.O. London.

Pacione M. (1983) Progress in rural geography. Croon Helm. London.

Packman J. (1979) "Rural income : problems and planning" in Shaw M. (Ed) Rural deprivation.

Palumbo D. and Nachmias D. (1983) "The preconditions for successful evaluation : is there an ideal paradigm" Policy Sciences 16 pp. 67-69. Elsever Science.

Parker K. (1982) "Integrated rural development - a Peak Park Experiment" County Councils Gazette 75 (9) pp. 316-318

Parsons T. (1960) Structure and process in Modern Society. New York Free Press. New York.

Paul R. and Wedlake F. (1980) "Case studies (2) The west Somerset Small Industries Group" in Breakall (Ed) Small industries in rural areas. Oxford University Department for external studies. Oxford.

Peacock J. (1980) Industrial provision in rural areas. Unpublished masters thesis Chelmer Institute.

Pearce J. and Hopwood S. (1981) "Create your own jobs 2 : community based initiatives" The Planner 67 (3) pp. 64-67.

Peat Marwick (1986) The Ublic Sector Yearbook. Peat Marwick. London.

Penrose E.T. (1959) The theory of the growth of the firm. Blackwell. Oxford.

Peregrine T.T.W. (1980) "The work of the Countryside Review Committee - the policy context" in Breakall M. (Ed) Small industries in rural areas. Oxford University Department for external studies. Oxford.

Perkins D.T. (1977) "Evaluating social interventions : a conceptual schema". Evaluation Quarterly 1 (4) pp. 639-656.

Perry C.B. (1980) "Industrialisation, income, and inequality : further considerations". Rural sociology 45 (1).

Peterson J.M. (1974) "Effects of rural industrialisation on labour demand and employment" in Whiting L.R. (Ed) Rural industrialisation. pp. 108-118.

Pettigrew P. (1987) "The Welsh Development Agency" in Cloke P. (Ed) Planning and Policy in rural areas.

Prince J. (1984) The north east Staffordshire Working Party Paper presented to the Regional Studies Association seminar. Aston University. March 1984.

Potter D.N. (1980) "A management solution to rural problems" The Planner July 1980.

Public Sector Management Research Centre (1985) A five year review of the Birmingham inner city partnership. Department of the Environment. London.

Public Sector Management Research Centre (1988) An evaluation of the Urban Development Grant programme. HMSO. London.

Randall J.N. (1979) "The changing nature of the regional economic prbolem since 1965" in MacLennan and Parr Regional policy : past experiences and new directions. pp. 111-131. Department of Economics. Glasgow University.

Rees G.L. and Wenger C. (1979) "Mid-Wales : problems of rural development: Transactions Honourable Society of Cymmrodorion. pp. 233-257.

Reeves K.J. (1977) "The Development Commission. District Council Review Dec. 292-395.

Reynolds C. (1982) "Re-use of redundant buildings - a planner's eye view" Village 37 (2) pp.35-37.

Richardson H.W. (1969) Elements of regional economics. Penguin. London.

Richardson P. (1983) "The provision of small industrial units : a study of local authority provision in three partnership areas". Paper presented to the national small firms policy and research conference. Sept.

Rich R. (1981) Social science information and public policy making.

Richardson J.J. (1982) "Programme evaluation in Sweden" Parliamentary Affairs 35 (2) pp. 160-180.

Richardson J.J. (1984) Value for money and effectiveness auditing in the public sector. Strathclyde Papers on government and society. Glasgow.

Rickard S. (1983) "Agriculture and employment" Royal Society of Arts Journal 131 (5321) pp.246-249.

Rivlin A. (1971) Systematic thinking for social action. Washington D C. Brookings Istitute

Rivlin A. (1973) "Social experiments : the promise and the problems" Evaluation 1 (2) pp.77-78.

Robinson D. (1967) "Myths of the local labour market" Personnel 1 (1) pp.36-39.

Robinson D.B. (1972) "Comprehensive Development" in Ashton and Long (Eds) The remoter rural areas of Britain. Oliver and Boyd. Edinburgh.

Robinson F. (1979) Local authority initiatives : a review. Occasional paper 10. Centre for Environmental Studies.

Robinson F. et al (1986) Urban and regional policies and the economic development of the Newcastle metropolitan region. CURDS Newcastle.

Robinson F. and Wren C. (1987) "Evaluating the impact and effectiveness of financial assistance policies in the Newcastle metropolitan region" Local government Studies May / June pp. 41-67.

Rodgers P.B. and Smith C.R. (1977) "The local authority's role in econmic development : the Tyne and Wear Act 1976" Regional Studies 11 pp. 153-163.

Roger Tym and Partners (1987) Evaluation of derelict land grant schemes. HMSO. London.

Rossi P.H., Freeman H.E., and Wright S.R. (1979) Evaluation : a systematic approach. Sage publications. London.

Rothwell R. (1982) "The role of technology in industrial change implications for regionalpolicy" Regional Studies 16 pp.361-369.

Rothwell R. and Zegveld W. (1982) Innovation and the small and medium sized firm.

Rural Planning Research Trust (1984) Integrated Rural Development Study. A report to the Commission of European Communities. April.

Rural Voice (1984) Spring edition.

Russell W. (1972) In great waters : a study of the social and economic impact of investment in fisheries in the Highlands and Islands. Special Report 7. H.I.D.B.

Rutman L. (1977) Evaluation research methods : a basic guide. Sage publications. London.

Sadler P.G. (1978) "The economic, social and political impacts of large scale industrial development on rural areas". in Tranter R.B. (Ed) pp.497-502.

Sadler P.G. et al (1973) Regional income multipliers. University of Wales Press. Cardiff.

Saville J. (1957) Rural depopulation in England and Wales 1851-1951. Dartington Hall. Studies in Rural Sociology. Routledge and Kegan Paul. London.

Saville J. (1966) "Urbanisation and the countryside" in Higgs J. (Ed) People in the countryside. Chapter 1. N.C.S.S. London.

Scott Report (1942) Ministry of Works and Planning. London.

Scott I. (1980) "Community development in rural areas" in Breakall M. (Ed) Small industries in rural areas pp. 40-46. Oxford University department for External Studies.

Scott J.T. and Summers G.F. (1974) "Problems in rural communities after industry arrives" in Whiting L.R. (Ed) Rural industrialisation. pp.94-107.

Seashore S.E. and Yutchman E. (1967) "Factorial analysis of organisational effectiveness" Administrative Science Quarterly 12 (3) pp. 377-395

Selman P. (1978) "Alternative approaches to the multiple uses of the uplands" Town Planning review 49 (2) pp. 163-174.

Sewell D. (1975) Colliery closure and social change. University of Wales Press.

Seyler H.L. (1979) "Contemporary research emphases in the U.S.A." in Summers G.F. and Selvik A. (Eds) Non-metropolitan industrial growth and community change. pp. 43-58. Lexington Mass.

Shankland G. (1981) "Create your own jobs 1 : The great uncounted : the role of the informal economy" The Planner 67 (3) pp.62-63.

Shapiro J. (1984) Conceptualising evaluation use : implications for alternative models of decision making. Evaluation Studies 9. Beverley Hills

Shaw J.M. (1983) "Changing patterns of home and work : the example of Norfolk" Royal Society of Arts Journal 131 (5321) pp. 249-251.

Shaw G. and Williams A. (1984) "The role of industrial estates in rural areas : evidence from Cornwall 1973-1981" Paper given at the I.B.G. Conference on the industrialisation of the countryside. Lanchester Polytechnic. September.

Shaw M. (1980) "Rural planning in 1980 : an overview" The Planner July 1980. pp. 88-90.

Shaw M. (1982) "Rural research" The Planner 68 (2) pp.42-43.

Shoard M. (1980) The theft of the countryside. Temple Smith. London.

Shucksmith M. (1981) No homes for locals ?. Gower. London.

Sinfield A. and Fraser N. (1985) The real cost of unemployment. Special Paper for BBC North East. Univ of Edinburgh

Skewis I.W. (1978) "Opportunity for rual based industries in rural areas in upland Wales" in Tranter R.B. (Ed) The future of upland Britain. pp. 277-282.

Slee R.W. (1981) "Agricultural policy and remote rural areas" Journal of Agricultural economics 32 (2) pp.113-122.

Slowe P. (1981) The advance factory in regional development. Gower. London.

Smart G., Wright S. and Futers C. (1982) Decision making for rural areas. A submission to the D.O.E. Bartlett School of Architecture. Uiversity College of London.

Smith C.L., Hagg T.C. and Reagan M.J. (1971) "Economic development : panacea or perplexity for rural areas" Rural Sociology 36 pp.173-186.

Smith E. (1976) The spatial limits of labour market areas : evidence from the census of manufacturing establishments in the North East. N.E. Area Study. Working Paper 33.

Smith R.J. (1977) Planning for employment in rural areas. Unpublished M Phil thesis. U.C.L. University of London.

Solomon M. and Shortell S. (1981) "Designing health policy research and utilisation" Health Planning Quarterly 1 (10).

Solow R. (1980) "On theories of unemployment" American economic review 70 pp.1-12.

South Shropshire District Council (1980) Action Plan to Development Commission

Spooner D.J. (1972) "Industrial movement and the rural periphery : the case of Devon and Cornwall" Regional Studies 6 pp. 197-215.

Stern E. (1987) "Evaluation strategies for local economic and employment development" Tavistock Institute of Human Relations. London.

Storey D.J. (1980) Job generation and small firms policy in Britain. CES and Department of Economics University of Durham.

Storey D.J. (1981) Finance for the new firm. Discussion Paper 36. CURDS Newcastle University.

Storey D.J. (1982) Entrepreneurship and the new firm. Croon Helm. London.

Storey D.J. (1983) The small firm : an international survey. Croon Helm. London.

Storey D.J. (1983) "Local employment initiatives in North East England : Evaluation and assessment problems" in Young K. and Mason C. (Eds) Urban and economic development. pp. 184-212. Macmillan Press Ltd. London.

Storey D.J. (1987) Job creation in small and medium sized enterprises. EEC Funded Projects. 3 volumes. EEC Strasbourg.

Storey D.J. (1988) Fast growth small firms. Paper presented in the PSMRC Distinguished Speaker Seminar Series. Aston University. May 1988.

Storey D.J. and Robinson J.F.F. (1980) Local authorities and the attraction of industry : the case of Cleveland County Council. Discussion paper No. 29 C.U.R.D.S. University of Newcastle upon Tyne.

Storey D.J. and Wynarczyk P. (1985) A profile of small manufacturing companies in Northern England : profits, jobs, and failures. CURDS Discussion Paper 64. Newcastle University.

Steele P, Storey D.J., and Wynarczyk P. (1985) The Prediction of small company failure using financial statement analysis : the development of an empirical model Discussion Paper No. 69. CURDS. Newcastle University

Suchman E. (1967) Evaluative research. New York Russell Sage

Suchman E. (1972) "Action for What? A critique of Evaluative Research" in Evaluatory Action Programmes (Ed) Weiss C.H. Allyn and Bacon Boston.

Summers G.F., Evans S.D., Clement F., Beck E.M. and Minkoff J. (1976) Industrial invasion of nonmetropolitan America : a quarter century of experience. Praeger Publishers. London.

Summers G.F. and Selvik A. (1979) Nonmetropoltian industrial growth and community change. Lexington Books. New York.

Surveyor (1978) - see Anon

Swales J.K. (1979) "Entrepreneurship and regional development implications for regional policy" in MacLennan D. and Parr J. (Eds) Regional policy : past experience and future directions. Department of Economics. Glasgow.

Thirlwall A.P. (1982) "Deindustrialisation in the U.K." Lloyds Bank Review 144 pp.22-37.

Thomas D. (1983) "England's Golden West" New Society 64 (1068) pp. 177-178.

Thomas I.C. and drudy P.J. (1987) "The impact of factory development on growth town employment in Mid-Wales". Urban Studies 24 pp. 361-378.

Thomas I. and Winyard (1979) "Rural incomes" in Shaw J.M. (Ed) Rural deprivation.

Times (1984) "The Development Commission" The Times 8.6.84. pp. 19, 20 and 22.

Tombs D.A. (1980) "Rural community development project - Hereford and Worcester County Council" in Breakall M. (Ed) Small industries in rural areas pp. 62-69. Oxford University Department for External Affairs.

Tomkins C.R. (1982) "Developing a public sector audit paradign" in Auditing Research : Issues and opportunities. Hopwood A., Bromwich M. and Shaw J. (Eds) Pitman. London.

Topley A.T.J. (1980) The Development Commission factory programme with special reference to Tideswell, Derbyshire. Unpublished M.A. dissertation. University of Nottingham.

Townsend A.R. (1983) The impact of recession on industry and the regions 1976-1981. Croon Helm. London.

Townroe P. (1971) "Industrial location decisions : a study in management behaviour" CURS OCC Paper 15 Birmingham Unit

Townroe P. (1979) Industrial movement : experience in the U.S. and the U.K. Saxon House, Farnborough, Hants.

H.M. Treasury (1976) Rural depopulation : an interdepartmental Group study. H.M.S.O. London.

Tricker M. J. and Bozeat N. (1982) "Planning for small firms in rural areas" The Planner. July 1982.

Tricker M.J. and Bozeat N. (1983) "Encouraging the development of small businesses in rural areas : recent local authority initiatives in England". Regional Studies 17 (3) pp. 201-204.

Tricker M.J. and Martin S.J. (1983) Unpublished survey of shopping patterns.

Tricker M.J. and Martin S.J. (1984a) "The developing role of the Commission" Regional Studies 18 (6) pp.507-514

Tricker M.J. and Martin S.J. (1984b) "Rural Development Programmes : the way ahead". Paper presented to the I.B.G. conference on the industrialisation of the countryside. Lanchester Polytechnic. September.

Tricker M.J. and Martin S.J. (1985a) "Rural Development Programmes : the way ahead". in Healey M. and Ilbery B. (Eds) The industrialisation of the countryside. Geobooks. Norwich.

Tricker M.J., Bovaird A.G. and Martin S.J. (1987) "The evaluation of economic development initiatives : some examples of practice within urban and rural development agencies". Paper presented to the ESRC Urban and Regional Economics Seminar. Lancaster University. June 1987.

Tricker M.J. and Bovaird A.G. (1987) The Peak Park Integrated Rural Experiment : an interim evaluation. Unpublished report to the Peak Park Planning Board.

Tricker M.J., Hems L.H. and Martin S.J. (1987) An analysis of census data for rural areas : change in the total population. Unpublished report to the Department of the Environment.

T.R.R.U. (1981) "The economy of rural communities in the National Parks of England and Wales" Research Report 47. T.R.R.U. Edinburgh

Turner J. (1978) "Out of work in Cornwall" New Society 44 (817)

Turner J. (1980) "Out of work in Cornwall" New Society Jan.

Turok I. (1988) " The limits of financial assistance : an evaluation of local authority aid to industry" Local Economy 2 (4) pp.286-297

University of Reading (1979) Farm contractor survey supplement 1979. Agirculture Department.

URBED (1978) see Falk N. 1978

Valente J. and Leigh R. (1982) "Local authority factory units a framework for evaluation" Planning Outlook 24 (2) pp. 67-69.

Van de Vall and Bolas M. (1981) "External vs. internal social policy researchers" Knowledge Creation, Diffusion and Utilisation. 2.6.81. pp.461-481.

Vaughan R. (1980) "The economy of rural communities in National Parks : an outline of the research framework" in Breakall M. (Ed) Small industries in rural areas. pp. 47-56. Oxford University Department for External Affairs.

Villery A. (1983) "The countryside debate : give the Act a chance". Chartered Surveyor Weekly 7.7.83. p.29.

Vining and Kontuly (1978) "Population dispersal from major regions : an international comparison" International Regional Science Review 3 pp 49-73

Wadsworth H.A. (1974) "Community planning and decision making to attract industry" in Whiting L.R. (Ed) Rural industrialisation pp. 61-67.

Wadsworth H.A. and Conrad J.M. (1965) "Leakages reducing employment and income multipliers in labour-surplus rural areas" Journal of Farm Economics. December. pp. 1197-1202.

Wagstaff H.R. (1974) "The mobility, replacement and wage rates of farm workers" Oxford Agrarian Studies 3 pp. 140-150.

Wallace L.T. and Ruttan V.W. (1967) "The role of the community as a factor in industrial location" Papers and Proceedings 7 pp. 133-142.

Watts H.D. (1966) "The character and origin of industry in a rural area : a case study of East Yorkshire" Yorkshire Bulletin of Economics and Social Research 18 (2) pp. 120-131.

Webster B. (1980) "Rural employment in West Oxfordshire" in Breakall M. (Ed) Small industries in rural areas. pp. 57-61. Oxford Department for External Studies.

Weiss C.H. (1972) "Evaluating Action Programmes : Readings in Social Action and Education" Boston. Allynnand Bacon.

Weiss C.H. and Bucuvalas M.J. (1980) "Truth tests and utility tests : decision makers' Frames of reference for social science research". American Sociological Review 45 April pp. 302-313.

Weiss D. (1980) "Planning and evaluating development programmes" Ekistics 47 (287) pp. 346-348.

Wenger G.C. (1980) Mid-Wales : deprivation or development. Social Science Monographs 5. University of Wales. Board of Celtic Studies.

Whitby M.C. (1980) "The economics of rural employment creation" in Breakall M. (Ed) Small industries in rural areas. pp. 19-24.

Whitby M.C. (1984) "Review of "An evaluation of the Development Commission activities in selected areas"". Regional Studies 18 (6) pp.526-527.

White D. (1972) "Dying village" New Society 20.1.72.

White D. (1979) "Industry in the countryside" New Society 13.12.79 pp. 597-599.

Whitting G., Burton P., Means R. and Murray S. (1986) The Urban Programme and the young unemployed. HMSO. London.

Wholey J. (1977) "Evaluability assessment" in Rutman L. Evaluation research methods : a basic guide. Sage publications. London.

Wibberley G. and Chassagne (1982) "Strong agricultures but weak rural economies" European Review of Agricultural Economics 8 (2/3) pp. 155-176.

Williams A. (1985) "The role of industrial estates in peripheral rural areas : the cornish experience" Paper presented is the ESRC Rural industrial conference. Manchester Polytechnic. September.

Williams D. (1980) "Goal conflicts in rural economic development" Agriculture Economics Research 32 (3) pp. 21-25.

Williams G. (1983) "The contribution of development agencies to the promotion of rural industrial initiative" Paper presented to the SSRC conference on Land Policy. Manchester University.

Williams G. (1984) "Development Agencies and the promotion of Rural Community Development " Countryside Planning Yearbook. 5 pp 62-86

Williams W. (1983) "British policy analysis : some preliminary observations from the U.S." in Gray A. and Jenkins B (Eds) Policy analysis and evaluation in British government RIPA London.

Willis K.G. (1983) "New jobs in urban areas - an evaluation of advance factory building" Local government studies 9 (2) pp. 73-85.

Willis K.G. and Whisker P.M. (1981) "Economic assessment of local authority aid to industry" Planning Outlook 23 (2) pp. 62-66.

Willis K.G. (1985) "Estimating the Benefits of job creation from local investment subsidies" Urban Studies 22 pp 163-177

Winter G. (1971) "Plenty of space, too few people - the anomaly of rural depopulation". Country Life 4.2.71.

Wollett S. (1980) "Rural jobs - future prospects" Village 35 (4) pp. 80-82.

Wollett S. (1981) "Providing your own community services" The Planner 67 (3) pp. 72-73.

Wood P.A. (1978) "Industrial organisation, location and planning" Regional Studies 12 pp. 143-152.

Woods E.J. (1980) Rural decline in the U.K. - a Third World view. The Arkleton Trust. London.

Young K., Mason C. and Mills E. (1979) Urban governments and economic change. SSRC. The inner city in Context 11.

Young K. and Mason C. (1983) Urban economic development: new roles and relationships. MacMillan. London.

Young K. and Mason C. (1983) "The significance of urban economic development programmes" in Young and Mason Urban economic development.

Zelinsky W. (1962) "Has American industry been decentralising ?" Economic Geography 38 pp. 251-269.