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

VOL 1

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SUMMARY

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Evaluating local economic initiatives: an assessment of the Rural Development Commission's advance factory building programme

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This thesis presents the results of research which was designed to develop and test a methodology to facilitate comprehensive evaluation of the impacts, delivery systems and cost effectiveness of local economic initiatives in rural areas. The methodology, was developed from a thorough review of recent evaluation theory, and was then used to provide a comprehensive evaluation of the Rural Development Commission's advance factory building programme within eight case study areas.

The study demonstrates that by relating such an evaluation to an explicit hierarchy of objectives it is possible to establish the extent to which programme funding has been truly additional; to identify programme impacts; to distinguish between local, regional and national impacts; to evaluate impacts over time and to trace the impacts of local economic initiatives on local labour markets.

The results show that, because of their failure to distinguish clearly gross and net impacts, and between impacts at different spatial levels, previous researchers have probably over-estimated the cost effectiveness of such programmes. They also demonstrate that the employment impacts of the advance factory building programme had changed rapidly over the early years of an initiative, and "once-off" evaluations (such as those undertaken in the past), are therefore likely to provide misleading results. It is also clear from the present study that the wider impacts of local initiatives are unlikely to have been as significant as has been claimed by some previous researchers.

On the basis of these findings a series of recommendations are made. This concern firstly, the ways in which better evaluations might be conducted in the future, secondly, the manner Rural Development Commission's performance management systems could be improved, and thirdly, ways of enhancing the effectiveness of the advance factory building programme.

Key phrases : evaluation, local economic initiatives, Rural Development Commission, job creation, performance indicators.

This thesis is dedicated to my parents, as a token of my sincere gratitude for all that they have done for me

"Do not have two differing weights in your bag - one heavy, one light. You must have accurate and honest weights and measures, so that you may live long in the land the Lord your God is giving you"

Deuteronomy 25 : 13-15

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CHAPTER 1 DEPOPULATION, COUNTER-URBANISATION AND RURAL EMPLOYMENT PROBLEMS

1.0 INTRODUCTION

Concern about the general level of unemployment such as is now being expressed in Britain was not widespread until the late 1970's. For much of the post-war era Britain enjoyed near full employment, and successive governments were pre-occupied with other economic problems, such as sterling crises, balance of payments deficits and rising prices. However, because of its perceived link with rural depopulation, concern about high levels of unemployment in rural areas pre-dated the present concern with unemployment nationwide. Thus the Development Commission has claimed that its ".... one unchanging concern has been with the need to widen the range of employment opportunities in the countryside ", (Development Commission 1982).

Reducing the rate of depopulation by retaining economically active people in rural areas has been seen as the key to solving many of the economic and social problems which people living in these areas face. In particular it has been thought that there is a need to increase both the overall number and the range of different types of job opportunities which are available in rural areas. By so doing policy makers have hoped to remove the need for young economically active people to migrate in search of work, to increase the aggregate level of local income, and to increase demand for local services. This enhanced demand will, it is hoped, ensure the future viability of local infrastructure, which in turn is likely to prevent future out-migration.

In order to provide a context within which the evolution of rural economic development policies can be understood, this chapter discusses the link between employment provision and rural depopulation, and the changing perceptions of the problem of depopulation. The first section reviews the findings of previous research concerning the causes of rural depopulation. Subsequent sections discuss the recent changes that have taken place in the rate of growth of population and manufacturing industry in rural areas in Britain and other western nations, and the implications of these for rural development policies.

2.0 RURAL DEPOPULATION

Most rural areas in Britain have experienced slower rates of population growth than urban areas since the late 1700's, and many have been subject to depopulation throughout the first half of the twentieth century. During the 1950's and 1960's this was considered to be a serious problem, for a number of economic, social and cultural reasons. Depopulation was believed to be self-perpetuating (Myrdal 1957), (Figure 1.1). Initial depopulation was seen to lead to a decline in the level of demand for local services (White 1972). If demand fell below minimum threshold levels, the firms which provided these services would be forced to reduce their workforces or to close down, resulting in further losses of income and jobs in rural areas. It was thought that this would encourage continued out-migration, and thus a further reduction in the demand for local services, (Clark 1980, Wollett 1981). As the remaining local residents found that because of the closures in these firms they could not obtain the services which they require in rural areas, yet more out-migration is likely to occur, (Moseley 1978, Moss and Associates 1982).

Various studies have demonstrated that the younger members of a community are the ones who are most likely to leave, (c.f. Hill 1971, Drudy 1978). The emigration of the younger elements of the population caused an imbalance in the age structure in rural areas which in turn led to the lower rates of natural increase, and a further decline in population levels. Depopulation was recognised as being economically inefficient. It led to increased congestion in urban areas, and the redundancy of labour reserves and the social capital which existed in rural areas (Packman 1979). It also caused undesirable changes in the social fabric and physical environment of rural areas (Commins 1978), and could eventually lead to the complete disintegration of rural communities through the exacerbation of existing social problems (Bowler 1981). The loss of rural communities and the traditional village way of life was regarded as a loss of national cultural heritage (Cripps 1980).

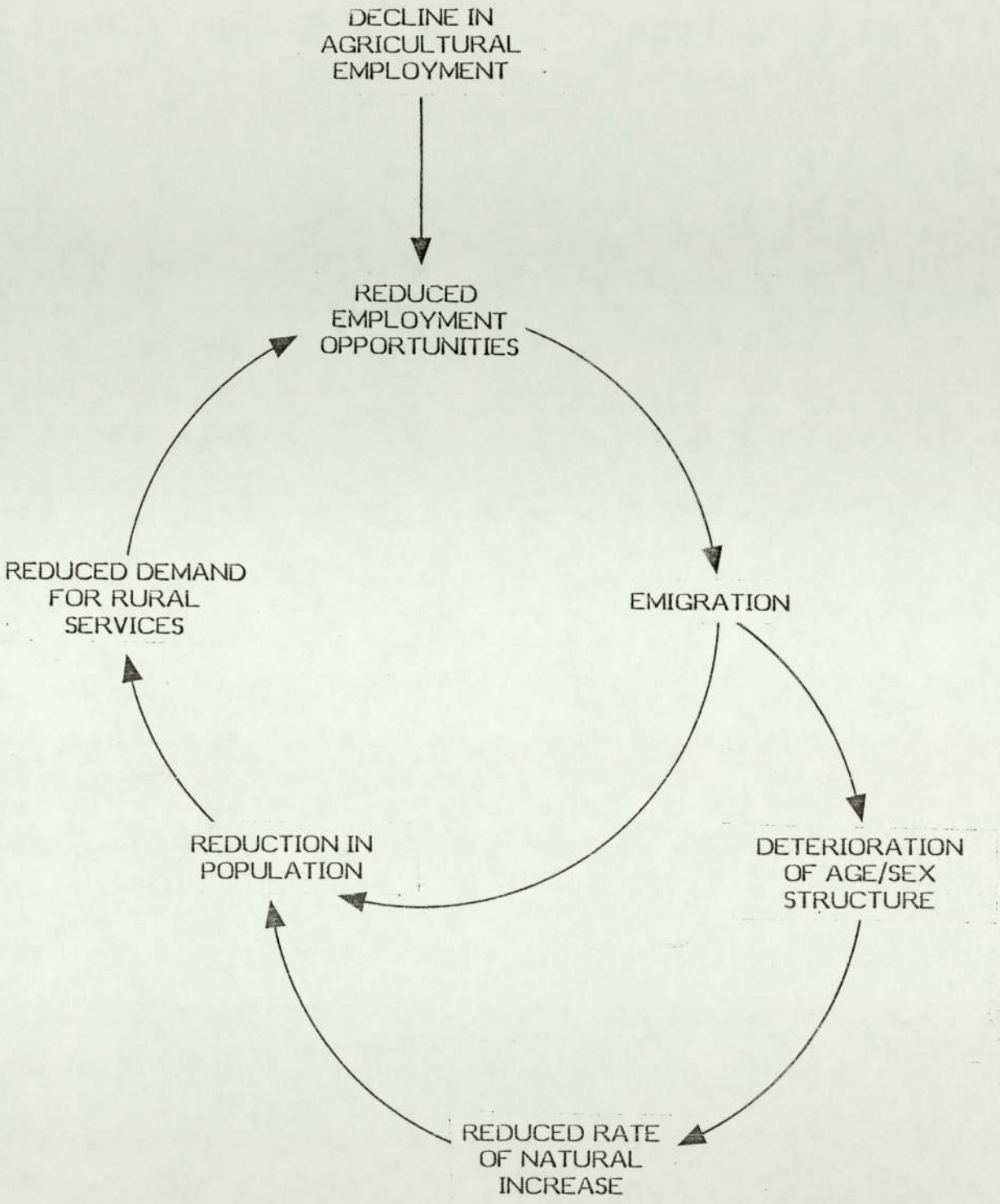


FIGURE 1.1

EMPLOYMENT LOSSES THROUGH CULMULATIVE CAUSATION IN RURAL AREAS

2.1 Causes of rural depopulation

Rural depopulation has been attributed to a number of different causes. Some researchers have regarded it as a product of economic forces, others have attributed it to a lack of housing, and others have claimed that it is a purely sociological phenomenon. It has frequently been linked with the decline in agricultural employment, and this has undoubtedly had an important effect (Rickard 1983). The number of people employed in agriculture has declined throughout the twentieth century, (with the exception of the war years), and especially so since the Second World War, (Figure 1.2). Between 1946 and 1987 more than 300,000 people left farming, and approximately 9,000 continue to do so each year. There are now more than one third fewer farms in Britain than there were in the 1950's, and a total of only 195,000 full-time farmers (MAFF 1987).

The decline in the agricultural workforce has a number of causes. The technological advances and the increasing mechanisation of agriculture have resulted in the substitution of labour for increasingly sophisticated capital, a trend which has been encouraged by the incentives to farmers to maximise output, (Bowers and Cheshire 1983, Bowler 1985). The nature of farm work has also played a part, acting as a "push factor" which has encouraged individual workers to leave the land. Disincentives to remaining in farm work have included have included low wages, long and uncertain hours, ill health, poor working conditions, and the tied cottage system, (Cowie and Giles 1957). Gasson (1974) found that farms that were located furthest from urban areas had shed workers more rapidly than those in less remote locations, and this is consistent with the contention that the "push factors" associated with farm work, have been more important than the attractions of non-farm work in encouraging people to leave the industry. However, the majority of those who have left seem to have gone into non-farm, unskilled jobs (Gasson 1973 , Heath and Whitby 1970).

It seems that farm work has intrinsic attractions to many workers (Jones and Perberdy 1979), which other forms of work available in rural areas lack. Many non-agricultural jobs are therefore perceived as being less attractive than farming (Curry 1972, Bessell 1972, Keil 1976). The decline in the size of the agricultural workforce is as much a result of

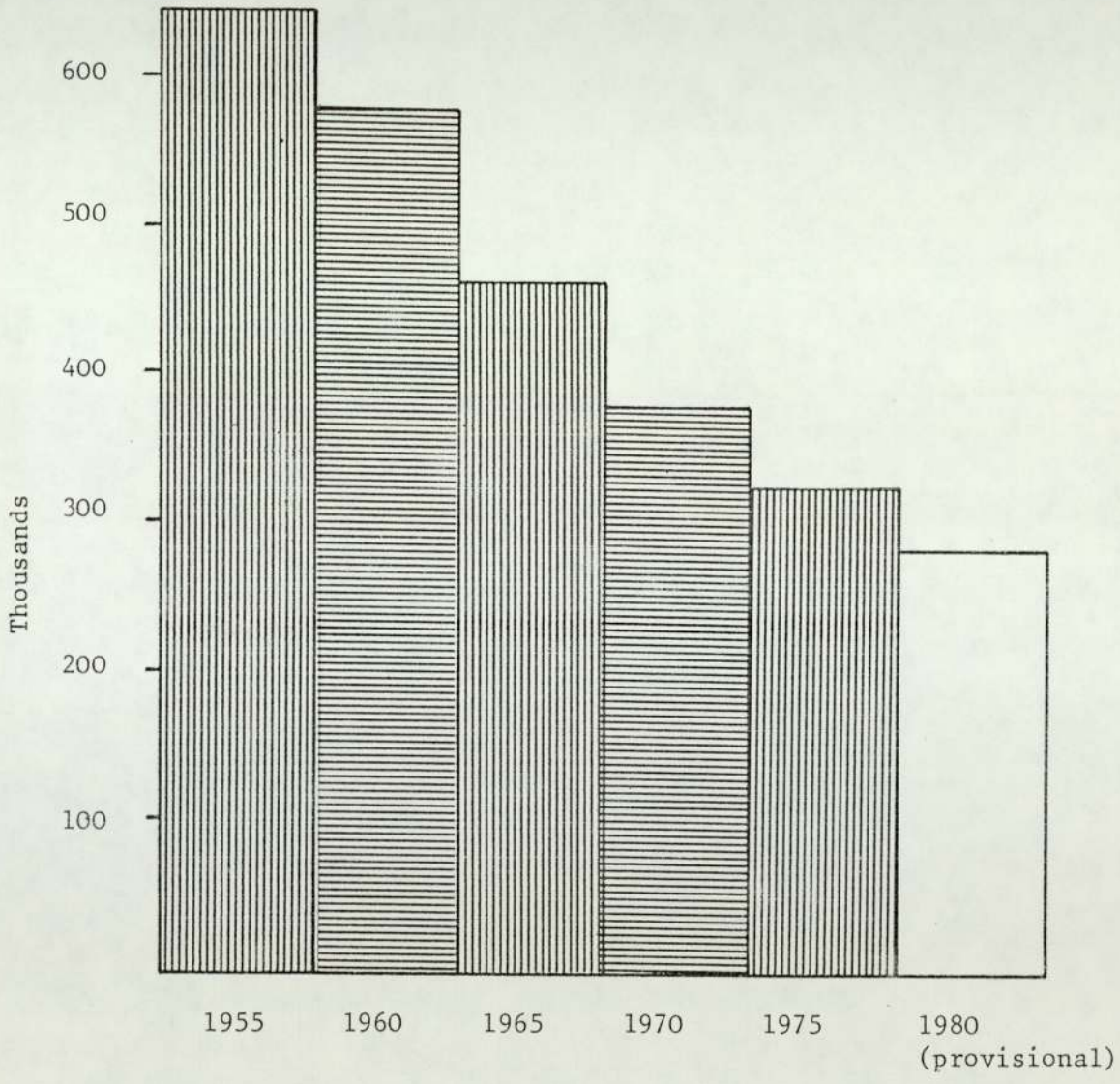


Figure 1.2

CHANGES IN THE SIZE OF THE AGRICULTURE WORKFORCE 1955-1980
Source: Dower 1980

falling recruitment as it is of the exodus of existing workers (Lund et al 1982). Farmers have tended to reduce their workforces by not replacing workers who leave, rather than by making involuntary redundancies (Wagstaff 1974). The decline in the agricultural workforce would not have been a problem if alternative jobs had been available to the large numbers of workers who left farming. It seems therefore that it is a combination of declining employment opportunities in farming and the lack of alternative jobs which has been the principal causes of rural depopulation.

In 1942, the Report of the Committee on Land Utilisation in Rural Areas (the "Scott Report") stated that the prime causes of depopulation were economic. The committee members wrote "We have become convinced, if we were not before, that there is an innate love of nature deeply implanted in the heart of man and that the "drift from the land" has been occasioned in large measure by economic inequalities between town and country rather than by any deep love of supposed urban joys".

Saville (1957, 1966), traced the emergence of rural depopulation over several centuries. In his view a number of historical factors had promoted rural depopulation. These included the agricultural depressions of the nineteenth century, the improvements in transport and other forms of communication, the repeal of the settlement laws in 1662, the enclosure movement, the replacement of the medieval system of landlord and tenant farmer, the replacement of cereal crops with meat and dairy products, an increasing capitalisation of agriculture, higher wages and other attractions in urban areas. However, Saville concluded that the cause of depopulation ".... is everywhere the same. Rural depopulation has occurred in the past century and a half, and will continue in the future, because of declining employment opportunities in the countryside", and ".... without the provision of work there can be no reversal of the depopulating trends in our rural society". He concluded that " There is little evidence to suggest that in the absence of governmental action these depopulating trends can be halted".

In his analysis of rural depopulation Bracey (1958, 1959, 1970), studied the population movements in Britain between 1951 and 1961. Over this time period the populations of rural areas close to urban areas actually increased, often quite rapidly. The more remote rural areas continued to

lose up to 10 % of their population in a single decade. He found that "....among the reasons given by migrants for deciding to move the availability or variety of employment appeared most often", and like Saville he concluded that it was therefore the lack of employment opportunities in the countryside that was primarily responsible for depopulation.

Other studies have also identified rural employment problems as the prime motivating force behind rural depopulation. House (1965) found that in a survey of motives for leaving villages in the North East, 70 % of the reasons given related to a lack of employment. Jackson (1968) found that parishes in the Cotswolds which had declining population levels typically had declining agricultural employment and low levels of female employment, and Dunn (1979) found that depopulation from rural Herefordshire was primarily the result of a lack of employment. Winter (1971) attributed depopulation primarily to the declining agricultural workforce, and according to Nuttall (1981) this is the principal cause of rural depopulation throughout the EEC.

Several studies have shown that rural depopulation is related not only to a lack of jobs per se, but also to a deficiency of jobs which are sufficiently rewarding (both financially and in terms of job satisfaction), to attract the most able and ambitious members of rural populations. The lack of employment opportunities in rural areas has meant that the most ambitious and able school leavers are forced either to settle for jobs well below their capabilities and aspirations or to move out of rural areas, (Hale 1971, Hale and Hale 1976).

Mason (1981) suggested that the lack of community facilities and the social isolation of rural areas are the main reasons for youth migration. However, in a study of large scale migration of rural youth in Ireland Hannan (1970) found that ".... beliefs about one's ability to fulfil occupational and income aspirations in the home community (occupational and income frustration) were the most closely associated with migration intentions ". Similar findings were reported by Drudy (1977a, 1977b) and Drudy and Drudy (1979) who found that the main cause of out-migration among the young in both Norfolk and in Galway Gaeltacht in Ireland, was the lack of suitable jobs. They concluded that it was necessary to provide

".... substantial opportunities in the non-manual and professional occupational sectors in any development plans" and that ".... the provision of industrial or other employment of a semi-skilled or manual nature will not on its own retain young people in these areas".

The view that it is employment problems which are the main cause of rural depopulation was not universally accepted. Duncan Mitchell (1950) claimed that the reasons for depopulation were primarily sociological, being the result of the continual penetration of rural areas by urban ideas via the media. Many researchers found that depopulation was the result of a combination of a number of different factors. Gareth Thomas (1972) stated that depopulation in Wales was the result of three factors : personal reasons, increasing expectations, and unemployment. Bennett (1976) found that the lack of housing was a more important factor than a lack of jobs in forcing people to leave the Lake District. D'abbs (1975) found that young school leavers in Devon had left their villages because of a lack of employment openings but that married couples were more likely to leave due to a lack of housing. A major review of research regarding the causes of rural depopulation concluded that although it was undoubtedly the result of more than one factor, and might sometimes be catalysed by social forces, the underlying causes of depopulation were economic (DOE 1977).

2.2 Policy responses to rural depopulation

Official policy responses to rural depopulation have reflected the view that it was largely the result of a lack of employment opportunities. An Interdepartmental group set up in 1972 to study the problem of rural depopulation in a number of peripheral rural areas in Britain (Figure 1.3), acknowledged that rural depopulation was ".... a complex phenomenon, both economic and social in origin ." (H.M. Treasury 1976). However the solutions which it proposed were concerned almost exclusively with the economic, and in particular the employment-related problems, faced by these areas. The report concluded that ".... the best hope of preventing depopulation lies in policies designed to encourage the growth of light industries mostly in small towns in rural areas." (H.M. Treasury 1976). (It was as a direct result of the findings of the study group that the

Figure 1.3

DEPOPULATION FROM AREAS INCLUDED IN INTERDEPARTMENTAL STUDY 1951-1971
Source: HMSO (1976)

Development Commission was given the task of creating an additional 1,500 new jobs in rural England in each of the following ten years through the encouragement of light manufacturing industry into rural areas (section 6.1 chapter 2)).

The Countryside Review Committee (C.R.C. 1976, 1977) took a similar view of the causes of depopulation, and the solutions continued to be seen almost exclusively in terms of providing new job opportunities until the 1980's (Peregrin 1980). As the results of the 1981 census emerged, it became increasingly clear that a radical change of population trends in rural areas had occurred in the 1970's. Depopulation began to be recognised as a symptom of a range of other underlying problems facing rural areas. It was ".... not in fact the problem ... but the manifestation of a whole range of economic and social problems." (Garbett-Edwards 1976), which had continued despite the reversal of depopulation itself.

3.0 COUNTER-URBANISATION: THE URBAN-RURAL SHIFT

3.1 The emergence of the urban-rural shift

Studies in various parts of Britain had suggested that rural depopulation was slowing down, or maybe even being reversed, in the early 1970's (D.C. 1972, Champion 1973, Eversley 1974, Morton 1975). This was strongly confirmed by the 1981 census which showed that a remarkable change had occurred in the rate of population growth in many rural areas. In marked contrast to previous decades the number of people living in many rural areas actually increased between 1971 and 1981, sometimes quite spectacularly (Oakeshott 1981, Craig 1983). Counter-urbanisation did not occur at a steady rate; it was most noticeable between 1971 and 1973 (Kennett and Spence 1979). However high rates of net in-migration to rural areas characterised the whole of the decade. Between 1971 and 1981, the number of people living in small settlements (those with populations of less than 5,000) in England and Wales increased by half a million, i.e. nearly 8 % (Tricker, Hems and Martin 1987), and ".... most of the lowest-density areas had grown faster than the national average, and experienced

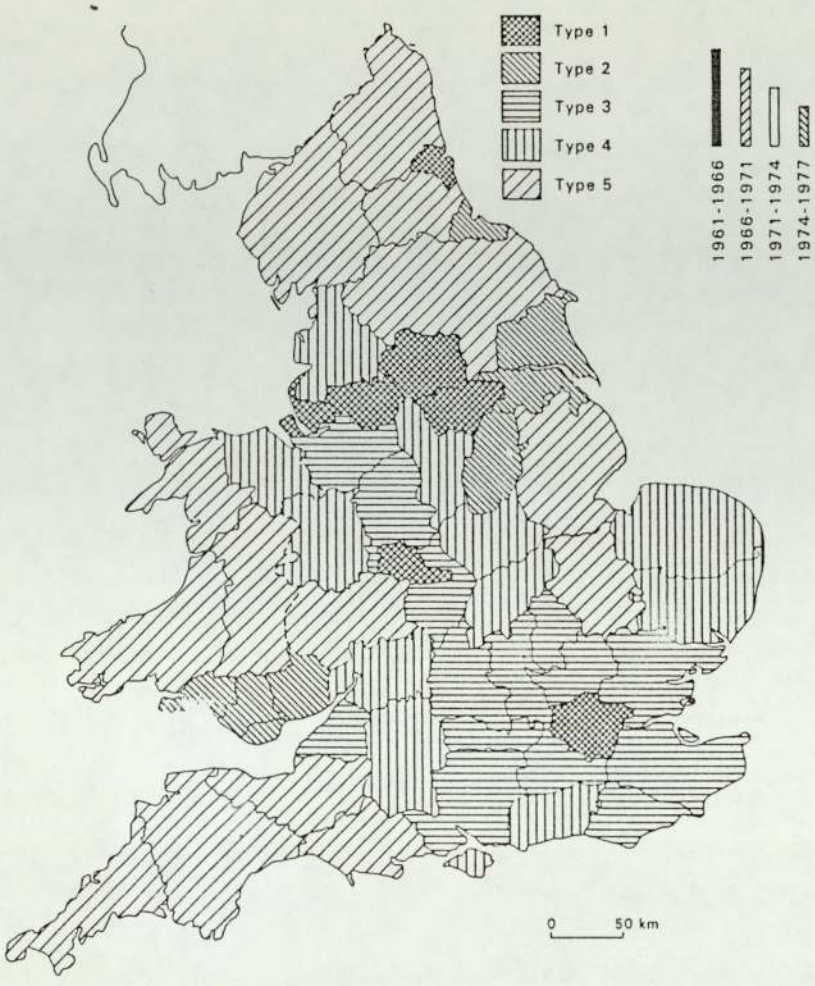
an acceleration in growth rate contrary to the national average", (Champion 1981), (Figure 1.4).

In the past two decades similar trends have been observed in many other advanced industrialised nations, including the United States (Beale 1975, Morrison and Wheeler 1976, McCarthy and Morrison 1979), Canada (Bourne and Logan 1976, Browne and Simmons 1979) and a number of other western nations (Vining and Kontuly 1978, Van den Berg et al 1982, Fielding 1982). In the U.S.A. the number of people living in non-metropolitan counties increased by 4.2 % between April 1970 and July 1973, while over the same time period, the population levels in metropolitan counties grew by only 2.3 % (Beale 1975).

3.2. The causes of the urban-rural shift

Various explanations have been advanced to explain this clear urban-rural shift. Like rural depopulation, population growth in rural areas has been attributed both to economic and to sociological causes. Ellis (1975) and Blackwood and Carpenter (1978) attributed it to a "new ruralism" or "anti-urbanism", that people are now able to express because of improvements in communications, particularly transport. Economic explanations have included the growth of manufacturing industry in rural areas in the 1960's (Beale 1975). However, the recent increases in population levels have not occurred in those rural areas which experienced the largest increases in in-coming manufacturing industry, and other explanations have therefore been sought.

The migration of retired people to rural areas has increasingly been recognised as an important factor. While there are some counties in the U.S. that have traditionally been retirement areas, (for example, Florida and the Southwest), retirement settlement has now spread to a number of other areas usually around lakes, mountains, hills, reservoirs or near the coast, for example the Upper Great Lakes, the hills of central Texas, the Sierra Nevada foothills, and the East Texas coastal plain. As with the "Cambridge effect" in the U.K., State colleges also appear to have stimulated rural population growth. Between 1970 and 1973 rural counties



TYPE 1 Greater London and metropolitan counties: net out-migration in all four periods

TYPE 2 Net out-migration in at least three periods (other than those in Type 1)

TYPE 3 Migration balance deteriorating in 1970s, after high rates of net in-migration in 1960s

TYPE 4 Net in-migration in at least three periods, but no overall trend (i.e. excluding Types 3 and 5)

TYPE 5 Significant improvement in migration balance in 1970s, after net out-migration or low rates of net in-migration in 1960s

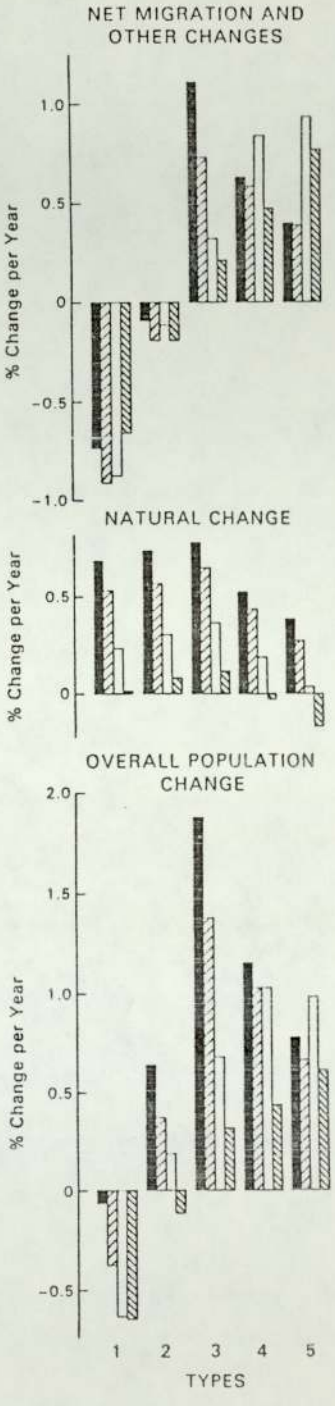


Figure 1.4

DEPOPULATION IN ENGLAND AND WALES 1971-1981
Source: Champion (1981)

with State colleges grew in population size by 5.8 % in spite of falling college enrolment nationally. Counter-urbanisation was not however, universal; counties which were heavily dependent on agriculture continued to lose population even in the period 1970 to 1973, (Coates 1977).

It has also become increasing clear that in Britain, the U.S. and many other western countries, the shift in population was accompanied by a marked urban-rural shift of manufacturing industry in the 1960's and 1970's. In a great variety of industrially advanced countries, industry has moved from established urban-industrial centres into the non-metropolitan hinterland, regardless of the existence or otherwise of national plans devised to encourage it (Selvik and Summers 1979). Although this trend has been studied in a number of countries, it has received most attention in the U.S.A., where it is now acknowledged to have started in the mid-1950's (Haren 1970, 1974). It was first recognised in the early 1960's (see Zelinsky 1962 for example), and among the factors put forward to explain it are:

1. the "filtering down" of economic growth to lower order settlements from the major metropolitan areas,
2. changing forms of industrial organisation,
3. the re-definition of the nature of agglomeration economies,
4. areal and regional wage differentials,
5. the varying strengths of urbanisation in different areas,
6. transport improvements,
7. increases in the amount of footloose industry,
8. the increasing willingness of entrepreneurs to leave the cities in favour of the more pleasant living environment of rural areas,
9. the growing sophistication and success of community development bodies,

(Hansen 1974, Erickson 1976, Seyler 1979, Lonsdale and Seyler 1979).

3.3 The urban-rural shift in Britain

Some doubt has been expressed about the extent to which a similar urban-rural shift of manufacturing has occurred in Britain (for example Mackay et al 1979, Townroe 1979), however, it is now generally accepted that population shifts in Britain have been linked with changing patterns of employment growth, and it seems that it is part of a phenomenon that is emerging throughout N.W. Europe. Keeble (1980) identified "... a very marked and consistent urban-rural shift in the relative distribution of manufacturing employment ", and similar trends have been observed throughout western Europe, (Fielding 1982). There is evidence that as in Britain, the core industrial-urban areas such as Vienna, The Hague and Copenhagen have experienced heavy employment losses, (Van den Berg et al 1982) as have the Franco-German coalfields and the Ruhrgebeit (Hall and Hay 1980), and that since the 1979 recession, the urban-rural shift has intensified in EEC countries, (Keeble et al 1983).

There is still a lack of unanimity regarding the exact nature and extent of recent changes in the location of employment growth and a number of theories concerning the economic forces which underlie them have been put forward. Fothergill and Gudgin (1979, 1982) and Fothergill (1983) suggested that the rate of employment growth in a region was determined by the mix of subregions within it. In particular it was clear that core metropolitan areas had proved to be relatively unattractive locations for manufacturing industry. Fothergill and Gudgin suggested four possible reasons for this. They contained a disproportionately large share of the old industrial capital, labour costs in urban areas were higher than in other areas, the working environment was less attractive and there was less physical space for the expansion of existing firms and the establishment of new enterprises. On the basis of their own work (Fothergill et al 1983a, 1983b, 1983c), and that done by JURUE (1980) they concluded that the fourth of these factors was probably the most important in explaining the urban-rural shift of manufacturing industry.

Other researchers (e.g. Massey and Meagan 1978, 1979, Miles 1982) have argued that spatial shifts in the location of manufacturing industry reflect fundamental structural changes, particularly de-industrialisation,

which have been taking place in the British economy. These changes are thought to be related to the increasing dominance of large multi-plant companies in the manufacturing sector, technological change, and the declining profitability of U.K. companies, (Massey and Meagan 1978).

Keeble (1980) tested the importance of four possible explanations of the urban-rural shift by multiple regression analysis and concluded that the shift of manufacturing industry within the U.K. is ".... directly related to basic urban-rural environment differences, as measured by the sheer density of manufacturing activity in different areas ...", and that one of the most important of these differences were the agglomeration diseconomies which were experienced by firms located in the conurbations. It seems clear that the urban-rural shift is caused, at least in part, by the relative decline of the inner urban areas, however there is recent evidence that between 1981 and 1983 the loss of population from London was only half that which occurred between 1971 and 1973. Counter-urbanisation has nevertheless continued to be a strong force throughout the early 1980's, as rural areas gained population at the expense of the metropolitan fringes and larger free-standing cities like Plymouth and Bristol (Mills 1985).

4.0 THE PROSPECTS FOR BRITAIN'S RURAL AREAS

It is clear that new trends in both population and employment growth in rural areas have emerged in the last decade. Some rural areas have experienced a reversal of the depopulation from which they had suffered for several decades. Alongside this it seems that rural areas have become more attractive locations for industry, particularly in the recession of the late 1970's, (Owen, Coombes and Gillespie 1983). Given this context, it might seem therefore that there is no further need to intervene in rural areas in order to provide new employment opportunities. However, government policies have continued to emphasise the importance of the provision of new jobs in rural areas, and in expenditure terms at least the rural development agencies, such as the Development Commission, the Development Board for Rural Wales, and the Highlands and Islands Board continue to be primarily concerned with issues relating to employment creation (Williams 1983). This is because there is clear evidence that although in some areas,

rural policies which were designed in the 1960's and 1970's may now be "swimming with the tide" of the urban-rural shift of both people and jobs, this is not the case in all parts of rural Britain; some rural areas continued to lose population throughout the 1970's and early 1980's (Craig 1983). There is some evidence that the urban-rural shift may have been slowing up by the end of the 1970's, and it has also become apparent that there is a widening gap between the South East, East Anglia and the West Country and the remainder of the $country. By the late 1970's the growi "North-South divide" appears to have been a much stronger trend than the urban-rural shift, (Champion et al 1983). Even if counter-urbanisation continues it is clear that there are many rural areas which will not benefit from it, and that without external intervention and assistance many sections of the community even in the newly revived areas will remain disadvantaged.

It is clear that there were marked regional variations in the rate of counter-urbanisation throughout the 1970's. Settlements of less than 5,000 people in East Anglia grew at a rate of 14 %, while in the Northern region they increased by only 1.2 %. There were also marked variations in the rates of growth of different sizes of settlement. Rural towns (2,000 to 5,000 population) grew twice as fast as settlements of less than 2,000 people, (Tricker, Hems and Martin 1987). This is almost certainly in part due to the key settlement policies operated by many counties (e.g. Cloke 1983), and the decline in average household size. It is not therefore the case that all rural areas were experiencing very rapid population growth in the last decade, and even in those areas where rapid growth occurred, the levels of increase in absolute terms were not always very large. Although impressive percentage increases in population growth were recorded in some areas, the absolute levels of growth were often quite small because of the very low base levels of the existing populations.

Most importantly, detailed cohort analyses of the small area statistics of the 1981 census reveal that a large proportion of those who moved to rural areas between 1971 and 1981 were of retirement age (Tricker, Hems and Martin 1987). For a number of reasons, the in-movement of these people is unlikely to have much effect on the downward spiral of job losses, service decline and emigration. Their presence is in fact likely to exacerbate a number of existing problems. Being more affluent and usually possessing

their own car these in-movers tend to shop outside of the immediate locality for all but the lowest order goods, they do not use local bus services and do not have children of school age, and thus do little to safeguard the rural services which are most likely to be in danger of closure.

Thus there is a danger that indigenous population will continue to be unable to gain access to essential services. There is also a housing shortage in many areas. Increases in the property market initiated by the demand for second and retirement homes have inflated local house prices beyond the means of local people. This housing problem has been exacerbated by the lack of both council housing and private rented accommodated in rural areas (Shucksmith 1981, Clark 1984). There is then a danger that a divided rural community will develop in which the in-moving "haves" increasingly displace the indigenous "have-nots", (McLaughin 1981). It seems that without local job opportunities, the more remote rural areas, which are inaccessible to the urban commuter, and unattractive to the retired, will continue to suffer from depopulation, whilst the areas which are nearer to urban centres will suffer from the problems associated with "gentrification".

There has therefore been a shift of official concern away from rural depopulation per se and towards the problems which have persisted in spite of the reversal of previous population losses. In particular concern has been focused on the severe employment problems which still exist in rural areas, (Dower 1980). These include an unbalanced economic structure (Gilg 1980, MacKinnon 1980), low activity rates, especially among women (Wollett 1980), lower than average rates of pay (Thomas and Winyard 1979), a lack of job opportunities for youth (Dench 1984, Stern and Turbin 1986), and a lack of skilled jobs for men (Turner 1980). Both central and local government, have therefore continued to emphasise the need to retain indigenous economically active people in rural areas and attract outsiders of working age, by providing a wider range of attractive job opportunities in these areas, (section 6 chapter 2). The next chapter examines the policies which have been pursued in an attempt to provide new jobs, focusing particularly upon the range of economic development and employment initiatives which have been undertaken, and the impacts which these policies may have had on the scale and nature of the problems of rural areas.

CHAPTER 2 POLICIES AFFECTING THE LOCAL ECONOMY OF RURAL AREAS IN BRITAIN

1.0 INTRODUCTION

A vast range of decisions and policies have an impact on the economic development of rural areas in the U.K.. Many do so indirectly and inadvertently; others are policies specifically designed to promote the economic well-being of those living in rural areas. Many "rural problems", including employment problems, are manifestations of forces which operate in society as a whole. In attempting to understand the nature of these problems, it is therefore important to look ".... not just at the geography of rural unemployment but at the workings of an economy in which unemployment seems accepted as endemic" (Moseley 1980a). There are many similarities between the problems facing people living in inner city areas and those living in rural areas (Moseley 1980b), and " The same basic conditions of industrial decline, unemployment, poverty, housing and social stress that are found in urban communities also exist in rural areas of England and Wales" (A.D.C. 1978).

The actions of large private sector institutions (such as pension funds), statutory bodies (e.g. water authorities) and of other powerful groups such as farmers, have a crucial influence on rural economies, (Clark 1982, Newby et al 1978). It is therefore necessary to consider local economic initiatives such as those undertaken by development agencies, within the context of the policies which have been adopted by much larger national and international organisations. An indication of the importance of these organisations' policies can be gained from the fact that the expenditure associated with rate support grant, the Common Agricultural Policy, and major statutory bodies like regional water authorities dwarf the annual budget of Britain's rural development agencies (Moseley 1981), and thus small changes in for example R.S.G. allocation might have far more affect on economic conditions in rural areas than all of the Development Commission's activities put together.

This chapter has two functions, the first is to briefly review some of the most important regional, national and international policies that provide the context in which local economic initiatives in Britain must operate. These are discussed in the first four sections of the chapter. The second is to outline the range of policies which have been adopted by development agencies, local authorities and other agencies in an attempt to stimulate the rural economy and increase the number of jobs available in rural areas.

2.0 AGRICULTURAL POLICIES

Farmers have traditionally been seen as the "custodians" of the amenity and conservation value of rural areas. Farming practices have shaped the physical appearance of the rural landscape, and the agricultural industry has also traditionally been one of the largest employers in rural economies. Farmers might therefore also be regarded as having been the custodians of the rural economy. The post-war changes in the methods employed by modern farmers have as a result not only affected the amenity value of the countryside but have caused radical changes in the level of demand for rural labour (section 2.1 chapter 1).

Recent changes have largely been the result of the substantial price subsidies which agriculture has received in the last forty years. Post-war State intervention in farming dates from the 1947 Agriculture Act which established the principle of price support in order to ensure that agriculture did not return to its pre-war depressed state, (Bowers and Cheshire 1983). Guaranteed minimum prices were also thought to be necessary in order to ensure that a sufficient volume of home grown food was produced both for security reasons and to safeguard the balance of payments. Since 1973, incentives to maximise production have been supplemented by EEC agricultural support via the Common Agricultural Policy.

It is only relatively recently that the justifications for this support have been seriously questioned. Although there was an increasing emphasis on the need to support the social and economic structure of rural areas, in the 1970's the primary purpose of the price supports remained that of

increasing agricultural production per se. For example, the 1975 White Paper on Agriculture (HMSO 1975) was entirely concerned with the continuing expansion of domestic food production. The first signs of a change in official thinking can be detected in the 1979 White Paper (HMSO 1979) which recognised for the first time that there was a need to reconcile higher productivity with the amenity value of upland areas, however employment policies continue to receive little attention.

The Common Agricultural Policy (C.A.P.) was designed to increase productivity and farmers' incomes and to implement the Mansholt Plan for restructuring agriculture in order to preserve farming jobs and thereby reduce rates of rural depopulation (EEC 1971). In practice the policies have resulted in increasingly capital intensive farming, which in many areas exacerbated the "drift from the land". In Britain its effect has been to encourage trends which were well established before its entry into the EEC - mechanisation, increasing dependence on fossil fuels and artificial fertilisers and the diminution of the agricultural workforce, (section 2.1 chapter 1).

Criticisms of both the U.K. and the EEC system of grants to farmers are now widespread. Much of the most vocal opposition has come from those who see increasingly mechanised farming, encouraged by capital payments, as a threat to the amenity value of rural areas (c.f. Shoard 1980, MacEwen and Sinclair 1983). Recent legislation has also been criticised for paying too little attention to amenity / conservation issues (Lowe and Halling 1984). Curry and Stoakes (1979) pointed out that most of the official proposals for revision of the 1978 Countryside Bill were cosmetic and would fail to deal with the most urgent land use conflicts, and the 1982 Countryside and Wildlife Act has been strongly criticised from a number of quarters. The main fears concern the system whereby farmers received compensatory payments from M.A.F.F. for not undertaking work in ecologically sensitive or particularly beautiful areas, which many believed would prove unworkable because of the likely size of the claims for compensation, and because of the possibility that unscrupulous farmers would claim money for schemes that they had no genuine intention of carrying out (Lowe and Goyder 1981). The farming lobby is however, a particularly strong one, especially under a Conservative administration, (Lowe 1981), and has responded vigorously to criticism of the 1982 Act (c.f. Holbeche 1983). Farming is no longer

regarded as the protector of the rural landscape, and this role is now claimed by conservation bodies. These are however, largely powerless, ".... toothless watchdogs of the landscape " (T.R.R.U. 1981), and "....the onus for landscape conservation still rests on individual farmers" (ibid).

The economic and ecological case against the present system of EEC grant payments appears to have gained increasing support (c.f. Bowers and Cheshire 1983, MacEwen and Sinclair 1983). Many commentators now recognise that while agricultural support has safeguarded farming interests, it has done little to strengthen rural economies (Wibberley and Chassagne 1982). Recent developments suggest that the level of production in the EEC in nearly all farming sectors is now so far in excess of demand that it is inevitable that land will have to be removed from farming and put to other uses (Countryside Commission 1984, 1987), and that policies may therefore be increasingly harmonised with other uses such as recreation and conservation. Future employment policies may have to be framed within this context, rather than within the situation of the rapid loss of farming jobs, and continuing out-migration which characterised previous decades.

3.0 THE EFFECT OF REGIONAL POLICY ON RURAL AREAS

In the early 1970's regional assistance was available over such a wide area of the country that most rural areas had either Development or Intermediate areas. Regional policy did not however, selectively favour rural areas, which were therefore in competition with many urban areas which also received Assisted Area status, and to which they tended to lose out. The effects of regional policy was the subject of much research, (c.f. Moore and Rhodes 1973, 1976, Moore, Rhodes and Tyler 1977, Ashcroft and Taylor 1979, Marquand 1980, Ashcroft 1981, Moore, Rhodes and Tyler 1983), which showed that it had had a significant impact in providing jobs in Assisted Areas, but had done so at a relatively high cost (for example, about £ 32,000 per job at 1981 prices (Rhodes, Moore and Tyler 1983)).

However, many researchers did not distinguish between net new jobs and those which would have existed in the absence of the policy, and the methodologies used by different researchers have been so diverse that

comparisons between studies have been impossible (PAC 1984). In addition little is known about the extent to which rural areas gained or lost vis a vis urban areas as a result of regional policy. However, it seems likely that rural areas with Assisted Area status were more attractive to re-locating industry than rural areas in which incentives were not available, and this must be taken into account and "netted out" when evaluating employment initiatives undertaken by other agencies, (section 6.2 chapter 5).

As in other parts of the EEC (Allen and Yuill 1983), the size of Assisted Areas in Britain has been greatly reduced since 1979, and particularly since the "Tebbit Reforms" of 1984 (Martin et al 1987), regional policy has been replaced by specific policy measures, such as the formation of new agencies (Mawson and Miller 1982) and latterly the Enterprise Initiative (HMSO 1988). There are a number of reasons for this, some of which are intrinsic to the policy and others which result from macro-economic changes.

The former include the high cost of creating and retaining jobs through regional policy, its lack of sufficient sensitivity to assist only those firms which require help, (HMSO 1988), the fact that many of the firms remained under outside control and were particularly vulnerable to closure (Firn 1975), and that it has been shown that entrepreneurs are not fully aware of the availability of incentives (c.f Green 1971). Macro-economic changes which have hastened the retreat of regional policy included the emergence of high rates of national as well as regional unemployment, the growing recognition and concern with the "inner city crisis", and the government's increasing emphasis on new and small firms rather than large footloose industries in response to research which had suggested that the former had greater potential for employment generation and exploitation of new technology (Davis and Kelly 1972, Birch 1979, Rothwell and Zegeld 1982).

4.0 POLICIES RELATING TO PUBLIC SERVICE PROVISION

Decisions regarding service provision which are made by statutory authorities can have a significant impact on rural areas (Moss 1982). The deregulation of the national bus service resulted in cut-backs in the number of rural routes (Rural Voice 1984). Rural services are known to have declined rapidly (Standing Conference of RCC's 1980) and further losses of public transport will restrict access to work, school or to shops in neighbouring towns. As a result rural areas are likely to become less attractive places in which to live to those without access to private transport (Clark 1980a, 1980b). The decisions made by British Telecom concerning the provision of public call boxes, by the Post Office regarding the provision of sub-post offices, by local authorities regarding library services, by regional health authorities about hospital closures, by education authorities regarding school closures and by business regarding the location of chain stores can all have important affects on peoples' perceptions of rural areas. Rural development agencies have increasingly given more attention to the problems of declining service provision, and have become more involved in a range of locally-based self help initiatives designed to ameliorate the worst effects of cut-backs, (Gwillam 1982, Wollett 1981), (see for example, the increasingly wide range of experimental schemes which the Development Commission has sponsored, (section 6.1 chapter 2)).

5.0 THE EFFECTS OF PLANNING POLICIES

Partly as a result of the indiscriminate development of the immediate pre-war period, planners have tended, since 1947 to emphasise the need to ensure the containment of urban areas, and the protection of agricultural land. The 1947 Town and Country Planning Act discouraged the location of industry in the countryside, stressing the importance of keeping productive agricultural land in use. This policy was reiterated in several circulars, (including, Ministry of Town and Country Planning circular 22/46 "Development on Agricultural land" and Ministry of Town and Country Planning circular 99/50 "Safeguarding of agricultural land"), and supported

by Green Belt policies (c.f. Ministry of Housing and local government circulars 42/55 "Green Belts" and 26/60 "New Homes in the Country"). In all of these there was a presumption against economic development in peripheral areas because of their amenity value, particularly in the newly formed National Parks, (MacEwen and MacEwen 1983). Agriculture was considered to be the basis of the rural economy and the dominant user of agriculture land, rural industry was considered to be of very little importance, and very little attention was given to the need for non-agricultural employment.

Planning policies relating to service provision were also tailored to the needs of the farmer and the farm worker, for example, the Ministry of Health circulars 153/47 "Housing for Agricultural Workers" and 155/47 "Rural Housing : allocation of tenancies" encouraged housing authorities to give priority to agricultural workers. The main criteria for assessing the suitability of rural settlements for housing development related to their amenity and agricultural value, rather than the needs of the local community for housing or for employment opportunities.

Such policies continued into the 1970's, as development control policy notes of the period demonstrate. Development Control Policy Notes 3 ("Industrial and Commercial Development" (1969)), and 4 ("Development in Rural Areas" (1969)), both contained a presumption against the location of new industry in rural areas and were primarily concerned with the need to preserve the amenity and agricultural land of the countryside, (Smith 1977). This guidance from central government was invariably reflected in the the tenor of the County Structure Plans. Recent circulars (for example DOE circular 22/80), have however been less hostile to and even encouraged the concept of industry in the countryside, and the Department of the Environment apparently keen to promote rural industrialization, has sponsored research into the planning problems facing small firms in rural areas (Tricker and Bozeat 1982).

Local authority attitudes to industry in rural areas now vary considerably. Many authorities in the north and west now positively encourage it, others (largely in the south east) are willing to allow limited development in market towns and "key settlements" but not in villages or the open countryside (section 7.2.2 below). Since the late

1970's many of the Structure Plans have aimed to revive rural communities but this often involves support only for selected "key" settlements (Derounian 1980). A review of the plans drawn up by twenty one counties showed that eighteen were committed to key settlement policies and intended to attempt encourage development only in a few larger towns (National Council for Social Services 1979). Rural development agencies have to a large extent pioneered the concept of small industry in rural areas and local authorities have lagged some way behind. Some authorities have very recently begun to allow industrial development in smaller communities, but as yet none have dropped the policy of restraining development in the open countryside, although some now adopt a sympathetic attitude to the conversion of existing redundant buildings, (Nash 1982, Bozeat and Tricker 1982).

6.0 THE POLICIES OF RURAL DEVELOPMENT AGENCIES

6.1 Rural development agencies in England

Although rural development agencies in England necessarily operate within the context of much larger expenditure programmes of other agencies, (section 1.0 above), they are nevertheless involved in a range of significant initiatives. Since the present research is concerned primarily with an evaluation of the Development Commission's advance factory building programme, and the Commission is now de facto England's rural development agency, (as shown by the fact that in May 1988 it was renamed the "Rural Development Commission"), the main focus of this section is upon its policies. (The activities of its Welsh and Scottish counterparts are considered in sections 6.2 and 6.3 below).

6.1.1 The evolution of the Development Commission

The Development Commission (D.C.) was established in 1909 by Lloyd George, under the provisions of the Development and Road Improvement Act,

with wide ranging responsibilities for a variety of different aspects of rural life. It undertook much of the work which is now carried out by the Forestry Commission, the White Fish Authority and the Board of Inland Navigation, as well as sponsoring agricultural research. It was originally responsible for rural areas throughout the whole of mainland Britain rather than just in England as is now the case.

In 1909 rural development was perceived almost exclusively in terms of increasing the amount, quality and variety of agricultural production. The Commission therefore focused upon agricultural research and education, and the promotion of new farming methods. It also financed some improvements to roads, harbours and inland waterways, and during the 1920's it first became involved in aspects of the social and community development of rural areas and played a crucial role in the establishment of the network of county based Rural Community Councils (R.C.C.'s).

The Commission's support for rural industry, was restricted to assistance provided to traditional rural crafts through the Rural Industry Board (R.I.B.) which it established in 1921 (Clarkson 1980). Until the 1940's the R.I.B. merely collected and disseminated advice to the owners of rural businesses through the R.C.C.'s. In the 1940's a loan fund was established for the first time, and between 1940 and 1948 advances totalling £ 150,000 to assist in the supply of machinery were made (CoSIRA 1983). In the 1950's and 1960's the Board became increasingly involved with measures to offset the decline in demand for labour in the agricultural sector. Priority was given to assisting firms which could contribute export gains or import substitution and offer additional employment opportunities. The growing need for additional manufacturing and service employment to take up surplus agricultural labour was highlighted by a review of the R.I.B.'s work initiated in 1964. This resulted in the formation of a new executive body, the Council for Industries in Rural Areas (CoSIRA), which replaced the R.I.B. in 1968.

The R.I.B.'s role was essentially responsive; the formation of CoSIRA reflected a shift to a more pro-active style of operation. Until April 1988 CoSIRA was the main executive agency of the Commission. In April 1988 it was merged with the renamed Rural Development Commission. It employed about fifty Small Industries Organisers working from a network of county and

regional offices who made initial contact with firms, and provided a variety of free advice and information on issues like planning, sources of finance and the availability of premises. Additional help was provided by a team of more than eighty technical and professional advisers including management consultants, accountants, and tourism officers, (Development Commission 1986).

Throughout the 1970's, CoSIRA's policy statements reflected a shift in emphasis away from measures designed to increase the profitability of rural firms per se, towards enabling small firms to expand and so create additional job opportunities particularly in areas threatened by serious depopulation. The emphasis on traditional industry disappeared; firms eligible for assistance were primarily manufacturing concerns employing not more than twenty skilled people and located in rural areas and small towns (normally towns with less than 10,000 population although some exceptions have been made). As the supply of mobile footloose industry declined in the late 1970's increasing emphasis was laid on the formation and growth of new firms, (Tricker and Martin 1984).

6.1.2 The factory building programme

The advance factory building programme is currently the Commission's most important policy instrument. It was originally designed as a means of reducing rural depopulation, but has proved to be so attractive to policy makers that it has survived the radical changes which have taken place in the perception of the severity of rural depopulation since 1981, (section 3.1 chapter 1), as well as several efficiency reviews (e.g. Coopers and Lybrand 1980, NAO 1986b). It has dominated the D.C.'s expenditure throughout the last ten years and according to the Commission is likely to continue to be the mainstay of its economic policies for the foreseeable future (D.C. 1983a), (section 6.1.7 below).

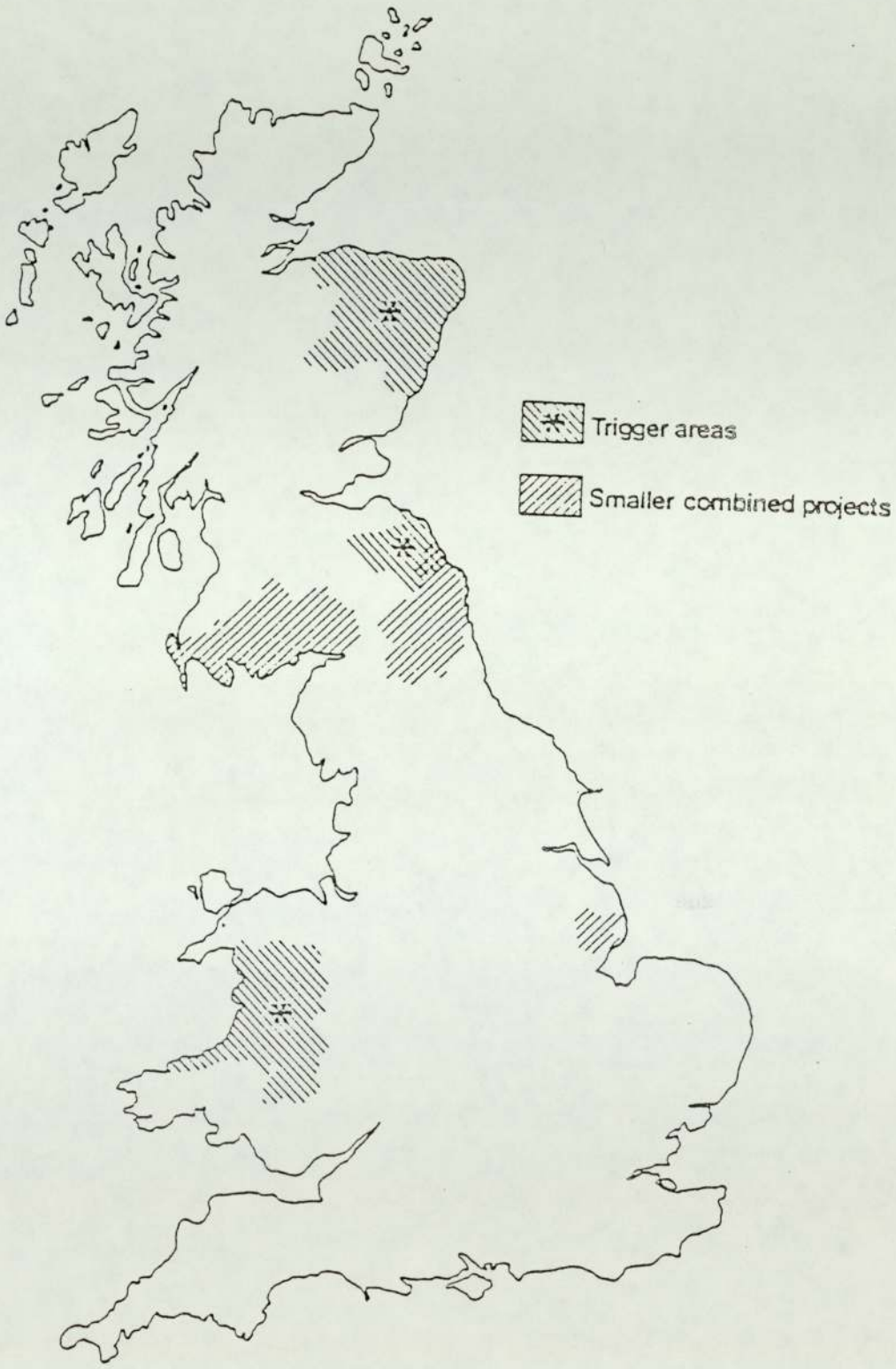
Although the programme dates back to 1947 when factory units were first built in North Wales with D.C. funding, it has only been a significant policy instrument since the 1960's, when the Commission launched an experimental scheme involving the construction of units in a number of

"Trigger Areas", (Figure 2.1). These areas were experiencing high rates of depopulation but were nevertheless thought to have potential for recovery and future growth. By building small factory units (of between 2,500 and 15,000 square feet), the D.C. aimed to increase both the number and prosperity of small businesses in the local area and thereby broaden the range and increase the number of jobs opportunities. This, it was thought, would have positive multiplier effects which would reduce the rate of depopulation from these areas. The policy was greatly influenced by key settlement and growth centre theory; a fact which was acknowledged by the D.C. at the time.

Between 1959 and 1976 a total of 203 units providing 916,550 square feet of space, were approved by the Commission in areas like the Eastern Borders of Scotland, Mid-Wales, and South East Lindsey in Lincolnshire (D.C. 1977). The publication of the Interdepartmental Report on Rural Depopulation (H.M.Treasury 1976), however, gave new impetus to the factory building programme (Reeves 1977, Tooley 1977). The report concluded that in the six case study areas which the group had examined, approximately one new job per thousand head of the population in rural areas would be required in order to arrest depopulation over the next decade, (section 2.2 chapter 2). The sector which was thought to offer the most potential for job creation was light industry, and the D.C. was therefore instructed to expand its factory building in an attempt to attract such industry into rural areas, and to create at least 1,500 new jobs a year (Northfield 1978).

The Commission invited county councils, in consultation with the districts and other relevant organisations, to prepare Action Plans. These were intended to be comprehensive documents which would include details of the action which local authorities and the other organisations hoped to take in order to assist in the regeneration of particular problem areas. The explanatory memorandum issued by the Commission indicated that Action Plans could include proposals for a wide range of different types of schemes and that the Commissioners attached ".... importance to local authorities demonstrating their willingness and ability to contribute their share of any regeneration proposals ." (D.C. 1975). In practice however, most local authorities treated Action Plans almost solely as a means of

Figure 2.1 Trigger Areas



Source: Tricker & Martin (1985)

making bids for funding for advance factory building, (Tricker and Martin 1985).

The Commission designated areas in which factory units were built as "Special Investment Areas" (SIA's), and these became the priority areas for CoSIRA's work, (Figure 2.2). In some of the more prosperous counties the Commission designated small localities as "Pockets of Need" in which small advance workshops were also built. By the end of the year 1982/83 finance had been approved for a programme of more than 700 small advance factory and workshop units amounting to over 3 million square feet of floorspace, (Chisholm 1984).

6.1.3 Other premises-orientated initiatives

In response to the growing recognition of the fact that the growth of small rural firms was restricted by a lack of premises (Reynolds 1982, Nash 1982), in February 1981, the Commission introduced a partnership programme with local authorities. Under this scheme the D.C. contributed 50 % of the cost of small workshops provided by the local authority and shared the rental income for the first ten years or the receipts on sale of the units. The scheme was originally confined to SIA's but in May 1982, in response to lobbying by the local authorities, it was extended to other areas. Uptake has varied (Davenport 1980), and many authorities have been unwilling to participate because of their operation of tight planning controls in rural areas.

In 1982 two new schemes were introduced. One provides financial assistance from the Commission to local authorities to enable them to acquire and service sites for eventual disposal to firms seeking to provide their own premises or for private sector speculative developments. The other provides grants for the conversion of redundant buildings where the end-use was likely to create new jobs (CoSIRA 1982). The latter was initially available only in Less Favoured Areas, however in 1984, it was widened to include SIA's. In its first full year of operation, (1983/84), 222 grants were approved at a total cost of over one million pounds.

Figure 2.2

SPECIAL INVESTMENT AREAS - APRIL 1983
Source: Development Commission (1983)

6.1.4 Other employment initiatives

The Commission funds a number of schemes which are designed to improve the range of job opportunities available in rural areas, but which are not premises-orientated. These include "pump-priming" finance for local enterprise trusts, an arrangement with some banks whereby firms that are recommended by CoSIRA are granted reductions in interest rates by the banks, and a variety of training schemes which the Commission runs in partnership with the Manpower Services Commission, (section 8.1 below). CoSIRA can also act as the lender of the last resort, when banks and other private sources of finance will not become involved in a project which CoSIRA officials believe to be viable. In the years 1982/83 and 1983/84 loans totalling nine million pounds were given to over six hundred projects (D.C. 1985).

6.1.5 Non-employment related initiatives

The D.C. is involved in a variety of social and housing schemes which are described in detail elsewhere (Development Commission 1984b, Tricker and Martin 1984). These include projects involving rural services, transport schemes, support for retailing, financing of village halls, and grants to improve television reception, education, information, research and a variety of once-off projects designed to meet particular local needs (Williams 1983, D.C. 1984b). These have been given increasing emphasis since the introduction of Rural Development Programmes (RDP's) in 1984.

6.1.6 Rural Development Programmes

The increasing pressure placed on quangos such as the D.C. by central government culminated in a major review of the Commission's activities in 1980/81. As a result of this the Commission was given nominal independence from the Department of the Environment, and from 1st April 1984, became a grant in aided body under the Miscellaneous Financial Provisions Act 1983

(Rural Voice 1984, Tricker and Martin 1984). The Commissioners were given new wider ranging powers to provide direct assistance to firms and other organisations in rural areas, and a remit to review and advise the Secretary of State upon all matters relating to the economic and social development of rural areas in England (Tricker and Martin 1985).

The Commission also became responsible for selecting its own priority areas, which it therefore re-designated in 1984. The new priority areas "Rural Development Areas" (RDA's), were selected according to six criteria:

1. Unemployment had to above the national average, account being taken of recent short term changes.
2. There had to be an inadequate or unsatisfactory range of employment opportunities in the area.
3. Population had to have been in decline or the population had to be so sparse as to be having an adverse affect on the level of local service provision.
4. There had to be a net out-migration of people of working age.
5. The age structure had to heavily biased towards the older people in the community.
6. Access to facilities and services had to be poor.

Most of the areas selected as RDA's had to at least satisfy the first criteria and one or more of the other five. The new priority areas which were announced in June 1984, covered slightly less area geographically than the SIA's and considerably fewer people lived in these areas than had lived in the SIA's, (Figure 2.3).

Assistance is granted by the Commission on the basis of a Rural Development Plan (RDP) drawn up in each RDA by a RDP Committee. The committee generally includes representatives from the County Council, District Councils, RCC's, CoSIRA, English Estates, and where appropriate the National Park Planning Board. This committee then consults with members of M.A.F.F., Tourist Boards, Sports Councils, Health Authorities, the private sector and statutory undertakers. The Commission hoped that these documents would be far more comprehensive than were the Action Plans. The guidance issued to RDP committees states that RDP's should " ....cover the full range of services and carry with them a commitment from all the

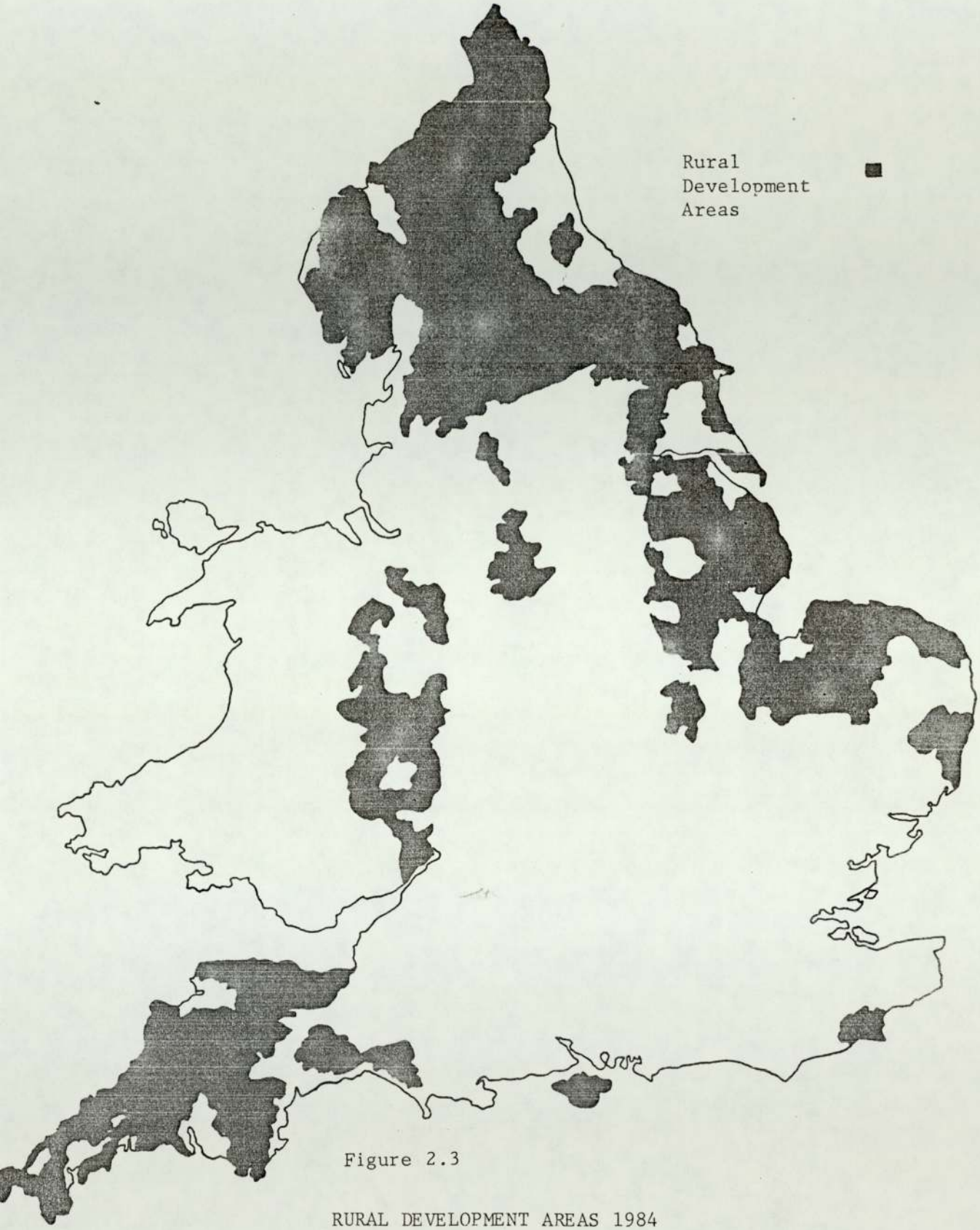


Figure 2.3

RURAL DEVELOPMENT AREAS 1984
Source: D.C. (1984)

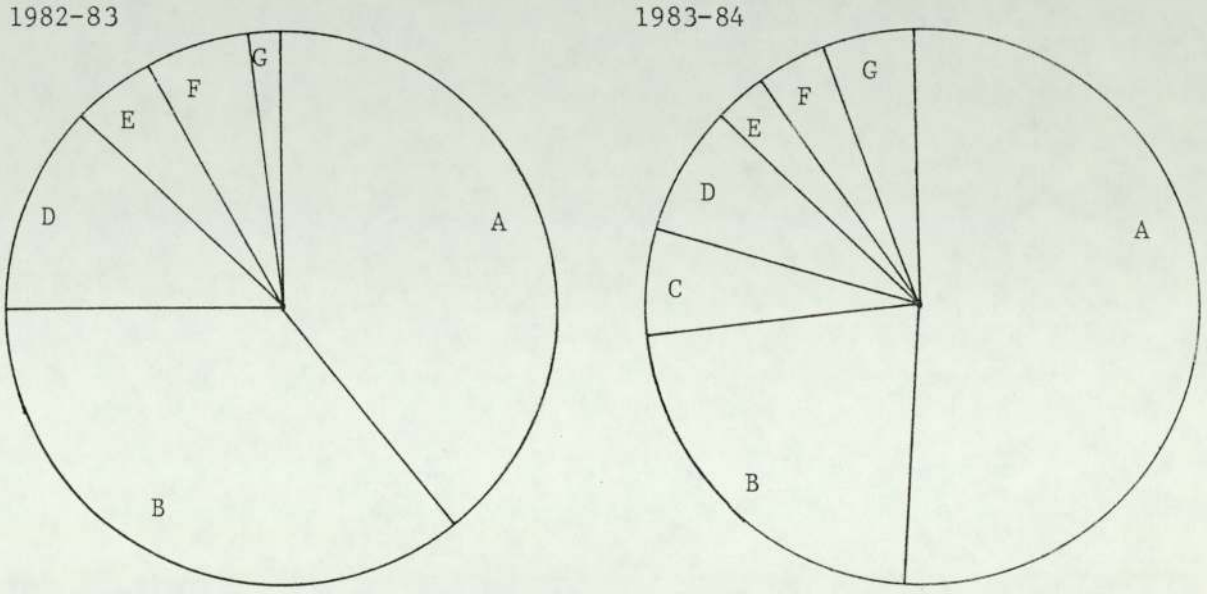
relevant organisations to play their part." (D.C. 1984c). The guidelines for the preparation of R.D.P.'s made it clear that the criteria for assessing requests for action would include the degree to which the programmes are truly integrated, the commitment or proposed actions of other parties in the RDA and the expected impact of the measures which are proposed.

This system was modelled on existing practice in areas such as North Staffordshire (Dart and Prince 1978, Prince 1984), and it was hoped that the RDP process would increase communication between rural agencies in the same geographical area, and thereby help to promote integrated rural development. It was also anticipated that by breaking down the rigid division of responsibilities between agencies it would be possible to reduce the policy schizophrenia which exists in many rural areas, (Clout 1971, Slee 1981). There have been many calls for increased co-ordination of rural policies in Britain (c.f. Potter 1980, Countryside Commission 1984), and increasing interest in integrated rural development throughout the European Community, (Commins 1978, Parker 1982). However, it has been shown that integrated development is very difficult to achieve (Wibberley 1970, Ashton and Long 1972), and hopes that the RDP process will achieve this would seem to be unduly over optimistic.

6.1.7 Future policy

Despite the increased emphasis which is now given to social and community based projects, it is clear both from the importance that was attached to unemployment in criteria used in selecting the RDA's and from the fact that the Commission continues to spend most of its annual budget on employment initiatives, (Figure 2.4), that in practice its main concern continues to be the lack of employment opportunities in rural areas.

Following the 1980/81 review of its functions and in the light of the 1981 census, the Commission redefined its objectives. They are now: to advise the Secretary of State and to increase the awareness of the problems and needs of rural areas; to strengthen the economy of rural areas in particular by increasing the number and variety of employment opportunities



A. Provision of Industrial Premises
B. CoSIRA Operational expenditure
C. CoSIRA lending replenishment
D. Social, Cultural and Welfare
E. Development Commission Administration
F. Special Schemes
G. Others (Housing, Research, Redundant buildings).

Figure 2.4

BREAKDOWN OF DEVELOPMENT COMMISSION EXPENDITURE 1982-84
Source: D.C. (1984)

available within them; to ensure that the availability and quality of services in rural areas are maintained and where possible, improved, (D.C. 1984a).

Internal memos indicate that the Commission's continues to believe that " ....the basic need of rural areas is the provision of new job opportunities .... ", (Development Commission 1984d), and that tackling problems such as the loss of economically active members of the population from rural areas, enforced commuting by rural residents to towns, high unemployment and low activity rates in rural economies continue to be high on the Commission's agenda, (D.C. 1983b). The Commission found " ....no evidence that the thrust of the Commission's present programme is seriously out of line with current needs", (D.C. 1983a), and in 1984 it was therefore decided that the advance factory building programme should continue to be ".... central to the Commission's strategy for the foreseeable future", (D.C. 1984d), and should continue to consume a large part of the D.C.'s annual budget.

The Commission's continued dependence on the factory building programme has been seen by some as proof that it has been "a programme without a policy" (Williams 1983), however it seems more likely that it is an example of the tendency, noted by Clark (1982), of officials to justify the same policies for achieving different ends at different times. Advance factory building is attractive to policy makers, because it is uncontroversial, does not involve compulsion and requires relatively low levels of subsidy (Slowe 1981). It is also in line with government objectives of stimulating small business, and encouraging the formation of new firms.

6.2 Rural development agencies in Wales

In the immediate post war years policies for the development of rural Wales related almost exclusively to forestry and farming. This had the advantage that local resources could be exploited without disruption of the traditional economy and without deleterious social effects, but provided insufficient employment to slow the rate of depopulation from the area. In 1957, therefore, the five county councils and forty three district councils

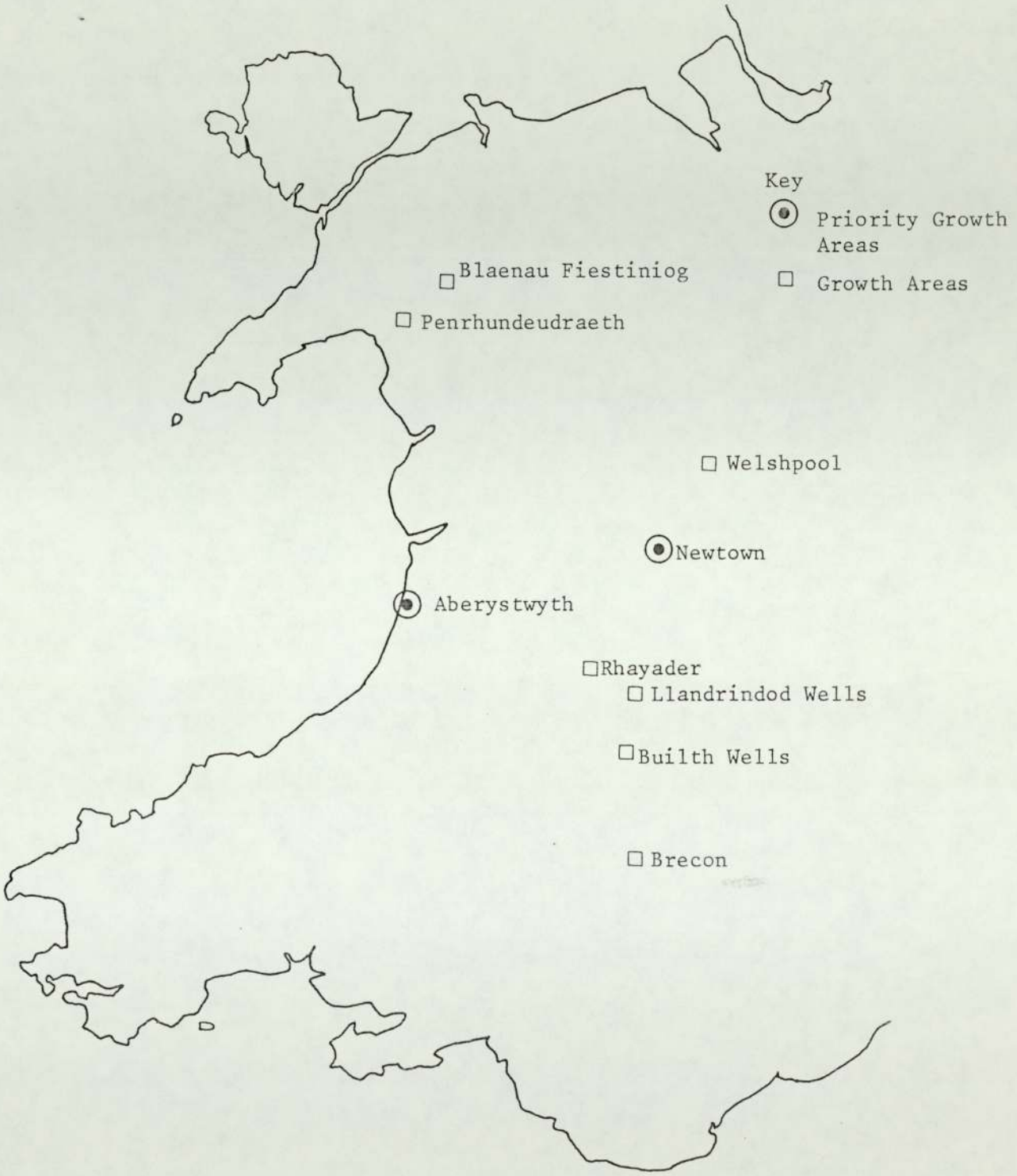


Figure 2.5
GROWTH POINTS SELECTED BY THE DEVELOPMENT BOARD FOR RURAL WALES
Source: Pettigrew 1987

in Mid-Wales formed the Mid-Wales Industrial Development Association (M.W.I.D.A.) (Lewis 1980). This was an attempt at "local self help" and an expression of the frustration felt locally at the apparent inactivity of central government (Broady 1983). The Association which had no statutory powers, aimed to encourage growth in "designated centres" in the hope that this would result in spin-off benefits to surrounding areas. The D.C. provided a number of factory units in the area from 1958 onwards and by 1973, a total of 107 units were completed or under construction (M.W.I.D.A. 1974). Employment problems (low female activity rates, underemployment, and the lack of opportunities for school-leavers) were all attributed to a lack job opportunities in manufacturing industry (Garbett-Edwards 1976).

In the late 1960's the Labour government sought to set up a rural development board for Wales to act as a single unified authority which would promote the social as well as the economic development of rural Wales. This proposal however encountered much resistance in the course of a lengthy public inquiry in 1968 and the 1970 Conservative government shelved the concept. Meanwhile the Mid-Wales Development Corporation had begun to operate in the region, with a remit to expand Newtown from 5,000 to 11,000 population by the early 1970's.

Under the Development of Rural Wales Act 1976 the Development Board for Rural Wales (D.B.R.W.) superceded the M.W.I.D.A. (Minay 1977), with a similar remit and powers to those of the D.C.. These included:

1. To advise the Secretary of State on matters relating to the economic and social development of the areas under its jurisdiction.
2. To review proposals relating to the social and economic development of the area and submit plans to the Secretary of State for approval.
3. To submit an Annual Report to the Secretary of State.
4. To build factory units for rental.
5. To build houses and to guarantee local authority rents.
6. To make grants to local authorities and other bodies for social and recreational activities.

The Board also assumed responsibility for Newtown and the Welsh Development Agency (WDA) became responsible for the work that CoSIRA had previously carried out in the region.

Like its predecessor, (and to a lesser extent the D.C.), the D.B.R.W. has relied on growth centre policies. After a major policy review in 1979, (Williams 1979), the Board designated five main "growth areas", several "designated towns" and eight "special towns" in which assistance was to be concentrated, (Figure 2.5). The Board stated that ".... the essence of the task is to work at specific problems in particular places, recognising that the resources will not justify a general programme of development in the early years" (D.B.R.W. 1979). As a result it was at this time spending more than half its annual budget in Newtown. Like the D.C., despite its wide ranging powers, the Board's main concern has been with the economic development of the region, rather than with social problems, and it has not pursued the integrated approach to the problems of the region that many had hoped it would.

The D.B.R.W. and the M.W.I.D.A. have been relatively successful in attracting new firms to the area (Howes and Law 1972, Pettigrew 1987), however in the early 1970's over half the firms in D.C./M.W.I.D.A. factory units were branch firms and it was not until 1975 that indigenous firms were eligible for assistance. The Board has found it hard to cultivate indigenous industrial growth, (they believe this is because of a lack of entrepreneurial talent in the local area), and this has left the region vulnerable to branch factory closures. The Board has been criticised for relying too much on growth centre policies, and for having neglected social projects. It is claimed that its policies have threatened Welsh cultural integrity by encouraging the movement of large numbers of non-Welsh people into the region (Rees and Wenger 1979, Hedger 1980, Wenger 1982).

6.3 Rural development agencies in Scotland

There are a variety of agencies concerned with rural development in Scotland, including the Scottish Department of Agriculture and Fisheries and the Scottish Development Department, the Department of Trade and

Industry for Scotland, the Scottish Development Agency, the Highlands and Islands Development Board and other regional bodies such as the North East Scotland Development Authority and the Isle of Arran Development Association. The Highlands and Islands (H.I.D.B.) has probably sponsored the largest number of rural development initiatives.

Under the Highlands and Islands Development Act 1965, the Board took over responsibility for the rural development of almost half of Scotland (one sixth of the total land area of Britain), from the Development Commission (Grieve 1973). It was to set up " ....for the purpose of assisting the people of the Highlands and Islands to improve their economic and social conditions and of enabling the Highlands and Islands to play a more effective part in the economic and social development of the nation." (H.I.D. Act 1965). To this end the Board has five main objectives:

1. To increase employment opportunities.
2. To increase incomes.
3. To retain population, especially in areas where reduced levels would put community services at risk.
4. To increase the long term capacity of the Highlands and Islands to develop to make a greater contribution to the national economy.
5. To improve social and community facilities.

It has wide ranging powers under the Highlands and Islands Acts of 1965 and 1968. It can acquire land, build factories and provide the services that these require, provide equipment for firms, advance loans and/or make grants to " ....any activity which will contribute to the economic or social development of the Highlands and Islands ." (H.I.D. Act 1965), take a share in the equity of companies which the Board assists financially, and offer a range of other services to firms, individuals and organisations in the region, and commission or carry out research projects. It is responsible to the Secretary of State for Scotland and is funded by grant in aid from the Treasury. In 1982/83 it had an annual budget of £ 30 million and a staff of around 200.

As in other parts of Britain, rural depopulation has traditionally been the greatest problem facing the Highlands and Islands, however this has receded in many areas because of the oil-related developments, and between 1970 and 1980 the population of the Highlands and Islands as a whole

increased by 30,000, (Fladmark 1980). The relative isolation of the area for which H.I.D.B. is responsible has made it impractical to rely on the attraction of small manufacturing industry, (Farquharson 1978). The Board's response to depopulation and other rural problems has therefore been both more innovatory and more broadly based than those of either its Welsh or English counterparts (the D.B.R.W. and the D.C.). Whereas the D.C. has consistently spent approximately 75 % of its annual budget on advance factory building, H.I.D.B. expenditure is more widely spread (table 2.1). This reflects the fact that because of its wide ranging powers the Board has able to promote a far more integrated approach to rural development than have the D.C. or the D.B.R.W.. It has done this by adopting an area based approach (H.I.D.B. 1983), and providing considerable support for local cooperatives (Hughes 1983).

Table 2.1 H.I.D.B. assistance by sector 1974-1983 (1983 prices)

	Grants (£)	Loans and shares (£)
Land development	8,991,650	14,395,096
Fisheries	10,688,633	29,835,748
Manufacturing and processing	19,517,553	24,499,974
Construction	2,961,312	3,190,091
Tourism	34,545,277	15,040,569
Other service industry	6,264,819	5,935,137

Source : H.I.D.B. 18th Annual Report 1983

7.0 LOCAL AUTHORITY RURAL DEVELOPMENT POLICIES

7.1 The increase in local authority economic initiatives

"Local authorities are substantially and closely involved in their local economies. In many areas, the local authority constitutes the biggest single source of employment", (Robinson 1979). This is particularly the case in many rural areas. However, as well as their importance as major employers, local authorities have become more involved in positive attempts to stimulate economic development in the local economy. There has in the last fifteen years been a marked increase in the number and types of local economic initiatives undertaken by local authorities. This increased interest in local economic initiatives commonly resulted from problems caused by structural change, rising unemployment, obsolescent physical fabric and a declining fiscal base. Local authorities have argued that they are in the best position to deal with many of these problems because they have an intimate knowledge of the local areas for which they are responsible, and can respond more flexibly than central government to their areas' special needs and problems (JURUE 1981a). They have also been anxious to demonstrate to their electorates that they are attempting to tackle these economic problems (Martin, Bovaird and Gregory 1987).

Some authorities have been involved in local economic development initiatives since before the Second World War (Young et al. 1979), and several larger authorities have obtained special powers under Private Acts of Parliament (e.g. Rodgers and Smith 1977). Unemployment in the 1920's and 1930's was perceived as a regional problem, and this attitude persisted after the War (Bracken and Hume 1980). In the immediate post war period, the sort of work that could undertaken by local authorities was therefore overshadowed by increasing central government intervention largely through regional policy. Since the Local Employment Act 1960 and the Local Authorities (Land) Act 1963, local authority intervention has however become more important (Boddy and Barrett 1979). The 1963 Act stimulated estate development and local authority factory building, and the provision of industrial sites remained the prime policy instrument employed by local authorities until the mid-1970's (Boddy 1982). Section 6 of the Town and

Country Planning Act 1971 requires County Councils to keep the economies of their areas under review, and circulars in the 1970's, for example DOE circular 98/74 (1974), encouraged local planners to attach greater importance to the economic development of the areas for which they are responsible.

A marked increased in local authority activity occurred following the formation of large strategic authorities in the metropolitan areas in 1974, and a further increase in the number of local authorities involved in local economic development was associated with the 1978/79 recession. URBED (1978) reported that " ....in the last five years there has been a dramatic increase in the number of local authorities who are giving priority to industrial development and also in the range of activities they are carrying out". Since there is a strong link between the level of unemployment in an area and the number of initiatives in which an authority is involved, this increase seems to have been a response to worsening economic conditions, (Chandler and Lawless 1985).

Local authority local economic development initiatives have commonly been designed to provide increased employment opportunities, to strengthen the economic base of the area, to help individuals improve their employability, and to alleviate the problems of those who are unemployed and have no prospect of employment. Although authorities have been subject to tight financial controls in the recent past, they have a number of powers to intervene in the local economy, one of the most important of which is the power to spend up to the product of a 2p in the pound rate on any project that is in " ....the interests of their area or any part of it or all or some of its inhabitants ", under section 137 of the 1972 Local Government Act. The same legislation permits authorities to grant rent and rate exemptions to firms. Some authorities have made full use such powers (JURUE 1981b), and have undertaken a wide range of different types of initiatives but most have restricted their activities to traditional interventions such as the provision of land (Minns and Thornley 1978).

The Department of Environment Circular 71/77 "Local Government and the Industrial Strategy" legitimated more wide ranging local authority involvement in employment promotion in the local economy, and the provisions of the 1978 Inner Areas Act permitted some urban authorities to

designate Industrial Improvement Areas. Urban authorities are also largely responsible for the on the ground administration of substantial expenditure programmes such as the Urban Programme.

Local authorities in rural areas tend to have been slower than urban areas in initiating local economic development schemes; many rural authorities have continued to be more concerned with protecting the amenity of their areas than with developing the local economy (McLaughlin 1980). There is also a considerable range in the degree of awareness among local authorities as a whole of the powers that are available to them, (Young et al 1979). The most popular activities have been those designed to attract industry into particular areas. Both manufacturing and non-manufacturing concerns became increasingly mobile in the 1960's (Hamilton 1978, Wood 1978), transport costs were shown not to be as greater an impediment to firms relocating in remote areas as had been thought in the past (Begg 1972), and peripheral areas increasingly became attractive locations for industry (Spooner 1972). Location theory suggests that location decisions are made in two phases. Firstly the region is selected and then a particular site within that region is sought (Silk 1971, Townroe 1971). Many local authorities believed that they could have considerable influence over the second phase and that by providing incentives to firms they could attract them into their areas. Such policies have however become less relevant as the macro-economic climate has worsened (Forrester 1979).

Several surveys have been undertaken in the 1970's to discover the level of local activity in the field of employment initiatives (Green 1971, Camina 1974, Falk 1978, A.D.C. 1982, Martin 1984). Their results demonstrate how the number of local authorities involved in economic initiatives mushroomed over this period. In the early 1970's the most common form of local authority initiatives were advertising and promotion (Green 1971). However only 57 % of the authorities which Green surveyed were involved even in this relatively passive form of intervention. Camina (1974) found that as might be expected, the higher tier authorities tended to be the most active, and that the most active of these authorities were all located in Development Areas or Intermediate Areas. Rural authorities were the least active authorities; very few rural district councils even promoted their areas through publicity and advertising initiatives. The dramatic increase in concern for local economic development issues in the

1970's is demonstrated by the far greater level of local authority commitment to local economic initiatives, revealed by later surveys (e.g Falk 1978, District Councils Review 1980, A.D.C. 1982, Richardson 1983).

7.2 A survey of local authority economic initiatives in rural areas

The present study was primarily concerned with the evaluation of the D.C. advance factory building programme. It was important however that a detailed picture of the range of local authority initiatives was obtained, so that their effects could be distinguished from those of the D.C.'s activities. It was also desirable in the early stages of the research to establish what sorts of initiatives were being undertaken by local authorities since some of these might have been suitable for evaluation as part of the present research. Few previous studies have dealt specifically with the range of employment initiatives being undertaken by rural authorities, and those which have been conducted have been rather superficial. Further, it was clear from the surveys which had been conducted, (c.f. Surveyor 1978, County Planning Officers Society 1980), that the number and types of activity in which local authorities in rural areas were involved were changing rapidly in the late 1970's and early 1980's. It was therefore thought to be necessary to conduct a first hand study of non-metropolitan counties in England in order to gain a comprehensive and up to date impression of the range of local authority initiatives which were being undertaken in rural areas in the 1980's.

The data for this review was primarily obtained from a telephone survey conducted in January 1982, which involved interviews with officers from non-metropolitan County Councils supplemented by information from documentary sources. These included JURUE 1980, JURUE 1981a, JURUE 1981b, JURUE 1981c, County Planning Officers Society 1980, Association of District Councils 1981a, Association of District Councils 1981b, Local Economic Development Information Sheets, Development Commission Annual Reports, County Structure Plans, N.C.V.O. 1982, Boddy 1982, CoSIRA 1979, CoSIRA 1983.

Although both South Yorkshire and West Yorkshire were metropolitan counties, they were included in the survey because they contained quite large rural areas. Similarly despite the fact that Cleveland was a non-metropolitan county, it was thought to lack sufficient rural area to merit inclusion in the survey. Lincolnshire and Gloucestershire had to be omitted because of difficulties in conducting interviews with their planning officers.

A contact in each county, nominated by the County Planning Officer, was interviewed by telephone, and in the course of the interview was asked what action his particular authority was taking to encourage small firms in the rural areas of the county for which it was responsible. They were also asked if they knew of any independent initiatives which had been undertaken by district councils in their counties. It is unlikely that the results provided a complete list of all the initiatives with which the county councils were involved, since it would be surprising if the interviewees had been aware of every project with which his/her authority had been involved. However, the survey was intended to at least to give a "feel" for the range and type of actions that are being undertaken in different parts of rural England.

The survey results revealed a considerable range in the types of local economic initiatives to which local authorities were committed, and clear geographical variations in the degree of involvement.

7.2.1 The range of initiatives

Table 2.2 demonstrates that there was considerable variation between County Councils with regard to their commitment to positive intervention in the local economy, and that intervention took a variety of different forms. The different types of intervention which were reported by interviewees were grouped into five main categories, promotion and research, information and advice, financial aid to businesses, intervention in the provision of sites and / or premises, and various other supporting activities. The initiatives that were the most "active" (i.e. required the greatest commitment of resources), (for example, advance factory building), are

TABLE 2.2 COUNTY COUNCILS' INITIATIVES TO ENCOURAGE SMALL FIRMS December (1982)

	PROMOTION AND RESEARCH									INFORMATION AND ADVICE									FINANCIAL					SITES AND PREMISES						SUPPORTIVE ACTIONS	
	Annual Financial Aid to Districts for Promotion	Prepared County Strategy with Cosira	Submitted Action Plan to Development Commission	Advocacy	Supply Relevant Publications to Small Firms	Promotional Tours/ Promotional Literature	Award Schemes to Small Businesses	Industrial Development Staff	Study of Needs of Small Firms	Directory of Local Firms' Goods and Services	Register of available sites and Premises	Register of Redundant Buildings	Retraining Workshops/ Innovation Centres	Training Seminars for Small Businesses	Courses for Small Businesses	Business Advice Service	Sponsor Cosira Fieldworker	Enterprise Trust Involvement	Loans to Small Businesses	Mortages	Rent/Rate Free Periods	Grants to Small Firms	Lease Back Arrangement with Private Sector	Ensuring availability of Sites for Development	Grants for Site Servicing	Provision of Serviced Sites	Conversion of Redundant Buildings	Provision Small Workshops/Units	Provision Advance Factory Units	Provision of Land for Key Worker Housing	Tailoring Road System to Industry's Needs
AVON								•																						
BEDFORDSHIRE																														
BERKSHIRE																														
BUCKINGHAMSHIRE								•																•						
CAMBRIDGESHIRE	•		•									•	•		•									•	•		•			
CHESIRE			•				•	•	•		•																			
CORNWALL			•					•			•	•				•														
CUMBRIA			•					•														•					•			
DERBYSHIRE			•								•									•	•	•						•		
DEVON			•					•										•						•						
DORSET			•																						•		•			
DURHAM			•					•			•								•	•	•				•	•		•		•	
ESSEX									•			•														•					
GLOUCESTERSHIRE								•																							
HAMPSHIRE/WIGHT			•			•																						•			
HEREFORED AND WORCESTERSHIRE			•				•	•												•							•	•	•		
HERTFORDSHIRE																															
HUMBERSIDE			•																												
KENT																															
LANCASHIRE		•	•								•														•	•		•			
LEICESTERSHIRE		•		•	•	•	•	•		•	•		•	•			•								•	•		•			
LINCOLNSHIRE			•																								•				
NORFOLK			•									•			•										•						
NORTHAMPTONSHIRE		•										•															•				
NORTHUMBERLAND		•	•			•		•					•									•					•	•	•	•	
NOTTINGHAMSHIRE						•		•				•																•	•		
OXFORDSHIRE																															
SHROPSHIRE			•									•		•								•								
SOMERSET			•		•			•			•	•	•				•					•			•					
STAFFORDSHIRE			•	•		•	•	•		•	•	•	•	•		•						•			•					
SUFFOLK			•									•																•			
SURREY																															
EAST SUSSEX		•					•					•		•																	
WEST SUSSEX												•																		•	
WARWICKSHIRE									•			•		•	•																
WILTSHIRE										•								•										•			
NORTH YORKSHIRE			•						•			•								•	•	•						•			
SOUTH YORKSHIRE			•						•							•															
WEST YORKSHIRE		•	•	•								•	•							•					•	•		•	•		
TOTAL	1	6	22	3	2	5	4	14	5	2	8	15	5	5	4	3	1	4	4	3	2	8	2	5	8	12	6	11	4	1	1

shown on the right of table 2.2, and the more "passive" initiatives (for example, the production of promotional literature), on the left.

7.2.1.1 Promotion and research

Most of the thirty seven counties surveyed were involved in some form of promotion and/or research activity. Only eight made no attempt to advertise and promote the attractions of their area to businesses. Twenty one had been involved in the submission of an Action Plan to the Development Commission (D.C.), but the length of time that they had been involved with the D.C. varied considerably; those counties which contained "Trigger Areas" (section 6.1.2 above), in the 1960's had the longest history of cooperation with the Commission. The results of the survey show the great extent to which the D.C. is now involved in the rural areas of England, over a wide area from East Sussex to Northumberland. Employing industrial development staff was also a popular form of intervention, (18 County Councils had done so), and some districts for example, Carrick, also had their own industrial development officer.

7.2.1.2 Information and advice

Fewer counties provided information and/or advice directed at small firms in their rural areas than were involved in promotion and research. Twenty two of the thirty seven authorities which were surveyed had provided some sort of information and/or advice to entrepreneurs located in or thinking of moving to, rural areas within their counties. The most common of these initiatives were registers of redundant premises and available sites and premises, and training workshops and training courses for small businessmen.

7.2.1.3 Financial assistance to small businesses

These schemes represent a considerably greater degree of commitment to the positive encouragement of small firms than promotion and information-orientated initiatives, and not surprisingly therefore fewer counties (fifteen), were involved in this sort of activity. Some County Councils provided direct assistance in the form of grants or loans, others did so indirectly in the form of rent and rates rebates / exemptions. The size of grants, loans and exemptions that were offered differed quite markedly between counties, as did the requirements put upon the firms that received assistance.

Eight Counties offered small firms some sort of grant aid. The qualification requirements varied from county to county, as did the uses to which grants may be put, for example in North Yorkshire the County Council gave grants for the "opening up" of sites, in Durham the County Council provided help with site preparation costs, and Northumberland County Council had gone a step further and helped businesses to purchase plant and machinery. In Staffordshire, grants were given to improve road access to sites and to convert buildings to make them suitable as small starter units. Only one scheme, Shropshire Rural Grant Scheme, was however available exclusively to small rural firms.

Four County Councils provided loans. The amounts available varied from £ 1,000 in Hereford and Worcester to the £ 10000 pounds in West Yorkshire. Three Counties, (Derbyshire, Durham and North Yorkshire), offered mortgages to small businesses, and some District Councils provided their own grant schemes, for example Wrekin or North Cornwall.

7.1.2.4 Sites and premises

Twenty four County Councils were involved in some way in the provision of sites and premises for industry through intervention in the local property market. However the type of initiative varied from the relatively

passive, such as ensuring the availability of sites, to far more pro-active schemes such as the provision of factory units.

Buckinghamshire County Council operated through a Joint Development Company to buy and sell land that was suitable for industrial development in order to correct perceived failures in the land market. Hereford and Worcester, Staffordshire and North Yorkshire had converted their own property such as old school buildings and highway depots. Devon County Council had converted former woollen mills, and Dorset reported that it had refurbished redundant buildings to provide very small starter units. In total, eight authorities had been directly involved in the conversions of buildings to accommodate the needs of small rural firms.

Eleven Counties had constructed small workshops or starter units to encourage the establishing of new businesses in their rural areas. It is clear that although this was a relatively new concept it was fast becoming a very popular policy instrument even in rural areas, and this was at least in part as a result of the D.C.'s partnership schemes (section 6.1.3 above). Six County Councils had financed the construction of larger units. In some cases such as Derbyshire, this was seen as an attempt to act as a catalyst for the private sector, whilst in others local authorities saw their role as "going where private developers feared to tread".

7.1.2.5 Supportive activities

A range of supportive measures had been adopted by local authorities to encourage business. Sussex County Council for example, had provided land for the construction of key worker homes in a rural area. In Durham the routing of major roads had been planned to ensure that the accessibility of rural areas was improved, and in Cambridgeshire an appreciable proportion of the highways budget is given to improving the accessibility of unemployment "black spots" such as the Fens. The general attitude of a local authority can be very significant in determining the outcome of a firm's location decision (Cameron and Clark 1966), and as such these general planning policies reflect a positive attitude towards rural firms which could prove to be very important in nurturing local industry.

7.2.2 Variations in the degree of local authority commitment to economic initiatives

It was clear that there was considerable variation between counties in the degree to which they were involved in local economic initiatives. At the time of the survey, six counties (all in the south east), were not involved in any sort of local economic development activity. There were ten County Councils with a minimal commitment to positive intervention, fifteen which were involved in between four and nine different types of initiative, and only six which were involved in more than nine different types of activity.

The variations in the extent of local authority involvement is demonstrated by figures 2.6 and 2.7 which distinguish between the number of "active" and "passive" initiatives which each county council had undertaken. It is clear for example, that although Leicestershire and Staffordshire had sponsored a large number of initiatives, they were mainly of the "passive" kind. By contrast, Durham and Northumberland were involved in a whole range of both "passive" and "active" initiatives.

A number of clear geographical variations in the degree to which county councils were involved in local economic activities in rural areas, emerged from the survey. These seem to reflect differences in the political complexion of the local authorities, the scale of the perceived problems, and the wider policy context within which authorities operated. Thus the degree of commitment was very low in the south east where unemployment was generally lower, most county councils were under Conservative control, and large areas of the countryside were designated either as Green Belt or Areas of Outstanding Natural Beauty.

Even in the South East however, attitudes have changed over the last few years. For example, in 1980 the Hertfordshire structure plan was amended to state that " .... special attention should be given to the employment needs of rural communities ....", and two counties in the South East now contain part of a small Rural Development Area (centred on Romney Marshes),

FIGURE 2.6

DEGREE OF COUNTY COUNCIL INVOLVEMENT IN 'PASSIVE' INITIATIVES Jan 1982

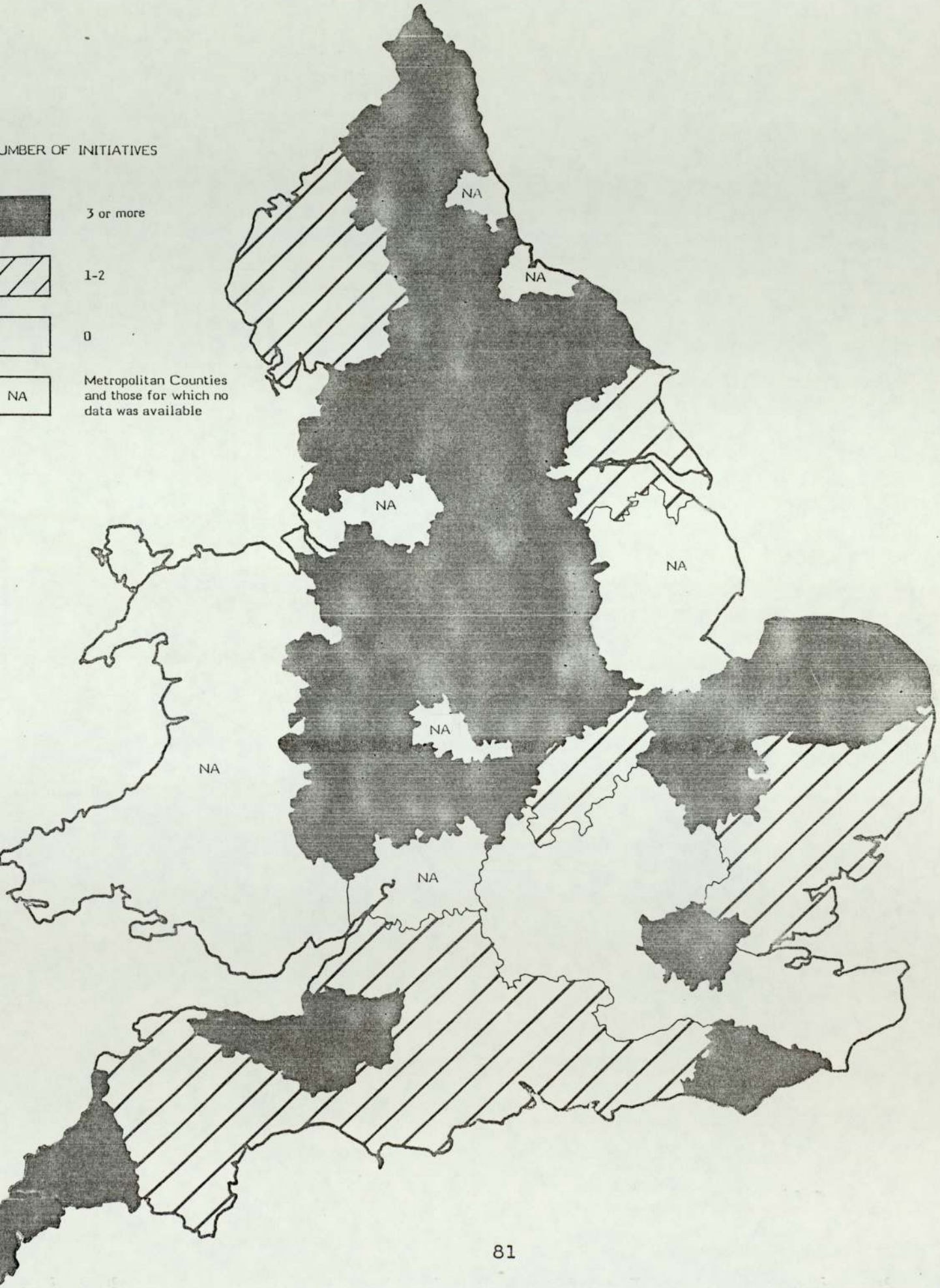
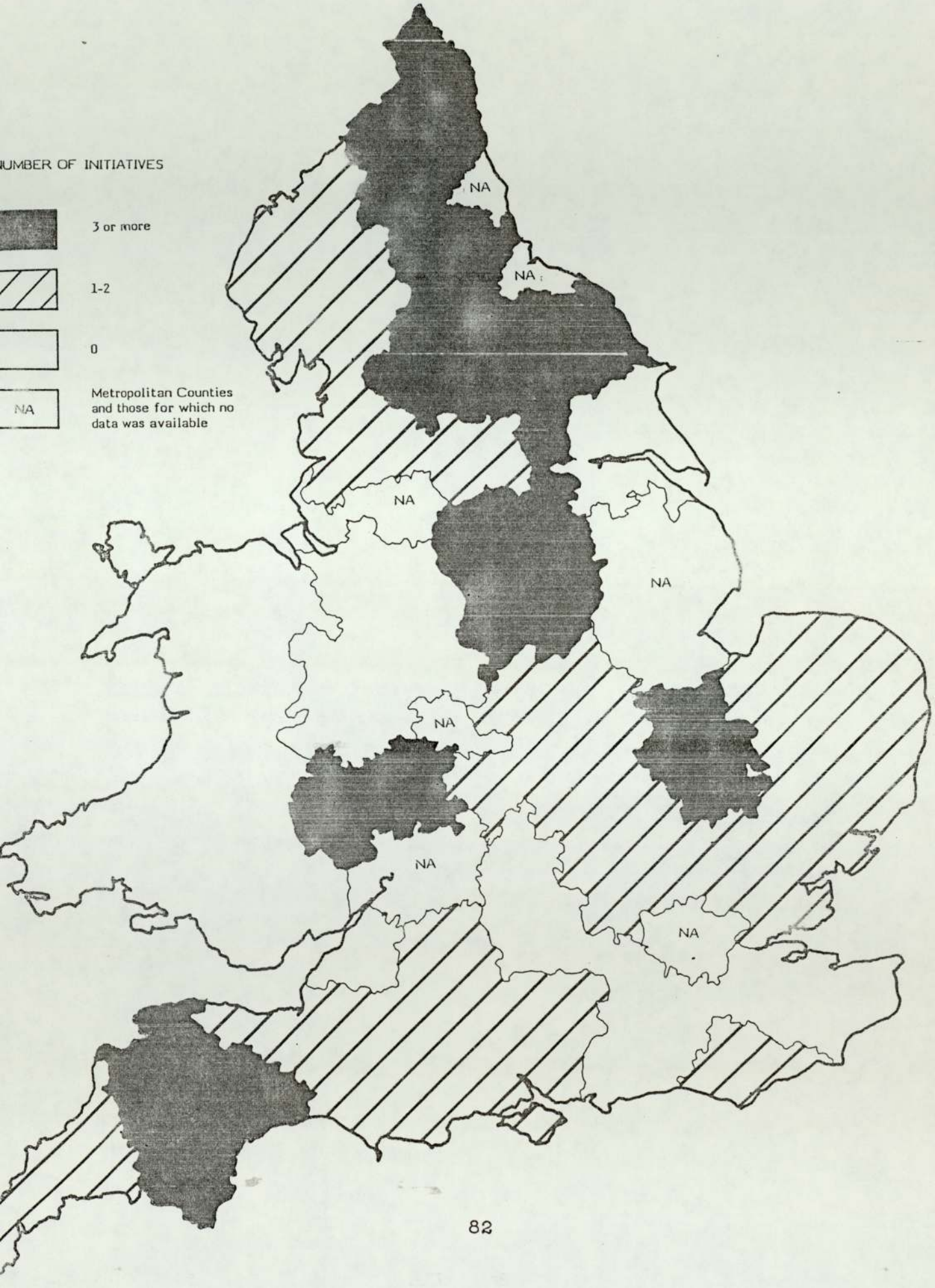


FIGURE 2.7

DEGREE OF COUNTY COUNCIL INVOLVEMENT IN 'ACTIVE' INITIATIVES Jan 1982



designated by the Development Commission in 1984. As unemployment rose in the late 1970's and early 1980's even in the South East, and in response to policy changes such as that signalled by DOE circular 22/80 (see section above), it seems that some county councils which had previously been inactive had begun to consider that intervention might be necessary.

Counties in central southern England contain large Areas of Outstanding Natural Beauty and coastal protection zones. The Wiltshire Structure Plan states that positive encouragement should be given to industry in rural areas, but like many other counties, it considers the only appropriate activities in rural areas to be craft industry. There is still a presumption against other kinds of industrial activity in rural areas, because it is feared that even if manufacturing processes themselves are quiet and non-polluting, the increased volume of traffic which would result from their location in rural areas would cause serious disruption.

County Councils in the South West were involved in a number of local initiatives. Devon and Cornwall County Councils had both built their own advance factory units and been involved in the D.C.'s factory building programme for several years. Somerset and Avon were however much lees active.

At the time of survey, Cambridgeshire was the most active authority in East Anglia, Norfolk sponsored a similar range of "passive" initiatives to Cambridgeshire, but Norfolk, Suffolk, and Essex were involved in very few "active" initiatives. There had been some D.C. activity in Norfolk and Suffolk by 1982, and twelve units had been built in Cambridgeshire. Despite the remoteness of many East Anglian rural areas, particularly in Norfolk, unemployment has remained relatively low, and this combined with the D.C. activity may account for the lack of County Council action.

Councils in the Midlands were involved in a variety of initiatives, although they had concentrated on the more "passive" types of project. Authorities in the North West were not particularly active in the local economic development field. This may be due to the substantial D.C. input into these areas (154 units had been approved for financing by the D.C. in the North west by April 1982), and availability of regional incentives in Assisted Areas.

The three counties in the North East were the most active in promoting their own schemes to assist rural firms, in spite of the availability of D.C. and Assisted Areas finance at the time of the survey. This level of activity was probably the result of particularly high rates of unemployment, and the isolation of rural areas from the towns and thus from alternative sources of employment to the traditional industries of mining and agriculture (both of which had rapidly shed labour in the 1970's). All three counties had built their own advance factory units, and serviced sites for industrial development or provided grants for this purpose. Durham and North Yorkshire had given loans and mortgages to small firms and Northumberland and North Yorkshire had grant schemes. Durham had also granted rate holidays to small businesses. All three employed industrial development staff who had undertaken a range of promotional and information-providing activities.

7.2.3 Conclusions regarding local authority involvement in local economic development in rural areas

The survey proved to be a useful means of identifying the types of initiatives in which non-metropolitan county councils had been involved in rural areas, by 1982. The survey confirmed that the number of authorities involved in local economic development initiatives had increased rapidly in the late 1970's and early 1980's, but that few authorities had sponsored initiatives which were targeted specifically upon rural areas. There were clear geographical variations in the number of initiatives that had been undertaken by local authorities in different parts of the country, and these variations seemed to be related to the political stance of the controlling political groups, the perceived problems in the areas, and the availability of alternative sources of assistance.

The survey also showed that although many local authorities had undertaken "passive" initiatives, relatively few had been involved in more "active" local economic development projects, and that most of those which had sponsored active initiatives had done so only relatively recently. "Passive" initiatives are not easily evaluated because their impacts are not easily distinguished and it is often impossible to net out the effects

of other programmes and exogenous influences. Initiatives that have been in existence for only short periods of time are also difficult to evaluate because many of the impacts of these schemes may not be apparent in the short term. The results of the survey therefore suggested that very few if any of the initiatives which have been undertaken by county councils in rural areas would present the full range of problems which would apply to the evaluation of local economic initiatives in general, and this was one of the reasons for the eventual choice of the D.C.'s factory building programme as the initiative which was evaluated in the present study (section 2.2 chapter 6).

8.0 OTHER AGENCIES INVOLVED IN RURAL EMPLOYMENT INITIATIVES

A number of other agencies are involved in local employment initiatives in rural areas in Britain. These include the Manpower Services Commission, local enterprise trusts, landowners associations, tourist boards, and cooperatives. Most of these have tended to promote local, once-off schemes, about which information is not widely available. As with regional policy and local authority initiatives, in areas where they have been implemented, the effects of these schemes have to be "netted out" from those of any programme which is being evaluated. It was therefore necessary to obtain an indication of their importance, and the areas in which they had occurred, in order that due allowance could be made for their impacts in the evaluation of the D.C.'s activities which was the primary concern of the present research. It was also of interest to compile as complete a picture as possible before embarking on the main part of the research in order that an informed choice about which initiatives to study could be made. A number of the ad hoc initiatives which have been undertaken in rural areas are therefore discussed below, in order to give an impression of the sorts of activities which have been undertaken.

8.1 Manpower Services Commission

The Manpower Services Commission (M.S.C.) has sponsored a wide range of employment measures in both rural and urban areas. Labour from Youth Opportunity Training and Community Enterprise schemes has been used to solve specifically rural problems. For example, some projects have employed people to build village halls or other community facilities. Some young people living in rural areas, have received help towards their expenses in travelling to participate in schemes in nearby towns. As with other services however, rural residents are often disadvantaged in that they lack the easy access which urban people have to a number of schemes. The M.S.C. has therefore funded two rural training projects that were concerned with the delivery of M.S.C. schemes, especially the Youth Training Scheme, to unemployed people living in rural areas. One was run by the Royal Agricultural Society of England and the other by the Dartington Hall Trust. Both looked at the delivery, scope and types of Y.T.S. available in rural areas (N.C.V.O. 1982).

The M.S.C. has funded residential work experience courses such as those run between 1976 and 1983 by the Dartington Trust. It has paid the wages of a number of people working on employment initiatives under the Community Programme, for example, a number of projects run by Wiltshire Community Council, (Mackinnon 1980). The Commission has also pioneered flexible ways of advertising job vacancies to people living in rural areas who can not regularly travel to their Job Centre, by for example advertising vacancies in local Post Offices or shops. In some counties there is a free dial-a-job telephone service for young people living in rural areas, and in others cheap "job-seeker" bus fares are available to enable people living in rural areas to visit job centres based in towns, (Development Commission 1984c).

8.2 Local Enterprise Trusts

Local enterprise trusts are a relatively new phenomenon in rural areas, but by the early 1980's, 15 % of district councils were involved in sponsorship of enterprise trusts (N.C.V.O. 1982). A few, such as the West

Somerset Small Industries Group launched in 1977, have been particularly active in providing information and advice to firms, and in raising finance for local businesses. The Group which was established and is managed by local residents with the aim of "....improving the health and wealth" of the local area, (Paul and Wedlake 1980). It has received financial backing from a number of large private companies, and from the M.S.C. which paid for the appointment of a full time Development Officer. Similar groups have been established in a number of other areas, for example the South Hampshire Small Industry Group which was financed by the Dartington Trust, the Mendip Group which was set up by the Witham Foundation, and the Wiltshire Small Industries Group.

8.3 Landowners Associations

Rural landowners have become increasingly interested in the promotion of non-farm employment in recent years, sometimes in a somewhat paternalistic fashion, but more commonly for commercial reasons. Owners of various estates have converted outhouses and other redundant buildings into small workshops, and many have promoted tourist schemes on their land (C.L.A. 1980).

One of the most famous examples of workshop provision is that of the Lockindge Estate in Oxfordshire. Employment on the estate had declined by 60 % between 1961 and 1977 and two thirds of the 200 houses on it were empty. In the early 1970's the owner decided to convert redundant farm buildings to workshops, and let or sell the houses only to people who were coming to work in the workshops. By, 1982 the Estate provided 24,600 square feet of factory floorspace rented out at £ 1.50 per square foot. These accommodated twenty two separate businesses, and 69 jobs (Haigh 1980).

At Easton Farm Park in Suffolk, commercial farming and tourism have been successfully combined and the Estate now receives between 50,000 and 60,000 visitors a year and employs about twenty part time staff in the summer. The breadth of possible private initiatives is illustrated by the example of the Thornham Magna Estate in Suffolk, where outhouses were converted for use as craft workshops, an M.S.C. scheme was set up in an old forge, a

derelict wall garden was converted into a commercial herb garden, the Estate sawmill was put back into use, and an Estate shop built to sell local produce.

In addition to projects on large estates, private schemes have been initiated by farmers with relatively small holdings. for example, in the Staffordshire moorlands local farmers have formed the Peak Moorlands Farm Holidays cooperative. This was established in 1977 after a campaign by A.D.A.S. and the local authorities to promote the idea of tourism to local farmers, and by 1983 it had about twenty five members providing over 100 new bed spaces in converted barns and other outbuildings (Dart and Prince 1978, Prince 1983). It has increased local farmers' incomes, provided some direct part-time employment and indirectly led to increased business for local shops and pubs, as a result of spending by visitors who stay in the farm accommodation (Frater 1982).

The Country Landowners Association has encouraged all its members to " ....increase their own non-agricultural enterprises or by letting or selling buildings and land surplus to their own agricultural and other needs", (C.L.A. 1980). With the D.C. it has sponsored a rural employment competition aimed at encouraging the imaginative use of redundant buildings for job creation.

8.4 The English Tourist Board

The English Tourist Board has assisted new tourist initiatives in rural areas, particularly farm tourism and activity holidays, many of which have had employment spin-offs. The Heart of England tourist Board was involved in the Peak Moorlands Farm Holidays initiative described above.

8.5 Cooperatives

Rural cooperatives in England have been relatively rare and tend to have been sectorally based, for example the Peak Moorlands Farm Holidays

cooperative (section 8.3 above), and the Wiltshire Furnituremaker's Cooperative which was started in 1972 and involves four different furniture making firms with different specialities, who work together in selling their products. A number of cooperatives exist in rural areas in England and Wales (Wollett 1981). They tend to be narrowly focused, and to involve only one or two activities for example community shops (Dungate 1980). Most have attracted support from development agencies (Pearce and Hopwood 1981). Community cooperatives are more common in Scotland and the Republic of Ireland, where they tend to be much more broadly based than their English counterparts, incorporating a whole range of multi-purpose ventures and integrated schemes, (Brownrigg 1982, Commins 1983, Breathnach 1984).

9.0 SUMMARY AND CONCLUSIONS

This chapter has described some of the major policies which have an indirect impact on the economies of rural areas, and the most important employment initiatives which have been adopted by development agencies, local authorities and other bodies. The detailed information collected about the range of rural employment initiatives that have been undertaken in rural areas in England demonstrates that the range and number of local economic development initiatives in rural areas has increased rapidly in recent years.

As the number and range of local economic initiatives has increased, there has been growing pressure on the sponsoring agencies to justify their expenditure on such programmes. There has therefore been a growing demand for information about the impacts of local economic development programmes, and their relative cost-effectiveness. This has spawned a number of evaluation studies undertaken by a range of researchers with varying degrees of accuracy. The next three chapters discuss the major issues involved in evaluation research, review previous evaluations of employment initiatives, (particularly those of initiatives in rural areas), describe the inadequacies of many of these studies, and outline the methodology which was developed in the course of the present work.

CHAPTER 3 THE PHILOSOPHY AND METHODOLOGY OF EVALUATION RESEARCH

1.0 INTRODUCTION

As the number of economic development programmes has increased, so has the demand for information concerning their effectiveness. Evaluations of programmes are required for a number of reasons. In countries where there is a traditional mistrust of government intervention, for example the U.S.A., the demand for evaluation research has been increased by the need for public accountability (Hopwood 1982). In the U.K. the demand for evaluations of public policy have increased greatly since the late 1970's, because of central government's concern with the achievement of value for money in the public sector through the imposition of tight controls on public expenditure, (Gray and Jenkins 1985). Evaluation research can also be used to test social scientific hypotheses (Rossi et al 1979), and has been seen as providing a major new emphasis from which rural geography can derive much needed purpose and direction (Cloke 1980).

This chapter discusses the philosophical issues relating to evaluation research: what it is, and why it is undertaken; and the methodological issues: how evaluation research should be conducted, and who is best placed to undertake it. This will demonstrate the crucial importance of resolving a number of issues, most of which have been ignored or been dealt with in a very superficial manner by previous evaluations of the D.C.'s factory building programme and of other economic initiatives.

2.0 DEFINITIONS OF EVALUATION RESEARCH

The term "evaluation" has been used to refer to a number of different activities. Some definitions are so general as to be almost useless, for example, Rivlin (1971) defined evaluation as ".... a way of distinguishing better from worse", and Suchman (1967) has defined it as ".... the application of social science research techniques to the study of large scale human programmes". Many researchers have used evaluation as a

shorthand term to refer to the whole process of policy formulation and implementation, and most have failed to make any distinction between impact assessment and evaluation (e.g. Hyde and Shafnitz 1979). In the 1970's a large volume of North American literature relating to evaluation grew up, in which a number of more precise definitions of evaluation research were given. The most comprehensive of these is probably that suggested by Rossi et al (1979) who stated that evaluation is ".... a robust area of activity, devoted to collecting, analysing and interpreting information on the need, implementation and the impact of intervention efforts to better the lot of human kind and improve social conditions and community life". Like most researchers, however, Rossi et al fail to distinguish between three related but quite separate activities : appraisal, monitoring and evaluation.

Appraisal involves the description of proposals for initiatives which have to be approved or rejected by decision makers. This normally involves analysis of the reasons why a particular decision is made, and therefore involves an element of evaluation, but this is essentially an ex ante activity, and therefore distinct from evaluation. The Treasury has recently defined appraisal as "The process of examining options and weighing up the costs and benefits **before** a policy is decided upon", (J.M.U. 1986). Monitoring involves recording an up to date statement of the progress which an initiative has made, or as the official Treasury definition puts it "Regular checking of progress against plan" (J.M.U. 1986). Evaluation in its strictest sense is a ex post activity designed to identify the impacts of a programme and to determine what the costs of achieving these has been; a process of "Checking afterwards how far policy objectives have been achieved and how efficiently and economically", (J.M.U. 1986). As such it is clearly central to the recent attempts by central government in the U.K. to secure the "3 E's" (economy, efficiency and effectiveness) in their funding of major programmes.

2.1 Goal-orientated evaluation

The definition of evaluation which has been given above is clearly goal-orientated and as such based on a rational model of decision making. It is dependent on the assumption that organisations have clearly defined

objectives and that both individuals and organisations behave rationally in order to maximise the achievement of these objectives. Since many programmes lack clearly defined objectives, and since it is clear that the organisations and managers who are responsible for financing and / or implementing programmes do not always act in a rational manner, (they are for example, frequently influenced by political considerations), it is naive to unquestioningly use the rational model in evaluation studies.

It is ".... common to find goals which are vaguely stated in global or long-range terms, contradictory, or unrelated to the programme activities" (Rutman 1977). A programme's goals have often changed over time, have frequently been formulated on a piecemeal basis, or formalised only after the programme has been implemented. In some cases there may be no stated goals at all. In most circumstances it is therefore necessary for programme goals to be specified by the researcher.

There are a number of alternative models which do not require goals to be specified in order for a programme to be evaluated. These include the system-resource model (Seashore and Yuchtman 1967), participant-satisfaction models (Georgiou 1973) and social function models (Parsons 1960). However these also suffer from a number of disadvantages. They tend to be susceptible to undue bias from programme managers, and to be less professionally credible that goal-orientated evaluation. Although organisations can not be conceived as entirely rational instruments for achieving specified goals, no entirely satisfactory alternative to the goal model of evaluation has yet been devised (Martin, Bovaird and Gregory 1987). The present study has therefore been based primarily on a goal-orientated approach, although this approach was applied flexibly in order to allow for the fact that the programme being evaluated did not have a set of explicitly stated goals.

2.2 Policies, programmes and projects

The terms policy, programme and project are frequently confused in evaluation studies, and it is therefore important to clarify their usage in the present research. In this thesis policy is used to describe an

agency's objectives and the preferred, general means of achieving these. A programme involves specific activities (and usually expenditure), to achieve a group of related policy objectives, and a project is defined as part of a programme which constitutes a discrete form of expenditure. Thus one of the Development Commission's policies is to provide more jobs in rural areas. One of the means of achieving this is its advance factory building programme, which involves a number of projects in different areas. The term "initiatives" has been used in this thesis to refer both to programmes and the individual projects which they comprise. Its meaning is however clear from the context. For example, "employment initiatives" refers to employment programmes, whereas "the factory building initiatives" refers to a number of factory building projects.

3.0 THE DEMAND FOR EVALUATION STUDIES

Rossi et al (1979) stated that evaluation research can be undertaken for four main reasons. For management and administrative purposes, to aid planning and policy development, to meet fiscal accountability requirements placed on an organisation, and to test a social scientific hypothesis. In practice however, the reasons for undertaking evaluation are rarely so straightforward. Suchman (1972) pointed out, that agencies sometimes commission what he calls "pseudo-evaluations". These are not intended to give an objective assessment of the programme's effectiveness, instead they are undertaken for one of the following reasons:

1. to make the programme look good, ("eyewash evaluation");
2. to cover up the failure of a programme, ("whitewash evaluation");
3. to destroy a programme ("submarine evaluation");
4. as a precondition for continued funding ("posture evaluation");
5. to postpone the need to take action over an issue ("postponement evaluation").

All five examples of pseudo-evaluation can be discerned in recent British studies.

The demand for evaluation studies of all types has grown as the number of attempts at intervention have increased. As Western governments have in the post-war period increasingly undertaken a whole range of social, environmental and economic programmes both in their own countries and abroad, they have required academics to develop techniques that enable policy makers to differentiate between those programmes and projects which are worthwhile and those which are proving to be ineffective or unacceptably expensive. This stimulated a great increase in the amount of attention given to policy analysis and evaluation, particularly in the U.S.A.. In Britain however policy analysis has not been well developed (Williams 1983, Richardson 1984, Glynn 1985).

A number of new techniques (for example, planning programme and budgeting systems (PPBS), management by objectives and zero-base budgeting) were imported into Whitehall from the U.S. in the early 1970's, as a result of the desire of the Heath administration for a more rational basis for policy making. These led to the adoption of a system of policy analysis and review (PAR), (Gray and Jenkins 1982, Howell 1985) based on PPBS and other techniques which had been developed by the U.S. Bureau of Budget. However, they rapidly fell into disuse largely because they lacked widespread ministerial support, were viewed with suspicion by many civil servants, were perceived as being too time consuming and were by the mid 1970's overtaken by political events (Plowden 1980, Bancroft 1982, Gray and Jenkins 1983, 1985, Butler 1987).

Demand for evaluation studies in Britain has however increased rapidly following the launch of the Financial Management Initiative (FMI) in 1982. The aim of the FMI is to ".... provide in each department an organisation and a system in which managements at all levels have a clear view of their objectives and the means to assess and wherever possible measure outputs or performance in relation to these objectives" (Cmnd 8616). Every central department is now required to define the objectives of its policies, measure the outputs of its programmes and show that its activities provide good value for money (Cmnd 9058, Jackson 1987). This has provided conditions in which the demand for evaluation studies has been greatly increased, and in which evaluation has been easier to conduct, particularly because of the requirement placed on departments to clearly define their goals.

Further impetus for the growth of evaluation research came from the 1983 National Audit Act which formalised the right of the National Audit Office to investigate the degree to which departments were achieving value for money, from the introduction of the select committee system and from the general attempt to change the culture of the civil service through the introduction of managerialism, greater interchange with the private sector, and wider recruitment of specialist staff, (Peat Marwick 1986). There were also clear parallels in local government. The 1982 Local Government Finance Act introduced a range of new procedures for ensuring that value for money was being secured by local authorities. This led to the appointment of private sector auditors in many authorities, and to the formation of the Local Government Audit Commission to oversee these developments, (Nielson 1986).

Past experience has shown that if initiatives such as the FMI are to last they have to receive strong support from the centre (Wilding 1982), and it is thought that the FMI has proved to be more enduring than its predecessors such as PAR, largely because of the strong political support it has received from both from the Prime Minister (see for example her forward to Jenkins et al 1983), and from the Treasury. However much of the evaluation work which has been promoted by the FMI has been very narrowly focused. The initial emphasis was almost entirely upon the development of measures relating to administrative functions, (Lewis 1985). This was because these were easier to develop than output measures relating to expenditure programmes, and attention has only recently been given to performance measures for expenditure programmes, and many of the methodological problems relating to the development of meaningful quantified output measures have not yet been solved. Despite the now widespread publication of performance measures, particularly in Public expenditure White Papers, very few provide a realistic basis for decision making (Beeston 1986), and few departments have provided consistent measures which are clearly related to their objectives (NAO 1986a).

Policy makers have been primarily concerned with cost-cutting and therefore with economy and efficiency. Relatively few comprehensive evaluations of effectiveness have been commissioned. For example, the Rayner scrutinies which have been at the leading edge of the government's financial management policies (Beesley 1983), seem to have been regarded by

ministers primarily as a means of making cut-backs (c.f. Rees 1985), and were generally focused on possible savings, rather than upon ways of improving effectiveness (NAO 1986). There has been a pre-occupation with cost-cutting and "good housekeeping" rather than with standards of performance (Flynn 1986), and comprehensive evaluation work has not therefore been in as great demand as have efficiency reviews. Similarly, evaluation work in local government has been primarily concerned with economy and efficiency; effectiveness issues have been largely neglected (Bovaird 1981).

The most commonly stated official reasons for undertaking evaluation relate to the need to be able to judge how effective a programme or project has been, and thereby improve its operation and better fulfil the programme's objectives (Levin 1968). In the private sector performance can be measured in terms of profits, however since profit maximisation is rarely a primary objective of public sector agencies, it does not constitute an appropriate performance measurement. The effectiveness of public sector programmes has therefore to be measured in terms of non-profit related outputs, (Mayston 1985). Measures of such outputs are also a means of ensuring public accountability, since whereas in the private sector, stakeholders have power as company shareholders and can therefore exert some degree of control over the activities of the organisations, in the absence of non-profit performance indicators, there is no way of safeguarding consumers' interests, (Mayston 1985).

4.0 ORGANISATIONAL ARRANGEMENTS FOR EVALUATION

An evaluation can be conducted either by in-house staff, or by independent researchers. Many observers have claimed that in order to reduce the chances of bias, an evaluator needs to be as independent as possible from influences of project management and staff, and that evaluation should therefore only be undertaken by external researchers. It is also claimed that in-house evaluation is less likely to bring new insights to old problems than is the external researcher. However, there are a number of disadvantages with evaluations conducted by independent researchers. Outsiders are likely to take more time to become

acquainted with the issues and the people involved in a particular programme, and the available sources of information. They may be regarded as a threat to the organisation or programme, and therefore receive less co-operation from programme managers and staff, and their recommendations may meet with more resistance than those of an in-house study, (Coulson 1988). Further, there is no guarantee that outside research will be entirely unbiased.

The available evidence is far from definitive. Bernstein and Freeman (1975) found that external evaluations were generally of a higher standard, but Van de Vall and Bolas (1981) found that internal evaluations were communicated more effectively to policy makers and therefore have more impact. It seems however, that for a number of reasons, the choice between outside and internal evaluation is becoming a less important issue than it was in the past. In-house staff in many organisations are becoming more competent at conducting evaluations, and in an environment where they are often dependent on the organisations which they are evaluating for future funding external researchers are no longer immune from charges of bias.

Weiss (1972) stated that the choice of who conducts an evaluation should be based on five main considerations. Administrative confidence - the professional competence of the evaluator; objectivity - the degree of issue neutrality possessed by the evaluator; understanding of the programme; potential for utilisation - maximising the chances that the findings from the research will be implemented; autonomy - the independence of the researcher. The weight given to each of these will clearly depend on the purpose to which the evaluation is to be put, and this should largely determine who is considered to be best suited to conduct the research. Cook et al (1977) for example, suggested that in-house staff are best placed to conduct "formative evaluations", (studies aimed at improving the way in which an existing programme operates, through improving internal procedures and management), while outside researchers are more likely to produce high quality "summative evaluation", (impact assessment studies). This is a useful distinction because formative evaluations require an intimate knowledge of the personalities and procedures involved, whereas the impact assessment requires greater objectivity and technical expertise.

The advantages and disadvantages of independent work are reflected in the present study. Since it was independently funded, the findings and methods of working were not susceptible to undue influence by policy makers. The topics for research could also be chosen independently, and it was therefore possible to look at a number of research issues, and to evaluate the Development Commission's advance factory building programme in a number of case study areas where it was thought that it had not been entirely successful. For political reasons, this course of action would have been unlikely to have been approved by the sort of steering committee which would have supervised the research had it been funded by the Commission itself.

There were however corresponding disadvantages. The research was constrained by a lack of resources since the level of funding was substantially less than would have been provided had the work been commissioned. The research was dependent on the willing co-operation of a variety of stakeholders, for example, managers and employees of firms in the D.C.'s factory units, and programme managers none of whom had any incentive to assist, and who had therefore to be won over by persuasion. Had the work been commissioned by the D.C., it would have had greater authority in the eyes of many stakeholders, and programme managers and users would have felt under a greater obligation to co-operate. It is also the case that it is likely to prove to be more difficult to make policy makers aware of the findings of the present research. The findings will have to be skillfully disseminated in order to gain the same degree of attention which would automatically be accorded to a study (outside of academic circles), which had been commissioned by central government.

5.0 THE NECESSARY CONDITIONS FOR EVALUATION

The conditions which should ideally exist if evaluation is to be undertaken have been summarised by Palumbo and Nachmias (1983). The programme which is to be evaluated should have clearly stated and agreed goals. There should be an explicit technology (delivery system), for achieving these goals, and there must be an available methodology which allows the impacts of the programme to be isolated from exogenous factors.

The research should produce findings which enable the programme design to be improved, the managers of the programme must accept evaluation as a valuable part of the management cycle and decision makers must be committed to using the findings of the research. These ideal conditions are very rarely, possibly never fulfilled. More common is a situation in which goals are amorphous, multiple and contradictory, the impacts of the programme are only indirectly related to the agency's stated goals, and there is no explicit rationale by which the programme is designed to produce the intended outputs. Managers are more likely to be resigned to evaluation than to be committed to it, and policy makers may use findings only if they are compatible with the prevailing political climate. Conditions relating to the programme evaluated in the present research, (namely the D.C.'s factory building programme), were much nearer to the latter set of conditions than to the ideal conditions for evaluation. The goals of the programme are for example, only vaguely defined, largely implicit, and not clearly related to the anticipated programme outputs, (section 5.0 chapter 5), and the decision making process is subject to a number of political controls and influences.

Given these conditions there are a number of precautions that the evaluator can take to maximise the effectiveness of an evaluation study. As will be shown in the remaining sections of this chapter and in chapter 4, evaluators of the D.C.'s programme, (and of most other employment initiatives), have on the whole failed to take these precautions, and their findings have, as a result, been at best unreliable, and at worst, inaccurate or irrelevant. Previous researchers have not specified a clear set or hierarchy of explicit objectives, nor have they attempted to discover how intended outputs are delivered by the advance factory building programme. The reports which they have produced have sometimes been too detailed, and have been insensitive to the needs of policy makers. Most importantly however, previous studies have not developed a sufficiently rigorous methodology for accurately distinguishing between events which are attributable to the programme and those which are not.

6.0 STAGES IN EVALUATION RESEARCH

North American researchers have described in detail a number of stages through which an evaluation should ideally proceed. Different researchers have used different terminologies, and have identified different stages in evaluation. These differences have arisen largely from the difficulties involved in dividing what is in fact a continuous evaluation process, (Figure 3.1), into discrete stages. In the present study five important phases are identified, and it is clear that each of these is appropriate to almost all types of evaluation. These are : evaluability assessment, formative research, impact assessment, measuring economic efficiency and interpretation of results, and finally utilisation of the findings.

6.1 Evaluability Assessment

This stage (referred to by some commentators as programme planning), involves confirming that a programme can be evaluated and that the likely results of the study justify the effort involved in undertaking it. The two most common methods of doing this are by reviewing the documentary evidence relating to the programme (or project), which is to be evaluated, and by familiarising oneself with the programme by talking to programme managers. It is crucial at this stage that researchers confer with the staff who designed the programme and with those who are responsible for its day to day operation, (these are often not the same people), in order to acquaint themselves with the programme's history and rationale and with the available data sources. In this way the researchers can identify the constraints under which the evaluation must be undertaken, can formulate a methodology, and select the case study areas and case study projects which are most appropriate under these conditions.

Wholey (1977) suggests that it is particularly important to consider five issues at the evaluability stage:

1) The programme must be bounded. This means that the primary users or intended beneficiaries of the programme must be identified, a decision must

THE RESEARCH PROCESS

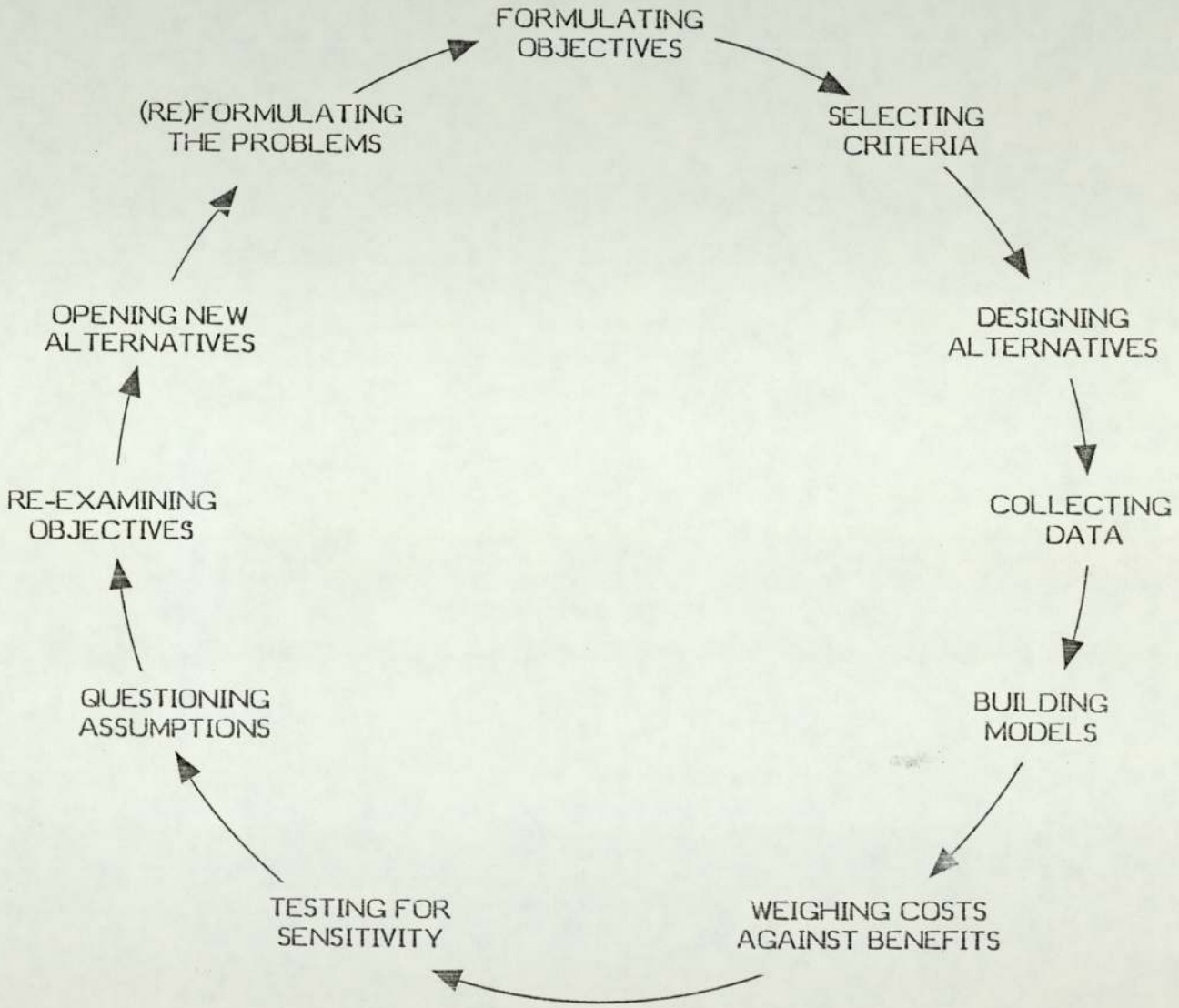


FIGURE 3.1

Source: Weiss (1972)

be taken concerning what constitutes the programme itself, and about the time horizon and spatial level at which the programme is to be evaluated. Previous studies of the D.C.'s factory building programme have all been seriously deficient in one or more of these areas (section 3.2 chapter 4).

2) It is important to define how the programme's managers view the activities, goals, causal links and underlying assumptions of the programme. The D.C.'s advance factory building programme does not have an explicit delivery system or a stated hierarchy of lower level, intermediate and ultimate objectives. Yet no previous study of the programme has attempted to clarify these at the outset. This has resulted in a number of ambiguities in their findings at later stages (section 3.2.5 chapter 4). A particular problem is that the highest level output measure used in most previous studies has been employment generation. The creation of jobs alone does not however guarantee achievement of the D.C.'s ultimate policy objectives, and therefore previous researchers have been unable to determine whether the programme has proved to be a success.

3) It is then possible to develop a model which syntheses this information about the boundaries of the programme and its intended manner of working and which shows the inter-relationships that exist between the goals and activities of the programme. Again, no such model has been developed by previous researchers.

4) The model should then be analysed to determine whether it is sufficiently unambiguous to allow a hierarchy of output measures related to the programme's activities to be developed.

5) Finally, the intended user of the final evaluation must be consulted about the possible future course of the research in order to ensure that the likely findings will be useful to them.

Evaluability assessment is a difficult exercise and therefore frequently neglected. However, failure to resolve issues at this early stage has led to greater problems at later stages of many evaluations. Few if any previous evaluations of rural employment initiatives appear to have been through these preliminary steps, and as a result many have encountered problems late on in their research which should have been resolved at the

outset of the evaluation. For example, most researchers have used inappropriate measures of the employment impacts of D.C.'s advance factory building programme, but have either not realised this at all, or not done so until they had reached such an late stage in the research that it was impossible to rectify the situation. These problems are discussed in detail in chapter 4. The ways in which careful evaluability assessment was conducted in the present study are described in chapters 5 and 6. These included, the development of a model of the programme's delivery system, (section 6.0 chapter 5), specification of an explicit hierarchy of objectives and related output measures, (section 5.0 chapter 5), and careful selection both of the programme to be evaluated, and the case study areas in which the operation of the programme was studied, (chapter 6).

6.1.1 Goal specification

Goal specification is particularly important and is usually the most problematic aspect of evaluability assessment. Many of the problems inherent in previous studies of advance factory building and other economic development initiatives, were caused by the failure of researchers to specify goals at an early stage in the evaluation process. As with many agencies, the D.C.'s stated objectives are vague. It was therefore necessary in the present study to recognise and make explicit a number of quite specific goals if a goal-orientated approach was to be successful. However, the D.C.'s overall aims could be achieved in several different ways, or through a combination of ways. Some of the goals which were specified in the present study were therefore contradictory, and it was necessary to evaluate the programme against a range of different criteria (a "hierarchy of objectives"). Such an approach makes it possible to take account of the multiplicity of objectives (section 5.0 chapter 6), and to recognise that in common with most initiatives (Hall 1982), the factory building programme was likely to have been more effective in meeting some targets than others. This hierarchy of objectives provided a rationale for D.C. intervention and a model of the initiative's delivery system which could be tested to discover how the programme had actually operated, (section 6.0 chapter 6).

6.2 Formative Research

Formative research is concerned with the extent to which the programme is functioning in the intended manner. The basic question addressed by this stage in the evaluation process is whether " ....the programme is operating in conformity to its basic design, and whether or not it is reaching the target population", (Rossi et al 1979). Formative research can also help in identifying latent goals and unintended side-effects or by-products of the programme.

Whereas the information used in evaluability assessment is obtained from programme managers, data for formative evaluations is obtained first hand, usually from the target population. The purpose of formative research is to discover whether the delivery system of the programme is working effectively, and to check managers' perceptions of the way in which the programme is addressing the problem. If the programme has failed to work in the way in which it was intended, it could be due to poor implementation rather than poor design, and it is therefore crucial that the delivery system of the programme is checked. If a programme's delivery system is not functioning as it was designed to it may be that the programme can be made more effective by correcting these failings rather than re-designing the programme.

These considerations should ideally be highlighted by regular monitoring of a programme. However, comprehensive monitoring of local authority and central government expenditure programmes is extremely rare, and the arrangements for monitoring the D.C.'s advance factory building programme are typically primitive. Despite this no previous study of the programme has considered the ways in which the programme is intended to operate or extent to which the programme has been implemented in the way in which it was intended. As explained above, in the present study these issues were addressed by developing a model of the way in the programme was likely to operate, and designing measures which made it possible to examine the extent to which the delivery system actually operated in the manner which it had been expected to, (section 6.0 chapter 6).

6.3 Impact Assessment

Having ensured that the programme can be evaluated, and having conceptualised and tested a model of the way in which it operates, the next stage in the evaluation process is to attempt to assess the impacts that the programme has had on the "environment" upon which it was targeted. This has formed the focus of most previous evaluations of employment initiatives. However, failure to appreciate the importance of the main conceptual issues involved in impact assessment, has meant that most previous researchers have used inadequate methodologies, based on inappropriate performance indicators. As a result their findings have rarely been sufficiently reliable to provide a satisfactory basis for improved decision making.

The major difficulty associated with impact assessment is how to accurately determine " ....whether or not the program has produced more of an effect than that which would have occurred "naturally", that is without the intervention or (with) alternative interventions", (Rossi et al 1979). Impact assessment is therefore primarily concerned with the extent to which the apparent results of the programme can be explained by some alternative process that is not connected with the programme. It also involves measuring the scale of any unintended outcomes, which would not have occurred in the absence of the programme. The " ....onus is on the researcher to assemble enough logical and / or statistical evidence to show that the alternative explanations are less plausible than the main one - namely the program", (Rutman 1977).

6.3.1 Net and gross effects

The crucial distinction in assessing programme impacts, is between the net and gross effects of a programme. A "gross effect" is the difference between the situation that existed before the programme which is being evaluated was implemented and that which prevailed after the programme had operated for a specified time period. The measurement of gross impacts alone does not enable researcher to measure whether the apparent programme

outputs have in fact resulted from the programme. They may well have been caused by influences which are unrelated to the programme,(confounding factors). The "net effects" of a programme are determined by comparing the situation that exists after the implementation of the programme with a hypothetical alternative situation that would have occurred in the absence of the programme by the same point in time.

The alternative situation against which the current situation is compared is known as the reference point. Three main types of possible reference points exist. These are:

1) the situation which prevailed before the initiative was implemented, (the "before" situation);

2) the situation which it seems would have existed in the absence of the programme (the "without" situation);

3) an ideal situation which it is hoped to achieve.

The choice of reference point is clearly crucial. Many researchers who have conducted evaluations of the advance factory building programme, (and other studies of other employment initiatives), have adopted the "before situation" as the reference point. This is the least satisfactory reference point, because researchers who have adopted it have in effect assumed that every observed change was attributable to the programme which they have evaluated. Clearly there are almost no situations in which this is likely to be a realistic assumption.

An added complication has arisen from the fact that most of these researchers have not made their choice of the before situation as a reference point explicit. They have therefore produced misleading findings since it has often been claimed that their results relate to net impacts, which they clearly do not. These studies in fact shed very little light on the issue of which effects are attributable to the programme, and which are the result of exogenous influences (section 3.2 chapter 4).

Since the "without" situation is necessarily hypothetical it is often difficult to construct, and this is one of the major methodological

problems of evaluation research. There are however, a number of ways of determining what the alternative situation is likely to have been. Some researchers have attempted to construct it on the basis of the perceptions of those who have been directly affected by the programme, for example the managing directors of firms which have received assistance as a result of a programme, (e.g. Cameron et al 1982, Robinson et al 1986, Turok 1988). Such an approach provides a useful starting point. There are however, a number of problems involved when it is used in isolation, (Gregory and Martin 1988). Firstly, the accuracy of the findings of an evaluation study, are entirely dependent on the accuracy of the managing directors. Secondly, this approach depends upon the willingness of managing directors to provide candid answers about whether they actually required the assistance which they received. Thirdly, it is unlikely that the managing directors of firms will know about indirect programme impacts, and these may therefore be entirely overlooked.

One method of checking the accuracy of managing directors' perceptions is compare the population which was exposed to the programme with a control group which was not. In the present study, the alternative situation was constructed initially on the basis of the perceptions of the managing directors of the firms which had occupied the factory units and these were then cross-checked with reference to information provided by local authority, CoSIRA and English Estates officers who had a detailed knowledge of the case study areas, and by comparing the fortunes of their firms with those of a control group of local firms which were matched with those in the units, by size, type of activity and ownership characteristics, (section 4.4 chapter 7).

6.3.2 Confounding factors

Possible confounding factors include endogenous change, secular drift, interfering effects, maturation trends, and self-selection, stochastic changes and unreliability effects (Rossi et al 1979). The most important of these in the context of an evaluation of the D.C.'s advance factory building programme are endogenous change, secular drift, stochastic changes and unreliability.

One of the most important examples of endogenous change in relation to the factory building programme is the fact that it is highly likely that a number of the jobs in the firms which occupy the factory units would have been existed even in the absence of the programme. Many previous evaluations of rural employment initiatives have either disregarded this possibility altogether or failed to accurately measure its full extent. Secular drift refers to the possibility that long-term trends may swamp, the effects of an initiative and it this which makes evaluation of small local initiatives by census data impossible.

Stochastic changes and unreliability both affect the accuracy of the information which is collected about impacts. Both can be minimised by carefully framing sample surveys, so as to reduce the effect of random fluctuations and to ensure that the answers which are obtained are accurate. Previous evaluations have given very little, if any, attention to the choice of appropriate criteria on which to make a selection of case study initiatives or areas, nor do they seem to have chosen to interview the managing directors or employees of firms which have occupied factory units according to any rational design of sampling frame.

6.3.3 Intermediate output measures

Rarely are the observable (and therefore measurable) effects of a programme related directly to the ultimate programme goals which were identified in the evaluability assessment. Most evaluators therefore rely on intermediate output measures. Low level intermediate output measures are generally easier to use, but they are not as closely related to a programme's objectives as higher level measures. They therefore provide less information than higher level output measures about the degree to which programmes are likely to have achieved their ultimate goals. For example, the number of units which have been built by the D.C. as a result of the advance factory building programme is a low level output measure. It is easy to assess but provides almost no indication of the degree to which the programme has helped to achieve the D.C.'s ultimate objectives, such as strengthening the rural economy. The number of new jobs provided by the programme is a much higher level output measure, and is consequently much

more difficult to measure. However, it provides a far more accurate indication of the extent to which the Commission is likely to achieve its overall goals.

In order to evaluate a programme as comprehensively as possible, it is important to use a range of intermediate measures. Previous researchers have however, usually employed only one or two measures. They have rarely explained the reasons for their choice of these measures, and they have neither related them to specific objectives, nor to the D.C.'s overall aims, (section 3.2 chapter 4). Ideal intermediate output measures are easy to measure, allow comparisons to be drawn between different situations and can be readily related to the goals of the programme. They should also be reliable, i.e. the results should be consistent when the measurements are repeated, and valid, i.e. they should actually measure what it is claimed that they do. Invalidity is a more serious problem than unreliability since the latter generally leads to random errors, while the former will introduce systematic bias into the evaluation design, (Cook et al 1977).

6.3.4 Validity

Two major types of validity, internal and external validity, have been recognised, (Campbell 1978). Internal validity relates to the degree to which output measures allow definitive statements to be made about the impacts which are attributable to the programme, i.e. the extent to which they enable a clear distinction to be drawn between net and gross effects. External validity relates to the degree to which these results are able to be generalised to other similar situations. It is usually necessary to achieve a trade-off between maximising one type of validity at the expense of the other, (Campbell and Stanley 1966).

Threats to either sort of validity can be minimised by the choice of a variety of types of case study areas and by evaluating impacts over as long a time scale as possible (Rutman 1977). All previous evaluators of the D.C.'s factory building programme have measured its impacts at just one point in time, and seem to have selected case study areas in rather arbitrary ways. Evaluations have usually been restricted to consideration

of the programme in only one region, and has not been clear whether the results of these studies can be extrapolated to other areas. The findings of these studies have consequently been much less valuable to policy makers than they would have been if it could have been shown that they were representative of factory building initiatives in other parts of the country.

6.3.5 Quantitative and qualitative performance indicators

In the past quantitative (or "hard") and qualitative ("soft") measures have been seen by some workers as being mutually exclusive. Proponents of the quantitative approach to evaluation research have argued that it is preferable because it produces findings which can be subjected to repeatable testing in line with the scientific, hypothetico-deductive approach. Quantitative evaluations therefore give the appearance of greater precision and impartiality, and this increases their professional credibility, (Campbell 1978). However, it is now widely acknowledged that social research is not value free (Bailey 1980), and that the total objectivity once claimed by those who advocate the use of hard evaluation techniques is not attainable.

The major advantage of the qualitative approach is that it provides a more complete view of the effectiveness of a programme. There are impacts which can not be measured quantitatively, and in order to include them it is therefore necessary to adopt softer performance indicators, (Tomkins 1982, Grimwood and Tomkins 1986). It has been argued that while economy and efficiency can be relatively easily measured in quantitative terms, effectiveness studies require the wider use of softer measures (Pommerance 1976). Indeed the N.A.O. has criticised some Whitehall departments for relying too much on quantitative measures and ignoring the need for qualitative indicators, (N.A.O. 1986a). The use of qualitative measures can also be useful in situations where it is impossible to specify what a programme's objectives are. It is also likely to promote greater interaction between the evaluator and programme managers, and other stakeholders. Such interaction is thought to improve the chance that

research findings will be used by decision-makers in future policy formulation.

Some researchers advocate the use of qualitative measures only when for technical, political or ethical reasons, the quantitative approach is unworkable. Others take the view that it is the type of evaluation which is required that should determine the type of methodology that is used. In choosing performance indicators it is necessary " ....to keep in mind the requirements of the whole endeavour" (Rutman 1977). An eclectic approach whereby different techniques are used in different evaluations is therefore justified (Perkins 1977).

It is important however not only to use a variety of approaches in different studies, but to bring both quantitative and qualitative understanding to the same evaluation. Contrary to the traditional belief that there is a dichotomy between the two approaches, they are in fact interdependent and complementary, and should be used to cross-validate each other. Without qualitative measures, an evaluation lacks perspective, (Campbell 1978) and quantitative measures become meaningless. There is also a danger that unintended outputs and latent goals will be overlooked, and the problem that the findings of evaluation studies which are based on quantitative measures alone tend to be reduced to lists of numbers and statistics which are of little use to decision makers who require policy guidance and recommendations. Most evaluations of economic development programmes have nevertheless been based exclusively upon quantitative output measures, and evaluations of the advance factory building programme are no exception. These tend to have been based almost entirely on the cost of each job created by the programme. Since the way in which this measure has been calculated has usually been inadequate (section 3.2 chapter 4), over-dependence upon this one indicator has greatly reduced the value of previous studies.

6.4 Measuring Economic Efficiency

Impact assessment provides information about the impacts which have resulted from a programme. These can be compared with the intended outcomes

in order to gauge the extent to which the programme has achieved the objectives set for it. However impact assessment does not take into account the costs of achieving these impacts. In order to compare one programme with another, and to determine whether a programme has achieved the intended outcomes within the allocated budget, it is necessary to measure its cost-effectiveness. Such information is important because programmes are usually in competition for scarce resources and decision makers therefore require some means of comparing the cost effectiveness of programmes in order to determine the best way in which to allocate future funding. In the absence of cost-effectiveness measures, it is unlikely that available resources will be used in the most efficient manner (Andrieu 1977).

6.4.1 The measurement of programme costs

The accurate measurement of programme costs is as important as the accurate identification of programme impacts. Thus only net programme costs should be taken into account when measuring cost effectiveness. Some of the costs have been subsidised by agencies other than the Development Commission, (for example some local authorities have contributed towards site acquisition costs), and if the purpose of the evaluation is to determine what the costs of the programme to the D.C. have been, it is necessary to deduct these costs from the calculation of costs. Most previous studies have failed to distinguish between different sources of funding.

It is important of take account of both fixed and variable costs. The advance factory building programme involves a large level of initial expenditure (site acquisition costs, construction costs, and professional fees) and smaller, but on-going, running costs. Many evaluations have overlooked the latter.

Factory units have been built at different times in different areas. Therefore when making comparisons of cost effectiveness between areas, it is necessary to allow for the effects of inflation, and costs must therefore be discounted over time. The firms which occupy the factory units

either rent or purchase them from the D.C.. Receipts from rents or sales are a source of income to the Commission, and have a clear monetary value, which can be subtracted from costs, to provide a rate of return. Again, allowances must be made for the fact that these payments are received some time after the initial costs were incurred, and must be adjusted accordingly.

6.4.2 Non-monetary cost effectiveness measures

Where all the outputs of a programme have a clear monetary value, it is possible to use cost benefit analysis to determine its cost-effectiveness (Ball 1979, Cooper 1980). However, in practice it is not usually possible to impute a monetary value to most of the benefits of employment programmes and other methods of determining their cost-effectiveness have to be used. Most of the outputs of local economic initiatives do not have monetary values, and can not therefore be subtracted from expenditure in this way. Intermediate outputs can however be expressed in relation to the costs of the programme, for example as measures such as the amount of floorspace provided per £ spent, the cost of each person taken off the unemployment register or the cost per job created or protected.

There are two important issues relating to such measures of cost-effectiveness both of which have been largely overlooked in previous evaluations of employment initiatives. Firstly, some allowance must be made for the amount of time for which impacts are likely to persist. For example, most studies include cost per job figures which give no indication of the length of time for which the jobs are likely to last. The cost per job should be calculated in terms of the cost per man / woman year job, if it is to have any meaning over more than the short term. A few previous studies have made assumptions about the length of time for which jobs provided by programmes are likely to last for, but none have provided any evidence regarding the accuracy of these assumptions. This is an important omission, which the present study attempted to correct by studying impacts over a period of several years.

Secondly, because employment programmes result in a number of different impacts, their cost-effectiveness can not be gauged in terms of one measure. The advance factory programme for example, has a number of effects. These include the provision of factory floorspace, improving the profitability of firms which move into the units, increasing the volume of local suppliers linkages, increasing activity rates, and reducing both registered and concealed unemployment. To measure only the employment effects of the programme would lead to a serious underestimate of the effects of the programme. It is impossible to express these multiple outputs in one common measure, and the cost effectiveness of a programme ought therefore to be measured in terms of the cost of having achieved a "bundle" of different sorts of impact. Most previous evaluators of employment initiatives seem not to have appreciated the importance of this multiplicity of outputs. By focusing almost exclusively on employment impacts they have produced somewhat restricted assessments of the programme, which are unlikely to have accurately gauged cost-effectiveness. Further, because they have been concerned solely with employment effects, previous researchers have shed very little light on the way in which delivery systems of employment initiatives operate.

6.5 The interpretation and implementation of findings

Evaluation studies can be undertaken for a variety of reasons, and are often used for quite different purposes to those for which they were intended (section 3.0 above). The major problem however, is that the findings of many evaluations are not used at all. "The greatest problem with evaluation research is not doing it ..... the greatest problem is using it", (Schick 1977). According to Weiss and Bucuvalas (1980) the extent to which an evaluation is used depends on three main factors : the relevance of the study, its trustworthiness and the direction it provides. Leviton and Hughes (1981) have suggested that the degree of communication between evaluators and users, also affects the chances of an evaluation being used, and it seems therefore that attention must be given to bridging the gap which exists between social science researchers and policy makers (Rich 1981). Since policy making is not a purely rational process, the political acceptability of the findings is also likely to influence the

degree to which they are used. It is unlikely that decision makers will be interested in highly technical information concerning all the aspects of a programme. They are likely to be primarily interested only in those parts of the programme for which they are responsible (Shapiro 1984). Findings must therefore be reported in a way which enables policy makers to readily identify findings in which they are interested. If decision makers can not understand the recommendations made in a study, they are very likely to disregard it.

Findings often need to be presented to policy makers in a different manner to that in which they might be presented to an academic audience, (Solomon and Shortell 1981). The former are for example, generally less interested in the details of the methodologies used in the study than in the policy implications of the results. It is also important that findings are timely and available when needed. Political decisions frequently have to be made to deadlines, and a balance has therefore to be struck between thoroughness of the study and presenting its findings at a time when they will have maximum impact.

Finally it is important that researchers make the limitations of an evaluation clear to policy makers, since the latter are sometimes prone to use evaluation studies for much more than they were originally intended. In particular it is necessary to point out the extent to which findings may apply to other similar programmes or to the same programme in different areas.

Evaluations of employment initiatives have undoubtedly been underused. This has sometimes been because of the political constraints placed on policy makers, but in other cases it has been at least in part because of the manner in which researchers have presented their findings. Researchers who have undertaken evaluations of the D.C.'s advance factory programme have generally failed to make policy recommendations on the basis of their findings about the programme's past performance. Many previous evaluations of employment initiatives, including those commissioned by and prepared for policy makers, have failed to provide unambiguous conclusions. A DOE official told the present researcher that one such study had been written in such a convoluted style that the Development Commissioners could understand very little of it, and it was of little use to the D.C..

The present study is an academic thesis rather than a report prepared for the D.C.. It deals with a number of complex methodological points and therefore contains detailed discussions of methodology. However it also contains a number of important policy recommendations based on the findings which were obtained by using the methodology which was developed. In order to ensure ease of access to these for the reader who is primarily interested in policy, they are stated as unambiguously as possible in the summary of conclusions which is provided at the end of each of the later chapters of this thesis, and summarised alongside the policy recommendations which flow from them, in the final section of the last chapter. It is upon these that attention would be focused in any presentation given to the Development Commissioners.

7.0 SUMMARY AND CONCLUSIONS

It is clear from the recent literature concerning the philosophy and methodology of evaluation that there are a number of stages through which an evaluation should ideally progress, and that a number of major methodological problems have to be tackled at each of these stages. In practice, researchers who have undertaken previous evaluations of employment initiatives (including the D.C.'s factory building programme), have by-passed many of these stages and as a result have failed to resolve some important methodological issues. Consequently the findings of their studies have been based on a number of untested assumptions and it has been impossible to determine how reliable the results are. Therefore despite the greatly increased, and growing, demand for evaluation studies, in the U.K., adequate methodologies for the evaluation of employment initiatives still do not exist.

Particularly problematic yet vitally important methodological issues, relate to goal specification, the identification of hierarchies of objectives, the use of intermediate output measures, the choice of appropriate reference points, the measurement of multiple outputs, specifying the target areas of programme, and measuring impacts over time. Due to a failure to appreciate the importance of these major issues, and to resolve them, evaluators tend to have adopted inappropriate reference

points, and have been unable to accurately differentiate between net and gross effects. Studies have been too narrowly focused, been too dependent on quantitative output measures, have not been bounded either spatially or temporally. As a result evaluations have generally failed to provide useful indicators of cost-effectiveness.

In the next chapter previous studies of employment initiatives (undertaken both in Britain and in the U.S.A.), are reviewed, and their strengths and weaknesses are examined in detail. Their weaknesses result from a failure to tackle the issues discussed above. The evaluation methodology which was used in the present research, deals with many of these issues, and was developed in an attempt to rectify some of the weaknesses inherent in previous studies. Chapter 5 describes the key features of the methodology which was developed and discusses the extent to which it is likely to provide a better basis for future evaluation studies than has been available to date.

CHAPTER 4 STUDIES OF THE IMPACT OF INDUSTRY IN RURAL AREAS

1.0 INTRODUCTION

There have been a large number of post war studies of the effects which industries moving into or starting up in rural areas have had upon the areas in which they have located, and on the people living in these areas, (impact assessment studies). A much smaller number of studies have been concerned not only with the impacts but also with evaluating the costs of rural industrialisation. The first section of this chapter comprises a review of previous studies of the impact which industry has had in rural areas in the U.K. and the U.S.A.. This is followed by a detailed review of the previous evaluations of locally based rural employment initiatives, which have been undertaken in England and Wales, focusing in particular on studies of the Development Commission's advance factory building programme. Both sections demonstrate the gap which exists between evaluation theory (as outlined in chapter 3), and current practice, and suggest that the findings of previous studies have often been inaccurate and sometimes irrelevant to the needs of policy makers, and that as a result none of them provide a suitable approach to the evaluation of local economic programmes.

2.0 STUDIES OF THE IMPACT OF INDUSTRY IN RURAL AREAS

The detailed review of previous of studies of the impacts of rural industrialisation was undertaken for two reasons. Firstly, because it was thought that it would familiarise the researcher with the types of impacts which rural employment initiatives such as the D.C.'s advance factory building programme were likely to have had, and secondly, because the techniques used in these studies might form a basis on which to develop a methodology for the evaluation of local economic development programmes in rural areas.

A large number of impact assessment studies have been undertaken in the U.S.A., but a number of British studies also exist. The latter include studies of the economic impact of North Sea Oil developments in Scotland (e.g. McNichol 1976), of the siting of aluminium smelters in Invergordon and on Anglesey (Mackay 1974, Sadler et al 1974), of the Scottish Islands fishing industry (Russell 1972, Grieg 1972), and of tourism developments (e.g. Getz 1982). Both British and American researchers have commonly identify four main types of impacts: demographic, economic, social and fiscal.

2.1 Demographic impacts

Previous studies have shown that it is common for the populations of rural areas in which new industry has located to have increased rapidly. This population growth has usually been concentrated in the larger settlements (those over 2,500 population), and those which are nearest to the site of the new firms. It has been shown that the rate of population growth is usually a function of the size and number of firms which have moved into an area, and that initial population growth has usually been the result of increased rates of in-migration. Most in-migrants had previously lived less than 50 miles away. Many workers often delayed moving to the area, and commute quite large distances, before eventually moving to live into the areas to which new industry had moved. Not surprisingly, professional and technical staff have been found to move from further away than unskilled or clerical personnel.

Moseley (1973) showed that the benefits of economic growth experienced in a country town may not "trickle down" to the surrounding rural areas, instead the town itself may become a focus for out-migrants from the adjacent villages. In this way the growth of the town may catalyse depopulation of rural communities in its hinterland. Mackay (1979) found that the siting of an aluminium smelter at Invergordon in the 1970's had been accompanied by rapid population growth in the districts which were closest to it, while the area's most isolated rural districts continued to experience depopulation even after the smelter had been constructed.

2.2 Economic impacts

2.2.1 Employment impacts

American research has shown that firms which located in rural areas tended to provide new jobs for younger rather than middle-aged people, but that in other respects the types of people recruited was dependent on the type of industry involved. Jobs in heavy manufacturing industry had usually been taken by men, whereas females were favoured by employers in light industries such as textiles and appliance assembly plants. The latter tended to be less skilled and less well paid jobs.

Several researchers have suggested that the scale of redundancies in firms in rural areas tends to be larger than those experienced in metropolitan areas, (Summers et al 1976). This seems to be the result of two main factors. Firstly, many of the factories which move into rural areas are branches of larger companies based elsewhere. In a recession these branch factories are more prone to closure or relocation away from the rural areas, than are their headquarters which are based in urban or suburban areas. Secondly, indigenous firms owned by local people tend to be more susceptible to failure and therefore closure, than firms based in non-rural areas (Barkley 1978).

Some studies have shown that rural industrialisation can in the long term, lead to increases in the level of registered unemployment in rural areas. There are three reasons for this. Firstly, many capital intensive projects provide more jobs in the construction phase than are available once the plant is fully operative, (e.g. Scott and Summers 1974, Mackay 1974, Sadler et al 1974). The provision of a large number of temporary construction jobs leads to a reduction in the rate of out-migration and to increased rates of in-migration during the construction phase, and if these prevented migrants and new in-migrants remain in the area after the construction phase is completed and they have been laid off, local rates of unemployment inevitably increase. Mackay (1974) found that construction of the Invergordon smelter provided jobs for more than twice the number of workers required to run the fully operative smelter. Sadler et al (1974)

found the same effect associated with the siting of an aluminium smelter on Anglesey, and led them to conclude that the provision of so-called "cathedrals in the desert" will rarely solve local employment problems in the long term, (Sadler 1978).

Secondly, studies have shown that higher levels of registered unemployment may result from increased rates of participation in the labour market and the increased employment expectations of local people, (Betrand 1978). Thirdly, it has been found that in-coming firms which employ large numbers of women who belong to households where the male members are unemployed, may lead to an increase in local registered unemployment compared to the level that would have existed in absence of the jobs (Jordan 1967). This is because in the absence of jobs for the women, their households would have left the area and local unemployment would therefore have been "exported". The fact that the women are able to find jobs however, causes these households to remain in the area, where their male members continue to register as unemployed.

2.2.2 High rates of leakage

Another major problem which has been highlighted by previous studies of rural industrialisation has been the fact that the economic advantage associated with developments has frequently leaked out of the rural areas in which the firms locate. Summers et al (1976) reported that more than half of the 186 American impact studies which they reviewed had found that multipliers values of less than 1.2 existed in rural areas. High levels of leakage are generally thought to be related to a lack of both forward and backward linkages between in-coming firms and local enterprises. This is particularly the case when high technology or heavy industry locates in remote rural areas, which have little pre-existing industrial base (Gray 1969). Even when in-moving firms do purchase goods and services locally, there is rarely a significant increase in local employment, because of the existence of a high level of excess capacity in many rural businesses, which means that they can handle increases in the volume of business without needing to recruit new staff, (Garrison 1972).

Other major sources of leakage include : wages carried out of the area by non resident commuters who spend the bulk of their income in their home towns and villages; those workers who previously lived in the local area and worked outside the area and who have subsequently given up their jobs outside the local area to take up a job nearer home; new income that is saved rather than spent on local goods and services; and increased earnings which are used to pay off debts rather to make new purchases (Wadsworth and Conrad 1965). It seems likely that because of the high level of leakage from rural local economies, many researchers have over-estimated the number of new jobs provided indirectly by in-moving firms (Scott and Summers 1974).

2.3 Fiscal impacts

A number of studies have shown that in America, increases in the fiscal resource base of the local community have often been outweighed by the increased costs of providing services to new firms and their employees. This has particularly been the case where the number of temporary jobs provided has greatly exceeded the eventual number of permanent jobs provided, or where a large proportion of the jobs which are created are taken by commuters from outside the area (Schaeffer 1972). In some areas local services expanded rapidly to cater for large numbers of construction workers, and the local community was left with the burden of subsidising the resultant long term over-capacity once the project was completed and the construction workers moved away (Smith, Hagg and Reagan 1971).

Net fiscal gains seem to accrue to the local area in the U.S. only in instances where no incentives have been offered to the relocating industry, or where the firms' recruit a large number of local workers. For reasons which are explained in chapter 15, it seems unlikely that the fiscal base of British local jurisdictions will be improved significantly by rural industrialisation.

2.4 Social impacts

2.4.1 Social changes

The influx of outsiders associated with industrialisation has also been observed to have had several impacts on the areas into which they move. Smith, Hagg and Reagan (1971) found that rural industrialisation in Sweet Home, Oregon was accompanied by increases in crime rates during the construction phase, which then fell again as the work was completed and the building workers left the area. Other researchers have also suggested that the immigration of non-local people as a result of increased job opportunities may destroy community spirit, (c.f. Hedger 1981). Merrill and Ryther (1961) found that the newcomers to rural areas introduced new ideas and lifestyles, and that this often led to the formation of factions, as the influence of the former community leaders was replaced by that of dynamic incomers. However, the evidence is not conclusive, and some studies suggest that there is often very little change in participation rates in local community activities as a result of industrialisation (Summers et al 1976).

There is some evidence that because industrial development has tended to lead to an increase in the number of young people living in rural areas, and because younger adults have generally completed more years schooling than older generations, rural industrialisation has led to an apparent increase in the overall level of education in those rural areas in which industrialisation has occurred. For the same reason, rural industrialisation seems to have led to an increase in the average size of households in these areas.

2.4.2 Distribution of benefits

A number of British and American studies have suggested that one of the most serious drawbacks of rural industrialisation is that it rarely benefits local disadvantaged sections of the community (Summers et al

1976). This is because those industries which pay the highest wages, usually require skilled and well qualified workers, and do not therefore recruit from local disadvantaged groups, who can only obtain low-skill, low-wage jobs. In these circumstances focusing on increases in the aggregate level of local income can disguise the fact that the level of poverty among disadvantaged groups has remained unchanged, (Deaton and Landes 1978). This problem is exacerbated by the fact that the location of new industry in a rural area usually leads to an increase in the level of demand for local services, and thus to an increase in the price of local goods and services. Increases in house prices have been shown to "lock" indigenous people out of the housing market, (Shucksmith 1981). As a result the plight of those who do not benefit from the industrialisation, is often made worse.

Despite the fact that anticipated benefits generally exceed realised benefits, American studies suggest that in the majority of cases most local people having experienced some development, are in favour of further industrialisation. They perceive development as having promoted population growth, economic diversification, improved shopping facilities and increased employment opportunities. The exceptions to this are the old, the ethnic and racial minorities, the unemployed and farmers who are usually strongly opposed to further development.

Sociological research into differences between indigenous people and in-movers, suggests that immigrants (particularly those with higher skill and income levels) are less satisfied with local community services than long-term residents, but that contrary to expectations, their participation rates in voluntary organisations, (churches, civic clubs, recreational), are similar to those of the indigenous people. There is however, some evidence that the two groups belong to different types of groups. Immigrants prefer business, professional, and labour groups and this probably reflects their educational and occupational characteristics.

2.5 Criticisms of impact assessment studies

The findings of impact assessment studies are important because they provide some idea of what might be expected to be achieved by programmes like the D.C.'s advance factory building programme, which are intended to attract industry into rural areas. They were therefore useful in designing appropriate output measures in the evaluability assessment phase of the present research. However, they do not provide an adequate basis on which to evaluate such programmes. There are three main reasons for this.

Firstly, the majority of these previous studies have been concerned only with the impacts which in-moving industry have had on rural areas. The researchers who conducted them did not attempt to measure the costs involved in attracting new industry to rural areas, and the methodologies they employed can not, therefore, be used to assess the cost-effectiveness of programmes which have been designed to attract industry to rural locations. Impact assessment is only one phase in the evaluation process. Measuring the cost-effectiveness of projects should be an integral part of any complete evaluation, (section 4.0 chapter 3), since without doing so it is impossible to assess the relative cost effectiveness of alternative programmes.

Secondly, most impact assessment studies have been concerned with large scale developments which have had very noticeable impacts in the areas in which they were located. Of the 186 post-war American studies of rural industrialisation, identified by Summers et al (1976), 66 % were concerned with firms which employed more than 100 people, and 27 % were concerned with firms with more than 500 employees. Firms that have benefited directly from rural based economic initiatives in Britain have usually employed far fewer people. The impacts associated with these initiatives are, therefore, more subtle than those which result from large scale capital intensive industrial developments, and can not be identified through the analysis of secondary data sources such as census material. As a result the links between a programme and its apparent impacts have to be traced in detail by empirical research. Most impact assessment studies have relied on secondary data sources, and do not therefore provide an approach which would be sufficiently detailed for use in an evaluation of smaller programmes.

Thirdly, most British impact assessment studies have focused almost exclusively on economic impacts. As a result they have ignored the wider effects of rural industrialisation. In particular, almost no attention has been given to the sociological effects of the industrialisation of the countryside. The general lack of ethnographic work seems to reflect the current malaise in British rural sociology identified by Newby (1980). The few examples of such studies have been concerned with the impacts of the closure of rural firms, rather than with new industrial development, (c.f. Dennis et al 1957, Sewell 1975). Overdependence on economic performance indicators has meant that studies have been " ....lopsided, particularly when applied to the rural peripheral areas of the U.K., where the problems that so often arise are not only economic but social and cultural also", (Mackay, Sadler and Sewell 1978). It has also meant that many of the negative impacts of rural industrialisation have been overlooked.

3.0 EVALUATIONS OF THE D.C.'S ADVANCE FACTORY BUILDING PROGRAMME

Previous studies of the Development Commission's advance factory building programme differ greatly in the type of methodology that was used, the results that were obtained and the purposes for which they were undertaken. Three were conducted by local authority officers, a number were purely academic theses and several were conducted by researchers commissioned by the Development Commission or the Development Board for Rural Wales. Some studies have attempted to review the programme as a whole, others have evaluated the programme in particular case study areas.

3.1 General reviews of the programme

The advance factory building programme has until recently attracted relatively little interest, however, in the last few years it has been reviewed by Chisholm (1984, 1985), Williams (1984), Tricker and Martin (1984, 1985a, 1985b), and Minay (1985). All of these reviews are primarily descriptive, and most are narrowly focused, dealing with only one or two aspects of the advance factory building programme.

Tricker and Martin (1984) described the evolution of the advance factory building programme and the revised procedures whereby the Commission provides assistance in the Rural Development Areas designated in 1984. Tricker and Martin (1985a, 1985b) discussed the likelihood that these new procedures would foster the more integrated approach to rural development, which the Commission was hoping to achieve. Chisholm (1984, 1985) provided an overview of the number of factory units that had been built, and the occupancy rates in these units. Williams (1984) compared the programmes of the D.C. and the Development Board for Rural Wales (D.B.R.W.), and concluded that neither was based on a coherent policy.

Minay (1985) claimed to have produced a more thorough review of the Commission's industrial development programme. In practice, however, the study was concerned almost exclusively with the advance factory building programme, and he paid little attention to the advisory and financial services provided by CoSIRA and the Commission's other industrial programmes (for example partnerships, conversions of redundant buildings and craft workshops, see section 6.4 chapter 3).

The first part of Minay's report was concerned with a descriptive review of the development of the Commission's policies since the Second World War. Like Tricker and Martin (1984), he traced the evolution of the Commission's policy through to the designation of RDA's. In the second half of his study, Minay discussed the achievements of the programme. He was critical of previous case study based approaches because he felt that their independence was in doubt, (" ....the most detailed have all been sponsored by the Commission", (Minay ibid)). However his own review of the most important aspects of the programme was based entirely on data derived from these studies and from an internal D.C. review which can hardly have been more "independent" than those produced by external evaluators.

In the first section of his review of the achievements of the programme, Minay analysed the geographical distribution of D.C. approvals of finance for factory building. His reasons for having chosen this as an indicator of the programme's performance are unclear. Approvals represent an input rather than an output of the programme, and their geographical distribution has no direct influence on the degree to which the Commission has met its objectives. They would therefore seem to be a rather irrelevant measure of

programme performance. In subsequent sections he dealt with the implementation of the programme, reported levels of employment densities in the units, the number of new jobs created both directly by firms occupying factory, and indirectly through spin-off effects, the types of job provided in the units and the types of firms which have occupied them. Finally, he briefly considered the work of CoSIRA, and then for reasons which are unclear, he concluded his review of the Commission's industrial development programme, by discussing the D.C.'s social development work.

Minay correctly stated that there was a lack of accurate independent evaluations of the advance factory building programme. He also correctly identified a number of important methodological issues which have been neglected in previous studies. Unfortunately, because his study drew so heavily on previous work, he did not provide solutions to the problems which he identified in these previous studies.

3.2 Evaluations based on a case study approach

There have been several previous studies of the advance building programme, which depended on a case study approach. Of these, there are six which illustrate the main methodological issues involved in such an evaluation most clearly and which are, therefore, of most importance to the present study. These are, in order of increasing methodological sophistication, the evaluations undertaken by Cornwall and Cumbria County Councils in 1980, and those conducted by Law and Howes (1972), Hodge and Whitby (1979), Hubbard (1981), and JURUE (1983). In addition, there are a number of evaluations of the advance factory building programme which have been adopted variants (usually simplified), of the methodologies used by Hodge and Whitby, or JURUE.

3.2.1 Cornwall County Council (1980)

In 1980, an evaluation of the Development Commission's factory building programme in Cornwall up to 1980, was undertaken by the County Planning

Officer and published by the County Council. By 1980, the programme was still relatively small; only 41 units had been built and only two thirds of these had been occupied. The study is primarily a description of these units. The performance indicators which were used were all intermediate measures which are low in the hierarchy of objectives, such as the number of factory units built, the rate at which the units were occupied and the number of jobs in existence in the firms occupying the units. No attempt was made to estimate the number of net new jobs provided either directly or through the multiplier effects, nor to calculate the cost per job created. The study is therefore of little value to decision makers. Its main purpose was probably to demonstrate to members that officers were successfully encouraging D.C. funding into the county, or possibly to demonstrate to rate payers that the members themselves were actively assisting in the solution of their area's economic problems.

3.2.2 Cumbria County Council (1980)

A very similar, though slightly more sophisticated study, was carried out by Cumbria County Planning Department also in 1980, which assessed the impacts of the provision of two factory units in Kirkby Stephen. The researchers claimed to have investigated the impact which the initiative had on the town's economic and social life, on the employees in the firms which occupied the units, and on the firms in the units, and a number of impacts are identified. They reported that population levels in the area had stabilised, although people continued to leave peripheral villages; the availability of the factory units and of government financial assistance had been important to firms in choosing to locate in Kirkby Stephen; the multiplier effects of the initiative were unlikely to have benefitted Kirkby Stephen since neither of the two firms had significant linkages with other firms in the county; and there had been a significant growth of employment opportunities in the area between 1971 and 1979.

These findings were, however, based upon wholly inadequate performance indicators, such as aggregate population changes in the area, and employment change as shown by census returns. As with the Cornwall study, there was no attempt to allow for the effect of confounding factors which

may have influenced these trends. The researchers recognised that changes in the area could have been quite unrelated to the factory building programme, but stated that " ....distinguishing between these elements can be a very difficult task and is not attempted in this report".

Despite its obvious weaknesses, however, the study does at least attempt to assess the impacts of the initiative against clearly specified criteria. The researchers stated that "In the absence of specific criteria by which the impact may be judged the objectives for the study have been taken to correspond in general terms to those of the Development Commission itself i.e. the creation of new employment opportunities to improve economic and social conditions in rural areas and in particular to prevent depopulation and reduce unemployment". They made no attempt to evaluate the costs of having achieved these impacts.

3.2.3 Law and Howes (1972)

The first study of the factory building programme to be sponsored by the Development Commission was undertaken by two academic researchers, Law and Howes, who attempted to evaluate the success of the programme in Mid Wales up to 1970. This study being the first of its kind was in many ways a pioneering piece of research, but because it contains a number of methodological weaknesses there is considerable doubt about the accuracy of its findings.

Law and Howes used performance indicators based on secondary information concerning the number of units constructed and the number of people employed in them. They found that by 1970 twenty factory units had been constructed in Mid Wales, 18 of which were occupied, and that a total of 1,472 workers were employed in these units, 693 of whom were male, and 33 % of whom were under twenty years of age. They estimated that a further 555 new jobs had been provided indirectly by the programme, and that 4,104 people were dependent on jobs in the factory units for their livelihood (i.e. that they either worked in the units or were dependents of someone who did).

On the basis of this information they estimated that 1,072 people had been discouraged from migrating as a result of the programme ("prevented migration"). Finally, by comparing the costs of the programme with the number of jobs provided in the units, they calculated that new jobs had been created at an average cost of £ 876, and on the basis of their assumptions about prevented migration that the cost of each person retained in the area had been £ 643. On the basis of a discounted cash flow investment appraisal, they estimated that annual returns to the exchequer from the programme would be between 27.6 % and 30.9 % depending on the assumptions which were made about the likely length of time for which the factory units would remain viable.

The researchers correctly identified the need to distinguish between the gross and net effects of the programme. They stated that the key research question was "What difference would it have made to mid-Wales if the Development Commissioners' policy had not existed and the factories had not been provided?". They stated that this question might be answered in three ways. Firstly, it could be assumed that none of the income and employment provided by the D.C. factories would have occurred in the absence of the units. Secondly, the impacts of the programme could be assessed by surveying a sample of firms in the units, to find out what effect the programme has had upon these firms and their employees. Thirdly, census data could be used to identify recent changes in trends such as population levels and employment that might be attributable to D.C. activity.

Law and Howes rejected the second method claiming that it would have been too time consuming. They also rejected the third method because the impacts of the D.C. programme would have been swamped by other exogenous changes in the census statistics, and thus could not have been accurately identified, and because the most recent information available at the time of the study was material from the 1961 census which would not have incorporated many of the most recent impacts of the programme. They were therefore forced to adopt the first method, and assumed that all the apparent employment and income effects of the programme were attributable to it, (i.e. net impacts).

They acknowledged that this assumption was almost certainly erroneous, stating that "Whilst it is correct to say that 2,007 workers are employed

directly or indirectly because of the Development Commission factories, some would still be employed if the factories had not be provided", (Law and Howes ibid). There were undoubtedly exogenous changes in addition to the effects of the programme, which they did not identify or exclude from their analysis. It is clear therefore that they did not accurately identify the net outcomes of the programme. In particular they failed to distinguish between the effects of the advance factory building programme, and other initiatives - including activities associated with other D.C. programmes, the Ministry of Technology, the M.W.I.D.A. and the Mid-Wales New Town Corporation all of which had been active in the region.

A final major weakness of their approach was their failure to relate performance measures to the objectives of the programme or to the Commission's wider policy goals, and thus their subsequent inability to produce clear recommendations which were relevant to the needs of policy makers.

3.2.4 Law and Perdikis (1978)

Law and Perdikis (1978) undertook a study on behalf of the Development Board for rural Wales in which they used an almost identical methodology to that employed by Law and Howes. As a result their study has all the weaknesses inherent in this approach, the most serious of which is the failure to provide any rational basis on which to distinguish between net and gross jobs.

The researchers estimated that as a result of the whole range of "industrial policies" that had been pursued in the Mid Wales region between 1957 and 1975, 5,000 new jobs had been created in light manufacturing industry. They assumed that all of these jobs were created as a direct result of the advance factory building programme. They estimated that an additional 1,817 jobs had been indirectly created by the spin-offs from the factory building initiatives, and that almost 6,817 new jobs could therefore be attributed to programme. Although they referred to these as "net new jobs", like Law and Howes they in fact measured only gross changes some of which were unlikely to have been related to the programme.

They also made a number of wider observations relating to the number of households which depended on jobs in the factory units for their livelihoods, and the number of prevented migrants. Using exactly the same method as Law and Howes they calculated that without the jobs created in the units, 4,389 workers would have left the region between 1961 and 1975, and that this would have resulted in a 7.2 % decrease in the total population of the region. They calculated that if the 6,817 jobs attributable to the advance factory building programme and other policies, had not been created, employment in the region would have declined by 2.3 %, instead of increasing by 12.1 % as it had done between 1961 and 1971, and male employment would have decreased by 12.1 % between 1961 and 1975 rather than by 0.5 % as it had done. However since these estimates depended crucially upon the assumptions which they made regarding net and gross impacts, they are unlikely to have been accurate.

3.2.5 Hodge and Whitby (1979)

The first study of the D.C.'s advance factory building programme in England was that undertaken by Hodge and Whitby. It was an attempt to evaluate the economic impacts of the programme in the Eastern Borders region, was commissioned by the D.C. and carried out between 1977 and 1979. Like Law and Howes, Hodge and Whitby based their evaluation on a very narrow range of performance indicators, the most important of which was the cost per "new" job allegedly provided by the factory building programme. This they calculated at £ 1607 when discounted over the ten years following the construction of the units. They calculated that over a twenty five year period the exchequer would gain £ 107 for every job created, and over a fifty year discount period the Exchequer would gain £ 592 per job created. They estimated that a further 234 jobs had been created as a result of purchases made by the firms which had occupied the factory units (54 new jobs), the construction of the units (18 new jobs), and increased expenditure by the employees of firms in the units (165 new jobs).

Hodge and Whitby's study was an important piece of work because the methodology which they developed has subsequently been used in a number of subsequent evaluations of both rural and urban economic initiatives. The

approach they used contained a number of important weaknesses. Although these weaknesses are by no means unique to Hodge and Whitby's work, they are important because of the way in which their evaluation has been used as a model for subsequent studies. The strengths and weaknesses of their work are therefore examined in detail in this section.

One of the most significant advantages of the approach adopted by Hodge and Whitby was that unlike previous studies (such as that undertaken by Law and Howes), it was based on first hand data which was collected from interviews with the managing directors and employees of firms in the D.C. factory units. Hodge and Whitby's most important contribution to the development of a methodology for the evaluation of local economic initiatives in rural areas, was probably that they demonstrated that Law and Howes' contention that an empirically based approach to evaluation was too time consuming and that secondary data sources therefore had to relied upon, was unfounded.

3.2.5.1 The use of inappropriate measures of direct employment effects

One of the main weaknesses of Hodge and Whitby's study was the way in which they attempted to identify net impacts of the programme, in particular the number of new jobs which could be attributed to the provision of the factory units. They based their estimates of the number of the new jobs provided by the factory building programme on assumptions which they made about the alternative employment situations of the employees of the firms which occupied the units in the absence of the programme. The cost per job which they derived depended crucially upon these assumptions, and since the cost per job calculation was the main performance indicator used by Hodge and Whitby, it was very important that these assumptions could be shown to be accurate. Hodge and Whitby themselves stated that " ....the conclusions reached will depend very greatly on these assumptions".

According to Hodge and Whitby, there were four possible alternative situations. Employees might have been unemployed, in retirement, have left the region in search of work, or have found another job in the region. They

assumed that 25 % of the jobs provided by the firms in the factory units would have existed in the Eastern Borders region even if the units had not been built. They also assumed that all of the employees had been unemployed prior to working for the firm in the D.C. factory unit would have continued to have been unemployed in the absence of the programme, and that none of those who had moved into the area to work in the factory units would have done so in the absence of the units. The remainder were categorised according to the information obtained from interviews which were conducted with a sample of the employees. Hodge and Whitby assumed that all of the employees who stated (in these interviews) that they would have moved out of region in the absence of their present job, would indeed have done so, and that the remaining employees would have been unable to find work, and would therefore either have been unemployed or in retirement.

For several reasons, this is an inappropriate method of determining how many new jobs were likely to have been created directly by the factory building programme. The most important of these is that it is based on the assumption that it is the characteristics of the employees of the firms which occupy the units which determines which jobs would have existed in the absence of the programme and which were created by the programme. In fact it is the characteristics of the firms which occupied the units which determines the number of new jobs created. The crucial considerations are where firms which occupy D.C. units would have located in the absence of the initiatives, how many people they would have employed and the extent to which employment gains in the firms in the units have been offset by compensating employment losses in the competitor firms. The characteristics of the employees who take up jobs provided by the firms are important because they determine the impact which the programme has upon the local labour market, but they do not provide a basis for identifying new jobs.

The most reliable and appropriate sources of accurate information about the likely alternative locations and employment profiles of the firms in the units are probably the managers of these firms, and a survey of the firms would therefore have provided a far more satisfactory basis, than the survey of employees, for determining which of the jobs could be attributed to the programme. Even if the number of net new jobs provided by the factory building programme could however be determined from an examination of the alternative employment situations of the employees who take the

jobs, there are two further weaknesses in Hodge and Whitby's approach to the identification of the alternative situation.

Firstly, to determine the alternative employment situations of the employees on the basis of the assumptions which they make undermines the rest of their analysis which proports to be an attempt to establish the likely alternative employment situations of the employees empirically through sample surveys. To have arbitrarily decided that 25 % of the new jobs would have existed in any case is to fix one of the most important variables in the analysis.

Secondly, there is no way of determining how accurate the employees' perceptions of these alternative situations were. Hodge and Whitby seem to have been unsure about how much credence to give to the employees' perceptions. They accept some employees' perceptions and disregard others, on an apparently arbitrary basis. In some cases they accepted the employees' perceptions, in others they relied upon the employees' previous situation, and in other cases they have assumed that employees' jobs would have existed in the absence of the programme. There is no discussion of the rationale underlying these various choices of methodology, nor any attempted justification of this in their report or in their subsequent publications. The results of the present research suggests that employees generally have a rather poor awareness of the state of the local labour market, and that is unlikely that they are able to accurately assess what their employment prospects are, (section 3.1 chapter 13).

3.2.5.2 The use of inappropriate measures of indirect employment effects

Hodge and Whitby estimated the number of new jobs which had been created in local shops and services and in firms which supplied firms occupying the units by extrapolating from the assumptions which they made about the alternative employment situations of the employees of the firms in the units. This method was inappropriate for two reasons. Firstly, the types of firms involved in local service provision are so varied that it is unlikely that the employment prospects of employees in local services are similar to those of the employees of firms which have occupied factory units.

Secondly, the same basic fallacies are involved in this method when applied to the service sector and to suppliers, and the same weaknesses as those identified above apply.

3.2.5.3 Failure to define target areas

Hodge and Whitby, failed to distinguish between those jobs which are new to the region and to the national economy. At some points in their report they discussed jobs which would have not have existed in the region in the absence of the factory building programme (i.e. new jobs to the region), but at other points, notably when they calculated the cost per job created, they assumed that all of these so called "new" jobs were also new to the national economy.

3.2.5.4 Failure to define adequate temporal boundaries

They also failed to adequately consider how long jobs in the units could be expected to last, and the numbers of jobs which might be expected to exist in the units in the future. It is quite possible that at the time when Hodge and Whitby undertook their work, the firms in the units were not operating at full capacity and that as they became established, they might have taken on new workers. It is equally possible that at least some of the firms would have gone out of business or moved out of the region in the medium term future, and that the numbers employed by the firms in the units would therefore decrease in the future. Hodge and Whitby did not consider these possibilities or the effect which they might have on the cost per job calculation. Indeed, because of the absence of formative research and their consequent failure to consider the delivery system by which the programme operates, they had no evidence about the impacts which the provision of the units had had upon the firms which occupied them and therefore about the likely future viability, locations or employment profiles of these firms.

3.2.5.5 Failure to consider the impact of employment generation on the local labour market

As has been explained above, whether a job provided by a firm which occupies one of the factory units is a net new job can only be determined by careful consideration of the likely alternative location and employment levels in the firm in the absence of the initiatives. The effect which the creation of new jobs has upon the local labour market is however, dependent on the previous employment situations of the people who take up these net new jobs, (section 2.0 chapter 13). In common with every previous evaluation of the factory building programme, (and in fact with every previous study of any economic initiative regardless of its context). Hodge and Whitby did not consider the impact which the provision of new jobs in the factory units had had upon the local labour market.

3.2.5.6 Failure to take account of displacement effects

It is possible that the programme has benefitted firms which occupy the units, at the expense of their competitors. The firms in the units may have taken on new employees who they would not have employed in the absence of the programme, and net new jobs may therefore appear to have been created. However, it is possible that the firms in the units have displaced the market share of competitor firms which have therefore been forced to lay off workers. Like most evaluators, Hodge and Whitby failed to take account of possible displacement, and are therefore likely to have overestimated the net employment impact of the programme, and as a result, to have underestimated the cost per job created.

3.2.5.7 Failure to relate output measures to specified objectives

Hodge and Whitby did not specify at the outset of their research, which of the objectives of the programme they intended to evaluate the programme's performance against. They were therefore unable to put their

research findings into context. Their research was dependent on only one performance indicator, the cost per job created, and having calculated this, they had no grounds on which to judge whether it indicated that the programme was a failure or a success.

In addition, they were not sure which of the range of possible cost per job figures were most appropriate, and suggested that a range of possible output measures could have been adopted. These included the number of jobs in the factory units, the number of jobs created in firms which supply firms occupying units or their employees with goods and services, the number of jobs in the firms in the factory units which would not have existed in the absence of the programme, the number of primary and secondary workers who would have been unemployed but for the factory programme, the number of people who would have been outside the region but for the factory programme and the cumulated sum of annual full time employee equivalents over the discounted period. They correctly observed that even "this list is not exhaustive". In fact it represents only a very small number of the possible output measures that might have been employed.

They went on to acknowledge that " ....the explicit definition of the relative importance of various objectives of this type of programme by the policy initiator would provide the basis for a more satisfactory assessment of the extent to which the objectives have been achieved". Since goals are the standard against which a programme is assessed, the failure to explicitly specify which of the aims of the programme the evaluation was to focus on, is a basic error. This is a fundamental issue that should be resolved at the outset of an evaluation, (section 6.1.2 chapter 3). Due to their failure to specify goals Hodge and Whitby had no way of knowing whether the cost per job related to the specified objectives of the factory building programme, nor whether their findings were of any relevance to the policy makers who commissioned their research.

3.2.5.8 Confusing style of presentation

The explanation provided by Hodge and Whitby of the methodology which they used is difficult to understand. In particular the brevity with which important methodological issues are dealt is liable to confuse the reader. It is no surprise that the Development Commissioners who sponsored Hodge and Whitby's report found much of it incomprehensible, (section 6.5 chapter 3). It is known that evaluation research is unlikely to used if policy makers find it hard to understand, and this may have been one of the reasons why little use was made of the study. This problem is likely to have been compounded by the lack of a clear statement of policy findings.

3.2.6 Whitby and Willis (1983)

In an unpublished study commissioned by the Development Board for Rural Wales (D.B.R.W.), designed to evaluate the impacts of new factory building undertaken by the Board, Whitby and Willis estimated that 1,760 people were employed in the factory units built by the D.B.R.W. between 1977 and 1981. Whitby and Willis estimated that a further 1,531 jobs had been created indirectly in local shops and services and firms which supplied those in the units. Therefore a total of 3,291 new jobs had been created by the factory building.

In fact, as with Hodge and Whitby's study, many of these jobs are unlikely to have been net new jobs, although this is not acknowledged in the study. Whitby and Willis interviewed a sample of employees of the firms which had occupied the factories and found that 57 % stated that they would have remained in Wales, and either registered as unemployed or found other work, even if the units had not been built. The other 43 % claimed that they would have left Mid Wales or not have moved into the region. On this basis it was estimated that 740 employees would have left the area in the absence of the programme, and that with dependents, this represented a total of about 2,560 prevented migrants.

The cost per new job was calculated as £ 10,430, and if this was set against exchequer revenues and savings discounted at the recommended Treasury rate of 5 %, the cost fell to £ 2,400 over a ten year period. Over a twenty five year period this is converted to a net gain to the exchequer of £ 8,774 per job. The cost per person retained in the area was estimated to be £ 7,160 per employee. This represented a cost of £ 1,649 per employee when set against discounted exchequer savings and revenue over ten years, and a gain to the Treasury of £ 6,030 per employee over twenty five years.

According to Whitby and Willis they had " ....drawn upon the methodology used in a number of previous studies, which have examined the effects of employment generation projects in the U.K.", in fact the methodology is very similar to that used by Hodge and Whitby (1979), and as the D.B.R.W. has acknowledged that the work was essentially a repeat in Mid Wales of that which Hodge and Whitby undertook in their Eastern Borders study (Pettigrew 1984 personal communication). This study therefore shared the weaknesses of the Eastern Borders evaluation.

3.2.7 Peacock (1980) and Hillier (1982)

Hillier (1982) reports the findings of an evaluation of the advance factory building programme in Lincolnshire, Norfolk and Suffolk, which she and Peacock (1980) conducted in 1979. Their methodology was mainly descriptive, but incorporated an attempt to calculate the cost per new job created by the programme in these areas. By surveying firms which were located in Development Commission factory units in late 1979, they collected information about the types of activities in which these firms were involved, the length of time for which they had occupied the units, their reasons for moving to them, the extent of their linkages with other local firms, the previous employment situations of their employees, and where their employees lived at the time of the survey.

Their published account of the methodology which they used to calculate the cost per job, (Hillier 1982), is vague, but they claim to have used the same approach to the estimation of the cost per job as did Hodge and Whitby (1979) (Hillier 1984 private communication). However careful analysis of

their methodology reveals that it is a very simplistic method only loosely based on Hodge and Whitby's work. The cost per job was calculated by adding together the costs of land acquisition, development costs and construction costs and dividing this by the number of jobs which existed in the firms occupying the units in 1979. On this basis they concluded that the average cost per job "created" in Norfolk was £ 4,000, and that in Suffolk each "new" job had been created at a cost of £ 4,250 (at 1979/80 prices). They do not give a cost per job for Lincolnshire.

This is clearly an unacceptable methodology for estimating the net employment impacts of the factory building programme, and fails nearly all of the criteria for good evaluation practice described in chapter 3. Peacock's (1980) account of the study makes no mention of this cost per job figure at all. He merely describes the costs of the projects and some of the characteristics of the firms in the units in Suffolk. In view of the weaknesses in the approach described by Hillier, the adoption of these low level, descriptive output measures is preferable to the use of cost per job figures as a performance indicator.

3.2.8 Topley (1980)

Topley studied the D.C.'s advance factory building programme in Tideswell, North Derbyshire. He interviewed the managing directors of the firms which occupied these units in the spring of 1980 in order to find out where they had originated, why they had chosen to locate in the units in Tideswell, where their main markets and suppliers were located, how many workers they employed, what sort of work these employees were engaged in, and about the managers' general impression of Tideswell as a place in which to carry out business in.

He calculated that at the time of his study the cost per "new" job created was £ 10,210. The basis of this calculation was similar to that on which Hillier based her work, and involved a simple comparison of the capital costs of the project and the number of jobs in existence in the firms at the time of his survey. There is no way of determining whether these so-called "new" jobs are attributable to the advance factory

programme, and Topley did not take account of the fact that the costs and benefits of the programme will have varied over time, of the need to evaluate against the goals of the programme, or of the relevance of his findings to policy makers.

By comparing the cost per job figure which he derived with those of Law and Howes (1972) and Hodge and Whitby (1979), Topley concluded that the factory building programme in Tideswell was relatively cost effective in comparison to those in Mid Wales and Eastern Borders regions. However, he failed to take account of the considerable differences between the methodologies used in the three studies and apparently did not appreciate the fact that the output measures used by the two studies are not therefore comparable. This crude comparative analysis could prove to be very misleading if presented to policy makers, since there were simply too many untested and unjustified assumptions in Topley's work to justify this comparative analysis or any of the other conclusions which he reaches.

3.2.9 Hubbard (1982)

Hubbard's study of the D.C.'s advance factory building programme in Durham, is the only ex ante evaluation (or appraisal), of the advance factory building programme which has been undertaken, and in the strictest sense even this work was not a full appraisal since although it preceded the implementation of the project, it was undertaken after the project had been approved, (Whitby 1983). Like most previous researchers, Hubbard used the cost per "new" job as the only major output measure. He estimated that when the programme in Durham reached completion, the cost per new job would be between £ 2,719 and £ 1,550 at 1970 prices discounted over ten years. The former figure was based on an average employment density of four people per 1,000 square feet of factory floorspace, (the D.C.'s target density), the latter was based on an employment density of seven people per 1,000 square feet.

Included in the cost per job calculation were savings and revenue which Hubbard claimed would accrue to the Exchequer, such as savings in unemployment payments supplementary benefit and rate and rent rebates, and

increases in income tax, national insurance contributions, company taxes, and indirect tax revenue (because of higher levels of consumer spending).

Hubbard used a substantially modified version of Hodge and Whitby's methodology, and thereby avoided some of the most serious problems inherent in it. He combined this simplified methodology with a method of estimating the spin-off effects of the programme in local shops, services and suppliers. This was based on General Regional Input-Output Tables (GRIT) developed by Jensen, Mandeville and Karunaratne (1977). According to Hubbard these had " ....the major advantage of being disaggregated" and " ....as such they can be used to estimate the impact of changes in different sectors of the regional economy" (Hubbard 1982).

Hubbard's methodology differed from that developed by Hodge and Whitby in a number of other respects. The most important being his method of estimating how many of the jobs which he anticipated would be provided by the firms in the units would be net new jobs. In place of the assumptions made by Hodge and Whitby, Hubbard assumed " ....that all jobs in the factories are filled (even if indirectly) by persons who would otherwise be unemployed". According to Hubbard because of the " ....present high rates of unemployment and the tendency for people to emigrate from West Durham it is highly unlikely that the factories will attract immigrant workers to the region", therefore every net new job provided in the area could be expected to lead to a reduction in the level of unemployment in the region.

For a number of important reasons this is not however an acceptable way of distinguishing between net and gross employment impacts. Most importantly, Hubbard makes no allowance for the fact that many of the jobs provided by the firms in the factory units are likely to have been in existence in the region even if the units had not been built.

Secondly, his assumption that new jobs provided as a result of the programme will not be taken up by people who previously lived and / or worked outside the region is not supported by empirical evidence. Hodge and Whitby found that 33.6 % of the employees in their sample had previously lived outside the Eastern Borders region, and the present research showed that many of the firms moving into D.C. advance factory units require specialist skills not available in the local labour force and therefore have to recruit from outside. Others bring workers with them from their

previous locations outside the region, and some recruit from outside the region for other reasons, the most common being that they have personal contacts (usually friends or relatives), in other areas (section 5.0 chapter 15).

Thirdly, many of the new jobs created by the programme will be taken by people who were previously not economically active, or who were employed but not replaced in their previous jobs. Hubbard's contention that all new jobs will be filled, at least indirectly, by individuals who were previously registered as unemployed is therefore invalid.

In addition to these problems, because Hubbard undertook an appraisal of the likely future impacts of the programme, he had to compare two hypothetical situations; the likely future situation in the absence of the programme with the likely future situation if the programme was implemented. This is clearly an extremely difficult task, and in attempting to construct each of these situations (but especially that which would have occurred in the absence of the programme), he made a number of rather unlikely assumptions about the future state of the labour market in Durham, and the likely future occupancy rates of the factory units, and employment densities in these units. His conclusions were entirely dependent on the assumptions he made, and quite sensitive to any changes in them.

The study therefore concludes on a rather uncertain and vague note. As with Hodge and Whitby's study, the very sophisticated calculations regarding the future levels of regional multipliers give an appearance of great precision which nevertheless depends entirely upon a number of untested assumptions, the accuracy of which is highly debatable. Hubbard admits that " ....ex ante studies, naturally, produce greater uncertainty in the findings since, essentially, they are dealing with the future and have predicted likely movements in a number of variables", and therefore " ....given that ex ante appraisal can be greatly influenced by events that, at the time of the analysis, have yet to occur, it follows that their findings are likely to be subject to margins of error", (Hubbard 1982).

3.2.10 J.U.R.U.E. (1983)

The most recent evaluation of the D.C.'s programme to make any important methodological advances was that undertaken by researchers at JURUE. This study, which was commissioned by the D.C., was an advance on previous studies in that it was based on a sound method of distinguishing between net and gross employment impacts. However the methodology contained a number of the weaknesses inherent in previous studies, and some of the failings which have been identified in previous research in preceding sections.

Like previous studies, the researchers at JURUE adopted a case study approach. This focused on the D.C.'s activities in three market towns, (Leek in Staffordshire, Spilsby in Lincolnshire and Bishops Castle in Shropshire), each of which were located within one of the Commission's priority areas. As in nearly all previous studies the advance factory building programme was evaluated almost entirely in terms of the number of new jobs it had provided, and the costs of those jobs. The researchers reported that the annual cost of each net new local job created by the programme had varied from between £ 450 per annum on one of the D.C.'s industrial estates in Leek to £ 2350 per annum in Bishops Castle. The cost on the D.C.'s other Leek site had been £ 1380 and in Spilsby, the programme had provided new jobs at an average cost of £ 480.

The methodology developed by the JURUE researchers had a number of advantages over those used in earlier methodologies. The most important of these were that the D.C.'s objectives were specified at the outset of the study, that the output measures adopted were linked to the objectives, and that it provided a more accurate assessment of the net impacts of the programme. There were however a number of serious weaknesses in the methodology which was used.

3.2.10.1 Goal specification

At the outset of their study the JURUE researchers provided a clear statement of what they considered to be the D.C.'s aims. They considered that the D.C.'s overall objective was to increase the level of "confidence" in their priority areas. It was assumed that in order to do this the Commission had aimed to reduce depopulation by strengthening the rural economy and creating new jobs and/or retaining existing jobs within the local area. The researchers identified the main aim of the factory building programme as being " ....to increase the job opportunities existing within the case study areas". These goals are not an entirely accurate or comprehensive reflection of the D.C.'s objectives in 1983, however, they did provide a clear focus and set of criteria against which the Commission's performance could be measured, both of which had been lacking in previous studies.

3.2.10.2 Choice of output measures

The JURUE evaluation was narrowly focussed, and as a result, like many evaluations of economic initiatives, potentially important impacts such as temporary jobs provided in the construction of the factory units, the growth of target firms, and the scale of environmental benefits and disbenefits were not properly evaluated. The measures which were used, such as cost per job figures, were unrelated to the D.C.'s overall objectives, which the researchers had identified as being strengthening the rural economy and providing new job opportunities. The researchers stated that the issue of whether a particular cost per job was an acceptable return on the D.C.'s investment was "a value judgement". Like many other evaluators of economic initiatives, they therefore adopted the cost per job created or retained as the major performance indicator, without any clear idea of how it could be related to the D.C.'s objectives.

3.2.10.3 Measures of the impact on the local labour market

Like Hubbard, the JURUE researchers assumed that every net new job created by the programme had been filled (albeit indirectly), by someone who had previously been unemployed. Their approach is therefore subject to the same criticisms as Hubbard's. Namely that they failed to take account of the fact that many of the new jobs were likely to have been filled by people who were not previously economically inactive, or who were previously employed but not replaced in their previous jobs. They would therefore have had the effect of increasing activity rates and reducing concealed unemployment and underemployment, rather than having any direct impact on the level of registered unemployment.

The researchers also failed to take account of the fact that many of the employment impacts of the programme were likely to have been experienced outside of the case study areas. This was particularly likely, because of the relatively small size of the case study areas, and crucially important because JURUE's stated aim was to evaluate the effects which the programme had had upon the case study areas. In order to do this the researchers would have needed to take account of the proportion of the people taking up new jobs created by the programme who had previously lived and/or worked outside the area.

3.2.10.4 Distinction between net and gross effects

Probably the most important aspect of the JURUE study is that the output measures used to evaluate the employment impacts of the programme provided a better basis on which to distinguish between net and gross employment impacts than had those used in any of the earlier studies. The JURUE researchers conducted interviews with the managers of all the firms which were located in D.C. factory units in each of the case study areas. In the course of these they asked where each firm was likely to have located, how many people it was likely to have employed and how rapidly it would have been likely to have expanded if the units had not been built. It was therefore possible to determine which of the jobs in the firms which had

occupied the units would not have existed in the case study areas in the absence of the programme, and were therefore net new jobs.

Unfortunately, in two important respects the methods which the JURUE researchers used to distinguish between net and gross employment impacts were unsatisfactory. Firstly, they estimated the scale of the spin-off employment impacts of the programme using a standard multiplier value. There was no empirical evidence to suggest that this multiplier was accurate, and it seems to have been chosen on an entirely arbitrary basis. Secondly, the researchers gave little attention to the potential displacement of firms which were in competition with those which occupied the factory units. There is no indication in their report of the extent to which so-called "net new jobs" may have been created at the expense of existing jobs in other firms.

3.2.10.5 Definition of target areas

A major advance on previous studies was that the JURUE study was primarily concerned with the impacts which the factory building programme had had upon the localities in which they had been provided. The researchers reasoned that the D.C.'s aim in financing factory building in their priority areas was to provide new jobs in those particular localities rather than to create jobs that were new to the national economy as a whole.

The assumption that the D.C. is not concerned about the extent to which the jobs that are created by the programme are new to the national economy, simplifies the analysis considerably, but is unfortunately not entirely valid. It is clear from a number of recent D.C. reports that the Commission is concerned about the dangers of becoming involved in a zero-sums game, whereby jobs are shifted from their priority areas away from other parts of the country, which in the present economic climate are as economically depressed as many rural areas, (e.g. Development Commission 1984a).

The appropriateness of the spatial boundaries chosen by the JURUE researchers is also open to question. They assumed that the advance factory

building programme was targeted upon the "areas of pull", around each market town, since these were the areas in which the D.C. expected the factory units to have most affect. However "areas of pull" were very small, typically with a radius of no more than five miles. As one CoSIRA County Officer admitted to the present researcher, they were drawn up in an extremely arbitrary fashion, and they do not reflect economic or geographical realities. It is possible therefore that the SIA (or RDA) in which each case study town was located would have been a more appropriate spatial unit for the study, (section 5.3 chapter 6).

3.2.10.6 Calculation of costs

The method by which the JURUE researchers calculated the cost per job was very different from that used in earlier studies. Their cost per job measure was based on what the researchers considered to be the annual opportunity cost of each job created by the factory building programme. This was calculated by subtracting the annual rental income which the D.C. received from the letting of each factory unit from the estimated returns that would have been required to attract a private sector developer to undertake the project and then dividing this by the number of new direct jobs net to the local area that were attributable to the factory building programme at the time of the study.

The returns that would have been required by a private developer were calculated by adding the development costs incurred by the D.C. to a notional cost of borrowing the capital for the building and a notional annual profit of 15 % on the development. The notional annual rental returns were calculated by dividing this capital value by 12.5 % which was equivalent to assuming a developer's yield of 8 %.

There are several problems with this approach. Firstly, there is no reason to assume that the D.C.'s opportunity cost is related in any way to the level of return which a private developer would have expected. If the Commission had not invested in the factory building programme, it would have used the resources it saved to sponsor an alternative programme or set of programmes. The crucial question is not therefore whether the Commission

could have achieved a better financial return from an alternative investment, but whether it could have more effectively achieved its objectives, through pursuing some alternative policy which cost the same as or less than the factory building programme.

Secondly, the researchers made no attempt to discount the value of the costs or benefits of the programme over time, as had Hodge and Whitby (1979) and Hubbard (1981). The study is therefore a "snap shot" view of the programme, which only considers the position as of 1982, (see section 3.2.10.7 below).

Thirdly, the researchers ignored the benefits that were likely to accrue to the exchequer in the form of increased tax revenues and decreased benefit payments as a result of the programme. They claimed that this was because " ....in the present study, the costs involved are small and hence macro-economic issues do not arise". They did not however provide any evidence to support this contention, which seems to be in conflict with the approach taken by Hodge and Whitby and Hubbard and a number of recent evaluations of non-rural economic initiatives. Fourthly, the researchers took no account of the potential income in the form of increased rates to local authorities, and fifthly, no account was taken of the ongoing costs of management and maintenance of the units.

3.2.10.7 Lack of longitudinal analysis

A major weakness of the JURUE researchers' methodology is the lack of any adequate time horizon. Like previous studies, JURUE's work provided only a "snap-shot" picture of the situation that existed in 1982. Since the researchers provided no evidence to suggest that the costs and benefits of the programme in 1982 were likely to be typical past and future costs and benefits, the findings and policy recommendations of the report are very time specific, and of less use to the Commission in the forward planning of the programme, than they would have been if the researchers had adopted a longer time horizon.

3.2.10.8 Policy recommendations

One of the major advantages of the JURUE study compared to previous evaluations of the advance factory building programme is that the researchers provided a number of clear policy recommendations which were relevant to the needs of policy makers in the D.C.. In a substantial section at the end of their report the researchers gave ten "possible pointers for future policy" which covered all aspects of the D.C.'s activities, and included recommendations about the priority which should be given to different programmes in the future. It might be argued that many of these findings are not directly related to the performance indicators used in the evaluation, and the choice of output measures does not therefore seem to have been entirely appropriate, however, clear statements of policy recommendations are known to considerably enhance the chances of evaluation studies being used, (section 4.1 chapter 3), and their inclusion is therefore a positive attribute of the JURUE research.

3.2.11 Croxton (1983)

Croxton (1983) attempted to evaluate the D.C.'s factory building programme in North Herefordshire and South Shropshire. He concluded that the cost per job "created" in the units was on average about £ 8,000 when discounted over a ten year time period. If the costs were discounted over fifteen years they fell to an average of about £ 7,000 and over a twenty five year period to just over £ 3,000.

Like many researchers Croxton described the methodology which he used in a very confusing fashion. In particular his report does not contain a clear explanation of the manner in which he arrived at the cost per job calculations he calculated. Although his work was produced before the JURUE report was published, it was undertaken after reading a draft of the JURUE report and with help from the JURUE team. Croxton claims that his methodology was based on a modified version of the methodology used by the JURUE researchers, i.e. on interviews which he conducted with the managers

of firms which had occupied factory units in the area. However there are a number of important differences between the two studies.

Firstly, Croxton considered that all the jobs in the firms in the factory units at the time of his survey owed their existence to the factory building programme, i.e. were new jobs. Unlike the JURUE researchers he therefore had no reliable basis on which to distinguish between net and gross employment impacts of the programme. Secondly, the fact that he discounted his results over varying periods of time meant that he did not take the same limited time horizons as did the JURUE researchers.

Like Hubbard (1981), Croxton also provided estimates of the cost per job at various different levels of employment density and at different occupancy rates. He also assumed (as did Hubbard), that new jobs would be taken up by local people who had previously been unemployed, but did not undertake interviews with the employees to check the validity of this assumption.

Croxton's methodology does not therefore represent any significant advance on previous evaluation methodologies. It combined a number of the attributes of the methodologies used in previous studies, and therefore incorporated many of the weaknesses and misconceptions of previous work. In particular, like many of the other studies described above, he failed to use a sufficiently wide range of performance indicators, and the indicators which he did use were not explicitly related to the Commission's overall objectives. He ignored the fact that some of the jobs provided by the firms in the units would probably have existed in the absence of the programme, and that much of the employment impact of the programme had probably occurred outside of the target areas.

He gave no policy recommendations, and although he calculated the costs of factory building by a variety of the methods used by previous researchers and therefore should have been able to give some indication of the relative merit of each of the methodologies that have been used in previous studies, his report was devoid of any discussion of the methodological implications of his work. He expressed no views about the relative merits of alternative methodologies or about the ways in which existing approaches might be improved.

3.2.12 Ecotec (1987)

The most recent study of the advance factory building programme was that undertaken by Ecotec sponsored by the Department of the Environment. This study included an attempted evaluation of both the advance factory building programme, of redundant building conversion schemes and the advisory and financial services provided to small businesses by CoSIRA.

The researchers at Ecotec used a methodology which was very closely based on that used in the JURUE study (1983). Like JURUE they used a wider range of output measures than have most previous researchers. The majority of these were, however, descriptive indicators of the performance such as the types of activities which the firms in the units were involved in, the perceived benefits to the firms of having occupied the units, and the characteristics of the jobs provided and the employees who had taken them. The Ecotec researchers did not however, relate these measures to the Commission's objectives, nor did they show what these measures demonstrated about the net impacts of the programme.

One of the quantitative output measures used in the study was the cost per net new job created by the factory building programme which the researchers estimated had averaged £ 9,700. As in previous studies, the cost per job is not however related to the D.C.'s objectives, and is therefore of little relevance to the policy recommendations which are made in the report.

The Ecotec study shares some of the strengths of its immediate predecessor (the JURUE report). Clear programme objectives are specified at the beginning of the report, clear spatial boundaries are specified, and a number of clear policy recommendations are contained in the report. Unfortunately, it suffers from many of the weaknesses which existed in the JURUE methodology and which have been discussed above. These include the fact that its findings were very time specific, and therefore of limited value to policy makers in planning the programme over a number of years. Further, although overall programme objectives are specified these are rarely reflected in the choice of output measures. There is for example, no attempt to discover the extent and nature of the programme's impact on the

local labour market, only an incomplete consideration of the effects of "spin-offs" of the programme, and no consideration of its net employment impacts on the national economy.

Like the JURUE researchers, those who undertook the Ecotec evaluation ignored the impact of the programme on exchequer costs such as unemployment benefits, and failed to take account of the activities of other agencies in the case study areas. The latter problem is particularly important since many of Ecotec's case study areas were also Assisted Areas in which firms would have been entitled to several forms of assistance in addition to the that provided by the D.C..

Finally, like several of the studies discussed above, Ecotec's work was commissioned by a government department. The choice of case study areas, of methodology and the presentation of findings were not therefore entirely independent. Some observers have questioned the credibility of these studies, because of the apparent lack of independence (c.f. Minay 1985). For example, the Ecotec researchers chose their case study areas in consultation with the D.C., CoSIRA and English Estates (Jeffries private communication 1985), and there was therefore a danger that the researchers may have been influenced to study the areas in which the programme has been most successful, and that their results may not therefore have been representative of the programme as a whole.

4.0 SUMMARY AND CONCLUSIONS

It is clear that previous impact assessment studies do not provide an adequate basis for developing a methodology to evaluate local economic initiatives in rural areas. They have been primarily concerned with the impacts associated with the in-movement of large scale industries, and the methodologies they have used are not therefore appropriate to the evaluation of small scale local initiatives. Further, they have not included any assessment of the costs associated with rural industrialisation, and do not therefore provide a basis on which it is possible to determine the value for money of alternative policy options.

Previous evaluations of the advance factory building programme, have been of two types. The first involved studying programmes as a whole, the second studying them in more detail in selected case study areas. The former have either focused narrowly on only one aspect of the programme, or have been rather superficial, descriptive accounts of the evolution of the programme, and of the results of other workers' more detailed case studies. They have not therefore provided detailed findings of the sort which would be of most value to policy makers, nor do they provide a methodological basis for comprehensive evaluation of the programme's performance.

Studies which have attempted to evaluate the programme in specific case study areas, have suffered from a number of drawbacks. Three of which are particularly important. Firstly, the researchers who have undertaken them have used a very narrow range of performance indicators, which have rarely been related to the objectives of the programme. Secondly, they have failed to accurately identify net programme impacts. Thirdly, most studies have lacked appropriate spatial and temporal boundaries.

Further, different studies have used quite different approaches and it has therefore been impossible to compare their results. Since one of the main attributes of evaluation research is that, in theory at least, it enables the effectiveness of different programmes, and the effectiveness of the same programme in different areas, to be compared, the lack of a standardised methodology is clearly a matter for concern.

It is clear that there is a large gap between evaluation theory (as outlined in chapter 3), and existing practice. Very few previous studies have included any rigorous evaluability assessment, and most have lacked proper formative evaluation. As a result of previous researchers' neglect of these important initial phases in the evaluation process, their findings have been unreliable, and have shed no light on the way in which the programme's delivery system has operated. They have therefore been of limited value to policy makers.

These problems are by no means unique to previous evaluations of the Development Commission's advance factory building programme. They are also found in most previous evaluations of economic development initiatives in urban areas. Therefore, if evaluation research is not to be discredited by

its failure to deliver accurate and comparable studies of programmes and policies, it is important that the methodological problems identified in this chapter are resolved. The next chapter discusses the ways in which this might be done, describes the approach which was developed in the present study and demonstrates how this solves many of the existing methodological problems.

CHAPTER 5 THE METHODOLOGY DEVELOPED AND USED IN PRESENT RESEARCH

1.0 INTRODUCTION

The preceding two chapters have demonstrated that there is a gap between evaluation theory and existing practice, as a result of which there have been a number of serious weaknesses in previous evaluations of the Development Commission's advance factory building programme. This chapter describes the approach which was developed and used in the present study. It will be shown that by following the major stages in evaluation research which were identified in chapter 3, it was possible to develop a methodology which dealt with the key evaluation issues that, (as was shown in chapter 4), have not been resolved by previous researchers. The most important of which were :

i) using appropriate types of data to evaluate the programme;
ii) accurately measuring the costs of the programme;
iii) specifying a hierarchy of programme objectives;
iv) developing a model of the programme's delivery system;
v) measuring the net outcomes of the programme;
vi) selecting appropriate output measures related to each level in the hierarchy of objectives;
vii) measuring the wider effects of the programme, such as market share displacement and multiplier effects;
viii) defining the boundaries of the target areas;
ix) measuring impacts over time;
x) ensuring that findings are presented in a form which is accessible to policy makers.

2.0 DATA SOURCES

Some evaluations of the advance factory building programme have been based solely on secondary data sources such as census returns, (section 3.2.3 chapter 4). However, the trends which are apparent in census data are

influenced by a wide range of factors most of which are not affected by relatively small-scale initiatives such as the advance factory building programme. They can not, therefore, be used as a means of accurately measuring programme impacts unless corroborated by first hand information.

The first hand data on which the present study was based was derived from a wide range of interview surveys. The first of these was a survey of officers from the Development Commission, CoSIRA, English Estates and local authorities who had been responsible for managing the programme. These interviews formed an important part of the evaluability assessment, serving a number of functions. Firstly, they enabled the researcher to develop a "feel" for the programme's objectives and intended delivery system. Secondly, they provided useful information about the characteristics of the case study areas which was used in the process of selecting case study areas (section 4 chapter 6). Thirdly, they provided valuable information about the history of the case study projects. Fourthly, they helped to familiarise policy makers and programme managers with the aims of the present study, and this was likely to increase the chances that they will make use of its findings. Finally, the interviews enabled the researcher to gain access to the official records about each of the case study projects.

The examination of official files kept by English Estates was the second major stage in the data collection. These provided important information about the length of time which each stage in the development process had taken, about the number and size of units which had been provided, about occupancy rates and about the costs of the programme. In combination with the findings of the interview survey and of site visits, this information helped the researcher to identify major delays in the delivery system, (section 3 chapter 9), to measure the lower level outputs of the programme, (chapters 9, 10 and 11) and to evaluate its cost effectiveness, (chapter 17).

Following the completion of the interviews with programme managers and the examination of project files, eight major interview surveys were undertaken. These included surveys of:

i) the managing directors of the firms which occupied the D.C. factory units in the case study areas in mid-1984;
ii) the employees of these firms;
iii) the managing directors of the firms for which these employees had previously worked;
iv) the previous employers of any individuals who had replaced these employees in their previous jobs;
v) the managing directors of a group of matched firms;
vi) the managing directors of local firms which were in competition with the occupant firms;
vii) the managing directors of firms which had moved into premises which the occupant firms had previously operated from;
viii) the managing directors of the firms which occupied the D.C. units in the case study areas in mid-1986.

The interviews which formed the basis of these surveys were semi-structured, and provided the information which was needed in order to measure the programme's higher level outputs accurately, and to discover how its delivery system had operated.

The responses of each of the groups of interviewees were checked in three main ways. Firstly, the information provided by one group could often be cross-validated by comparing it with the data provided by other groups. For example, the extent to which occupant firms had caused local market share displacement was assessed in the light of the information provided both by the managing directors of the occupant firms and also by these firms' potential local competitors. Secondly, much of the information provided by interviewees could be checked with the data which had been obtained from programme managers. For example, the views of the managing directors of the occupant firms regarding where their firms would have located in the absence of the programme were assessed in the light of information which local authority and English Estates officers had provided about the state of the local industry property market. Thirdly, cross-checks were built into the survey design by including a range of supplementary questions about each important issue. For example, each of the managing directors of the occupant firms were asked in general terms what effect they believed moving into the units had had upon their firms. This question was then followed by more specific enquiries about the extent

to which their firm's turnover, profitability, operating costs and product ranges had changed since moving into the units, and these provided more objective information about the possible impacts of the programme.

3.0 MEASURING THE COSTS OF THE PROGRAMME

If the cost effectiveness of a programme is to be properly assessed it is vital that the its costs (as well as benefits) are measured accurately. Most previous researchers have given insufficient attention to this issue. In particular many have failed to measure net programme costs, i.e. those which would not have been incurred in the absence of the programme, (c.f. section 3.2.5.1 chapter 4). These can be best identified by constructing a hypothetical alternative situation in which the programme had not been implemented, and comparing the costs which would have been incurred in this situation with those which were actually incurred, as summarised in the following equation :

$$C\,n = C\,g - C\,as$$

where C n is the net cost of implementing the initiative, C g is the gross cost of implementing the initiative, and C as is the cost that would have been incurred in the alternative situation.

In the present study two types of cost were identified; once-off or initial costs incurred as a result of building the factory units, and on-going costs incurred in the continuing management of the programme. Information about both was obtained from project files, and from the CoSIRA, English Estates and local authority officers.

3.1 Once-off costs

The main costs of the case study projects had been incurred at the time when the units were first built. These included the costs of site acquisition, site preparation and servicing, and of the construction of the

units. In the present study direct access to project records was obtained so it was possible to gather detailed information regarding the total costs of each of these stages. Unfortunately however, these records lacked details of the out-turn costs of some of the case study projects, and in these instances it was necessary to estimate costs on the basis on the approved costs of the projects, (section 3.1 chapter 8). Comparisons between the actual and approved costs of the case study projects for which both sets of figures were available suggested that in most cases the out-turn costs of projects had not been significantly different from the approved costs, and it therefore seemed unlikely that the necessity of using approved costs had impaired the accuracy of the study.

The gaps in the official records were apparently the result of confusion which arose in 1981 when responsibility for the management of the programme was transferred from CoSIRA to English Estates, (section 3.1 chapter 9). The fact that such basic information as outturn costs had not been collected over the intervening three years is symptomatic of the low priority which programme managers attach to monitoring and evaluating programme performance.

3.2 On-going costs

In the course of the present study, it became clear that there were two main types of on-going costs. The first, that of maintaining the units could be quantified and was therefore included in calculations of the cost effectiveness of the programme. The second, officer time spent administering the case study projects, was much more difficult to measure accurately and as a result had to be excluded from the analysis of cost effectiveness, (section 3.2.2 chapter 8). Neither category of on-going costs have usually been measured by previous researchers.

3.3 Costs incurred by other agencies

It is becoming increasingly common for a number of different agencies to fund a programme in partnership, (for example, the D.C.'s joint funding of advance factory units with local authorities, section 6.1.3 chapter 2). Since agencies are often concerned only with the costs which they themselves have incurred it is sometimes important for an evaluator to disaggregate the total programme costs on an agency by agency basis. Such a breakdown of costs requires the original sources of all funding to be traced, and therefore has the advantage that it helps to guard against double counting. However, previous researchers seem to have overlooked this issue, even in cases where they were evaluating the programme for one particular agency, for example evaluations undertaken specifically for the Development Commission, (e.g. Hodge and Whitby 1979).

The records analysed in the course of the present study showed that some of the case study projects had been contributed towards by agencies other than the Commission, (section 3.2.3 chapter 8), and it is therefore possible that by overlooking this, previous researchers have overestimated the costs of the programme to the D.C..

3.4 Discounting measures of costs

The costs of different case study projects and of different phases of the same projects had often been incurred at different times. So that it is possible to make valid comparisons of the cost effectiveness of different projects, it was necessary to adjust the programme costs to take account of the effects of inflation. In the present study programme costs were discounted to their value at the time of the first survey of occupant firms, i.e. 1984 prices, (section 3.1 chapter 8).

4.0 SPECIFICATION OF THE HIERARCHY OF OBJECTIVES

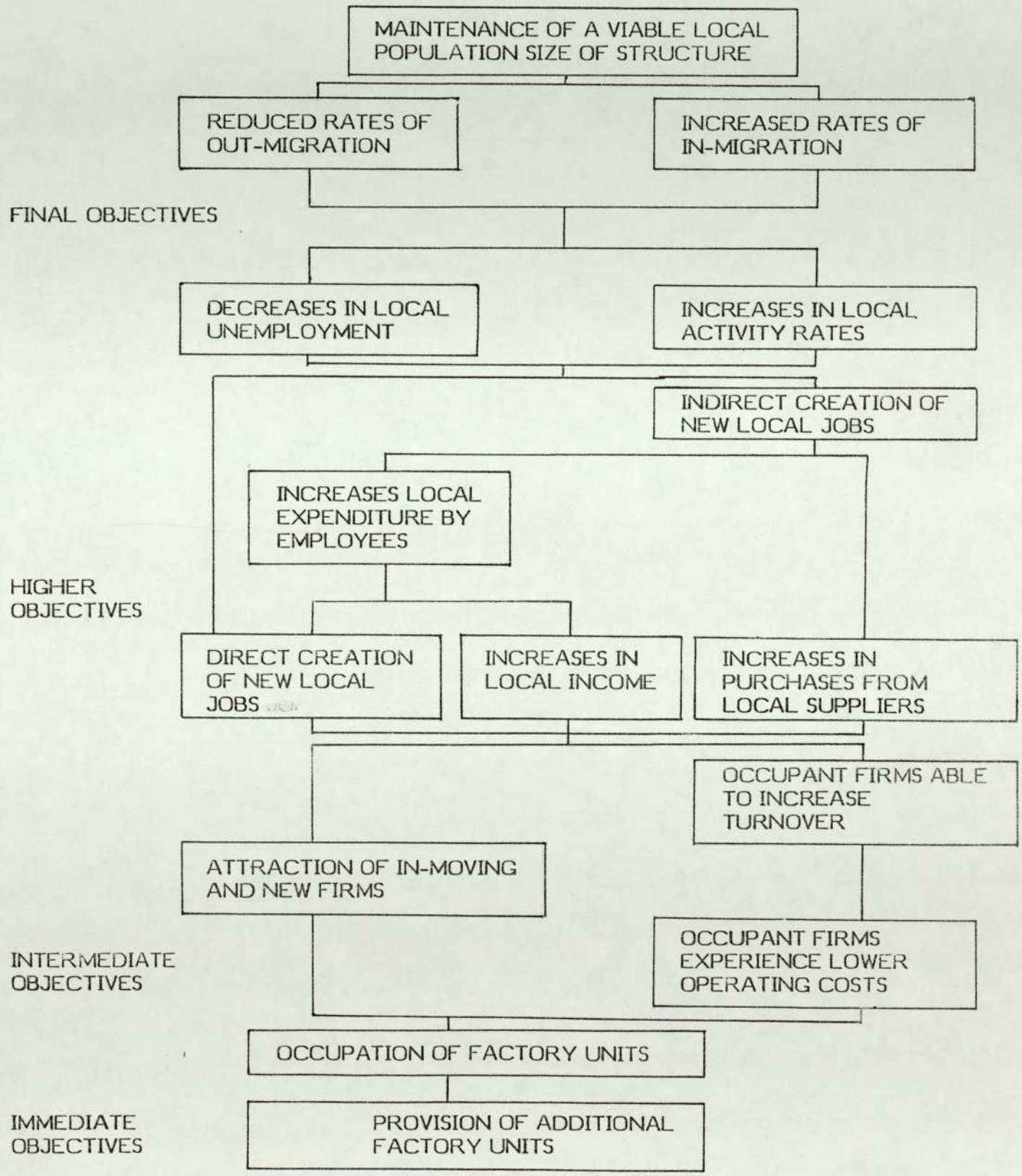
In past studies of the advance factory building programme (and other local economic initiatives), researchers have failed to evaluate programme effectiveness against a sufficiently clear set of objectives. They have usually relied on a very narrow range of output measures, (often just cost per jobs figures) and have, therefore, been unable to determine whether the programme has contributed towards the achievement of the Commission's wider policy objectives. In order to avoid this situation, part of the evaluability assessment undertaken in the present study, involved specifying the aims of the advance factory building programme as a hierarchy of objectives, (Figure 5.1). This enabled the researcher to design appropriate measures of the programme's performance at each level in this hierarchy.

In common with many other local economic development programmes, the aims of the advance factory building programme, were largely implicit, and had changed through time, (section 6.1 chapter 2). Until the late 1970's the programme was primarily a response to official concern about the problem of rural depopulation. However, because of the widespread urban-rural shift of people and industry in the 1970's and early 1980's, by the time of the present study this was no longer a reasonable rationale for the programme, (section 3 chapter 1). Nevertheless, a detailed analysis of successive annual reports, policy statements and internal memos showed that despite some changes of emphasis, a number of recurrent themes could be identified. For example, the Commission had consistently aimed to promote the economic viability of rural areas, and the well being of the communities in these areas, and it was clear that one of the aims of the advance factory programmes had continued to be the provision of new job opportunities in rural areas, (section 6.1.7 chapter 2). In the present study the extent to which it has done so was therefore regarded as an important test of its effectiveness.

It was clear, however, that the provision of new jobs necessitated the achievement of a number of lower level objectives, such as the attraction of firms to the target areas, and could also have a number of further impacts on the case study areas. It was, for example, likely to lead to

FIGURE 5.1

MODEL OF THE HIERARCHY OF OBJECTIVES OF THE ADVANCE FACTORY BUILDING PROGRAMME



decreased levels of unemployment, increased activity rates and to demographic changes. Each of these possible effects was therefore built into the hierarchy of objectives as a series of interdependent stages which provided a model of the programme's intended delivery system.

5.0 DEVELOPING A MODEL OF THE PROGRAMME'S DELIVERY SYSTEM

An examination of the way in which a programme operates should be a central feature of an evaluation, because researchers can only explain why the intended benefits have or have not been achieved and make recommendations to policy makers concerning ways of enhancing programme performance if they understand its delivery system. This area of research has, however, been neglected by previous researchers and little is therefore known about the way in which the advance factory building actually operates.

The Commission's assumptions about the way in which the programme would operate were largely implicit. However, it was clear from its Annual Reports that at the time at which the programme was designed, policy makers were very much influenced by growth centre and cumulative causation theory, (section 6.1.2 chapter 2). It was clear that underlying the design of the programme was the implicit assumption that there was a shortage of industrial premises in target areas. It was anticipated that the provision of additional floorspace would therefore be likely to have three effects. Firstly, it was expected that it would attract in-moving firms to the target areas. Secondly, it was hoped that the provision of new factory units would increase local rates of new firm formation. Thirdly, it was thought that it might facilitate the expansion of local firms, (Figure 5.1).

It was thought that this would have a number of further effects. Local firms which located in the premises might as a result be able to reduce their operating costs, and thus increase profits. This in turn might encourage them to increase turnover and investment, and this might lead to increased wages (i.e. increases in the level of aggregate local income), and the creation of new jobs. The attraction of in-movers and the founding

of new firms would necessarily lead to local job gains, and thus increases in local income, and the programme might also encourage these firms to expand faster in the factory units than would have been possible in their next best alternative location. It might even be the case that some firms would have been unable to start up and others forced into liquidation in the absence of the programme, because of the lack of suitable local premises. It seems that the Commission anticipated that the increases in turnover and the creation of additional jobs and local income, which it hoped to catalyse through the advance factory building programme, would then lead to wider impacts (such as multiplier and demographic effects), that would contribute towards the achievement of its overall policy objectives, (Figure 5.1).

In the present study the programme's intended delivery system was therefore envisaged as a number of lower level, intermediate and higher level outputs which, if achieved would meet key objectives at each of these levels. By measuring the scale of outputs which had actually been achieved at each level in the hierarchy it was possible to test the extent to which the programme had operated in the manner which had been anticipated, and to identify ways in which the delivery system could be improved in order to enhance the programme's performance.

6.0 MEASURING NET PROGRAMME OUTPUTS

In order to discover whether the intended outputs at each level in the hierarchy of objectives had been achieved, and to measure the extent to which the achievement of these outputs had led to the achievement of programme objectives, it was necessary to measure **net** outcomes. Many previous researchers have attempted to develop net outcomes by comparing the observed situation with that which existed before the programme was implemented, (the "before/after approach"). As a result they have been unable to accurately differentiate between the results of the programme and of other exogenous factors, (section 3.2.3 chapter 4), and this has lessened the value of their work. Therefore, in the present study, net outputs were measured by comparing the hypothetical situation which would

have existed at the time of the evaluation in the absence of the programme (the alternative situation), with the observed situation.

6.1 Measures of duplication

The fundamental assumptions which underlay the advance factory building programme were firstly that there is a shortage of small industrial premises in the target areas, (section 5.0 above), and secondly, that the Commission was the only agency likely to provide small factory units in these areas. If there had been a surplus of factory floorspace in the case study areas, or if in the absence of the programme similar premises would have been provided in the case study areas by other agencies, the observed impacts of the programme could not be considered to be net outcomes.

Previous researchers have frequently overlooked this issue, but in the present study it was examined on the basis of evidence gathered from the surveys of the managing directors of the occupant and the matched firms, and the officers from local authorities, CoSIRA, English Estates and National Park authorities. These interviews enabled a detailed knowledge of the state of industrial property market in the case study areas to be acquired, on the basis of which it was possible to assess the likelihood that the Commission had merely provided surplus premises or duplicated the activities of other organisations, (section 4 chapter 8).

6.2 Measures of exogenous influences

There are a multiplicity of agencies whose activities have an influence on rural areas, with budgets which far outweigh that of the advance factory building programme, (section 1.0 chapter 2). Even if it could be shown that duplication had not occurred, it was therefore possible that observed changes were the result of exogenous factors rather than of the programme. Distinguishing the effects of the programme from the activities of other agencies' activities is a major methodological problem, and previous

researchers have tended to ignore it and as a result have probably overestimated the scale of programme impacts.

In the present study, exogenous and programme impacts were distinguished by adopting a bottom-up empirical approach which enabled the detailed causes and effects of changes at each level in the delivery system to be traced. This meant that clear links between the programme and observed impacts could be recognised with some confidence, which lessened the chances of programme impacts being overlooked and of exogenous changes being erroneously attributed to the programme. The likely impacts of other programmes were assessed by asking the managing directors of the occupant firms whether they had received assistance from other agencies, (for example, the DTI), and if they had, about the effects which this had had upon their firms. Finally, these problems were minimised by selecting as case study areas, parts of the country in which few other agencies had been active, (section 3.2 chapter 6).

6.3 Measures of direct income resulting from the programme

Very few of the programme impacts could be expressed meaningfully in monetary terms. There were however three which could. Firstly, income to the Commission in the form of rents paid by occupant firms and from the proceeds of sales of the units. Secondly, income to local authorities in the form of rates paid by the firms which occupy the units. Thirdly, savings to both central and local government in the form of decreased unemployment and social security payments, due to increases in employment and income which result from programme; (local authorities meet part of the cost of housing and some other benefits).

Although the present study identified the likely scale of savings of government expenditure and of increases in local authority income which were likely to have resulted from the programme, (section 5.2 chapter 14 and section 3.2.3 chapter 15), it is not common practice to include these impacts in evaluations of local economic initiatives, (DTI, DOE and H.M. Treasury personal communication 1988). Therefore only the rents paid by the occupant firms and proceeds from the sale of units, were included in

calculations of the programme's cost effectiveness, (section 2.0 chapter 17). These were calculated from an analysis of English Estates records, and like programme costs were expressed in terms of 1984 prices.

7.0 MEASURING OUTPUTS AT EACH LEVEL IN THE HIERARCHY OF OBJECTIVES

As explained in section 4.0 above, in the present study the outputs of advance factory building programme were measured at a number of different levels in the hierarchy of objectives. Five basic types of outputs were measured. These were immediate, intermediate, higher, final and unintended and indirect outputs.

7.1 Measures of immediate impacts

7.1.1 Amount of floorspace provided

The immediate output of the advance factory building programme was the new factory floorspace which had been provided. This can be measured in a number of different ways, some of which are not entirely appropriate. For example, some researchers, (e.g. Minay 1985), have measured the amount of floorspace provided in terms of that which had been approved by the Commission. However, this is not a reliable indicator of the amount actually provided because much of the floorspace which is approved is never actually built, and even when it is, there are usually considerable delays between the date of approval and the time at which units are finally constructed, (section 3.3 chapter 9). Therefore in the present study the amount of floorspace which had been provided was measured in terms of units which had actually been completed in the case study areas at the time when the first survey of the occupant firms was undertaken, (mid-1984), (section 2 chapter 9). The data about this was initially obtained from English Estates' records, but in some cases these were found to be inaccurate, and it was therefore necessary to check the information they provided by site visits and through the surveys of the occupant firms.

7.1.2 The sizes of units

In addition to the total amount of floorspace provided, it was important to consider the sizes of the individual units which had been provided in each area, because it was likely that this had affected the nature of the impacts of the case study projects. It is clear for example, that the effect of having provided one 10,000 square feet unit would have been quite different to that of providing ten 1,000 square feet units. Unfortunately, because of their failure to consider lower level programme outputs, previous researchers have not taken account of the implications of the size of the units. As a result they have been unable to provide evidence about the relative merits of providing units of different sizes.

7.1.3 Approval, completion and occupation of units

Information was also obtained regarding the length of each stage in the development process of the case study projects from the dates when Action Plans were submitted to the Commission, to the time when the units were completed. This enabled delays in the development process to be identified, and a number of recommendations to be made regarding ways in which they might be reduced, (section 3 chapter 9). As with other issues relating to low level outputs, the present study seems to have been the first to have provided detailed information of this sort.

7.2 Measures of intermediate outputs

The intermediate output measures which were used in the present study included occupancy rates, the number and types of firms which had occupied the units and the effects which moving to the units had had upon these firms.

7.2.1 Occupancy rates

Prior to the present study, only one other researcher, (Chisholm 1985), had considered the occupancy rates associated with the factory building programme. The approach adopted in the present study differed from that used by Chisholm in three main ways. Firstly, in the present study occupancy rates were measured over time. By tracing the history of each of the units from the date on which they were approved, it was possible to produce a measure of average rates of occupancy as a ratio of the time for which the units had been vacant. This was likely to provide a far more meaningful measure of the programme's effectiveness than the "snap-shot" view which was given by Chisholm, and which is currently used by the Commission.

Secondly, unlike Chisholm's study, in the present research information regarding occupancy which was available from official records was checked by interviewing the managing directors of the firms which had occupied the units. This revealed a number of inaccuracies in the secondary data sources. Since Chisholm relied entirely on official records, his data base is likely to have been less accurate.

Thirdly, in the present study occupancy was measured in terms of occupancy rather than vacancy rates. Although the difference between the two is entirely one of semantics, it may nevertheless be important, because the term "vacancy rates" has connotations of failure, and is therefore a measure about which programme managers are likely to be sensitive, and may not wish to use. The phrase "occupancy rates" does not have the same overtones and is therefore less likely to alienate policy makers and programme managers.

7.2.2 Characteristics of occupant firms

It was clear from the hierarchy of objectives (Figure 5.1) that the characteristics of the firms which had occupied the units, (particularly the types of activities with which they were involved, their previous

locations and their ownership characteristics), were likely to have been an important influence on the effectiveness of the programme. The Commission considers manufacturing firms to be the basis of the local economy and believes that it is therefore important to encourage their growth in order to safeguard local services. As a result, at least in the earlier years of the programme, service firms were not allowed to occupy the factory units. Similarly, in the mid-1970's the units were intended to primarily attract in-moving firms rather than to accommodate indigenous companies, because it was thought that the former were more likely to broaden the economic base of target areas. The extent to which the programme had led to the attraction of in-moving manufacturing firms in line with the D.C.'s objectives, was therefore an important performance indicator.

Since previous research has suggested that a firm's propensity to close down or move away from rural areas was affected by its ownership characteristics, (section 2.2.1 chapter 4), it was also important to take these into account.

Previous researchers have not studied the programme's delivery system and as a result very little is known about the extent to which the characteristics of occupant firms have in fact influenced the nature and scale of programme impacts. Therefore, in the course of the present study detailed information regarding the industrial sectors in which the occupant firms were involved, their previous locations, and their ownership and founder characteristics was obtained from the survey of the firms.

7.2.3 Impacts on occupant firms

The next objective in the hierarchy was that the programme should have a positive impact on the firm which had occupied the units, (Figure 5.1). There were two main ways in which this might have happened. Firstly, the programme might have influenced the locations of the firms, and secondly it might have affected their viability and rates of growth.

7.2.3.1 Impacts on the locations of occupant firms

A firm's likely alternative location was a crucial factor in determining what proportion of the observed impacts (gross impacts) could in fact be attributed to the programme (net impacts). For example, if an in-moving firm would have located in a target area even in the absence of the programme, the jobs which were brought into the area by that firm could not be attributed to the programme. Unfortunately, many previous researchers have overlooked the importance of considering the occupant firms' alternative locations, and those which have attempted to take it into account have either used the firms' previous locations as a reference point, or have used an insufficient number of output measures to be able to show conclusively where the firms' alternative locations were likely to have been.

In the present study evidence regarding the firms' alternative locations was gathered from a number of sources. The managing directors of the firms which had occupied the units, were asked where they believed their firms would have located if the D.C. units had not been available, about the nature of their search procedures and the alternative locations which they had considered in the course of these searches. They were asked to rank these alternative locations in order of preference, and to give the reasons why they had rejected these sites in favour of the D.C. units.

As a check on the accuracy of the managing directors' perceptions their answers were compared with the information about the local industrial property market in each of the case study areas which had been obtained from the interviews with local authority, CoSIRA and English Estates officers, and with the perceptions of the managing directors of the matched firms. In this way it was possible to build up a detailed picture of the options that were available to the each of the occupant firms at the time when they moved to the units, and about the managing directors' level of awareness of those options, and thus to make a judgement about each firm's likely alternative location in the absence of the programme.

7.2.3.2 Impacts on the survival and growth of occupant firms

A major objective of the programme was to provide the firms which had occupied the factory units with conditions which enhanced their viability and increased their growth rates. The extent to which it had done so was therefore an important performance indicator. As with other impacts, it was necessary to measure net outcomes, i.e. cases where new firms would have been unable to start up and existing firms would have been unable to expand as rapidly as they had done, if the case study projects had not existed.

In the present study evidence about the scale of these impacts was obtained by using a variety of output measures. The managing directors were asked what effect they believed occupying the units had had upon the survival and growth rate of their firms. Their perceptions were then checked by obtaining from the managing directors detailed information about the way in which each firm's turnover, product range, operating costs and profitability had changed since moving to the units, and comparing this with the same data about the matched firms.

By comparing the gross changes in the occupant firms' rates of turnover, product range, operating costs and profitability with those of the matched firms, it was possible to gain some indication of the extent to which these changes might have been caused by the programme, and to examine the way in which the programme's delivery system had operated.

7.3 Measures of higher level outputs

The higher level objectives of the programme were to create new jobs and increased income in the target areas, (Figure 5.1). New jobs were expected to result both from the re-location and growth of occupant firms, (direct employment impacts), and from the multiplier effects of increased turnover in the occupant firms, and increased local income levels, (indirect impacts). Increases in local income levels were expected to be achieved as a result of the creation of new jobs in the occupant firms and subsequently from the creation of additional new jobs in the firms which supplied goods

and services either to the occupant firms or to their employees. This section describes the manner in which direct employment impacts were measured; indirect impacts are discussed in section 7.5 below.

The direct employment impacts of local economic programmes have been regarded by many researchers as their final outputs. They have also been by far the most widely used performance indicators. That this should be the case is not surprising in view of the continuing high levels of unemployment throughout the 1980's. However, it has had the unfortunate effect of having focused previous studies far too narrowly, thus limiting the usefulness of their findings, (section 3.2.10.2 chapter 4), a problem which has been exacerbated by the fact that employment impacts themselves have often been assessed on the basis of a narrow range of indicators, many of which have been inappropriate and / or inaccurate, (section 3.2.5.1 chapter 4).

The advance factory building programme has both short and longer term employment impacts. Short term impacts are associated with the construction of the units, and as a result last for fixed time period. In the present study these are referred to as temporary employment impacts. Direct, longer term impacts result from the provision of new jobs in the firms which occupy the units. These jobs are likely to exist for varying lengths of time, but since they are intended to be permanent, were referred to as such in the present study. The issues surrounding the measurement of the exact length of time for which permanent jobs were likely to exist are discussed in section 9 below.

Most previous researchers have been concerned only with the scale of employment impacts (i.e. the numbers of jobs created), however, the types of jobs provided by the programme is also important, and in the present study both quantitative and qualitative measures were therefore used.

The use of a much wider range of measures than had been adopted in previous studies provided a more comprehensive picture of programme impacts. It also enabled comparisons to be made between the usefulness of different types of indicators, and demonstrated that the conclusions reached regarding the size of the employment impacts of the programme vary considerably according to the type of output measures which are used.

7.3.1 Measures of temporary employment impacts

It is known that the temporary employment impacts of some programmes have been greater than their permanent impacts (section 2.2.1 chapter 4). Although this is particularly the case with large capital projects, and might not be expected to apply to initiatives of the size of the D.C.'s factory building programme, the employment impacts associated with the construction phases of some relatively small local initiatives have also been shown to be significant (e.g. PSMRC 1988), and it was therefore important that these were measured as accurately as was possible. Ideally they would have been measured empirically, by interviewing construction companies and discovering how many jobs were provided in the building of the units, and the length of time for which these jobs lasted. However, in the present study it was impossible to gain access to the construction companies which built the D.C. units, and the temporary employment impacts were therefore estimated on the basis of research conducted by the Buildings Research Establishment, into the average number of people employed per pound spent on the construction of new industrial premises, (section 4.1 chapter 14).

7.3.2 Measures of permanent employment impacts

7.3.2.1 Types of job provided

Most studies of economic initiatives have been concerned only with the number of jobs created. However, for three main reasons it was important to consider the types of jobs which had been created as a result of the programme. Firstly, it was clear that the types of jobs provided was likely to influence the impact which the programme had upon the demographic characteristics of the target areas. For example, an initiative which had led to the creation of a high proportion of professional jobs would be unlikely to provide employment for large numbers of local people. It would however, attract outsiders into the area. The rate of out-migration might therefore remain unaffected, but the rate of in-migration would increase.

By contrast, an initiative which led to the creation of large numbers of unskilled and semi-skilled jobs would be more likely to provide jobs for local people. The rate of in-migration might not be changed as a result of such a programme, but the rate of out-migration would be likely to decrease.

Secondly, previous studies of the impact of rural industrialisation suggest that the types of jobs provided also affects the amount of income which is injected into the local economy and determines the social consequences of a programme. There is evidence that the attraction of professional people from outside the area has a greater economic impact than the retention of local people, since professionals are likely to earn higher incomes, and might therefore provide a greater stimulus to the local economy, (section 2.1 chapter 4). It is also clear that in some indigenous communities which were unused to newcomers it has led to severe social disruption (section 2.4 chapter 4).

Thirdly, the D.C. has emphasised that one of the objectives of the programme is to broaden the range of job opportunities available in the target areas, in order to combat the need for local people to commute long distances or leave the areas altogether in order to fulfil their employment aspirations. The extent to which the jobs which had been provided as a result of the programme had added to the range of types of job available in the case study areas was therefore an important indicator of its effectiveness.

In the present study information about the types of jobs provided in the units was obtained from the managing directors of the firms. The extent to which they were likely to have helped to increase the range of local employment opportunities was assessed by comparing the types of jobs provided by the occupant firms with those which existed in the matched firms, and with the jobs which the employees of the occupant firms had held before moving to the jobs in the units. Comparisons were made on the basis of information regarding the skills required, the wage rates, working conditions, and length of working hours, which was obtained from the surveys of the occupant firms, of their employees and of the matched firms.

7.3.2.2 Types of employees taking jobs

The impacts which the programme had had on the local labour markets in the target areas was largely dependent on the characteristics of the individuals who had taken up the jobs in the occupant firms. Particularly important considerations were where these people had lived both before and after taking the jobs in the firms, what their previous employment situation had been and if they had been employed, whether they had been replaced in their previous jobs. Information was also collected about their age and sex. This data was obtained from the managing directors of the occupant firms, from the employees themselves and from their previous employers.

7.3.2.3 Numbers of jobs accommodated in the units

In many previous studies the number of jobs which existed in the occupant firms at the time of the evaluation has been used as a measure of the net number of jobs created as a result of the programme. This is however an entirely inappropriate measure of net impacts, (section 3.2.3 chapter 4). Nevertheless it can provide a useful starting point from which to calculate more sophisticated measures, and it was used as such in the present study.

The number of jobs accommodated in the units can be measured in a number of ways, and the fact that many researchers have not specified how they arrived at the measures of accommodated jobs which they used has caused confusion when the findings of different studies have been compared, (section 4 chapter 4). It is therefore necessary to make a clear distinction between seasonal and permanent employment and between full and part time jobs.

Information about the number of jobs accommodated was derived from the survey of occupant firms. The first measure which was used was the number of employees who worked in the D.C. units. These were then subdivided according to whether they worked on-site or off-site, and whether they were

employed on permanent or a temporary basis. Finally, full and part time jobs were differentiated, and the number of F.T.E. jobs accommodated in the units was calculated. The sizes of the differences between the results obtained from using these different measures demonstrated the need to make a clear distinction between them, and suggested that as a result of having ignored them, previous researchers may have reached somewhat inaccurate findings, (section 2.4 chapter 12).

7.3.2.4 Employment densities

One of the few programme objectives which have been explicitly specified by the Development Commission is that an average of 4 jobs should be accommodated in every 1,000 square feet of floorspace which it provides. This therefore constitutes a useful measure of the programme's performance. However, confusion has arisen because employment densities have been measured in different ways by different researchers. For example, in some previous studies measures have been based on the number of workers employed per unit area of factory floorspace, whilst in others it has been the number of jobs provided per unit area which has been used. In order to demonstrate the extent to which such differences of approach are likely to affect the findings which are obtained, in the present study both measures were calculated. Employment densities are however a generally poor guide to the net impacts of the programme, since there is no way of determining which of the jobs would have existed in the absence of the programme and which are attributable to the programme.

7.3.2.5 Net employment impacts

The most reliable method of measuring direct net employment impacts is to compare the number of employees and / or jobs accommodated in the firms which had occupied factory units with the number which would have existed in these firms in the absence of the programme, (the "with / without approach"), (section 6.3.1 chapter 3). In order to do this it is necessary to discover what the firms' employment profiles would have been in the

absence of the programme, and to subtract this from the number of jobs accommodated in the firms at the time of the evaluation.

In some of the most influential past studies attempts have been made to measure net impacts by comparing the situation which existed at the time of the evaluation with that which existed immediately before the firms moved into the units, (the "before / after approach"), (section 3 chapter 4). In order to discover whether such an approach produced reliable findings, this calculation was also undertaken in the present study, and the results were compared with those obtained from the with / without approach.

Information for both the before / after and the with / without calculations, was derived from the interviews with the managing directors of the occupant firms. Information was gathered about the number of jobs accommodated in these firms at the time of both surveys (mid-1984 and mid-1986), about the firms' employment profiles immediately before they moved into the units, and concerning the number of jobs which the managing directors believed would have been accommodated by the time of the 1984 survey in the firms' next best alternative location.

7.3.2.6 Local employment impacts

Since the primary purpose of the advance factory building programme was to provide new jobs in particular target areas, it was important to measure not just its overall employment impacts but also the extent to which these impacts occurred in the priority areas, (section 3.2.10.5 chapter 4). Unfortunately, most previous evaluations of local economic development programmes have not done this. In the present study, the scale of local employment impacts was assessed on the basis of the information about employment profiles and the likely alternative locations of their firms which had been obtained from the managing directors of the firms which had occupied units. Those jobs which would not have existed in the case study areas in the absence of the programme were considered to be new local jobs. These included those jobs which were new to the national economy plus jobs which were accommodated in firms which would have located outside of the target areas if the units had not been available.

7.3.2.7 National employment impacts

Although the number of new local jobs created is probably the most important measure of the programme's employment impacts, its impact on the national economy is also of concern because the programme will be considered to be less worthwhile, at least by the Treasury, if all that it has done is to shift existing jobs into rural areas at the expense of other parts of the country.

In the present study, the number of new national jobs created as a direct result of the programme were measured by identifying all of the jobs which existed in the occupant firms which would not have done so, in the absence of the programme. As with all the other measures of employment impacts, mentioned so far in this chapter, this was a measure only of the **direct** employment impacts of the programme. It did not take into account a number of potentially important indirect programme effects, notably, job losses in competitor firms and multiplier effects. These indirect impacts were likely to be of much greater significance at the national than the local level, (since most of the competitors and suppliers of the occupant firms were likely to be located outside of the case study areas), and are discussed in sections 7.5.2 and 7.5.3 below.

7.4 Measures of final outputs

Previous researchers have often considered the creation of new employment opportunities to be the final objective of local economic development programmes. However as explained in section 4.0 above, the ultimate aims of the D.C.'s policies were to influence both the demography and the local labour markets of the target areas, (Figure 5.1). It was therefore important to consider the extent to which the job generation associated with the programme had led to higher level outputs.

7.4.1 Measures of the impact on the local labour market

Previous researchers have not measured the impacts which the programme has had on the local labour market, (c.f. section 3.2.5.4 chapter 4). One of the major advances made in the present study was that for the first time an attempt was made to measure the scale and nature of these impacts on the basis of detailed empirical data. The creation of a new job can have one of three possible impacts on the labour market. It may lead to an increase in activity rates, to a decrease in registered unemployment, or to a decrease in concealed unemployment. For reasons which are explained in detail in section 2.0 chapter 13, which of these effects it actually has is largely dependent on four factors. Firstly, the previous employment situation of the individuals who take up new jobs provided by the programme. Secondly, where these individuals lived before they took up the new jobs and where they lived at the time of the evaluation. Thirdly, the number of individuals, who were in employment prior to taking up the jobs in the D.C. units, who were replaced when they left their previous jobs. Fourthly, the characteristics of the people who replaced them.

In the present study detailed information about each of these factors was gathered from surveys of the employees of the occupant firms in the units, and their previous employers. Using this information, it was possible to trace nearly all of the sequences of job changes which had occurred in the case study areas as a result of the programme, and therefore to measure the impact which it had had upon the local labour markets in these areas, (section 7 chapter 13).

7.4.2 Demographic impacts

The overall objective of the advance factory building programme, (at least until the early 1980's), was the stemming of rural depopulation. It was anticipated that the attraction of new firms to the target areas and the resultant increases in the number of local jobs and the level of local incomes would lead to decreased out-migration and / or increased in-migration, and thus population increases. The test of whether or not the

programme had led to the achievement of the Commission's major policy objectives was therefore the extent to which it had led to positive demographic impacts of this sort. Since there are a multitude of factors which may have affected individual decisions about whether to live in the case study areas, it was impossible to use secondary data such as census statistics to identify changes which were attributable to the factory building programme.

In the present study the demographic impacts of the programme were therefore measured on the basis of the perceptions of the employees of the occupant firms regarding where they would have lived in the absence of the programme. Clearly, this approach has the disadvantage of being entirely dependent on the accuracy of the employees' perceptions, and can not therefore be claimed to have produced definitive findings. However, it did at least provide a "feel" for the likely scale of the programme's demographic impacts. The scale of the programme's demographic impacts is largely dependent on the number of new jobs which it creates. Since the present study measured the new jobs more accurately than had previous studies, it is likely that demographic impacts were also identified with greater accuracy, and that it therefore provides an approach to the measurement of final outputs upon which future research can build.

7.5 Measures of indirect or unintended outcomes

The present study was primarily concerned with measuring the direct impacts of the advance factory building programme. There were four main reasons for this. Firstly, measures of direct impacts are usually considered by policy makers to be more important performance indicators than measures of indirect effects. Secondly, previous researchers have failed to measure these impacts accurately. Thirdly, the size of direct impacts often determines the scale of indirect impacts, and therefore accurate measurement of the former is a pre-requisite to accurately gauging the extent of the latter. Fourthly, it seemed clear that the direct impacts of a locally based initiative such as the advance factory building programme were likely to be more important than indirect impacts, many of which would be manifested outside of the local target areas.

However, because previous researchers have largely ignored the indirect and unintended impacts which are associated with the advance factory building programme, very little is known about them. It was therefore necessary to develop a number of new approaches which enabled them to be measured. A number of indirect impacts were studied. The most important of which were likely to be fiscal impacts and the creation of jobs in the construction industry, (sections 6.3 and 7.3.1 above), and site displacement, market share displacement, multiplier effects, the knock-on effects of premises changes, and the impacts on the supply of labour in the case study areas. Some of the approaches used were not as empirically based, and therefore not as rigorous, as those which were developed to measure the direct impacts of the programmes, however, they enabled some judgements to be made about the likely importance of many impacts which have not been studied before, and they should provide a basis on which future research can build.

7.5.1 Site Displacement

If firms which had previously used the sites on which the D.C. units were built, had been forced to leave the site, and had as a consequence either closed down altogether or been forced to lay off workers, the resulting job losses, should be subtracted from the new jobs which had been created in the occupant firms. Previous researchers have overlooked this potential negative impact, however, in the present study the managing directors of firms which had been forced to leave the sites were contacted through local authority and English Estates officers and asked about the effect which this had had upon their firms, (section 3.1 chapter 14).

7.5.2 Market share displacement

It was possible that the firms which had occupied factory units may as a result of the programme, have been able to expand more rapidly than they would have done in their next best alternative locations, and have therefore have taken business away from their local competitors, causing

the latter to lay off workers. It is difficult to measure such displacement accurately because of the practical problems involved in tracing all of the firms which may have been in competition with those which have occupied units, and because of the difficulty of unequivocally linking specific job losses in competitor firms with the programme. It is probably for this reason that it has been ignored in most previous evaluations of employment initiatives.

In the present study, the level of market share displacement associated with the factory building programme was assessed by identifying and excluding from the analysis those occupant firms which could not have caused market share displacement in other local firms either because they had no local competitors or because their market share had not increased as a result of having moved into the factory units. The extent to which the remaining occupant firms had displaced the market shares of other local businesses was then assessed by interviewing the managing directors of their potential local competitors, in order to discover the extent to which their firms' turnovers, operating costs, wage levels, product ranges, profitability and employment profiles had changed since the time when the occupant firms with which they were in competition had moved into the units, (section 4 chapter 15).

7.5.3 Measures of multiplier effects

It was anticipated that the advance factory building programme would have led to increases in the volume of purchases made by both the firms which had occupied the factory units, and by their employees. These purchases are themselves likely to lead to increases in employment, which should ideally be included in an evaluation of the programme. It seemed clear that previous researchers may have overestimated the size of the multiplier. There were two main reasons for this. Firstly, because previous researchers have estimated the scale of the knock-on effects of the programme on the basis of regional multipliers derived from other studies. Since the economies of small rural localities are notoriously "leaky", (section 2.2.2 chapter 4), and the Commission's target areas, were very small, (section 5.3 chapter 6), the real value of the local multiplier is

likely to have been much lower than that of the region as a whole. Secondly, the size of the income multiplier is in part determined by the number of new jobs which have actually been provided by the firms in the units. It was clear that previous researchers had often not measured new jobs in an accurate manner, (section 3 chapter 4), and as a result the accuracy of the income multipliers which they used must be in doubt.

The main determinants of the size of the local multiplier effect is the degree of linkage between the firms which occupied the units and other local firms, and the proportion of their income which employees who had taken up new jobs provided by the programme had spent in the target areas. In the present study, the number of local supplier linkages was assessed on the basis of three pieces of evidence. Firstly, the managing directors of occupant firms were asked to identify their main suppliers of raw materials, components, transport services, banking, accountancy, legal, advertising, printing, cleaning, and other services. In this way those suppliers which were not based in the target areas could be excluded from the analysis. Secondly, the information which they had provided about the impact which the programme had had upon the occupant firms' turnovers (section 7.2.3.2 above), was used to assess the extent to which they were likely to have purchased a greater volume of goods and services as a result of the programme. Thirdly, the managing directors of in-moving firms were asked if they had changed to local suppliers since moving to the units, and if they had, why they had done so, (section 2 chapter 15).

The amount of additional local expenditure by employees was assessed using a combination of primary and secondary data. Firstly, information about the income levels associated with the new jobs which had been created in the units was obtained from the managing directors of the occupant firms. It was therefore possible to estimate the total amount of additional local income which had been created by the programme. The proportion of this additional income which was likely to have been spent locally was then assessed on the basis of the Family Expenditure Survey and a variety of other secondary data sources, (section 3 chapter 15).

Due to time and resource restraints, and because multiplier effects were not the main focus of the research, no attempt was made in the present study to quantify the size of the employment impact associated with

increased expenditure by the firms and their employees. It seemed to be better to provide accurate qualitative indicators of the size of these impacts than to attempt to convert these to much less reliable quantitative measures which would necessarily have been based upon untested assumptions about the employment effects of increased expenditure.

7.5.4 The impacts of changes of premises

Since many of the firms in the units had previously occupied other premises, it was possible that when they had moved to the D.C. units, other firms had located in these and may, as a result, have been able to expand and take on additional workers. The likely scale of this indirect impact was assessed by discovering what use was being made of the premises which had been vacated by the occupant firms in 1984, and if they were occupied, by interviewing the managing directors of the firms which were located in them to discover what impact moving into them had had on their firms, (section 4.7 chapter 7).

7.5.5 Impacts on the supply of labour

One of the potential negative impacts of the programme was that by increasing the demand for local labour, it may have created recruitment problems for firms in the case study areas. The extent to which this had occurred was assessed by asking the managing directors of both the occupant and the matched firms about the nature of scale of any recruitment problems which they faced, and by examining in detail the types of workers which had been taken on by the occupant firms, (section 5 chapter 15).

8.0 DEFINING THE SPATIAL BOUNDARIES OF THE TARGET AREAS

Many previous studies of local economic initiatives have evaluated these programmes in terms of their impacts on the region or even the country as a

whole, and this has been a common failing of evaluations of the D.C.'s advance factory building programme, (section 3.2.5.3 chapter 4). This has meant that findings regarding a programme's impacts and cost effectiveness have often been unrelated to its main objectives of benefitting local economies and communities and have therefore been of limited use to policy makers. In the present study the case study areas were specified in advance of the data collection exercise, and defined on the basis of the Commission's target areas.

This was not however an easy exercise, largely because, in common with many similar programmes, there was considerable ambiguity about the size of the areas upon which the programme had been targeted. It was clear from the Commission's Annual reports that most of its activities (including the advance factory building programme), had been targeted on the Special Investment Areas (and Rural Development Areas after 1984). However, the programme managers with whom the objectives of the programme were discussed at the outset of the study, stated that whilst the S.I.A.'s constituted the overall priority areas, individual factory building projects had been designed primarily to benefit the areas immediately surrounding the towns or villages in which they had been located. Since the present study was an evaluation of particular case study factory building projects and not of the programme as a whole, it therefore seemed to be more appropriate to focus primarily upon the effects which the projects had had upon the immediate areas around each settlement rather than upon their impacts within the whole of the S.I.A.'s.

However, there were two problems involved in focusing exclusively on the small areas around each settlements (known as "areas of pull" in the Action Plans). Firstly, as the officers who had been responsible for designating them admitted, they had been drawn up on a somewhat arbitrary basis. Secondly, most were very small areas, (few had a radius of more than five miles), and it was clear that many of project impacts would occur outside of them. To restrict the evaluation purely to these areas, would therefore have been to risk underestimating the effects of the programme.

As an alternative the possibility of defining the target areas, in terms of the local labour market areas was considered. This seemed to be appropriate because the main objectives of the programme were concerned

with benefiting the "local economy". Unfortunately, however it proved to be unworkable because of difficulties involved in attempting to identify the spatial boundaries of local labour market areas themselves, (section 5.2 chapter 6).

The present study therefore focused firstly on programme impacts and effectiveness in the areas of pull, but also took account of impacts which had occurred over wider areas. The programme was evaluated not only at the local level but also in terms of its impacts upon the national economy. Analysis at the level of the national economy was important because it revealed the extent to which the programme had merely diverted benefits to the priority areas, from other parts of the country. Since the pressure on the D.C. to enhance its performance management systems has come primarily from the Treasury it is important that these aspects of the programme are considered.

Not surprisingly, few of the individuals from whom information was obtained through the surveys which were conducted, were aware of what the areas of pull were. In the course of the surveys the areas of pull were therefore referred to as "the local area".

9.0 MEASURING IMPACTS OVER TIME

It is clear that the costs and benefits of the advance factory building programme may vary significantly over time and that policy makers are interested not only in the scale of programme impacts, but also in how long these impacts are likely to last for. The lack of a long, or even a medium term, perspective has therefore been one of the major weaknesses of previous studies, most of which have evaluated the costs and benefits of economic programmes at just one point in time. In addition many previous studies had been undertaken only a short time after the programme had begun by which time it was unlikely that the full extent of its impacts had become apparent. This has had two results. Firstly, previous researchers are likely to have underestimated the scale of programme impacts, and secondly, little or nothing was known about the length of time for which impacts could be expected to last.

In the present study information was obtained about the number of people which the occupant firms had employed immediately before they had moved into the units, in 1984, and in 1986. In this way, it was possible to build up a detailed picture of each firm's employment profile over at least four years, and in some cases over as long as ten years. As part of the follow up survey of occupant firms in 1986, their managing directors were also asked to estimate how many people they would employ in two years time. It was therefore also possible to make some tentative predictions about the future scale of the employment impacts of the programme.

10.0 PRESENTING FINDINGS TO POLICY MAKERS

A major problem in evaluation research has been that of ensuring that the findings of studies are used. In the past, research has been ignored by policy makers for two main reasons. Firstly, many of the findings of previous studies have been irrelevant to the needs of policy makers either because of a lack of consultation between researchers and policy makers at the outset of a study, or because the output measures used by researchers have been unrelated to programme objectives. Secondly, many studies have been inaccessible to policy makers because of the confusing manner in which findings have been presented. Since the present research was aimed primarily at an academic audience, such concerns were not of such critical importance as they have been in the case of research which has been commissioned by the D.C., the main intended use of which was to inform policy makers. However, many of the findings of the present study were likely to be of value to policy makers and programme managers, and steps were therefore taken in an effort to ensure that their attention was drawn to these.

Firstly, a wide range of staff from the Commission, English Estates, CoSIRA and local authorities were consulted, throughout the research, in order to ensure that they were aware of the study and its contents. Secondly, output measures were clearly related to programme objectives, and it was therefore possible to provide information regarding the extent to which the programme had fulfilled the objectives set for it by policy makers. Thirdly, care was taken to ensure that policy issues which were of

particular importance to the Commission, (for example, the debate about whether units should in the future be built mostly in towns or in villages), were investigated in detail (chapter 18). Finally, the last section of each of the subsequent chapters of this thesis provides a summary of the findings and conclusions reached in the chapter, and the final chapter gives a clear summary of the policy-orientated recommendations which resulted from the study, to which those who do not have the time or the inclination to read the detailed discussion contained in each chapter, can refer.

11.0 SUMMARY AND CONCLUSIONS

The methodology used in the present study was developed in an attempt to resolve some of the problems which have undermined previous evaluations of the D.C.'s advance factory building programme, and similar local economic initiatives. It was based on the general framework for evaluation which was outlined in chapter 3. It provides a method by which economic programmes could be evaluated more comprehensively and accurately than they have been in the past, and as such it should be of considerable value to policy makers and future evaluators. Indeed, although no other researchers have yet incorporated all of the developments made in the present research into their evaluation methodologies, a number have recently adopted at least part of the approach which has been outlined in this chapter.

CHAPTER 6 THE CASE STUDY APPROACH

1.0 INTRODUCTION

The first major component of the present research involved a detailed examination of the principles of evaluation research, (chapter 3). The second part was an in depth analysis of previous attempts to evaluate local economic initiatives undertaken in rural areas, (chapter 4). Following this, the third stage of the research involved the development of methodology for evaluating such initiatives which built on the approaches used in previous studies, but which adhered much more closely to the basic principles of evaluation research, and therefore resolved many of the fundamental problems which were inherent in the research design of previous studies, (chapter 5). The fourth stage was to use the methodology to evaluate a local economic initiative in order to test whether it was practicable, and if it was, whether it did indeed represent an improvement on the approaches used in previous research. This was a vital stage in the research, since only by using the methodology could its value be discovered.

It was clear that secondary data provided an inadequate basis on which to evaluate local initiatives (section 3 chapter 4), and it was therefore necessary to study the impacts of the programme empirically. This involved the collection of detailed primary data about programme impacts and costs, and detailed information about the way in which the programme's delivery system operated. This depth of analysis could only be achieved by sacrificing breadth in order to achieve depth, and it was therefore decided to focus on one particular initiative (the D.C.'s advance factory building programme), and to study its impacts and effectiveness in a number of case study areas.

The extent to which the findings of the present research are applicable to the advance factory building programme as a whole depends on the degree to which the case study areas which were used in the present study were representative of the other areas in which the programme has been implemented. These areas were therefore selected in a way which was likely

to ensure that they were as representative as possible, of the Commission's other priority areas. The extent to the methodology which was developed in the present study is applicable to the other evaluation of other local economic initiatives depends on the extent to which the advance factory programme is typical of other similar initiatives. The first section of this chapter discusses the reasons for the choice of the advance factory building programme as the case study initiative. The second section discusses the criteria on which the choice of the case study areas was based, and the final section is concerned with the manner in which the spatial limits of these case study areas were defined.

2.0 SELECTION OF THE CASE STUDY PROGRAMME

The advance factory building programme was thought to be the most appropriate case study for the present research for both policy-orientated and methodological reasons.

2.1 Policy related considerations

There were a number of valid policy-related reasons for selecting one of the D.C.'s programmes for detailed evaluation in the present study. The Development Commission is now recognised to be de facto England's rural development agency, (chapter 6.1 section 2), having pioneered many of the apparently most successful locally based initiatives in rural areas. In the past the Commissioners have attempted to formulate policy on the basis of available empirical evidence about the impacts which their activities have had, but in practice they have had very little evidence regarding the relative cost-effectiveness of alternative policy options, on which to base these decisions. Recently, the Commission's activities have come under increasing scrutiny from both the Department of the Environment and the Treasury, and the Commissioners have had to justify their programmes in value for money terms, (section 3.3 chapter 3). The type of information which evaluation studies are uniquely placed to provide is

therefore now in great demand, both from the policy makers and their paymasters.

The advance factory building programme seemed to be the most appropriate of the Development Commission's activities, on which to test the methodology developed in the present study. It has been the mainstay of the D.C.'s policies over the last fifteen years, has consistently accounted for a far larger proportion of the Commission's annual budget than has any other initiative and seems likely to continue to do so since the Commissioners have indicated that the programme will remain the focus of its attempts to promote the economic well-being of rural areas for the foreseeable future, (section 6.1.7 chapter 2). Although there have been a number of studies of the programme, none has provided a comprehensive evaluation of its impacts, cost-effectiveness and delivery system. The Commissioners therefore continue to lack vital information about their main programme. By using the methodology developed in the present study to evaluate the advance factory building programme, it was anticipated that a number of the most important gaps in the information available to policy makers could be filled.

2.2 Methodological considerations

Although the evaluation was likely to provide policy makers with much needed information about the advance factory building programme, one of the aims of the present study was to develop a methodology which was applicable not only to the evaluation of the D.C.'s programme but also to a wide range of other initiatives. The evaluation of the case study programme had therefore to involve the range of issues which would need to be addressed in the evaluation of most other local economic initiatives, since only then could it be demonstrated that the methodology provided a framework for evaluation of other initiatives. In addition to the policy-related reasons discussed above, the choice of the advance factory building programme as the case study was therefore also based on a number of methodological considerations.

2.2.1 The increasingly widespread use of advance factory building

Advance factory building has become a very popular policy instrument, (Slowe 1981). In recent years it has been implemented in both urban and rural contexts. As well as being the most important of the D.C.'s programmes, it has been increasingly funded by a wide range of central government departments (including the DTI and the Scottish Department of Industry), and has formed the basis of the D.B.R.W.'s attempts to strengthen the economy of rural Wales, (section 6.2 chapter 2). It has also been used widely by a number of development corporations, and local authorities, (Richardson 1983). Many urban authorities have provided advance factory floorspace using powers granted to them under special acts of Parliament (for example the Tyne and Wear Act 1976 (Rodgers and Smith 1977)), and later under the Urban Areas Act 1978. In addition the survey of non-metropolitan county councils undertaken in the present study (section 7.2.1 chapter 2) showed that rural authorities were now also funding advance factory building. Thus, if the methodology developed in the present study was shown to be an appropriate way of evaluating the D.C.'s advance factory building programme, it would have a number of other potential uses in evaluating other advance factory programmes throughout Britain.

2.2.2 The potential for comparison between areas and programmes

One of the advantages of evaluation research is that it should in theory enable comparisons to be made both between different programmes and between the operation of the same programme in different areas. The failure of previous studies to facilitate such analysis has been one of their major weaknesses, (section 4 chapter 4), and one of the main problems which it was hoped the present study would resolve. In order to do this it was necessary to select a case study programme which had been implemented in a wide range of different areas. The D.C. advance factory building programme has been implemented in a number different geographical, social, demographic, economic and policy contexts, and it was therefore possible to test the extent to which the methodology developed in the present study

would enable meaningful comparisons to be made between projects undertaken in a number of different types of area.

2.2.3 The length of time for which the programme has been operating

Two of the most important areas which previous researchers have neglected are the evaluation of the impacts and the effectiveness of local economic programmes over time, (section 9 chapter 5), and the evaluation of indirect programme impacts which are likely to be manifested only in the medium or long term. In order to adequately address these issues, it was necessary to select a case study programme which had been existence for a sufficiently long period of time, to permit longitudinal analysis, and to ensure that both the long term and indirect impacts of the programmes had occurred and were therefore likely to be identifiable.

Concern with local economic development programmes is a relatively recent phenomenon, (section 7.1 chapter 2), and many local economic programmes had been in existence only for a very short period of time by 1982 when the choice of the case study programme for the present study was made. The D.C.'s advance factory building programme was one of the most established local economic initiatives being pursued in Britain, dating back more than ten years in several areas, and it therefore seemed to offer more scope for testing approaches to the measurement of impacts over time and of longer term impacts, than most similar initiatives.

2.2.4 Specifying goals and delivery systems

A crucial requirement of goal-orientated evaluation is that the objectives and intended delivery systems of initiatives can be identified. Many previous researchers have failed to specify the goals of the programmes which they have evaluated, and this has greatly reduced the value of their findings, (section 3 chapter 4). One of the main aims of the present study was therefore to provide a methodology by which objectives and delivery systems could be specified by evaluators. Typically, programme

goals have not been stated explicitly by policy makers, and have often changed through time, and little or nothing has been known about the way in which the programme was intended to operate. For the methodology developed in the present study to be shown to be generally applicable it was therefore necessary to use it to evaluate a programme for which the goals and the delivery system had not been clearly specified by policy makers, and the aims of which had changed through time. In all these respects the advance factory building programme was typical of other programmes, and was therefore considered to be a suitable choice as a case study programme.

There were a number of other similarities between the objectives and intended mode of operation of the advance factory programme and other local initiatives which suggested the former was an appropriate case study initiative. The implicit objectives and intended outcomes of the advance factory building programme are very similar to those of most other local economic initiatives. Like other programmes they are concerned with the promotion, regeneration and revival of particular localities through the creation of new job opportunities and through the positive income and multiplier effects which result from job creation. Like most other agencies which have sponsored local economic initiatives, the D.C. originally envisaged that these objectives could be best fulfilled by attracting firms to move in, but have lately given much greater emphasis to attempts to encourage the growth of new and indigenous firms. Further, like many agencies, the D.C. has also primarily targeted its assistance on the attraction of manufacturing firms since it was thought that they were most likely to provide large numbers of the "right sorts" of jobs.

3.0 SELECTION OF CASE STUDY AREAS

The case study areas were chosen according to five main criteria. These were: the need to investigate important current policy issues, the need to choose areas which were as similar as possible in terms of characteristics unrelated to these issues, the need to ensure that case study areas were as representative as possible, the requirement that case study areas should contain a sufficiently large pool of firms to enable a control group to be identified, the desirability of choosing areas which had not been the

subject of previous studies, and the need to operate within the resource constraints to which the research was subject.

3.1 Policy-related criteria

At the time when the research was undertaken, some notable shifts in the Commission's policy towards advance factory building were becoming apparent. The two most important were the increasing priority being given to the provision of factory units in smaller settlements, and that given to the construction of small (less than 1,500 square feet) units. It was clear that policy makers lacked empirical information about the effects of these trends, (a fact which is undoubtedly due at least in part, to the failure of previous studies to provide relevant policy information), and that policy shifts had therefore been based on conventional wisdom rather than any systematic policy review. One of the aims of the present study was to provide evidence which would form a basis for more rational decision making, particularly regarding these two issues, and the case study areas were selected so as to obtain such information.

In order that differences in programme effectiveness between areas could with some degree of confidence be attributed to the particular factors being considered, it was necessary to select case study areas which differed only in respect of the factors which were being investigated, and which were otherwise as similar as was possible. Thus the settlements selected as case study areas were drawn from areas with differing degrees of remoteness from major centres, were of different sizes and accommodated units of different sizes.

3.1.1 Geographical location of case study areas

In order to examine the effects of providing units in different locations, the case study areas were drawn from a variety of geographical and socio-economic contexts. It was decided to select areas from three different types of sub-region which differed in terms of their remoteness

from major towns and cities, in both in travel times and actual distances, (section 4 below).

3.1.2 Settlement size

In order to study the likely impacts of the D.C.'s policy of providing an increasing number of factory units in smaller settlements, a range of towns and comparable villages were selected as case study areas. One market town from each of the three sub-regions was selected, and this was then matched with a number of smaller villages from the surrounding area.

3.1.3 Size of units

In order to provide evidence regarding the effects of the Commission's policy shift towards providing smaller units, settlements in which a range of units of different sizes had been provided were also selected as case study areas. In practice however the small number of suitably sized areas within each of the regions restricted the choices that were made, (section 4.2 below).

3.2 Minimising other differences between case study areas

So as to reduce the number of possible exogenous causes of variation between the case study areas, areas which were as similar as possible in all other respects were selected. The most important consideration included the economic and demographic characteristics of each area, their policy contexts, and the time for which the programme had been implemented.

Market towns with similar population sizes and which served similar sized hinterlands were therefore selected, (section 4.1 below), and the village case study areas were matched as closely as possible with their respective market towns in terms of their policy contexts and their

remoteness from major cities. As far as was possible, areas with similar industrial property markets and economic bases were chosen, and areas in which other local economic development programmes had been implemented were excluded. Thus areas which had been designated as assisted areas by DTI were not selected, nor were areas in which local authorities had been pro-active in the field of local economic development.

In many areas the full impacts of the programme may only be apparent some years after the units were originally provided. It was therefore necessary to select case study areas in which factory units had been available for some time. In order to ensure that variations in the apparent scale of impacts between areas were not due to differences between the length of time for which the units had been available in each area, areas in which units had been available for similar periods of time were chosen where possible.

3.3 The representativeness of the case study areas

In order that the present research produced findings which related not only to the case study areas, but also to the range of areas in which the D.C. has financed the building of factory units, (and were therefore of maximum use to policy makers), areas which were likely to be representative of the areas throughout the country in which the programme had been implemented were chosen whenever possible.

3.4 The availability of a control group

In addition to identifying impacts, an important aim of the present research was to discover how the delivery system of the programme operated. One of the main methods by which this delivery system was studied was through a comparison of the characteristics of firms which had occupied the D.C.'s units with a group of similar firms which had not located in the D.C. premises. In order to facilitate this analysis, it was necessary to select case study areas which contained a sufficiently large pool of

businesses, from which local firms involved in the same sort of economic activity as each of the firms in the units could be selected.

3.5 The selection of case study areas not used in previous studies

The use of the same case study areas as had been used by previous researchers would have had the apparent advantage of making it possible to compare the results of previous studies directly with those obtained using the methodology developed in the present study. However this comparison was in fact unlikely to be very useful since differences between the results of the present and previous studies might be due to the time which had elapsed between the studies, and there were also a number of possible disadvantages associated with using the areas selected by previous researchers.

Firstly, because the Development Commissioners provided previous researchers with guidance about the areas upon which to focus, it has been suggested that their studies may have been undertaken in areas where the programme had been atypically successful, (Minay 1985). As a result, the findings of these studies may not be applicable to projects in other areas. Secondly, several previous studies had been undertaken only a short time before the present research, and it was thought that many potential interviewees would be unwilling to respond to a second survey so soon after having previously provided information. It was therefore thought that a higher response rate would be obtained from firms in areas which had not been the subject of previous evaluations. Thirdly, it seemed preferable to take the opportunity of increasing the number of areas for which information regarding the programme was available.

3.6 Resource constraints

Finally, a number of practical considerations influenced the choice of case study areas. The most important of these was the number of case study areas which could be studied in the detailed empirical fashion which was

deemed necessary within the limited financial, and to a lesser extent, time resources available for the present research.

4.0 CASE STUDY AREAS SELECTED

4.1 Market towns

The first case study areas to be chosen were the three market towns. Potential case study towns were identified firstly on the basis of the Commission's published records, and also from interviews with local authority, E.E. and CoSIRA officers and site visits. On the basis of the Commission's Annual Reports a list was made of all the areas in which the Commission had approved finance for advance factory units by 1983, (the time at which the main part of the fieldwork for the present research was conducted). Areas in which other substantial economic programmes had been undertaken by other central government agencies or by local authorities were then excluded from this list of possible case study areas, (see section 3.2 above). Many of the areas in which the Commission had approved finance for factory units, had been part of a DTI Assisted Area at some time since 1975 (when the D.C.'s advance factory building programme had become fully operative), and the exclusion of these areas therefore significantly reduced the number of possible case study areas.

For the reasons discussed above (section 3), the preliminary list of possible suitable areas was further reduced on the basis of three further considerations: the time for which units had been available, the number and size of the units, and the population size of the towns. Details of the age, number and sizes of the units which had been approved in each of the remaining areas were obtained from the D.C.'s published records. The population size of the settlements in which the units had been approved in 1961 and 1971 was then obtained from census data, (the full results of the 1981 census were not available at the time, but were taken into account when they became available later during the research).

In order to reduce the chances of overlooking important medium and long term impacts of the programme, areas in which factory units had only recently been approved were excluded from the list of potential case study areas. In practice this involved the exclusion of towns in which units had been approved later than 1978. In order that the effects of units size could be examined, only those towns in which a mix of different sized units had been approved were considered as possible case study areas. In order to ensure that these "towns" were significantly larger than the "village" case study areas, settlements with less than 4,000 people were excluded. The towns in which the D.C. financed the construction of factory units in the mid and late 1970's were typically no bigger than 8,000 population, and in order to ensure that the case study areas were representative of other market towns, settlements with more than 8,000 people were therefore also discounted.

The fact that this initial "sieving procedure" was based on secondary data sources meant that it was possible to exclude unsuitable areas without the large investment of time and resources which would have been required to collect detailed first-hand data about each of the areas in which advance factory building had been approved by the D.C.. Unfortunately however, it is not uncommon for considerable delays to have occurred between the approval and construction of units, and in many areas where finance was approved several years ago, they have still not been built. So although data regarding approvals is the most readily available, it does not provide a reliable indication of the number of units that actually exist in an area.

More accurate information about the number of units that had been constructed in each settlement and the time at which they had been completed was difficult to obtain. Some of the unpublished records held by English Estates give details of the dates of approval, construction, completion and occupancy of units, but these were often found to be incomplete and/or inaccurate, particularly in cases where units had been provided several years ago. Full details of the programme could therefore only be obtained through interviews with officers from CoSIRA and English Estates Officials, and by visits to the sites themselves to check the information provided in these interviews. These visits confirmed that in several areas where units had been approved, none had in fact been built,

and that in nearly all areas, the number of completed units was considerably lower than the number which had been approved. For example, although several units had been approved in Ashbourne, and it therefore appeared from available secondary sources to be an ideal case study area, interviews with the local English estates officers revealed that no units had been built because of a lack of suitable sites. One of the few exceptions was found in Ludlow where although by 1978 finance had been approved for the construction of just one unit, twelve had actually been provided by 1982.

On the basis of the more detailed first-hand information which was collected from interviews and site visits, many of the towns which had appeared from secondary sources to be suitable case study areas had therefore to be excluded. A short list of five potentially suitable towns was compiled by excluding those in which it was found that fewer than five units and/or less than 15,000 square feet of factory floorspace had been provided by 1982, (table 6.1). This ensured that the results of the evaluation were based on data collected from a statistically significant number of firms, and also increased the chances of it being applicable to other areas of the country in which the programme had been operative.

Table 6.1 Short list of potential market town case study areas

Town	Number of units approved by 1978	Number of units built by 1982	Floorspace (sq. ft.) in 1982	Population in 1971
Bakewell	9	9	16,650	4,249
Fakenham	4	8	29,000	4,462
Ludlow	1	12	20,500	7,466
Market Drayton	4	12	28,250	7,008
North Walsam	5	10	29,500	6,245

Of the five towns listed on table 6.1, Market Drayton and Bakewell were selected as case study areas because they were located in contrasting

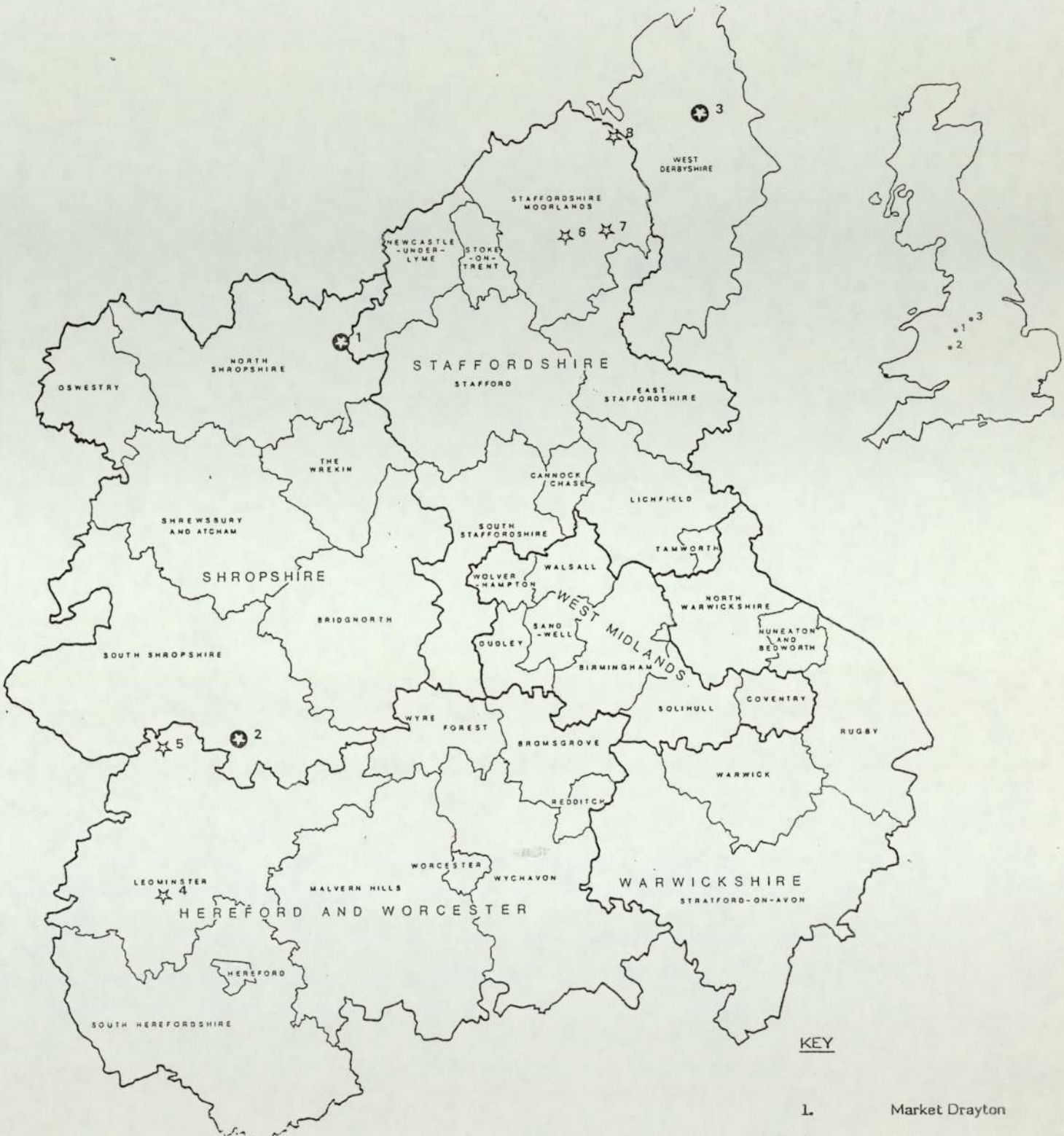
geographical contexts. Market Drayton is located in North Shropshire close to the Potteries, and Bakewell is located only sixteen miles from Sheffield but is relatively isolated from it, and other urban centres, in terms of travel time, because of the inaccessibility by road of much of the Peak Park, (Figure 6.1). Fakenham, North Walsam and Ludlow were all located in much more isolated areas, and each could therefore be usefully contrasted with Bakewell and Market Drayton. However, there were no villages close to either Fakenham or North Walsam in which units had been available for more than two years, and it would therefore have been impossible to use either of these two towns to investigate the differences in programme performance between large and small settlements. By contrast there were a number of villages in the Welsh Border region where units had been built before 1982 which could be matched with Ludlow, and for this reason Ludlow was selected as the third market town case study area.

4.2 Village case study areas

As with the selection of the market towns, villages which would clearly be inappropriate case study areas were excluded in the course of an initial "sieve" based on the D.C.'s records of areas in which the construction of units had been approved by the Commissioners. Unfortunately, the records relating to villages were even less accurate than those relating to the towns, and in many smaller settlements units which had been approved had not in fact been built by 1982. Consultations with officials and site visits to potential case study areas were therefore also necessary at this stage of the selection procedure.

Ideally the village case study areas would have been selected according to the same criteria as the market towns, in order to minimise the differences other than size which existed between them. However, the Commission had only started to provide units in smaller settlements at the end of the 1970's and as a result there were in fact, very few villages in which factory units had been available for more than two to three years. The choice of possible village case study areas was therefore very limited and the villages were to some extent self-selecting.

FIGURE 6.1 LOCATIONS OF CASE STUDY AREAS



4.2.1 Villages matched with Market Drayton

The Commission's annual reports showed that the nearest villages to Market Drayton in which approval for the construction of factory units had been given were Biddulph, Ipstones, Rushton Spencer and Waterhouses, (table 6.2). None of these are particularly close to Market Drayton, but they are at least located at a similar distance from the Potteries as was Market Drayton, (Figure 6.1). Consultations with local CoSIRA officials revealed that only in Ipstones and Waterhouses had units actually been constructed. Although neither village could be claimed to be located in an identical socio-economic setting to Market Drayton, in the absence of other suitably located villages, these were the most suitable choices as village case study areas.

Table 6.2 Villages close to Market Drayton where units had been approved

Village	Number of units built by 1982	Population size in 1971	Floorspace sq.ft. provided by 1982
Biddulph	0		
Ipstones	5	1336	8,300
Rushton Spencer	0		
Waterhouses	3	1041	9,400

4.2.2 Villages matched with Bakewell

There were three villages located relatively close to Bakewell in which approval had been given for the construction of factory units; Warslow, Hartington, Youlgreave and Longnor, (table 6.3). However visits to these areas revealed that by 1982, no units had been built in Youlgreave, and that the units in Hartington were converted garages rather than new units like those which had been provided in all the other locations which had been selected as case study areas. One of the units in Warslow had never

been occupied, the other was vacant at the time of the present research, and had only ever been occupied once for a very short period of time. Longnor, though located several miles away from Bakewell, was like Bakewell, located in the upland area of the Peak Park and was therefore relatively isolated from Sheffield and other major population centres, (Figure 6.1). Since it was the only village in this part of the Peak Park in which factory units were occupied at the time of the present research, it was selected as a case study village to be matched with Bakewell.

Table 6.3 Villages close to Bakewell in which units had been approved

Village	Number of units built by 1982	Population in 1971	Floorspace sq. ft. 1982
Hartington	2	380	3,000
Longnor	2	352	2,000
Warslow	2	341	1,000
Youlgreave	0		

4.2.3 Villages matched with Ludlow

In contrast to the other two sub-regions, there was a relatively large number of villages in the South Shropshire / North Herefordshire area in which the construction of units had been approved by the Commission, (table 6.4). However by 1984 units had only been built in Bishops Castle, Clun, Kingsland, Weobley and Leintwardine. In the remaining areas, difficulties involved acquiring suitable sites for development had prevented factory building.

Table 6.4 Villages close to Ludlow in which units had been approved

Village	Number of units built by 1982	Population in 1971	Floorspace sq. ft. 1982
Bishops Castle	4	1199	14,000
Cleobury Mortimer	0		
Clun	4	1281	7,900
Eardisley	0		
Kingsland	5	873	6,000
Kington	0		
Moreton on Lugg	0		
Leintwardine	4	723	6,000
Weobley	5	881	10,630

Bishops Castle was considered to be unsuitable as a case study area for three reasons. Firstly, although it is small in terms of population size, functionally it acts as a market town, hosting one of the most important weekly sheep markets in the country, and serving a much larger hinterland than most settlements in the area. As a result, the size of the population which relies on Bishops Castle for shops and other services is far larger than its indigenous population. Secondly, the advance factory building programme in Bishops Castle had already been studied by two previous groups of researchers in the recent past, (Croxton 1983, JURUE 1983). Thirdly, the D.C. had undertaken a number of other important initiatives in the town, (notably, the reviving of the local auction market), which the JURUE study had suggested had probably had a more important effect on local job prospects and morale than the provision of the units. In these circumstances, it might have been difficult to differentiate between the effects of the factory building programme and the other initiatives, and to unequivocally attribute observed indirect impacts to the former.

Clun was not selected as a case study area because most of the units which had been provided in the village, had been occupied by the same tenant, and it was thought that the findings of an evaluation were more

likely to be applicable to the operation of the programme in other areas, if a range of different occupant firms were studied.

Leintwardine was an ideal case study village because there were several units in the village that had been occupied for some time by a variety of different firms, and it is also located sufficiently close to Ludlow to share the same socio-economic and geographical setting. It was therefore selected as one of the village case study areas to be matched with Ludlow.

Both of the remaining potential case study areas, Kingsland and Weobley, are some distance from Ludlow, although, like Ludlow, they are both relatively isolated (both in terms of distance and travel time), from the nearest major cities. The two villages are of similar size, had a similar number of units and were almost equidistant from Ludlow. A greater variety of firms had however occupied the units in Weobley, and it was therefore chosen in preference to Kingsland.

5.0 BOUNDING THE CASE STUDY AREAS

The advance factory programme, like many similar initiatives, involves the development of small industrial estates, which are intended to have impacts on the surrounding areas. In order to assess the effectiveness of the programme it is necessary to know the size of the target areas, and having selected the case study settlements, it was necessary to determine the size of the areas around each settlement upon which the factory building was targeted. Since the boundaries of these areas are rarely specified by policy makers, it is necessary for evaluators to develop an approach will allows them to draw meaningful spatial boundaries for programmes, (section 8 chapter 5). Disregarding impacts which occur outside of the target areas, although strictly correct from a goal-orientated perspective, may lead to serious underestimation of the overall effects of the programme. Ideally an evaluation should therefore include an assessment of programme impacts at a number of different spatial scales. In the present study the programme was therefore studied at both the level of the local target areas, and also at the level of the national economy, (section 8 chapter 5).

Having selected eight case study areas, Market Drayton, Bakewell, Ludlow, Weobley, Leintwardine, Ipstones, Waterhouses and Longnor, it was therefore necessary to determine the criteria which would be used to define the target areas of the programme. Possible considerations included political boundaries (for example, wards or parliamentary constituencies), administrative boundaries (parishes or counties), physical boundaries, economic units or the Commission's target areas. Clearly a definition of the "local area" based on the Commission's priority areas had the advantage of being directly related to the objectives of the programme. However, priority areas were small and defined in a somewhat arbitrary fashion, and it seemed likely that as a result many of the impacts of the programme would occur outside of these areas. The possibility of defining the spatial boundaries in terms of economic economic criteria, such as the size of Employment Exchange Areas or local labour market areas was therefore investigated.

5.1 Employment Exchange Areas

Policy makers have often used Employment Exchange Areas as the best guide to the size of the area upon which a local economic initiative might have an impact. However, because of the dispersed settlement pattern and relatively low population densities in rural areas compared to urban areas, rural Employment Exchange Areas are usually very large, sometimes covering a whole county (Bradley T. 1983). They are therefore likely to be much larger that the areas on which a locally based initiative, such as the advance factory building programme, is targeted. To use them to define the boundaries of the case study areas in the present study would therefore have been to disregard the objectives of the programme.

5.2 Local labour market areas

There were four possible advantages of defining the boundaries of the programme in terms of local labour market areas rather than in terms of the Commission's priority areas. Firstly, (as explained above), the employment

impacts of a local economic programme are likely to occur primarily within the local labour market area. Adopting the local labour market area as the unit of study should therefore minimise the chances of important impacts being overlooked. Secondly, by analysing the mechanics of the local labour market, it might be possible to discover how the delivery system of the programme had impacted on local employment problems, (Needham 1982, Lewis 1983). Thirdly, it is important to know how far workers are likely to be willing to travel, when designing an initiative in order that the development can be located in the optimum site for tackling the employment problems of a particular area, (Jones 1970). Finally, at present very little is known about the way in which British local labour markets operate. There is a need ".... even if nothing else is accomplished, to describe and analyse certain features of such behaviour which are of pressing practical importance." (Mackay et al 1971). By framing the present research within the context of the local labour market, it might have been possible to make a contribution to this process.

5.2.1 Methods of defining local labour market areas

It has long been recognised that the local level is the most promising at which to study the operation of the employment programmes because the regional and national economies ".... are too coarse a grid for the analysis of economic development problems as generally measured by unemployment", (Carmichael 1978). However previous researchers' have suggested a plethora of different methods of defining the size of the local labour market area.

One of the most widely quoted definitions of the local labour market is that which was adopted the U.S. War Manpower Commission, which defined a local labour market area as an area ".... in which workers can change their jobs without changing their residences" (Hunter and Reid 1968). This definition was echoed by Cheshire (1979) who suggested that there was an important difference between what he called "continuous mobility" (occupational mobility without moving house) and "discontinuous mobility" (which involves a change of job and of residence). Phelps Brown (1962) suggested that a local labour market area be defined as the "....locality

whose bounds lie within a radius of less than a day's journey from where the workers are living". Vance (1960) defined two types of local labour market area, a "labour shed", (a line enclosing the area within which all the employees of a factory, or group of factories live), and an "employment field" (an area within which the residents of a given locality work), and Goodman (1970) stated local labour market areas were made up of flexible "zones of horizons" between the different spheres of influence of adjacent population centres.

Hall et al (1973) defined urban local labour market areas according to three criteria. Each area had to contain more than 20,000 jobs, have a job density of more than five per acre, and the local authority areas comprising it had to be contiguous. Smart (1974) defined local labour market areas firstly according to the extent to which an area was "self-contained" and secondly according to the strength of its commuting links with other contiguous areas. Using travel to work information from the 1961 census he calculated the extent of an area's self containment by identifying the number of people who lived and worked locally and expressed this as a percentage of the resident employed population and the day employed population. By amalgamating all local authority areas which did not have at least 75% self-containment on this basis, he identified 613 separate local labour market areas. When he changed the threshold self-containment level to 90% he was left with 200 local labour market areas and with the level set at 85 % he derived 326 local labour market areas, and on the basis of this he suggests that ".... a new map of Britain might be constructed dividing the country into areas of sufficient strength and self-containment to be used with confidence for a wide range of socio-geographical research". However Smith (1976) has claimed that Smart's method of defining local labour market areas seriously overstated the size of local labour market areas.

As some researchers (c.f. Goodman 1970, Smith 1976) have acknowledged, all the ways of defining the local labour market mentioned above are largely arbitrary. Smith (1976) for example, stated that his own methodology for defining local labour market areas, which was based on interviews with local workers regarding the size of their job search areas, depended on "considerable approximations". The size of the local labour market depends upon the distance which people are prepared to travel to

work, and this in turn depends on a number of factors, including the ease and cost of transport, the area over which information about job opportunities is available, the willingness of workers to change their place of residence, workers' personal and family characteristics, the prevailing rate of unemployment in an area, the type of work which an individual requires and the the industrial structure and settlement pattern in an area. The multiplicity of factors which influence workers' propensities to commute, means that ".... each employer and each employee has a unique search area and any definition (of the local labour market area) will tend to be a compromise." (Carmichael 1978). There is therefore no generally agreed method of specifying the spatial boundaries of the local labour market and it is impossible to define perfect all-embracing local labour market areas.

It was possible that by the end of the data collection process, the local labour market could have been defined in one of the ways described above. It would for example, have been a relatively simple task to discover where each of a firm's employees lived and to draw the boundaries of the local labour market areas according to these. However, this would not have provided a basis for defining the local labour market before the data collection was undertaken and was therefore of little use in the present study. As a result it was decided to define the areas to be focused on in the present study in terms of the Commission's stated priority areas.

5.2.2 The study of local labour markets

The extreme difficulties involved in defining the precise boundaries of local labour market areas reflects the fact that at present very little is known about the way in which local labour markets operate. This is acknowledged by a number of researchers, but most vociferously by Robinson (1967) who stated that the operations of local labour markets are "....far more chaotic than even the sceptics have believed .... there is hardly anything about labour markets that is uniform, save their complexities. If labour markets are to be described in one word they are 'chaotic'. If in two words they are 'bloody chaotic'".

There is therefore a need for empirical research into the workings of the local labour market, (Stewart 1975, Carmichael 1978), particularly regarding individuals' decisions about their employment situation, where they live, and the distances which they are willing to travel to work (Mackay et al 1971). According to Vines and Robinson (1974) " ....it is necessary to reconsider how labour markets actually work so far as we can discover this, and to try and produce some conclusions which while not claiming universality for their content, do offer some application to more than the specific set of circumstances covered in the situation examined". This need for empirically based research into the operation of local labour markets added to the value of the present research, since the methodology which was developed and used in the course of this work, depended on the collection and analysis of the type of detailed information regarding the operation of local labour markets, (chapter 13).

5.3 The Commission's priority areas

Two types of priority area have been specified by policy makers. Firstly, "areas of pull" which are defined in the Action Plans submitted to the Commission by local authorities, and secondly, "Special Investment Areas" (S.I.A.'s) which are designated by the Commission (and have since 1984 been superceded by R.D.A.'s (section 6.1.6 chapter 2)). It was clear that policy makers and programme managers regarded the areas of pull as areas upon which individual factory building projects were targeted, and in the present study the programme was therefore evaluated primarily in terms of its impacts within these areas (section 8.0 chapter 5). However, because these areas were so small, it seemed likely that many of the impacts of the programme would in fact have occurred outside of these very small localities, and programme impacts and effectiveness were therefore analysed within the context of the national economy (and in some instances within the context of the counties in which the case study settlements were located), (section 8.0 chapter 5).

Evaluating the programme in terms of its impacts within target areas, had three major advantages. Firstly, it enabled the indicators in terms of which the programme's performance was to be measured, to be clarified at an

early stage in the study. Secondly, it ensured that the findings of the study were relevant to the needs and perceptions of policy makers. Thirdly, it simplified the evaluation, since the identification of impacts which had occurred within the areas of pull was a much more straightforward exercise than the identification of the total impacts of the programme, particularly in the case of indirect effects such as market share displacement (section 4.0 chapter 15).

6.0 CONCLUSIONS

A detailed empirical approach to the evaluation of locally based rural employment initiatives necessitated the use of a case study approach. The value of the findings of a case study based evaluation is dependent on the characteristics of the case study programme and the case study areas selected for detailed study. The advance factory programme was chosen as the case study initiative for the present study because it was clear that it was typical of other local economic programmes in a number of important respects. Thus if the methodology which had been developed in the present study facilitated accurate and comprehensive evaluation of the advance factory building programme, it was also likely to be suitable for evaluating other local economic development programmes.

It was important that the case study areas were drawn from a range of different regional settings in order that findings which related to them, would be likely to apply to the other areas of the country in which the programme had been implemented. Areas from different sub-regions were selected in order to enable comparisons of the effectiveness of the programme in different socio-economic and geographical contexts. Villages and towns from each sub-region were selected in order to facilitate comparisons of the effectiveness of the programme in settlements of different sizes. Settlements in which differing ranges of unit sizes had been built were studied in order to allow investigation of the impact which the size of the units had upon the operation and cost-effectiveness of the programme. The case study areas were also selected in such a way as to minimise other possible causes of variations in programme performance between them.

In addition a number of methodological considerations were taken into account. These included the requirement that areas contained a sufficient number of firms to enable a control group to be compiled, whether the programme had previously been studied in the areas, and the resource constraints to which the present study was subject.

The factory building projects in each of the case study settlements were targeted upon the areas of pull around them, and the impact and effectiveness of the programme in these areas was therefore the main focus of the present study. However, in order to reduce the chances of important impacts being overlooked, the programme was also evaluated in terms of its impacts on the national economy.

CHAPTER 7 DATA SOURCES AND SURVEY METHODS

1.0 INTRODUCTION

The detailed empirical data on which the present study was based was gathered from a wide range of both primary and secondary sources. Primary data was gathered from site visits, interviews with programme managers and policy makers and surveys of the firms and individuals on which the programme had had an impact. The latter included a total of eight surveys with the firms which had occupied the factory units, their employees, a "control group" of firms, and a variety of other firms and individuals which had been affected by the knock-on effects of the programme, (section 2 chapter 5). The secondary sources used, included official records kept by the Commission, CoSIRA and English Estates, and other sources such as business directories and census data. This chapter describes the way in which data was collected in the present study, firstly from the initial interviews which were conducted with programme managers, and secondly in the course of the surveys on which the present study was largely based.

2.0 INTERVIEWS WITH OFFICERS

Before interviewing the firms and individuals which had been directly affected by the programme, meetings were held with a wide range of programme managers, including staff from the Commission, CoSIRA, English Estates, local authorities and the Peak District National Park. These meetings served a number of purposes: they introduced the proposed research to programme managers and won over their support for it at an early stage. This provided the researcher with the necessary "credentials" when interviewing the firms and employees which had benefitted from the programme, many of whom regarded academic research either with suspicion, or as an irrelevance and a waste of their time. Since the accuracy of the final evaluation of the programme depended on the quality of information which they provided it was important to gain their confidence, and it was found that the fact that the researcher had a detailed knowledge of the key

issues and the support of programme managers were important in gaining the required confidence. The interviews with programme managers also helped the researcher to specify the programme's goals and intended delivery system and to select the case study areas, (section 3 chapter 6).

2.1 Interviews with Development Commission staff

Development Commission headquarters staff were consulted at a early stage in the research. Discussions with them provided details of the evolution and current objectives of the programme. They also helped to clarify the way in which it was expected to operate and to identify important policy issues, consideration of which were then incorporated into the present study, thus increasing the chances that the research would be useful to policy makers (section 10 chapter 5).

2.2 Interviews with English Estates officers

English Estates is responsible for the day to day management of the sites on which the D.C. provides factory units. Officers from each of the regions from which case study areas had been selected were interviewed in order to obtain the information about: the sizes of the units which had been built in each case study area, details of the previous owners of the land on which the units had been built, the costs of the developments, the dates on which the factory units had been completed and occupied, the receipts which had been derived from rents and sale of the units, the detailed history of each of the units in the case study areas, (including the dates when approval had been given for the financing of the units, the construction of the units had been completed and each of the units had been occupied), and details of the firms which occupied the units at the time of the evaluation (in mid-1984).

The officers were also asked about their perceptions of the state of the local industrial property market, particularly the extent to which the factory units had filled a gap in this market, and their views regarding

the efficacy of present policies. In some cases their detailed knowledge of the history of each site provided important background information, which was very useful in constructing the profiles of each case study development, but in others they were unable to provide some of the very detailed information which was required, and this had therefore to be obtained from English Estates' records, which were examined in detail in the course of return visits to the regional offices.

2.3 Interviews with CoSIRA officers

At an early stage meetings were arranged with each of the regional and county officers responsible for the developments in the case study areas, with the exception of Derbyshire, (where the County Organiser declined the request for an interview). CoSIRA officers have close day to day contact with the firms which occupy D.C. units and were therefore able to provide useful information about their products, the approximate numbers of people they employed, and the names of their managing directors. Since CoSIRA had until recently been responsible for the management of the factory units, (section 3.1 chapter 9), CoSIRA officers often had a more detailed knowledge of the history of the units than had English Estates officers, and this was helpful in compiling a longitudinal record of occupancy rates, (section 4 chapter 9). They also commented on the suitability of the content of the survey forms that were to be used for the interviews with the managing directors of the firms. In particular their advice was sought about the ways in which response rates could be maximised.

2.4 Interviews with local authority officers

Meetings were held with planning officers from all the district councils which were responsible for the case study areas. These had a courtesy value, and since most planning officers had been involved in the drawing up of an Action Plan requesting assistance from the Commission, they also provided useful information about detailed history of the projects, the local authority's view of the background to each development, and the size

of any contribution to the developments that their authority had made. The planning officers were also asked about the state of the local industrial property market. They had a detailed knowledge of the industrial premises which were available in the case study areas, and were therefore well placed to comment on the extent to which the D.C. units had filled a market gap. In conjunction with finance officers, interviewees also provided information about the impact which the programme had had upon their authorities' rates income, (section 5.2 chapter 14).

2.5 Interviews with National Park officers

Bakewell and Longnor are both located within the Peak District National Park, and officers from the Peak Park Planning Board were therefore interviewed about the developments in these areas. Like local authority officers, the Board's officials provided useful information about: the background to the submission to the Commission for assistance, the availability of alternative industrial premises in the area, firms which had been moved off the site to allow development, and the alternative uses to which the site might have been put, and like the meetings with the local authority officers, these interviews also had a courtesy value.

3.0 PREPARATIONS FOR SURVEY WORK

3.1 Site visits

As part of the process by which the case study areas were selected, each potential case study area was visited. These visits were necessary because of the inaccuracy of both the D.C.'s published records of the number of units which had been completed in each area, (section 4.1 chapter 6), and of CoSIRA and English Estate's records of the firms which had occupied each of the units. In most cases it was possible to note the names of the occupant firms, their phone numbers and sometimes their managing directors'

names from the signboards on the units they occupied, and these were then used to contact each firm by letter.

3.2 Pilot studies

Pilot studies were carried out in areas outside of the case study areas, in order to test the content of the surveys and the procedures for arranging interviews. They also enabled the researcher to acquire vital interviewing skills. Both the surveys of the firms which had occupied the units and those with the control group of matched firms were piloted in order to check whether it was necessary to conduct them in person. The pilot surveys showed that it was necessary to interview the former in person, but that because less detailed information was required from the control group, these interviews could be conducted on the telephone. They also demonstrated the importance of carefully designing surveys so as to ensure that key pieces of information were gathered but that the structure of interviews was also sufficiently flexible to allow interviewees to express opinions which were beyond the scope of the formal questions. Finally it was found that the ordering of questions had an impact on response rates, such that interviews which started by dealing with relatively uncontroversial issues seemed to reassure the interviewee who were then more forthcoming about potentially sensitive topics (such as their firms' performance) towards the end of the survey.

3.3 Approaches to interviewees

When the form of interviews had been tested and finalised and the reconnoitre site visits had been completed, the interviewees were approached. The extent to which the findings of the research could be expected to be applicable to other parts of the country, depended in part on the number of firms included in the study. Since relatively few units had been provided even in the market town case study areas, it was important to maximise the response rate obtained from the firms which had occupied them. Unlike most previous studies of the programme, the present

research was not sponsored by the Commission, the firms which had occupied units were not therefore obliged to cooperate with it. As a result it was necessary to win their confidence by carefully explaining the purposes of the research and the uses to which it would be put. This was particularly the case when approaching the managing directors of firms which had no direct connection with the programme (for example the firms in the control group).

All the firms were therefore firstly contacted through an introductory letter, which provided brief details of the identity of the researcher, the purpose of the research, and the reasons why their help would be appreciated. This informed them that they would be receiving a telephone call in the near future to arrange a time for an interview either face to face in the case of the firms occupying the units or by telephone in the case of other firms. Interviewees were contacted again on the day before the interviews were due to take place in order to confirm the appointment. This thorough preparation for each interview undoubtedly helped to achieve the very high response rate which was obtained.

4.0 SURVEY METHODS

4.1 Surveys of firms which had occupied the factory units

The sampling frames for all the other surveys were compiled on the basis of information obtained from the survey of the firms which had occupied the factory units in the case study areas, (occupant firms). These firms were therefore surveyed first. In order to maximise the number of firms included in the evaluation, (and thus the likely value of the findings), all of the forty one firms which occupied D.C. factory units in the eight case study areas in mid-1984 were approached. Most firms had been founded by their current managing directors who could therefore provide detailed information about each of these. However, two of the firms were subsidiaries of much larger concerns, and in these cases it was necessary to interview the financial director of the parent company as well as the managing director

of the subsidiary itself, in order to obtain all of the detailed information which was required.

The survey was designed to discover what impact the programme had had on the firms, and to thereby identify firstly, the way in which the programme's delivery system had operated, and secondly, ways in which it could be improved in the future. Detailed questions were therefore asked about the suitability of the D.C. factory units for the type of businesses in which the firms were involved, where the firms would have located if the units had not been available, and the effect that having located in the units had had upon the firms' employment profiles, product ranges, markets, suppliers, turnover, operating costs, profitability and wage levels. In order that the wider effects of the programme could be traced, the managing directors of occupant firms were asked to identify their suppliers and competitors, and about their employees characteristics. Finally, so that the impacts of other programmes were not erroneously attributed to the advance factory building programme, the managing directors were asked about the extent to which their firms had benefitted from other initiatives (such as CoSIRA's advice and information services).

All of the first round of interviews with the managing directors of the firms in the units were conducted in face to face meetings, and in most cases they were followed by tours of the factory units, to discover exactly what the firms produced and what problems they faced. On average the interviews lasted for fifty five minutes, although a number exceeded two hours. The interviews were questionnaire based, using a structured schedule to ensure that all the necessary information was gathered. Once core information had been obtained, the discussion was however opened out by the researcher in order to canvass the interviewees' views about the programme and ways in which its effectiveness could be increased. This often involved listening to lengthy complaints from the interviewees about issues which had little to do with the programme, but also on occasions provided valuable insights into the way in which the programme implementation might be modified.

The way in which the firms were approached and surveyed proved to be very successful. Only one of the forty one managing directors refused to be interviewed, which represents a very high (98 %) response rate. Very few of

the managing directors who agreed to be interviewed, expressed any reluctance to provide the information which was requested, and of those who did, most were concerned about only one or two of the fifty four questions in the survey. The high response rate and the comprehensiveness of the data which was gathered therefore vindicated the time and careful planning which was invested in the preparations for and carrying out of the survey and demonstrates that it is possible to conduct the kind of detailed empirical research advocated in earlier chapters of this thesis.

4.2 Follow-up survey of firms occupying D.C. units

A second survey of the firms occupying the factory units was undertaken in mid-1986, the purpose of which was to gather information about the way in which the programme's impacts and delivery system had changed over time. In the course of these interviews the managing directors were therefore asked about the ways in which their firms' performances and employment profiles had changed since 1984, and about their expectations regarding the future viability, employment levels, turnover, operating costs, wage levels and profitability of their firms. When combined with the information from the 1984 survey, this data facilitated the evaluation of the programme over a number of years, something which had not been attempted by previous researchers, and which was likely to be considerable use to policy makers (section 9 chapter 5).

Between the first and second surveys of the occupant firms, two of the firms which had cooperated in the 1984 survey had moved out of the case study areas, and four new firms had moved into the units. A total of forty two firms was therefore included in this follow up survey. The four firms which had moved into D.C. units between the first and second surveys were interviewed using the longer (1984) survey. Since all of the sites had been visited several times and a detailed knowledge of the firms had been acquired by 1986, there was be little to be gained from further visits. All the follow-up interviews were conducted by telephone.

The firms which had moved into the units since the first survey were introduced to the research by letter. The managing directors who had been

interviewed in the first survey in 1984, were sent a letter which thanked them for their past assistance, explained the purpose of the second survey, and requested their further cooperation. Both the letters to the new firms and to those which had been interviewed in 1984 prepared the managing directors for a telephone call in the following week in the course of which an appointment was made for a subsequent call to conduct the second interview. It was possible to collect the required information by telephone rather than in person, because of the good rapport which had been established with the managing directors in 1984, and a 100 % response rate was obtained for the second survey.

4.3 Survey of the employees of occupant firms

At the conclusion of the 1984 interviews with the managing directors of the occupant firms, they were asked for permission to interview their employees during their lunch or tea-breaks. Unfortunately, few of the managing directors were willing to permit this. Most however agreed to distribute the survey forms to their employees, to collect them when completed and then to forward them to the researcher. This was not a wholly satisfactory method of gathering information from the employees, particularly since many of the forms were not in fact returned by post as had been promised. However, it was the best that most managing directors were willing to allow, and in many cases it was possible to increase the response rate obtained by re-visiting the firms (often more than once), to collect the completed forms.

The purpose of this survey was to collect information about the age, sex, and skill characteristics of the employees, about where they lived both before and after taking their current job, the distances which they travelled to work, whether they had been employed before they took a job in one of the occupant firms. If they had previously been employed, they were asked to specify the firms for which they had worked, and to compare the pay and conditions attached to their current and previous jobs. As with the survey of the firms, the questions were ordered such that the most sensitive issues were dealt with towards the end of the survey. Most respondents gave very full answers to these questions, and the information

they provided enabled the impacts which the programme had had upon the local labour markets to be identified, and was also used to cross-validate the information given by their employers, (for example, details of wage rates).

The sampling frame for this survey included all the employees of the occupant firms as of mid-1984, a total of 360 workers. Completed surveys forms were eventually obtained from 208 of these workers, a response rate of 58 %. Unfortunately a few of the managing directors refused to allow any form of access to their employees, and no responses were therefore obtained from their employees. Thus employees of the firms in Bakewell were for example noticeably under-represented in the survey. The sample may therefore have been biased and findings based upon it must be interpreted with caution. However, the response rate, though much lower than hoped for was sufficiently large for it to be assumed that the sample was reasonably representative of the total population, and by weighting the data it was possible to make allowances for some of the possible bias.

4.4 Survey of matched firms

The fourth survey conducted in the present study was of a control group of firms (matched firms) each of which was matched with one of the twenty seven firms which occupied units in Market Drayton, Ludlow or Bakewell in 1984. The purpose of this survey was to study the changes which had taken place in firms which had not benefitted directly from the programme, so that by comparing these changes with those which had occurred in the occupant firms, the net impacts of the programme could be identified. Each of the matched firms selected for the survey was roughly the same size (as measured by number of employees), had the same company structure and was involved in the same type of activity (as measured by SIC), as the occupant firm with which it was matched. As far as was possible the matched firms were also drawn from the same area of pull as the occupant firms. This close matching of firms was intended to minimise the variations between them, so that differences in the performances of the matched and the occupant firms could be attributed with some confidence to the fact that

the latter had benefitted directly from the programme and the former had not done so.

Due to the very small number of firms in the areas of pull around the village case study areas, it was impossible to find appropriate matches for the firms in these settlements. It was not possible to find good matches from within the areas of pull of the market towns for six of the occupant firms. In these cases firms of the same size, structure and SIC were drawn from other rural areas within the sub-region. In total, twenty one of the twenty seven matched firms were located in the same area of pull as the occupant firms with which they were matched, two were located in the same S.I.A., and only four were located outside the S.I.A. in which the matching occupant firms were based.

The matched firms were selected from a variety of first hand and secondary sources. Preliminary lists of potentially suitable firms were made during the initial visits by touring the case study areas and noting the names and addresses of all the firms which appeared to be of approximately the same size and to produce the same types of products or services as the firms which had occupied the D.C. factory units in these areas. The types of product or service provided were gauged from notice-boards outside the firms' premises, and the number of employees was estimated on the basis of the number of cars parked outside the premises.

This basic list was then refined by referring to a number of secondary sources, including Action Plans, business and telephone directories, local authority rating records and Market Location data. Of these, Market Location data proved to be the most comprehensive and therefore useful secondary source since it gave details of the size of firms, their MLH, management structure, approximate location and provided the names of the managing directors of each of the firms which were listed.

Each of these secondary sources had relative strengths and weaknesses. Market Location data was the most detailed and provided details of company size, structure and MLH, however, it was frequently out of date. Local authority rating records, were up to date but gave no indication of the types of businesses referred to or the sizes or structure of the firms. Other local authority records such as the directory of local firms,

compiled by Derbyshire County Council, and the planning records held by both North and South Shropshire District Councils all gave details of the sizes of the firms in the case study areas, but they proved to be incomplete records of local firms, and gave no indication of the types of businesses in which the firms were involved.

As with the survey of firms occupying the D.C. units, the majority of the interviewees were the managing directors of the firms although, in a number of cases the works manager appeared to have a more thorough knowledge of the firm, and was therefore interviewed in preference to the managing director. As a result, the managing directors were selected as the interviewees in 23 of the firms, works managers were chosen in 3 of the firms, and in one case the interview was conducted with the company secretary.

The matched firms were more widely scattered than the firms which had occupied the D.C. units, and site visits to each of them would therefore have been very time-consuming. For this reason and because much of the background information required from the managing directors of the firms which had occupied advance factory units was not required from the managers of the matched firms, it was decided to conduct the interviews with the managing directors of the matched firms by telephone. As with other surveys, the questionnaires were designed so that the more sensitive questions were asked towards the end of the interview, and, in order to provide a check on the secondary data sources which had been used, questions about the product range, size and management structure of the firm were asked early on in the interview. Two of the firms which had originally been selected were found to be involved in quite different activities to those of the occupant firms with which they were matched, and the interviews were therefore cut short, and new matched firms were selected.

4.5 Survey of previous employers

In order to evaluate the impact which the programme had had upon the local labour market, it was necessary to discover not only where the

individuals who were had taken new jobs created by the programme had previously been employed, but also whether they had been replaced in their previous occupations when they moved to the jobs in the occupant firms, (section 2 chapter 13). In the present study this information was gathered from the managing directors of the firms which had previously employed these individuals (previous employers). The information obtained from their previous employers also provided a valuable check on the information given by the individuals who responded to the survey of employees.

The survey of the previous employers was one of the most difficult to conduct. There were four main reasons for this. Firstly, some of the employees were unable to provide sufficiently detailed information about their former employers, such as the company's address or telephone number, for these firms to be easily traced. Secondly, as with the other surveys of firms which had not been directly affected by the programme, it proved to be difficult to convince the previous employers, (many of whom had not even heard of the Development Commission) that the information which was requested from them was of any value. Thirdly, because the required information was of a very detailed nature, and often related to events which had occurred several years before the surveys, it was often difficult for interviewees to remember the staff about which questions were being asked, and even more difficult for them to remember who had replaced them. Fourthly, in some cases the circumstances surrounding an employee's departure from the firm had been less than pleasant and their former employers were therefore initially reluctant to be interviewed.

Particular difficulties were involved in contacting the managing directors of firms which were located considerable distances away from the case study areas, and those which had been taken over by other businesses or had gone into liquidation. In some cases it was necessary to re-interview employees (by telephone) in order to obtain additional information, about their previous employers, in others, firms were traced by careful searches of telephone directories, and other secondary sources such as those from which the matched firms had been selected. It was possible to contact some of the managing directors of firms which had gone into liquidation at their home addresses. By a combination of these methods, it was eventually possible to trace the previous employers of all but five of the employees in the sample (section 4.1 chapter 13).

As with the survey of matched firms the survey of previous employers was conducted by telephone, because the firms in question were widely dispersed, and site visits and face to face interviews would therefore have been very time consuming. Telephone interviews were chosen in preference to a postal survey because it was thought the former were likely to obtain a much better response rate. This was particularly the case in the many instances where the researcher had no previous information about the name of the best person in order to obtain the necessary information. Telephoning also gave the opportunity to explain why the information was required, something which because of the lack of an obvious link between the firms and the advance factory building programme, would have been difficult to do by letter.

Many of the interviews had to be preceded by several hours of research tracing the firm and the person within the firm who was best placed to provide the necessary information. However, once the best contact had been reached, they all responded positively to the request for the information, and it was therefore possible to obtain detailed information in a surprisingly high proportion of cases.

In cases where the employees of the occupant firms who had previously been employed had been replaced when they left their previous jobs, by local people who had themselves previously been in employment, it was necessary to contact the replacement's previous employer, (section 5 chapter 13). The replacements' previous employers were traced and interviewed in the same way as the previous employers of the individuals who had taken up jobs in the D.C. units. Most were successfully interviewed, and it was therefore possible to trace most of sequences of job changes which had been initiated by the programme within the case study areas, to their conclusion.

4.6 Survey of competitor firms

One of the potential negative impacts of the programme was that as a result of having moving into the D.C. units, the occupant firms may have been able to increase their turnover and or range of products, and had

thereby taken business away from other local firms, (section 7.5.2 chapter 5). The managing directors of local firms which were likely to be in competition with the firms which had occupied the units were therefore interviewed in order to assess the extent to which this had been the case.

They were interviewed by telephone having first been sent a letter which explained the purpose of the study. They were asked about the types of goods and services which they provided, what the state of the market for their products had been, which firms they considered to be their main competitors, about the way in which their turnover had changed in recent years, and the effect which these changes had had upon the number of people employed by the firms. They were then asked if they considered that competition from the firms in the D.C. units had had a deleterious effect on their firms' performances. Since the earlier questions were asked before the managing directors were aware of the fact that the main purpose of the interview was to assess the extent to which they had been affected by competition from the occupant firms, they were likely to provide a fairly objective picture of the firms' recent performances. This provided a useful check on the likely accuracy of their remarks about competition from occupant firms. As with most of the other surveys, an excellent response was achieved; all of the firms whose cooperation was sought, agreed to assist with the survey.

4.7 Survey of firms which had moved into premises vacated by occupant firms

One of the aims of the advance factory building programme is to increase the total amount of industrial floorspace available in the target areas. It is anticipated that the provision of the factory units, will "free up" the local industrial property market as premises vacated by the firms which move to factory units are made available to other firms. The extent to which it does this depends on whether the premises which are vacated by locally based firms which move to the D.C. factory units are subsequently occupied by other firms rather than being demolished or falling into disuse.

Many of the firms which had occupied the D.C. units were either new firms or had previously been run from their managing director's home. Others had continued to operate from their previous premises as well as from the D.C. unit which they occupied. However, in cases where firms had vacated premises, it was possible that the programme had caused a sequence of premises changes. Few of the managing directors of the firms which had vacated their previous premises knew whether they had been re-occupied, and in many cases it was therefore necessary to contact the owners of the premises to obtain this information.

In cases where premises had been re-occupied, the managing directors of the present occupants were then interviewed in order to discover what impact moving into the premises had had upon their firms. Current occupants were subjected to a short telephone interview in the course of which information was sought about the effect which moving into the premises had had on the firms. Questions focused particularly on the impacts of the move on the numbers of people which they employed and the level of wages they paid, since increases in both of these are key objectives of the advance factory building programme.

Difficulties were experienced in tracing some of the present occupiers of the premises outside of the case study areas, however all of the current occupiers of premises located within the areas were traced, and a 100 % response rate from these firms was achieved.

4.8 Survey of displaced firms

The site on which the factory units had been built in Bakewell had previously been occupied by other businesses. It was possible that the programme had, by forcing these firms to re-locate, impaired their performance. Officers from the local authority and the Peak District National Park identified seven firms which had previously occupied sites in the case study areas on which units had been provided. The new locations of these firms were discovered and their managing directors were interviewed to discover what impact their enforced re-location had had upon them, focusing particularly on the number of people they employed.

The interviews were conducted on the telephone and followed an introductory letter. They were relatively short, involving a standard list of questions, which gathered information about a range of indicators of the extent to which the firms' fortunes had changed since moving away from their original sites. Tracing the displaced firms, was a time consuming process, but eventually six of the seven firms were contacted, and the managing directors of all these firms provided the necessary information, (section 3.1 chapter 14).

4.9 SUMMARY AND CONCLUSIONS

This chapter has described the methods by which the detailed empirical information on which the present evaluation was based was collected. The bulk of the information regarding the direct impacts of the programme was gathered from three surveys, two of which involved interviews with the managing directors of the firms which had occupied the units, the third involved a sample survey of the employees of these firms. These three surveys provided a great deal of detailed information about the impacts and operation of the programme in a wide range of case study areas. Only two of the previous studies of the programme, (JURUE 1984 and ECOTEC 1987), have included an evaluation of the programme in different parts of the country, and few previous researchers have interviewed the employees of the firms in their chosen case study area(s).

Additional surveys facilitated evaluation of the wider impacts of the programme, on the local labour market, on competitors, on the local industrial property market and on firms forced off the sites on which units were provided. A survey of local firms matched with the occupant firms provided a further source of information about the probable scale of net programme impacts.

Less than twelve years before the present work was carried out it was claimed that interviewing the managing directors of occupant firms was impossible (Law and Howes 1972). Subsequent studies (e.g. Hodge and Whitby 1979) showed that this was not the case. The present study is the first to demonstrate that it is possible to gather information not only from the

managing directors of the firms directly affected by the programme, but from a wide range of firms and individuals which have been indirectly affected by an initiative. Many of the surveys undertaken in the present study were pioneering attempts to collect information which had not been obtained by previous researchers. Their success enabled many issues which have previously been overlooked to be analysed in the present study, and opens up the possibility of identifying the impacts of local economic initiatives much more accurately than has previously been considered to be possible.

The surveys of the employees, their previous employers and their replacements' previous employers enabled the programme's impacts on the local labour market to be studied for the first time. The use of a control group of firms has been acknowledged by some previous researchers as a useful method of assessing what the net effects of the programme are likely to have been, (c.f. Willis 1983). However no previous evaluation of the advance factory building programme has used such a group. The present study demonstrated that it is possible to do so even in relatively sparsely populated and unindustrialised areas such as rural market towns, where the number of potential matched firms is much lower than in urban areas.

The survey of the firms which had occupied premises vacated by the firms that had moved to the units was a pioneering attempt to assess the impact which the programme had had on the local industrial property market. The survey of competitor firms was also the first of its kind. Both represent an advance on the existing approaches to the evaluation of local economic initiatives in rural areas.

The test of the validity of the approach developed in the present study was the extent to which it could actually be used to evaluate a programme. The first requirement was that it could be used to obtain detailed, relevant and accurate information. The very high response rates achieved in the present study, showed that it did this. The second requirement was that this information could be used to comprehensively evaluate the programme's impacts, delivery system and effectiveness. These issues are the focus of the remaining chapters of this thesis, which present the findings of the present research and analyse their methodological and policy implications.

CHAPTER 8 THE HISTORY, COSTS AND ADDITIONALITY OF CASE STUDY PROJECTS

1.0 INTRODUCTION

The approach which was developed and used in the present study depended on the collection and analysis of detailed empirical information about the impacts, operation and effectiveness of the advance factory building programme in particular case study areas. Much of this information was obtained directly from the firms and individuals themselves, and is analysed in subsequent chapters. However, in order to make an accurate evaluation, three main types of other information about the programme were also required. Firstly, it was important that the researcher acquired a detailed knowledge of the characteristics of the case study areas, and the history of the initiatives in those areas. Secondly, it was necessary to obtain detailed information regarding the costs of the programme in the case study areas, so that the cost effectiveness of the programme could be evaluated, (section 3 chapter 5). Thirdly, it was vital that the researcher was able to determine the extent to which the assistance provided by the Development Commission was required in order for the observed impacts of the programme to have been achieved (i.e. the extent to which programme funding was additional), (section 6 chapter 5).

2.0 THE HISTORY OF THE CASE STUDY PROJECTS

It was important to obtain information about the characteristics of the case study areas and the history of the programme in these areas, for three main reasons. Firstly, so that the researcher could identify the issues which were of most concern to local and national policy makers. Focusing upon these issues increases the relevance of an evaluation, which then improves the chances of the findings of such studies being used by policy makers, (section 10 chapter 5). Secondly, because if the researcher was aware of the characteristics of the case study areas and the background to the initiatives, there was less chance that he would overlook important unintended impacts (especially negative impacts), that had resulted from

the programme. Thirdly, if the researcher was to obtain the required information from the firms and individuals which have been affected by the programme, it was important that he was able to gain interviewees' confidence. In order to do this he had to be able to demonstrate to wary interviewees that they are fully aware of the local background to the programme. If the researcher had been ignorant of such details this could have reinforced the common prejudices against what many interviewees regarded as "irrelevant" academic research, and this would have been likely to reduce both the response rates and the quality of the information which was obtained.

In order that the relative effectiveness of providing factory units in smaller and larger settlements, and in different types of areas could be evaluated, three clusters of case study areas were selected for the present study, (section 4 chapter 6). These were drawn from different regional settings and each consisted of a market town and one or more neighbouring villages in which the Commission had financed the construction of factory units. The three market towns were similar in a number of important respects. They had similar sized populations, all of them served a large rural hinterland, all had experienced the problems associated with the contraction of demand for agricultural labour, all were heavily dependent for employment on the service sector, all had experienced selective out-migration in the 1950's and 1960's, and all had an ageing population structure. The village case study areas were selected because they shared the same geographical contexts as the market towns with which they are matched. Thus Leintwardine and Weobley were in the same relatively remote sub-region as Ludlow, Ipstones and Waterhouses were, like Market Drayton, located close to the Potteries, and Longnor shared Bakewell's paradoxical position, being located in an upland National Park area, but relatively close to major industrial areas in South Yorkshire, (Figure 6.1).

2.1 Market Drayton

Market Drayton is the principal market town in the north east of Shropshire, close to the Staffordshire border. It has a large agricultural hinterland, but is also in relatively close proximity to three major

industrial towns, being just 12 miles from the Potteries, 16 miles from Telford and 18 miles from Shrewsbury (Figure 6.1). In 1976 when the local authorities first submitted a report to the Commission requesting that the town be designated as part of a Special Investment Area, Market Drayton was typical of a number of rural areas across the country as a whole both in its demographic and economic characteristics.

Between 1951 and 1961 the districts around the town experienced a decrease in population. Although this decline was reversed between 1961 and 1971, most of the rural areas around the town continued to lose population throughout the 1960's, a trend which was masked by the rapid growth of just two of the rural districts due to overspill from the urban area. In total, the urban population grew by 30 % between 1951 and 1971. As in many rural areas however, much of this was due to an increase in the number of elderly people. By the mid-1970's (when assistance was requested from the D.C.), 5.4 % of the male population and 12.4 % of the females were over retirement age.

In the mid-1970's the employment characteristics of the area also reflected trends in rural areas nationwide. The local economy was heavily dependent on the service sector, (table 8.1), and had a narrow base; eleven major employers in the clothing, dairying and engineering trades dominated the area employing a total of 1,130 people. The main sources of manufacturing employment were in the food, clothing and agricultural machinery trades. Service employment was primarily in teaching and the armed services. Job opportunities for men had declined sharply, but female employment opportunities, as a percentage of total employment, had increased rapidly between 1960 and 1975, particularly in manufacturing. Jobs for men were primarily unskilled and low paid; 45 % of the male workforce were engaged in unskilled jobs. The town was also heavily dependent on other areas for employment, and increasing numbers of local residents were commuting to jobs in the Potteries. Throughout the 1970's, the town was close to, but outside of the Intermediate Area in Cheshire to the north and also suffered from competition for in-moving firms from Telford new town to the south where incentives were offered to re-locating firms by both central and local government. The unemployment rate in Market Drayton in 1976 was 9 %, which was above the national average.

Table 8.1 Employment by sector in the Market Drayton Employment Exchange Area - 1977

Sector	% local employment
Services	53 %
Agriculture	22 %
Manufacturing	16 %
Construction	8 %

Source : Action Plan 1977

On the basis of the problems pointed out in a report submitted to the Commission in 1976 by the North Shropshire District Council, a large area in North Shropshire was designated as a S.I.A. (Figure 2.2), and Market Drayton was included within this. In the report the local authority identified many of the economic problems which are typical of those areas which the D.C. has given assistance to, including rural depopulation, an increasingly unbalanced age structure, a decline in the number of job opportunities, a narrow economic base, and an unemployment rate which was in excess of the national average. The D.C. had agreed in principal to the construction of one advance factory unit (of 5,000 square feet) in 1975 on a 3.73 acre site in Market Drayton (Figure 8.1). The Commission then bought the site from the district and county councils, who in turn had acquired it from the former Market Drayton Rural District Council, which had originally bought it from a local farmer with the intention of developing it for private industrial use. Further Action Plans submitted to the Commission in the late 1970's resulted in approval being given for the provision of eleven units, which were approved in 1977, 1978, 1980 and 1981, (section 2 chapter 9), (Figure 8.2).

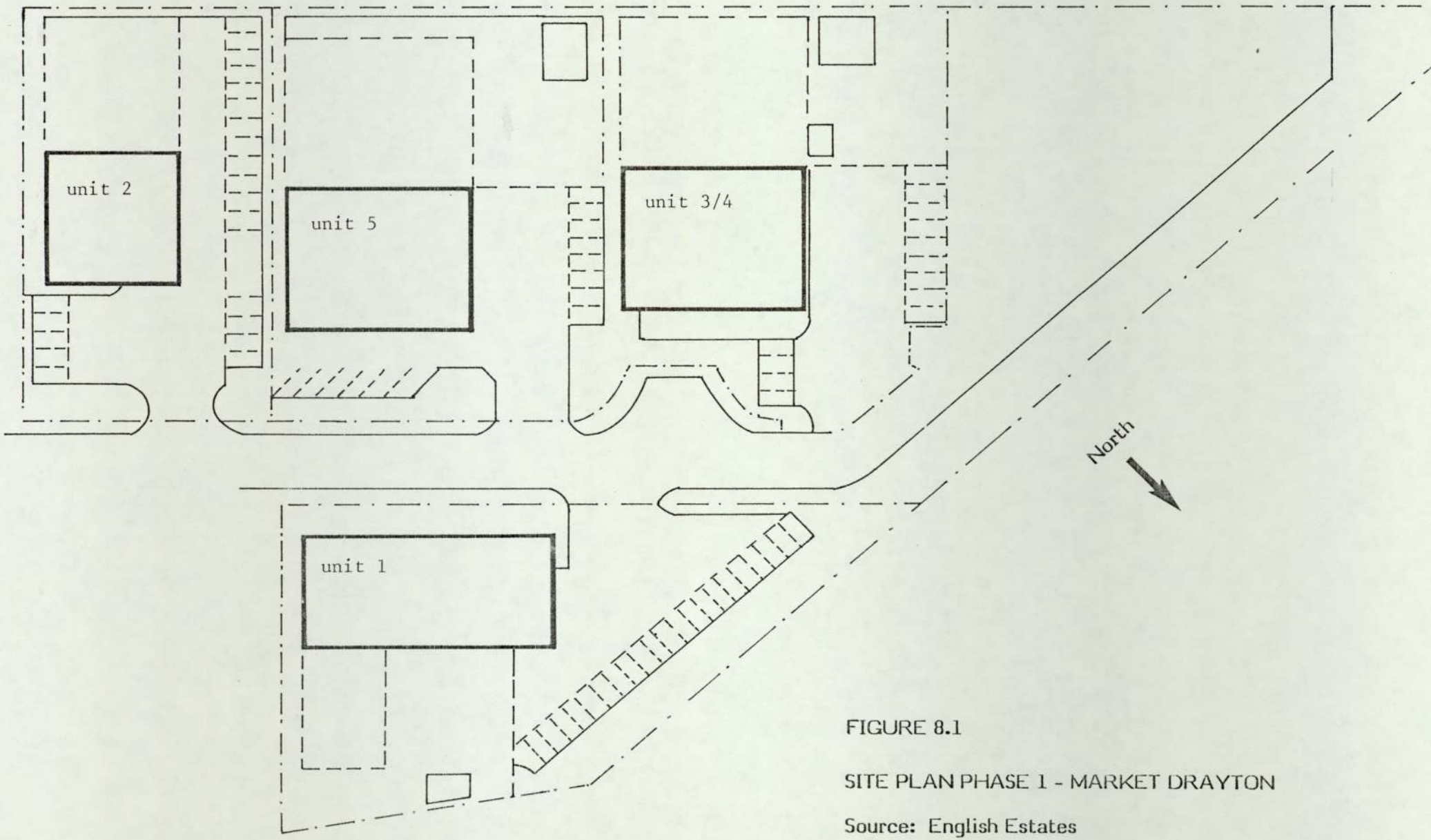


FIGURE 8.1

SITE PLAN PHASE 1 - MARKET DRAYTON

Source: English Estates

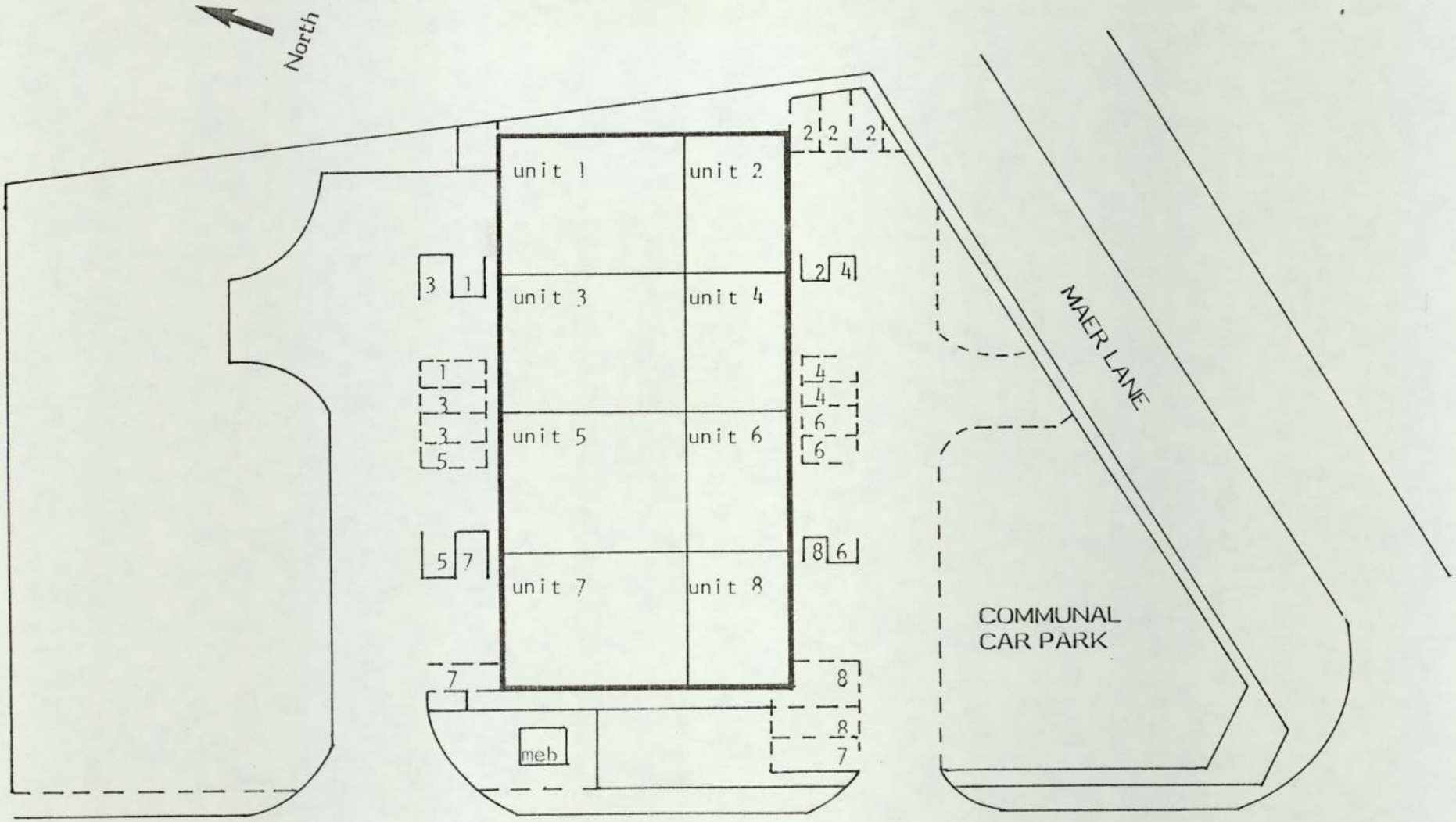


FIGURE 8.2 SITE PLAN PHASE 2 - MARKET DRAYTON

Source: English Estates

2.2 Ludlow

Ludlow is located in south Shropshire. It is the major employment centre for the region and is also the site of an important cattle market. Unlike either of the other case study market towns it relatively remote from the nearest industrial city, Birmingham, which is 50 miles, and one and a half hours drive away. Although the towns of Hereford and Shrewsbury are much nearer, they are similar in character to Ludlow itself, and the nearest large shopping area is Telford, which is more than 30 miles to the north by road.

In December 1977 the male unemployment rate in Ludlow Employment Exchange Area was 8.5 %. Of particular concern however was the low level of vacancies. The town was even more dependent on employment in the service sector than Market Drayton, and 71 % of the local working population were employed in service industries in the mid-1970's. Local firms were mostly quite small and there were therefore no dominant employers.

The town's population grew by 674 between 1961 and 1971, but as with Market Drayton, a large proportion of local people were over retirement age. The surrounding areas which comprised Ludlow rural district, lost population, declining by 457 people between 1961 and 1971. The area faced strong competition for mobile manufacturing industry throughout the 1970's from across the Welsh border where considerable incentives were available because of Mid- Wales' Assisted Area status and from the Development Board for Rural Wales.

A submission to the Commission in April 1975 by the North Herefordshire and South Shropshire Joint Development Committee, resulted in approval being granted for the construction of two units to be built in 1979 / 1980 as a later stage in the total programme for the sub-region. However, phase one of the development at Ludlow did not in fact commence until November 1981, by which time, approval had been given for the building of further units. Phase one therefore consisted of constructing ten units with a total floorspace of 11,500 square feet. Approval for the additional units was obtained following a report submitted by the South Shropshire District Council to the Commission in December 1980, in which it was claimed that

there was a need to safeguard Ludlow's position as a major employment centre for the region, since " .... from a strategic point of view and from the point of view of its effectiveness Ludlow is the obvious location for new industrial development." (South Shropshire District Council 1980).

Although Ludlow may have seemed to be the obvious location for new industrial development, the units there proved to be very difficult to let, (section 4 chapter 9). However, both the Commission and the district council remained committed to the concept of providing floorspace in what they regarded to be a potential growth centre. As a result, in February 1983, a further five new units and 6,000 square feet of floorspace were provided, and in 1984, a proposed third phase development intended to provide a further 12,000 square feet of floorspace was approved. The Ludlow site, like that in Market Drayton, was previously farmland (owned by three local farmers), and had been acquired by the District Council which then sold it on to the Commission in 1981. The total area of the site was 2.3 acres, of which just over half had been developed at the time of the present study, (Figure 8.3).

2.3 Bakewell

Bakewell is situated in the south of the Peak District National Park in the west of Derbyshire. In 1976 when the first Action Plan for the area was submitted to the D.C., the town had a population of 4,300, and was the largest settlement in the National Park. Like both Market Drayton and Ludlow, it serves a large agricultural hinterland and hosts an important cattle market. It is also a major visitor attraction within the Park and is surrounded by magnificent scenery, and yet it is only 16 miles from Sheffield, the fourth largest city in England, (Figure 6.1).

Between 1951 and 1976, the population of the town itself grew by 29 %, due to the in-migration of commuters to Sheffield, Macclesfield and Manchester, and of retired people. In 1971 59 % of the town's population were over 35 years of age. The largest employer was the service sector which had steadily increased in importance and by the 1970's accounted for nearly 70 % of the total job opportunities in the area. In the mid-1960's

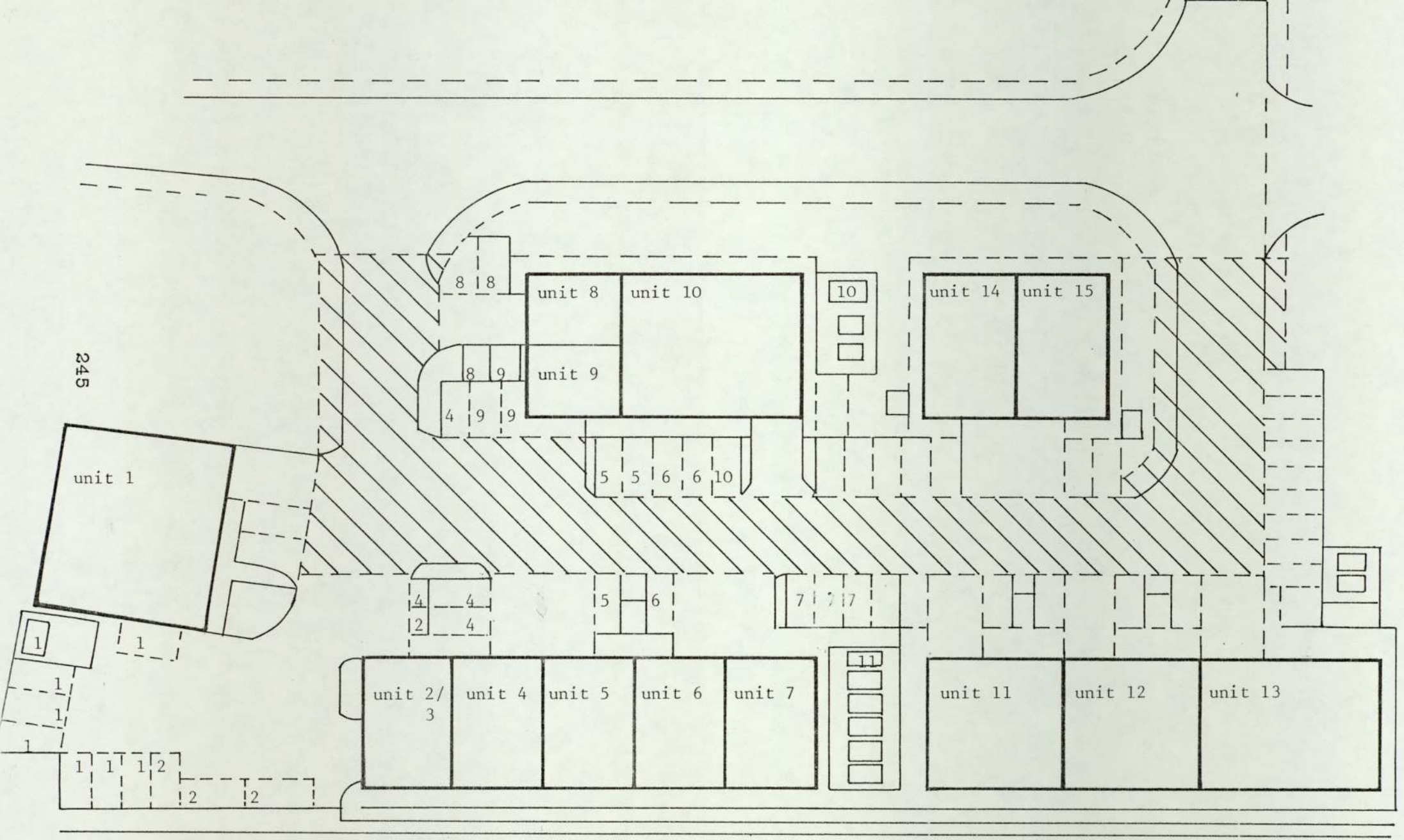


FIGURE 8.3 SITE PLAN - LUDLOW

Source: English Estates

only 31 % of the area's working population were employed in manufacturing and this declined further in 1970 with the closure of a major battery factory which had been the town's largest employer. The situation was exacerbated by the closure of important textile firms in the late 1970's and early 1980's. Between 1971 and 1975 agricultural employment in the Bakewell area fell by 5 % (330 people), and other opportunities for male employment are very limited.

The area in the immediate vicinity of Bakewell consists of three main settlements of which Youlgreave (1200 population) is the largest. The total population of this surrounding area is almost as large as that of the town of Bakewell, but although the town has grown quite rapidly, population levels in these surrounding areas had decreased by 400 between 1951 and 1971. In 1971 approximately 300 people from the surrounding area were employed in food manufacturing industries, and about the same number were employed in quarrying. Since then however, there has been a very rapid reduction in job opportunities in quarrying, (about a third of the 300 jobs having been lost between 1971 and 1984), and people living in the surrounding area have become increasingly dependent on the town of Bakewell for employment.

Approval for the construction of advance factory units in Bakewell was first given in February 1978, but building did not commence for almost four years because of problems in finding a suitable site, (section 3 chapter 9). Phase one provided three 1,500 square feet units, and was completed in February 1982. These units were occupied almost immediately. A phase two development started one month later and was completed in September 1982. This provided two larger units (3,750 and 2,300 square feet). One was occupied immediately, the other was vacant until August 1983, by which time a third phase had started. This provided four units, two of 1,250 and two of 2,350 square feet, and was completed in January 1984 (Figure 8.4). All these units were occupied within three months of having been completed. At the time of the present study, the old station buildings were being converted, and had been pre-let to one of the occupants of the existing factory units.

As a former station yard, the Bakewell site had previously belonged to British Rail, who later paid the Peak District National Park to assume

liability for both the railway line and the station buildings and yard. West Derbyshire District Council bought the station yard from the Peak Park Planning Board and serviced it before selling it on to the Development Commission. There was some disagreement between the District Council and the National Park concerning the use to which the site should be put, although they were united in a desire to remove from the site the existing tenants; two car repair workshops, a haulage firm, a scrap merchant, a monumental masons, a plasterer and a coal merchants.

The Peak Park Planning Board had developed an interest in the rail line as part of its Peak Rail venture and was also concerned to protect the Monyash Nature Trail. Its preferred option was for a smaller development which left car parking space for people who were using the rail or the trail (Figure 8.4). Local residents were also concerned about the construction of industrial units, and in deference to some vociferous local complaints a clause guarding against the use of the site by noisy or heavy industry was included in the final agreement. Other proposed uses of the site, were as a swimming pool, or an open recreational area. However, the difficulty in obtaining a suitable site for the D.C.'s factory building eventually weighed heavily in favour of this use of the station yard site. The Peak Park did however retain an interest in the site, and were responsible for landscaping the estate in order to shield the houses to the south east of the units (Figure 8.4).

2.4 Weobley

Weobley is an attractive, fairly small village located in north Hereford and Worcester (Figure 6.1). It is 20 miles south west of Ludlow, the market town with which it was matched, but shares the same socio-economic context, being close to the Welsh Border and relatively isolated from major towns and cities. The nearest town is Leominster, (9 miles away), and the nearest major city, Birmingham, is more than 50 miles away. In 1971 it had a population of 881 people, which had increased only slightly over the preceding ten years. It has a fairly good range of low order shops, but no large employers.

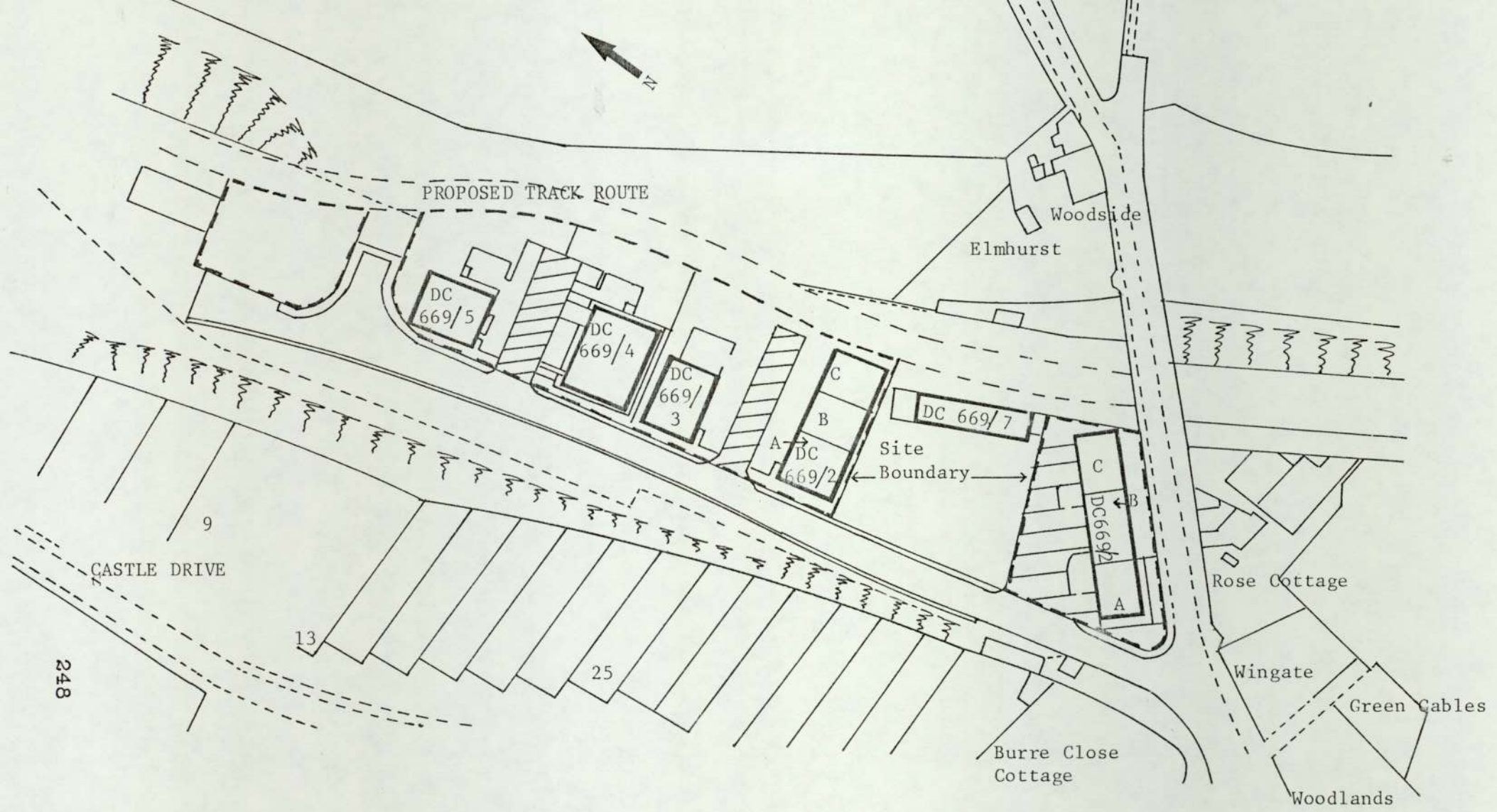


Figure 8.4

SITE PLAN - BAKEWELL

Source: English Estates

Factory units were built on two sites, both of which were purchased by the Commission from the County Highways Department which had previously used them as storage yards. The Kington Road site, (Figure 6.5), was bought in 1978, and a nearby site, the Whitehill Park Estate (Figure 8.6) was acquired in late 1980. The construction of two large units (3,500 square feet) on the former was approved in 1975 and completed in July 1978. One unit was vacant for three months, the other for six. The first three units on the Whitehill Park site were finished in May 1981 and a phase two development on the same site was started in December 1983, but was not completed at the time of the present study. There are further plans for a third stage development involving two semi-detatched units on the remaining space on the site.

2.5 Leintwardine

Leintwardine is located seven miles west of Ludlow, about one mile south of the Shropshire / Hereford and Worcestershire border and five miles east of the Welsh Border, (Figure 6.1). It is slightly smaller than Weobley, having a population of 723 in 1971, (section 4.2.3 chapter 6). Finance for the construction of four units at Leintwardine was approved by the Commission in September 1975 as part of their response to the Joint Development Committee's report of April of the same year. These were eventually provided on the Rosemary Lane site (Figure 8.7) which was acquired by the Commission from a private development company in 1979. Before that it had been farmland. The site was difficult to service because of complications regarding a sewer which ran through it, and the four units were not completed until June 1980. All of them were 1,500 square feet in size. Two were occupied immediately, the third was vacant for over two years and the other was not occupied until April 1983. A second development (the Paytoe Lane site) was underway at the time of the present study, but had not been completed. Problems had also been encountered in servicing this site, again because of the need to re-route a sewer, but also because it was found to be a site of archaeological interest.

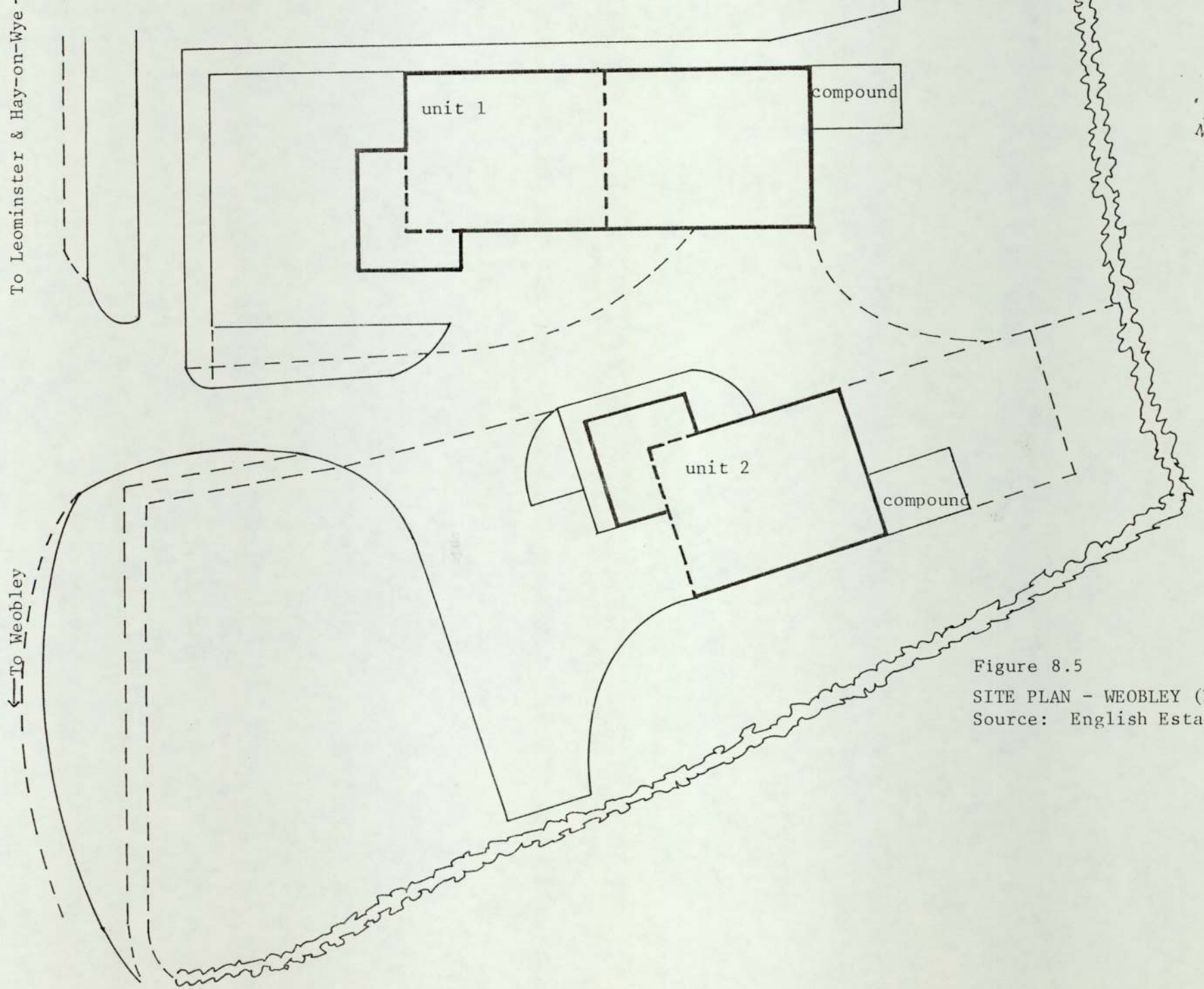


Figure 8.5

SITE PLAN - WEOBLEY (Kington Road)
Source: English Estates

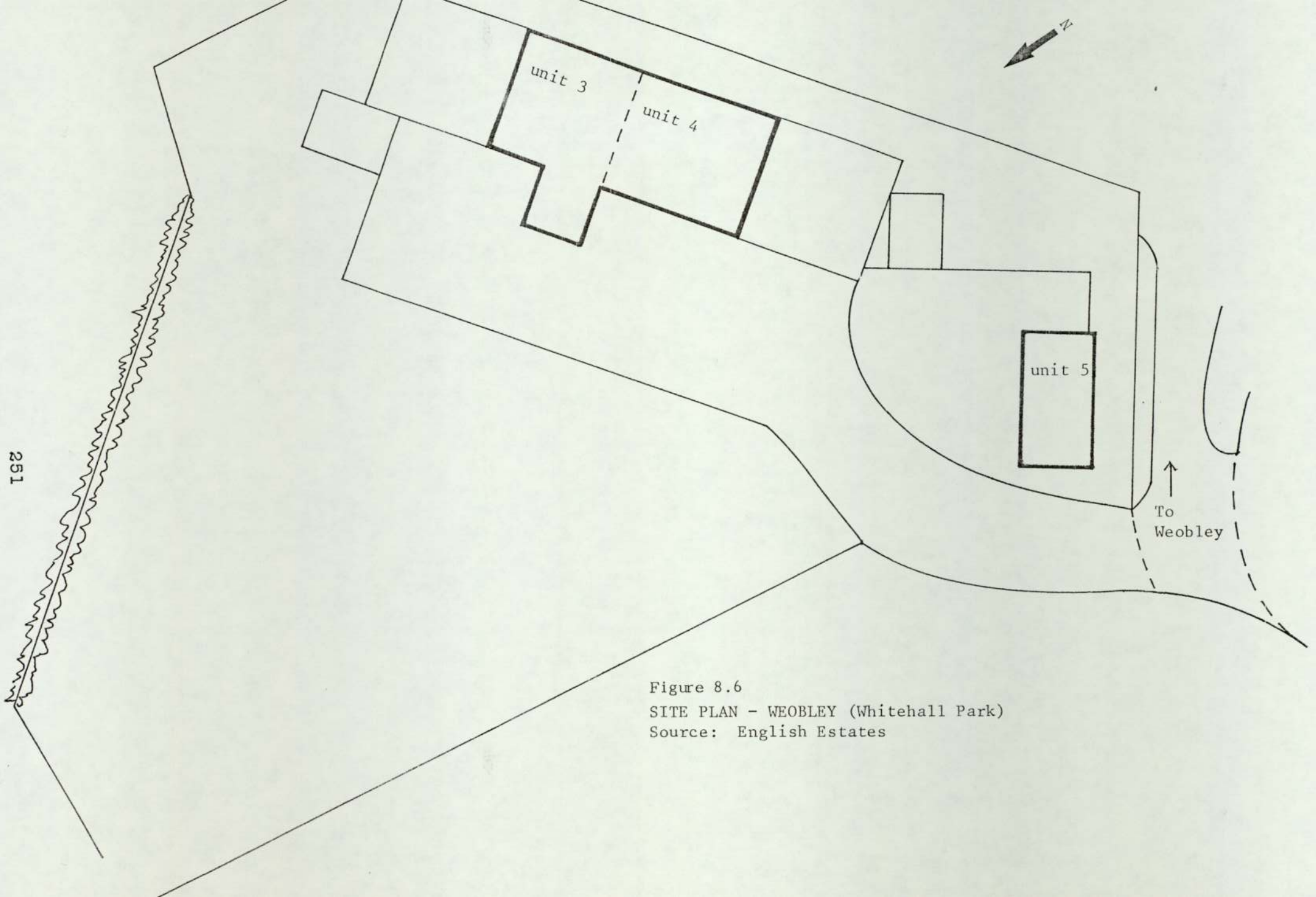


Figure 8.6
SITE PLAN - WEOBLEY (Whitehall Park)
Source: English Estates

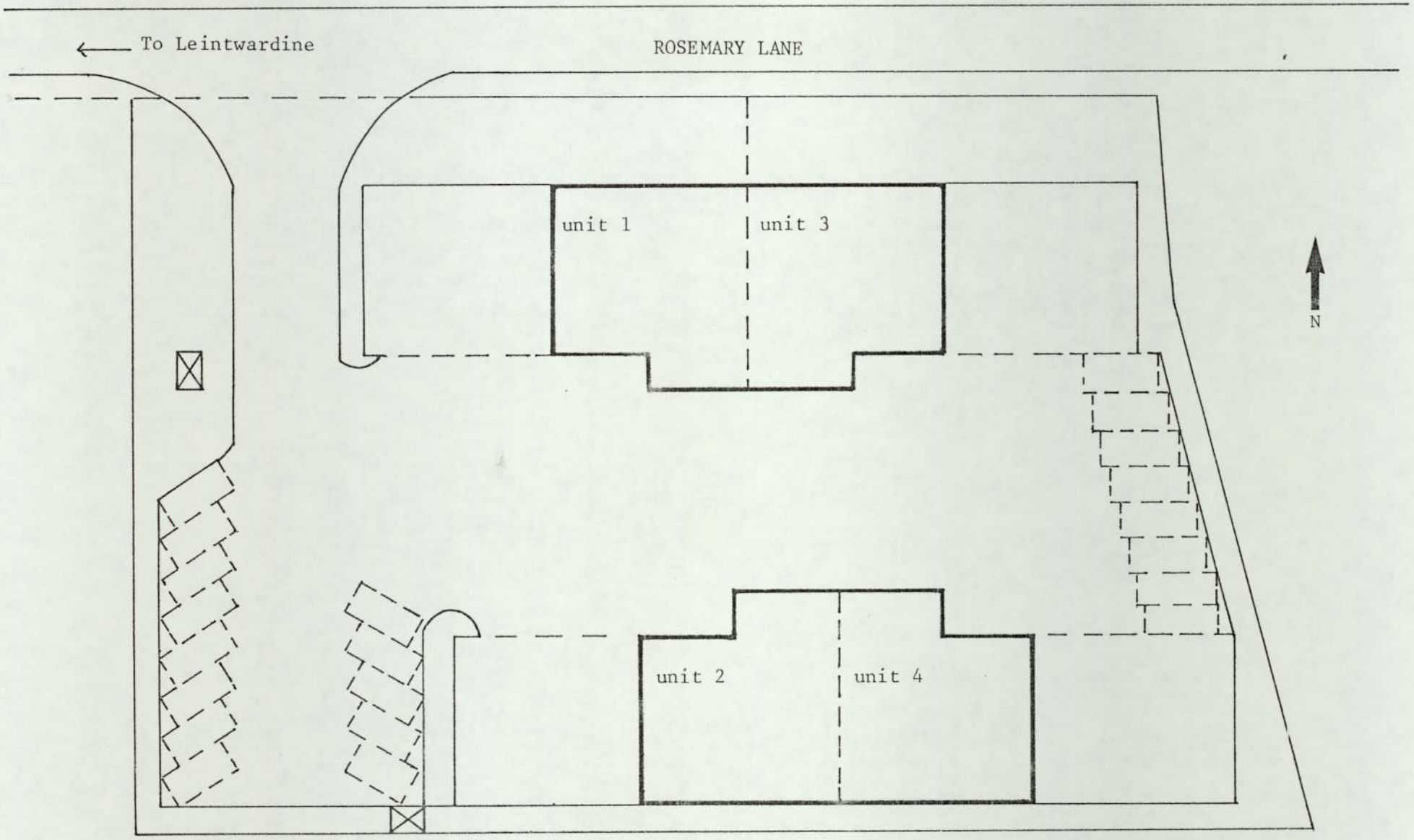


Figure 8.7

SITE PLAN - LEINTWARDINE
Source: English Estates

2.6 Ipstones

Ipstones is a fairly large village in north east Staffordshire. It is about ten miles east of Stoke, and six miles south of the market town of Leek (Figure 6.1). In 1971 it had a population of 1,336 people. The factory units provided in Ipstones were built as an indirect result of the first Action Plan submitted to the Commission in February 1976 by Staffordshire County Council and Staffordshire Moorlands District Council. In this plan the local authorities requested that particular assistance be given to Leek, because although it was much larger than the settlements that the Commission usually provided assistance to, (the normal threshold population size being 15,000 people), they felt it was necessary to develop the town as a holding point for employment and services for the surrounding rural area.

The Commission broadly accepted these proposals and financed the construction of a large number of factories in Leek, but stipulated that a second submission should involve the building of units in designated "key villages" around Leek. In March 1977 therefore, the local authorities asked that units be provided in Ipstones, Waterhouses, Warslow and Longnor. Approval for the construction of units in Ipstones was duly given and five were built on a 0.5 acre site which was bought from a local farmer by the Commission, (Figure 8.8). Two were completed in May 1980, and the remaining three were finished in April 1981. One of the first units constructed was let immediately, the other was vacant for a year. One of the second phase units was occupied within six months, another was vacant for almost two years, and the third was bought in October 1982.

2.7 Waterhouses

Waterhouses, like Ipstones is located to the south west of the Peak District National Park (Figure 6.1). It is however a little less accessible from the Potteries than is Ipstones, being about eight miles from Leek and thirteen miles from Stoke by road. It is also smaller than Ipstones, and in 1971 had a population of 1,041. Approval to build four units in Waterhouses

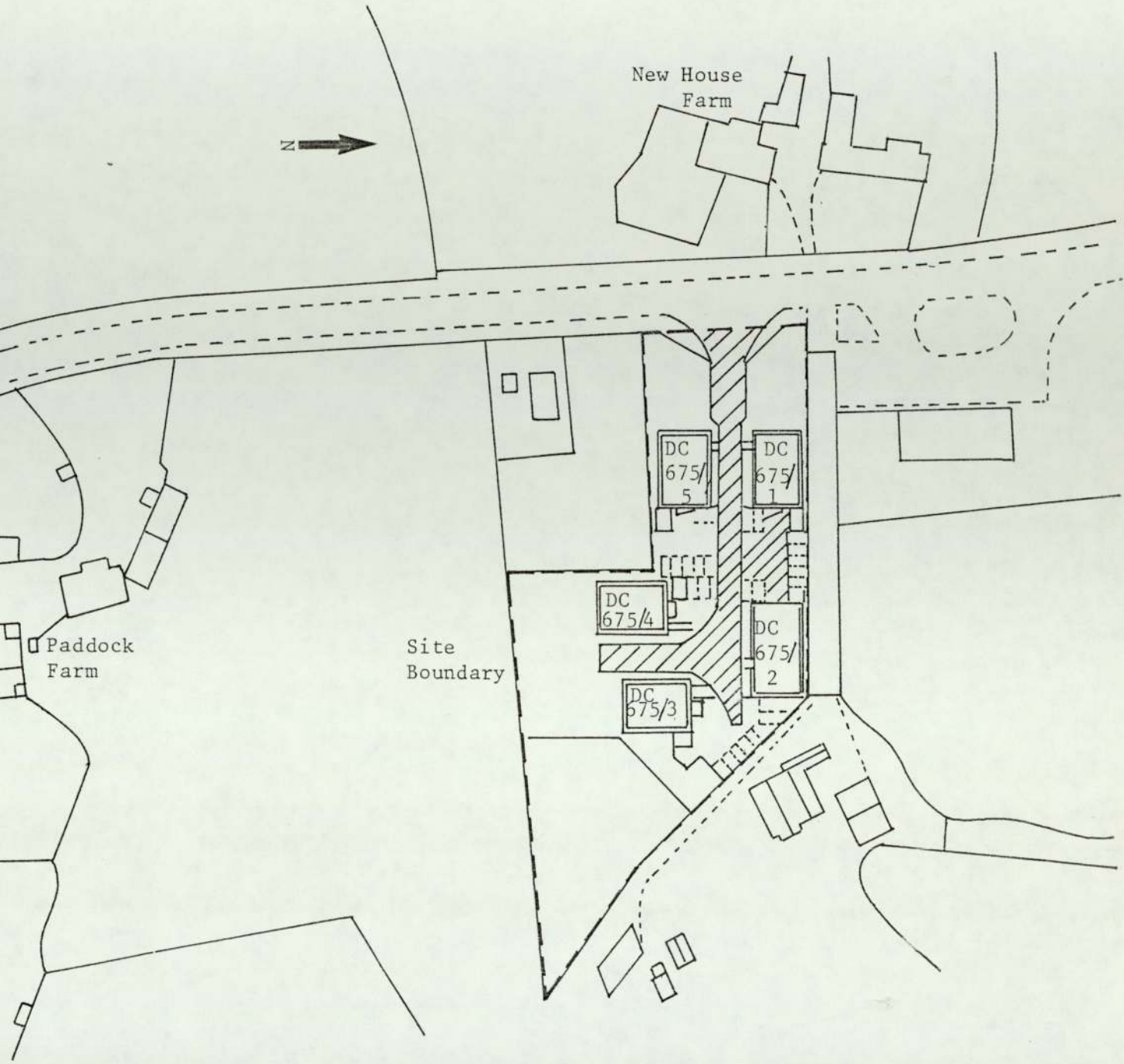


Figure 8.8

SITE PLAN - IPSTONES
Source: English Estates

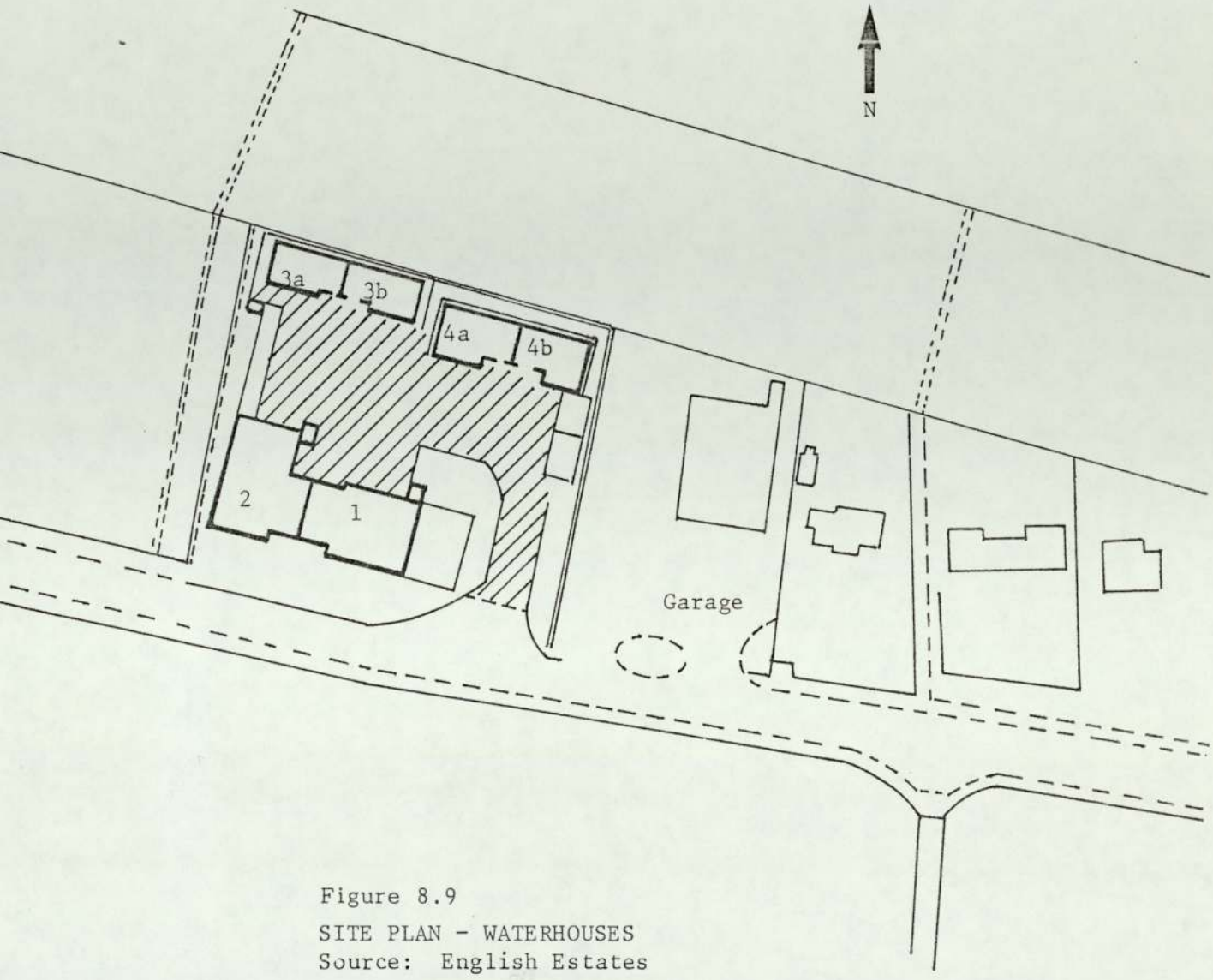


Figure 8.9
SITE PLAN - WATERHOUSES
Source: English Estates

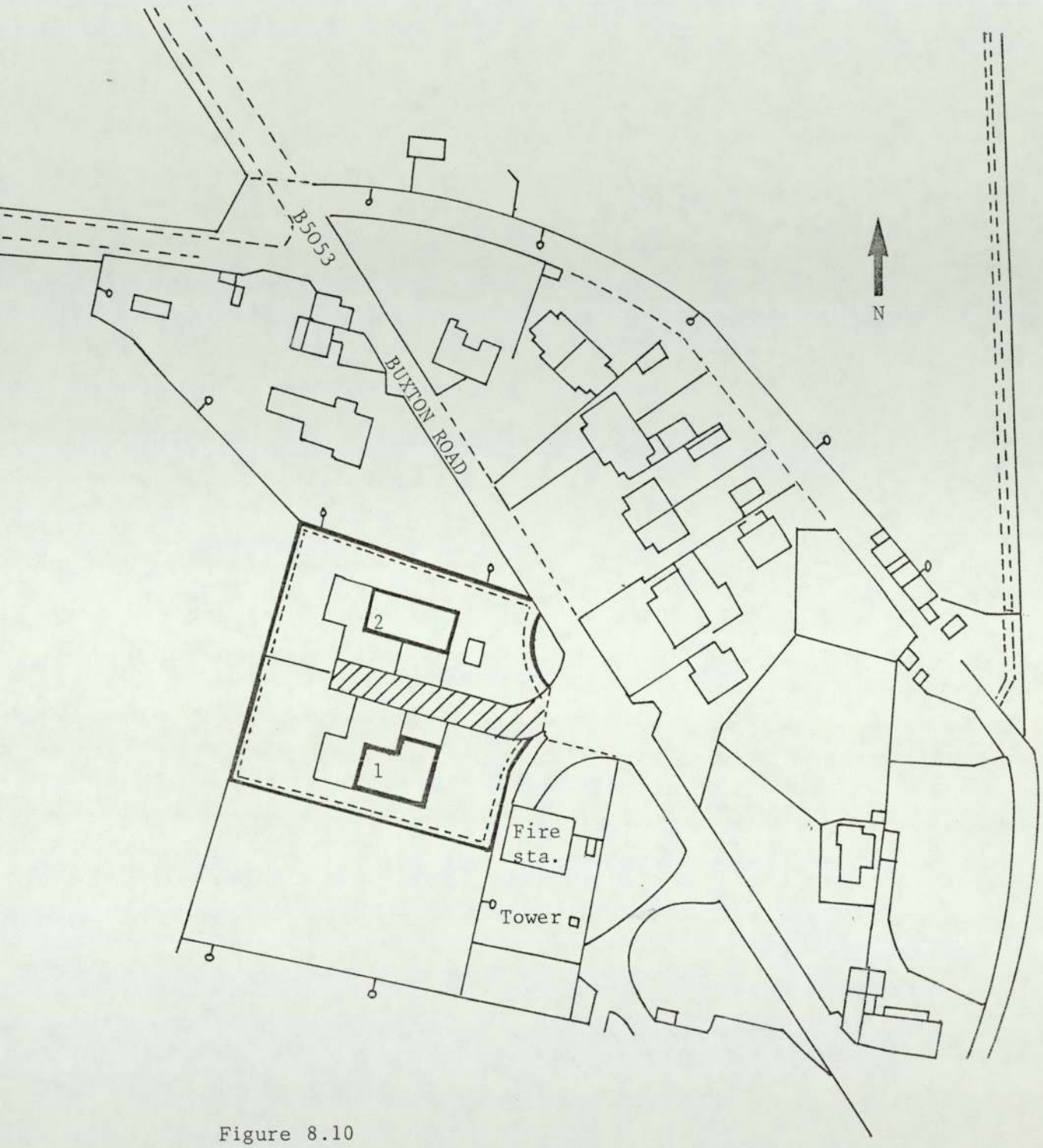


Figure 8.10
SITE PLAN - LONGNOR
Source: English Estates

was given by the Commission following the submission of the March 1977 Action Plan. Two units were completed in November 1982, and occupied in May 1983 and November 1983. A third unit was completed in 1984 and occupied fifteen months later, and the fourth was under construction at the time of the present work. These units vary in size from 1,453 square feet to 3,725 square feet, (section 2 chapter 9). As in Ipstones, the units were built on a site which had been used for agricultural purposes, and which the Commission purchased from a local farmer, (Figure 8.9).

2.8 Longnor

Longnor is much smaller than the other villages chosen as case study areas. In 1971 it had a population of just 352 people. It is located in a fairly remote area in the southern half of the National Park (Figure 6.1), about eight miles from Bakewell by road, and nine miles from Buxton. Approval was given in 1977 for two small units (1,000 square feet each), to be built and these were completed in 1980 (Figure 8.10). Initial occupancy rates were low; one unit was not occupied until October 1982 (one and a half years later), the other remained empty until June 1983. The Longnor site was obtained in two phases, the main portion was purchased from the Harper Crewe family (the main local landowners), and a smaller portion was purchased from the County Council. There was some resistance to the provision of the factory units, (some local people wanted to use the site to provide a children's playground), and because of the amenity value of the area, the Peak Park Planning Board stipulated that they must be built from materials which were compatible with the surroundings. This added considerably to the costs of the project.

3.0 PROJECT COSTS

There are two main types of costs involved in the provision of the advance factory units in the case study areas. Firstly, those incurred in providing the units: the costs of land acquisition, site servicing, and of constructing the units (initial costs). Secondly, the on-going costs of

maintaining the units and administering the projects, the bulk of which is officer time. Data about the costs of site acquisition, development and preparation and the construction costs of the projects in the case study areas was obtained from English Estates records. Information about the amount of time spent by officers administering the programme was obtained from the interviews with them, (sections 3.1 and 3.2 chapter 5).

3.1 Initial costs

English Estates records varied in their content. Some gave details of the actual out-turn costs of the factory building projects, others contained only the approved costs of the projects, (section 3.1. chapter 5). However, detailed scrutiny of the files enabled a reasonably accurate assessment of the initial costs of the developments in each of the case study areas to be made. A detailed breakdown of the initial costs of each phase in each of the case study areas is given in appendix 1, and summarised in table 8.2.

Table 8.2. Initial costs of factory developments excluding land costs

Case study area	Initial costs	Total floorspace	Cost per sq ft
Market Drayton	£ 653,333	28,250	£ 23.1
Ludlow	£ 594,000	20,500	£ 29.0
Bakewell	£ 493,240	16,650	£ 29.6
Weobley	£ 291,500	11,400	£ 25.6
Leintwardine	£ 150,300	6,000	£ 25.1
Ipstones	£ 261,200	8,080	£ 32.3
Waterhouses	£ 299,555	9,281	£ 32.3
Longnor	£ 131,000	2,000	£ 65.5
Total	£ 2,874,128	102,161	£ 28.1

Source : English Estates records 1984

In order for comparisons to be made between developments undertaken at different times, allowances have to be made for inflation, (section 3.4 chapter 5). Since most of the detailed information concerning the impacts of the initiatives related to 1984, the initial costs of each factory development phase in each of the case study areas were converted to 1984 prices. The rate of inflation in the cost of building materials and labour in the construction industry was assessed from the indices of building costs published annually by the Government Statistical Service (C.S.O. 1975-1985). The initial costs of construction and site preparation at 1984 prices are summarised on table 8.3.

Table 8.3. Initial costs of factory developments excluding land values (1984 prices)

Case study area	Initial costs	Total floorspace	Cost per sq ft
Market Drayton	£ 829,446	28,250	£ 29.4
Ludlow	£ 555,467	20,500	£ 27.1
Bakewell	£ 451,808	16,650	£ 27.1
Wecbley	£ 374,241	11,400	£ 32.8
Leintwardine	£ 179,944	6,000	£ 30.0
Ipstones	£ 302,218	8,080	£ 37.4
Waterhouses	£ 243,156	9,281	£ 26.2
Longnor	£ 157,356	2,000	£ 78.7
Total	£ 3,093,636	102,161	£ 30.3

Source : English Estates records 1984

There are no reliable general indices of changes in land values which could be used to estimate the increase in the value of the land on which units had been built. However, given the decline in demand for agricultural land in the late 1970's and early 1980's, it seemed reasonable to assume that the value of the land bought by the D.C. for each development had not changed greatly between the time when it had been acquired and the time of

the study. This assumption was verified by the English Estates officers who were interviewed, all of whom believed that the value of undeveloped land of the type that the units had been built on had not increased significantly in their area in the late 1970's and early 1980's. In any case, the costs of site acquisition comprised only a small proportion of total project costs, (averaging about 15 % of the total costs in the market towns and approximately 5 % of those in the villages), and thus small changes in the value of land would not have significantly affected the findings of the present study.

Details of the total initial costs of the factory developments in the case study areas, including land acquisition, site preparation and construction costs at 1984 prices are given in appendix 2, and summarised in table 8.4.

Table 8.4 Total initial costs of factory developments (1984 prices)

Case study area	Initial costs	Total floorspace	Cost per sq ft
Market Drayton	£ 890,946	28,250	£ 31.5
Ludlow	£ 633,467	20,500	£ 30.9
Bakewell	£ 524,376	16,650	£ 31.5
Weobley	£ 406,241	11,400	£ 35.6
Leintwardine	£ 188,444	6,000	£ 31.4
Ipstones	£ 310,718	8,080	£ 38.5
Waterhouses	£ 253,656	9,281	£ 27.3
Longnor	£ 164,356	2,000	£ 82.2
Total	£ 3,372,204	102,161	£ 33.0

Source : English Estates records 1984

3.2 On-going costs

3.2.1 Maintenance Costs

The costs of maintaining the units had been minimal. English Estates now manages all the Commission's units, having taken over this role from CoSIRA in the early 1980's. Although some units are let on three year tenancy agreements whereby English Estates is responsible for the exterior of the building and for insurance, most are let on full-repair leases, whereby the tenant is responsible for both the interior and exterior of the building and for insuring the premises. According to the English Estates officers who were interviewed, it therefore costs their agency very little to maintain the units.

The only substantial expenditure on maintenance occurs when a firm vacates a unit and leaves it in such a poor state that it has to be refurbished before it can be re-let. The costs of refurbishment are therefore extremely unpredictable and as a result it is difficult to include any accurate allowance for them in calculations of cost effectiveness. However, English Estates officers reported that only one of the units in the case study areas had required refurbishment by the time of the present study and this had cost only £ 5,000. Since this was less than 0.15 % of the total costs of the case study projects, it was clear that the exclusion of maintenance costs from the present study would not have a significant affect on its findings.

3.2.2 Officer time

It is unlikely that in the absence of the case study projects, the officers who had administered them would not have been made redundant. Instead their energies would have been re-directed to other activities. The cost of officer time spent administering the programme in the case study areas was therefore an opportunity cost rather than a financial cost, and for this reason it might be argued that it would have been rather

meaningless to quantify it in monetary terms. Certainly it has been standard practice in most previous evaluations of local economic development programmes, to exclude the costs of officer time (section 3 chapter 19). However, it was originally hoped that in the present study it would be possible to take account of the cost of officer time by measuring the number of man/woman days which officers from the Development Commission, CoSIRA, English Estates, local authorities and the Peak District National Park had spent administering the case study projects. However, such an approach proved to be unworkable because the officers who were interviewed were unable to provide an accurate estimate of how much time they had devoted to the particular projects in the case study areas, as opposed to the administration of the factory building programme throughout the areas for which they were responsible (section 3.2 chapter 5). As a result the costs of officer time had to be excluded from the present study.

This is unlikely to have had a significant impact on the present study's findings regarding the cost effectiveness of the advance factory building programme in the case study areas. An approximate estimate of the total cost of the time which had been spent administering the case study projects suggested that it can not have amounted to more than 6 % of the total costs of the projects. There were two reasons for this. Firstly, each of the officers in question were responsible for factory building projects in a number of other locations, and several of them had important duties in addition to administering the D.C.'s advance factory building programme. It was therefore clear that the case study projects had only taken up a proportion of their time. Secondly, relatively few officers had been involved in the case study projects (just two English Estates and three CoSIRA officers, plus minimal input from local authority and National Park officers in the early stages of each project).

3.2.3 Contributions from agencies other the D.C.

For the reasons given in section 3.3 chapter 5, it is important that evaluators distinguish between the costs to different agencies of jointly funded initiatives. By far the largest proportion of the costs of the case

study projects was met by the Commission, however several other agencies had contributed towards them, either through direct grants or through indirect subsidies. The costs of these contributions were assessed from local authority and English Estates records and from the interviews with officers, and are shown on table 8.5. Had the present study aimed to discover what the costs of the projects had been to the Commission, it would have been important to convert the value of these contributions to 1984 prices, and to deduct them from the overall costs. However, the present study was concerned with the cost effectiveness of the programme as a whole, rather than with the costs to particular agencies, and this was not therefore necessary to do so.

Table 8.5 Financial contributions made by agencies other than the D.C.

Case study area	Amount	Date	Agency
Market Drayton	£ 18,500	1976	North Shropshire D.C.
	£ 8,000	1979	Shropshire C.C.
Bakewell	£ 41,060	1981	West Derbyshire C.C.
Ipstones	£ 3,000	1979	Staffordshire Moorlands D.C.
Longnor	£ 2,000	1980	Staffordshire Moorlands D.C.
	£ 2,000	1980	Staffordshire C.C.

Sources : Local authority and English Estates records 1984

4.0 THE STATE OF INDUSTRIAL PROPERTY MARKETS IN THE CASE STUDY AREAS

No previous study of the advance factory building programme has properly assessed the extent to which the apparent impacts of the advance factory programme could in fact be attributed to it. This is however probably the most important issue in any evaluation of the programme, because in order

for changes which had occurred in the case study areas to be attributed to the programme, it was necessary to show that they would not have happened in its absence, (section 6 chapter 5). If similar premises to the advance factory units would have been built either by another public sector agency or by the private sector, in the absence of the programme, or if the firms would have been able to find alternative local premises in which they would have been equally viable as in the factory units, (i.e. there was an oversupply of local industrial premises), observed changes could not be attributed to the programme. In the present study the likelihood that either of these situations existed in the case study areas was examined by analysing the state of the local market for industrial property. Information about the local industrial property market was obtained primarily from the interviews with local authority, CoSIRA and English Estates officers, and with the managing directors of the occupant and control group firms.

4.1 Evidence from officers

The officers who were interviewed, unanimously held the view that the D.C. had filled a gap in the local industrial property market, and that no other agency would have provided similar premises to the advance factory units in the absence of the programme. Their views were confirmed by the managing directors of the occupant and control group firms (section 2.3 chapter 11), and by the lack of other public and private sector activity in the case study areas.

There were very few alternative industrial premises in any of the case study areas and none at all in the villages. There was one site on which privately owned premises were available for rent on a disused airfield near to Market Drayton. However, the premises were of a much lower quality than the D.C.'s advance factory units. There was also one industrial estate in Ludlow (other than those provided by the Commission), but this was fully occupied, and the nearest available premises of a similar standard to that of the D.C.'s units were local authority premises in Leominster and Hereford. There were two sets of alternative premises in the vicinity of Bakewell. A small development undertaken in Roseley, (a village 3 miles

from Bakewell), by West Derbyshire District Council, and a private development in Tansley (8 miles from Bakewell). However demand for all these units had been greatly in excess of supply, and the district council stated that they would have been able to fill the premises they had built in Roseley "several times over". The high level of local demand for premises was also reflected in the very high rents charged for the units in Tansley.

One English Estates officer stated the shortage of industrial premises in the Peak Park was such that English Estates were able to "name whatever rental levels" they liked. The fact that the level of rents charged for the D.C. units had increased since the time when English Estates assumed responsibility for setting rental levels, without any noticeable effect on occupancy rates, suggests that this was indeed the case. Although some tenants have raised vociferous complaints about these increases, they admitted to the researcher that they have to stay in the units because of the lack of alternative premises in the case study areas. It is clear however, that despite the high level of demand for units, the private sector is unlikely to ever provide industrial premises because of the difficulties involved in and the high costs of land acquisition and site preparation in these areas, (section 4.2 chapter 14).

4.2 Evidence from managing directors of firms

The managing directors of a third of the firms which had occupied the D.C. units reported that at the time when they moved, they had not been able to find any other suitable premises in the case study areas. Only a quarter of them reported having been able to find more than one set of suitable alternative premises. In four of these cases the alternative premises considered had been D.C. units in other areas. Similarly, only a third of the managing directors of the firms in the control group had been able to find any premises apart from those in which they were now located which would have been suitable for their firm, and the reason most frequently given by the managing directors for their choice of premises was that they were the only ones that had been available.

Almost half the managing directors of the matched firms stated that there was a shortage of industrial premises in their local areas. Several more commented that there were only enough premises at the time of the survey because those which the D.C. had provided had filled a gap in the market, and that before the Commission's units were built, there had been a serious shortage of industrial floorspace in the area. These perceptions are reflected in the fact that according to their managing directors, four of the firms occupying D.C. units in the case study areas, and two of the matched firms would either have been unable to start up or would have been forced into liquidation in the absence of their present premises. In addition half of the occupant firms and a fifth of the matched firms would have been located outside the case study areas, if their present premises had not been available (section 2 chapter 11). The degree to which firms had been forced to move into premises that were not really suitable is shown by the fact that a quarter of the managing directors reported that the unsuitability of their present premises was a major constriant upon their businesses.

4.3 The additionality of the projects

It therefore seemed clear both from the interviews with officers and the managing directors of local firms that there was a shortage of small industrial premises in the case study areas, that the Development Commission was the only public agency filling this gap, and that private firms showed no signs of doing so. In these circumstances, it was very unlikely that alternative premises would have been available in the case study areas in the absence of the advance factory building programme, and that the programme's funding could therefore be reasonably assumed to be wholly additional. The perceived shortage of industrial premises in rural areas is in contrast to the findings of a recent study of the Urban Development Grant programme, in the course of which it was found that few of the managing directors of small firms had experienced a lack of industrial premises and that as a result, many of the premises which had been provided the programme were unlikely to have been entirely additional (PSMRC 1988).

5.0 SUMMARY AND CONCLUSIONS

This chapter has presented background information about the projects which had been undertaken in the case study areas, a detailed analysis of the costs of the programme, and an examination of the additionality of programme funding. Information about the history of the projects was of considerable value both in selecting the case study areas, and in designing the main surveys from which the bulk of the data on which the present study was based. The detailed information regarding the costs of the programme enabled the cost effectiveness as well as the operation and impacts of the programme to be assessed. The analysis of the additionality of programme funding was a vital pre-requisite to the measurement of programme impacts, since without this, it would have been impossible to attribute observed changes in the case study areas to the programme. The remaining chapters analyse the evidence which was obtained from the surveys of the firms and individuals which had been affected by the programme, regarding its impacts, operation and cost effectiveness. Findings are presented within the framework of the hierarchy of programme objectives which was specified in section 4 chapter 5.

CHAPTER 9 TYPES OF UNITS, DELAYS AND OCCUPANCY RATES

1.0 INTRODUCTION

Several of the agencies which sponsor local economic initiatives that involve the provision of industrial premises use the number of factory units built as a major performance indicator. Some also report details of the sizes of these units and thus the total amount of floorspace provided. Such measures are no more than crude indicators of a programme's immediate outputs, and they do not therefore constitute an adequate basis for performance measurement. Many agencies have however based their procedures for assessing the performance of their factory building programmes almost entirely upon such measures, and several (for example the Department of Trade and Industry and its Welsh and Scottish counterparts), have as a result, been strongly criticised by the House of Commons Public Accounts Committee, (Cmnd 1981). In spite of this, few organisations yet publish details of occupancy rates, even though these are themselves only a very basic measure of programme performance, and to date no known study has analysed the extent of delays in the development process in order to identify "bottlenecks" in the delivery system which constitute obstacles to maximising the programme's effectiveness.

This chapter presents and analyses data concerning the amount of Development Commission floorspace provided in the case study areas, the time taken to approve, construct and let units and the levels of occupancy in the units. This information provided a useful starting point for the present evaluation and highlighted a number of important differences between the case study areas. They also demonstrated the value of analysing delays in the development process, the inadequacies of current methods of calculating occupancy rates, and ways in which these can be improved in order to provide those responsible for formulating and implementing economic development programmes, with the accurate and relevant information which they require.

2.0 THE NUMBER AND SIZES OF FACTORY UNITS BUILT

At the time when the first survey of occupant firms was conducted (mid-1984), 56 factory units had been provided as a result of the D.C.'s advance factory building programme in the eight case study areas selected for the present study. The majority (30) of these had been built in the three market towns (table 9.1.). This was the result of two main factors, firstly, the perceived demand for factory floorspace, and secondly, the amount of land that was available for development.

The Commission's intended strategy was firstly to provide the units in market towns, in order to establish "holding points" within the S.I.A.'s, where employment and service provision levels might at least be stabilised. Once these units were completed and occupied it began to build units in smaller settlements within the S.I.A.'s. This second phase was seen as being the more difficult since it was thought that there would be far less demand for factory floorspace in the villages, (which contained fewer indigenous firms and were thought to be less attractive to in-movers than the market towns), and because of the problems of acquiring suitable land for development in the smaller settlements.

The types of firms which were likely to be attracted into and retained within the target areas was dependent not only on the number of units, but also on the mix of the unit's different sizes available within the areas. Firms that moved into the smallest units (between 750 and 1,500 square feet), and which prospered, would in time require larger premises. There was therefore a need to provide a "workspace ladder" of units of different sizes in each target area so that as firms expand they can move to larger premises without having to leave the areas. It was therefore important to evaluate not only the number of units provided but also the mix of units of different sizes, which as is clear from table 9.1, varied considerably between case study areas.

Table 9.1 Number and sizes of factory units completed by August 1984

Location	Size of units (sq. ft.)				Total floorspace
	500-1000	1001-1500	1501-2500	>2500	(sq. ft.)
Market towns					
Market Drayton	3	0	5	4	28,250
Ludlow	8	2	5	0	20,500
Bakewell	0	6	2	1	16,650
Total	11	8	12	5	65,400
Villages					
Weobley	1	0	2	2	11,400
Leintwardine	0	4	0	0	6,000
Ipstones	0	0	5	0	8,080
Waterhouses	0	2	0	2	9,281
Longnor	2	0	0	0	2,000
Total	3	6	7	4	36,761

Source : English Estates records 1984

The main influence on the sizes of the units seems to have been the time at which they were built. In the mid-1970's the main aim of the programme was to attract non-indigenous firms into the target areas. As the economic climate worsened in the late-1970's, and the supply of mobile footloose firms virtually dried up, the aims of the programme shifted towards promoting the growth of existing local firms, and (in line with government thinking), to encourage the founding of new businesses. It was thought that existing firms and start-ups were likely to require smaller premises than in-moving firms, and there was therefore a shift towards the provision of

much smaller units. A trend which was encouraged in the late 1970's by the fact that the Commission was experiencing problems letting some the very large units which it had built at the beginning of the decade in the north of England.

Thus the average size of the units built in the case study areas before 1980 was 4,250 square feet, that of those built from 1980 onwards was only 1,533 square feet, (table 9.2). The distinction between units built in the 1970's and those built in the 1980's was not only evident between case study areas, but also within them. For example, the oldest units in Market Drayton were also the largest. These were approved in 1975-77, and built in 1978 and 1979. Later units which were approved in 1980 and built in 1982, were much smaller. The units built earliest in Ludlow, Bakewell, Weobley and Waterhouses were also larger than the premises which were completed more recently.

It seems that the sizes of the units which were provided in each of the case study areas was unrelated to the size of the settlements. The average size of the units which had been built in the three market towns by 1984 was 1,816 square feet and compared to 1,838 square feet in the villages. This difference was however, due to the fact the units in two of the market towns (Ludlow and Bakewell) were built after the majority of units provided in the village case study areas. Completion of many of the units in Ludlow was delayed by the fact that the first units provided there were difficult to let, (section 3.4 below). The provision of units in Bakewell was delayed by the protracted negotiations which preceded site acquisition, (section 3.4 below). The average size of units built in the market towns after 1979 was 1,466 square feet, compared to 1653 square feet in the villages. The units built in the towns before 1980 are on average 4,625 square feet, compared to 3,500 square feet in the villages.

Table 9.2 Comparison of sizes of units built in 1970's and 1980's

Age of units	Size of units (sq. ft.)				Average unit size (sq. ft.)
	500-1000	1001-1500	1501-2500	>2500	
1970's	0	0	0	6	4,250
1980's	14	14	19	3	1,533

Source : English Estates records 1984

The degree to which each of the case study areas contained a sufficient mix of unit sizes varied. For example, the units provided in Market Drayton, varied in size from 750 to 5,000 square feet, whereas in other areas, the workspace ladder was much shorter, (for example, in Leintwardine and Longnor, where all the units were of the same size), (table 9.3). The small number of large units in Ludlow, and the lack of variety in Leintwardine, Ipstones and Longnor, reflect the trend towards building smaller units referred to above.

The evidence gathered in the course of the present work suggests that the since the D.C. was the only provider of high quality industrial premises in the case study areas, (section 4 chapter 8), the fact that it had provided very few large units, was likely to force successful firms to either move away from the case study areas, or to adopt a deliberate no-growth policy in order to avoid outgrowing their existing premises, (section 4.2 chapter 16). In either case this will eventually result in a reduction in the scale of programme impacts which occur within the target areas, and there is therefore a need for the Commission to review its policy of providing smaller units.

Table 9.3 Range of unit sizes built by August 1984

Location	Largest unit square feet	Smallest unit square feet	Range	Mean	Median
Market Drayton	5,000	750	4,250	2,292	1,500
Ludlow	2,500	500	2,000	1,367	1,000
Bakewell	2,500	1,250	1,250	1,850	1,500
Weobley	3,500	800	2,700	2,280	1,800
Leintwardine	1,500	1,500	0	1,500	1,500
Ipstones	2,080	1,500	580	1,664	1,560
Waterhouses	3,725	1,453	2,272	2,321	2,052
Longnor	1,000	1,000	0	1,000	1,000

Sources : English Estates records 1984

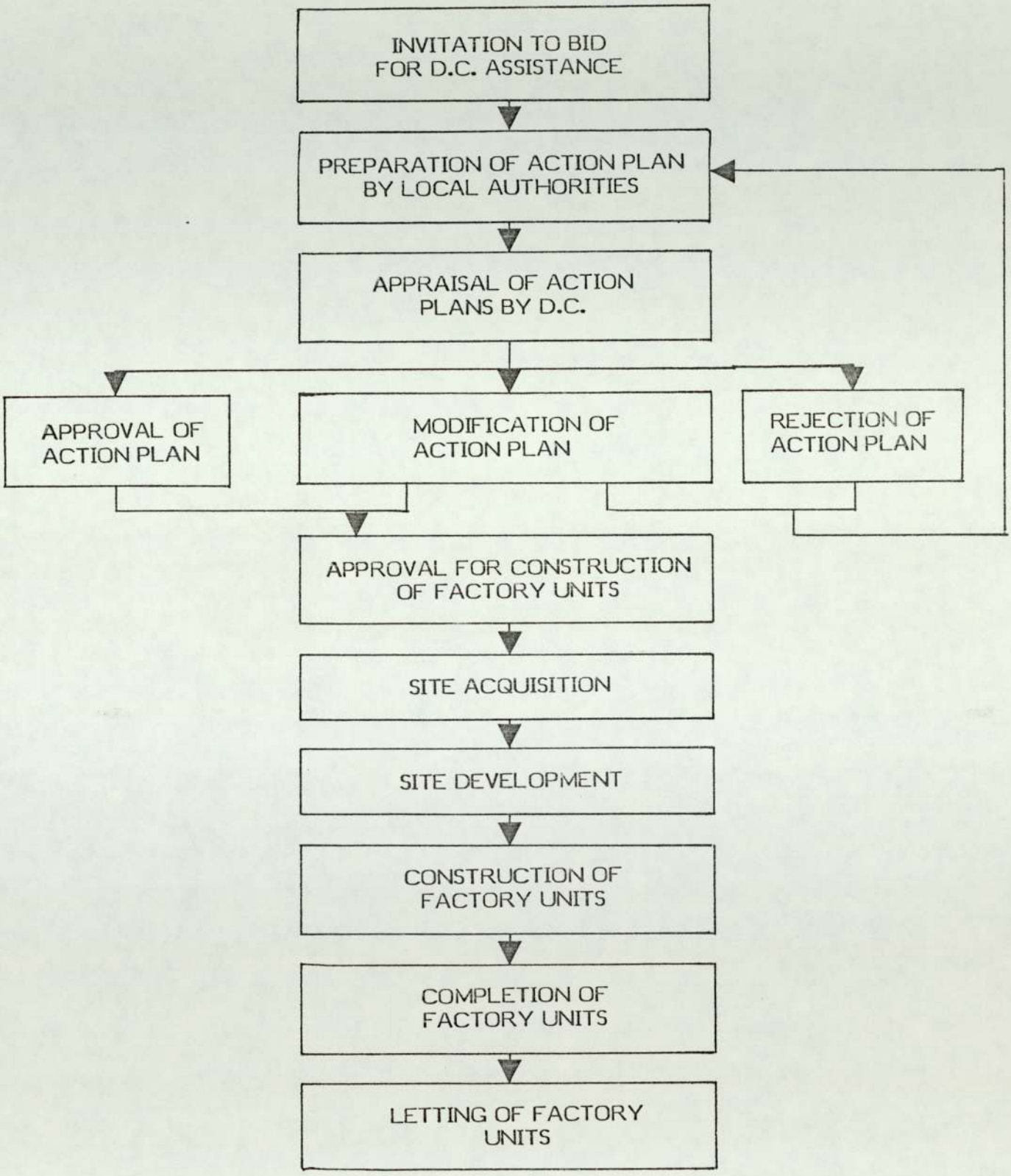
3.0 DELAYS IN THE DEVELOPMENT PROCESS

3.1 Stages in the development process

The development process associated with the factory building projects was initiated when the Commission invited the relevant local authorities to submit an Action Plans, (Figure 9.1). These were then appraised by Commission staff in London, and the applications for assistance were either rejected, modified or approved. Although the appraisal was undertaken by Commission staff, approval for projects had to be granted by the Department of the Environment on behalf of the Commission. Decisions regarding bids were communicated to local authorities in an "offer letter", which indicated which parts of the Action Plans had been approved, and which had been rejected or had been held over for further consideration. Offer letters also contained the general and specific conditions attached to the granting of assistance. Following approval, suitable sites on which to build the units were sought, and if possible acquired. Units were then built on a rolling programme whereby the speed with which additional

FIGURE 9.1

STAGES IN THE DEVELOPMENT PROCESS



floorspace was provided was determined by the ease with which the first units were let.

In the 1970's, the later stages of the development process, (the construction and management of the units), were the responsibility of English Estates and CoSIRA. The latter managed the units which were built outside DTI's Assisted Areas, and the former (known at the time as English Industrial Estates), administered the programme within any S.I.A. which was part of an Assisted Area. From October 1981 English Estates assumed responsibility for the construction and management of the D.C.'s units throughout the country, (D.C. 1982), a change which was often accompanied by the introduction of a more commercial approach to the programme, and substantial rent increases, (section 4.1 chapter 8). CoSIRA continued to be responsible for vetting prospective tenants.

3.2 Delays between application and approval

The analysis of the detailed timing of the development of each of the projects in the case study areas, (appendix 3), showed that there had been a number of different sorts of delay within the process. The first of these were delays between the submission of Action Plans and approval being given by the Commission. An examination of the files relating to submissions for assistance in the case study areas, showed that such delays had been relatively short, usually lasting no more than a few months.

3.3 Delays between approval to completion

In contrast to the lack of delays at the appraisal stage, it was found that lengthy delays had occurred between the approval and the completion of projects. In some areas, units which were approved many years ago had still not been built, and although the average length of delays between approval and construction varied considerably between case study areas, they had exceeded two years in all cases, (table 9.4). In Market Drayton some of the units had been completed within twelve months of being approved, and the

average delay had been just over two years. At Waterhouses, however, some of the units had not been built until nearly seven years after approval had been granted, (table 9.4).

Table 9.4 Average length of delays between approval and completion

Case study area	Mean length of delay (months)	Range
Market Drayton	25.6	12-30
Ludlow	43.0	41-47
Bakewell	59.0	48-71
Weobley	29.2	26-34
Leintwardine	57.0	57-57
Ipstones	40.6	33-45
Waterhouses	67.0	52-82
Longnor	36.0	36-36
Total	42.9	12-82

Source : English Estates records 1984

There were a number of causes of the delays, and of the variations in their length between the case study areas. The first cause of delays had been the conditions imposed by the Commission. Some were intentional, for example, those which resulted from the timetables outlined in the offer letter. Others resulted from the general requirement that units were constructed on a rolling programme. In areas where the units have proved to be difficult to let, (for example, Longnor and Waterhouses), the construction of later units had been delayed in order to meet this requirement, (section 2 above).

Secondly, some delays arose from the need to clarify the details of a development. For example, in several areas, it had taken some time to reach

agreement on the value of sites. Thirdly, delays had occurred as a result of the need to modify original plans in the light of later developments. For example, in June 1977 when approval was first given for the units in Ipstones, Waterhouses and Longnor, it was intended that two 3,000 square foot units would be built in Ipstones, one 4,000 square feet unit would be provided in Waterhouses, and one 2,000 and one 3,000 square foot unit would be provided in Longnor. The units which were eventually built, were much smaller than this, but the total number of units provided in these three areas was greater than had been anticipated in 1977, (table 9.1). These changes were the result of the shift of emphasis of the Commission's policy and a resulting preference for smaller units, (section 2 above), problems involving the acquisition of a suitable site at Longnor and the unexpectedly high level of demand for units in Ipstones. They inevitably involved delays as the revised plans were re-formulated and re-appraised by the local authorities and the Commission.

Finally, many of the delays resulted from problems involved in acquiring and servicing sites. For example in Bakewell, protracted discussions between the Commission, the local authority and the Peak Park Planning Board regarding the suitability of the site delayed construction for almost five years, and in Leintwardine completion was delayed by the difficult ground conditions, (section 2.5 chapter 8). In several other settlements within the same S.I.A.'s as the case study areas, (for example Ashbourne in Derbyshire and Wigmore in Hereford and Worcester), the lack of suitable sites has prevented factory building altogether.

3.4 Delays between completion and letting

The resources committed to the building of a unit which is delayed by a problem between approval and construction can be diverted to alternative projects. However delays between the practical completion and occupation of a unit are more serious, because once a unit has been built, the D.C. has committed resources to it which cannot be diverted to other projects. The Commission has therefore used resources from which no positive benefit is being derived. High vacancy rates are therefore politically embarrassing, since they are taken to indicate a failure of the policy, and may also have

a reverse demonstration effect by signalling to the private sector that there is no demand for such units and thus discouraging private sector investment in the rural industrial property market.

The average length of time between the completion and first letting of units had varied considerably between case study areas. The shortest delays had occurred in Bakewell, where units had on average been occupied within three months of completion, (table 9.5). The longest delays had occurred in Leintwardine and Longnor where units had on average remained vacant for two and a half years. In the other case study areas delays had varied between ten and fifteen months. The average delay between completion and occupation in the three market towns was 10.5 months, compared to 16.7 months in the villages. These differences were mainly due to the long delays in Leintwardine and Longnor, since in the other three villages, (Weobley, Ipstones and Waterhouses), delays were shorter than those in two of the market towns (Market Drayton and Ludlow). One of the reasons for these differences was the fact that the units in the villages were on the whole completed in the 1970's when there was greater demand for factory floorspace, (below).

Table 9.5 Average length of delays between completion and letting

Case study area	Mean length of delay (months)	Range
Market Drayton	13.0	1-24
Ludlow	15.0	0-25
Bakewell	3.0	1-11
Weobley	10.0	2-21
Leintwardine	29.0	2-46
Ipstones	11.0	0-22
Waterhouses	12.0	3-24
Longnor	30.0	24-36
Total	13.7	0-46

Source : English Estates records 1984

Clearly, the differences in the average length of delays between case study areas were the result of differences in the level of demand for the factory units and in the number of firms which were regarded by CoSIRA as suitable occupants. The level of local demand for the units seemed to depend mainly on the number of alternative premises in the case study area. For example, in Bakewell there had been a very high level of demand for space in the D.C.'s units because, as a result of planning controls within the National Park, there were very few alternative premises within the sub-region.

It was also clear that the level of demand for the units had varied over time as well as between areas. Probably because of the economic recession which occurred from 1979 onwards, demand for the units had in general been higher in the late 1970's than in the 1980's. As a result, delays between completion and occupation were shorter in case study areas where a larger proportion of the units had been built by the late 1970's. The average delay between the completion and occupation of units built before 1980 had been 6.8 months, average delays relating to units built before 1981 had been 13.8 months, and delays in the case of units built after 1981 had averaged 16.3 months.

The size of the units in each area had also had an affect on the length of the delays which occurred between construction and occupation. In general, larger units were occupied more rapidly than smaller ones. The average length of delays between completion and occupation for units of 2,000 square feet or more had been 10.2 months, and 14.6 months for smaller units, a difference which is statistically significant with 0.01 degrees of confidence. This is contrary to the Commission's expectations and its claims that smaller units are in greater demand than larger units, (see section 4.2 below).

It is clear that differences also existed between the length of delays in different sub-regions. The longest delays occurred in the Welsh Borders region, where they had averaged sixteen months, and the shortest had been in the Peak Park where delays had averaged eight months. The average length of delays in the Potteries had been twelve months. It is possible that these differences in part reflect the variations which exist between sub-regions in terms of remoteness from major settlements. The Welsh Borders

sub-region is the most remote of the three and as a result the units provided there were likely to have been less attractive to in-moving firms than those in the other two sub-regions.

Table 9.6 Differences in length of delays between sub-regions

Sub-region	Average length of delay (months)	Range
Potteries	12.2	0-24
Welsh Borders	16.1	0-46
Peak Park	8.2	1-36

Source : English Estates records 1984

4.0 OCCUPANCY RATES

Measures of the length of time which elapsed between the completion and occupation of the D.C.'s factory units provide only a partial view of occupancy rates, because a unit may be occupied very soon after completion, only to be vacated shortly afterwards by the original tenant, and then remain empty for a considerable period of time. Accurate measures of programme effectiveness can therefore only be obtained by monitoring long term occupancy rates. Unfortunately, the only previous study of the occupancy rates of the programme was based on measures at just one point in time, and is therefore unlikely to have provided an accurate indication of occupancy levels. In order to demonstrate this, in the present study occupancy rates in the units were calculated both at one point in time and over the whole of the period from their completion until the time of the evaluation.

4.1 Analyses at one point in time

The only previous analysis of the level of occupancy in the D.C. factory units was a study of the whole programme, based on an analysis of the Commission's records of occupancy at one point in time, (April 1984), (Chisholm 1985). Occupancy rates were measured in terms of the number of units and amount of floorspace which was occupied as a proportion of that which was available. It was found that according to the Commission's records, 183 (19.7 %) of the 930 units which had been built in England by April 1984, were empty. This represented 16 % of the total available floorspace. According to this analysis occupancy rates were therefore between 80 and 84 %.

In the present study occupancy rates in the eight case study areas in April 1984 were calculated in order to provide a comparison with the occupancy levels nationwide as reported by Chisholm. This showed that at that time 29.7 % of the completed units, and 25.7 % of the available floorspace, was vacant, (table 9.7). Occupancy rates therefore averaged between about 70 % and 74 %, which was clearly considerably lower than that reported by Chisholm for the country as a whole. However, it seems that the apparent differences between rates in the case study areas and those for the programme as a whole were, at least in part, the result of inaccuracies in the secondary data which Chisholm used.

Site visits to the case study areas conducted in the course of the present study showed that in several cases, units which were occupied according to E.E. and D.C. records, were in fact, vacant. This was because units for which provisional tenancy agreements had been reached were counted as occupied in the records and because some units which had recently been vacated were also recorded as still being occupied. There is no reason to assume that the same administrative procedures are not the same nationwide, and it therefore seems that the data sources on which Chisholm's analysis was based led him to overestimate occupancy rates.

Table 9.7 Occupancy rates in the case study areas in April 1984

Location	Units			Floorspace (000's sq ft)		
	occupied	vacant	% occupied	occupied	vacant	% occupied
Market Drayton	8	4	66 %	18.8	8.8	68 %
Ludlow	7	8	47 %	9.0	9.5	49 %
Bakewell	7	2	78 %	13.1	3.6	78 %
Weobley	5	0	100 %	11.4	0.0	100 %
Leintwardine	3	1	75 %	4.5	1.5	75 %
Ipstones	4	1	80 %	6.8	1.5	82 %
Waterhouses	2	0	100 %	6.4	0.0	100 %
Longnor	2	0	100 %	2.0	0.0	100 %
Total	38	16	30 %	72.0	24.9	26 %

Source : English Estates records and survey of occupant firms 1984

4.2 Longitudinal analyses of occupancy rates

An additional problem with the approach adopted by Chisholm is that it measures the situation at only one point in time. As explained above this may be a poor indicator of the occupancy level over time. Longitudinal measures of occupancy have not however been used in previous studies, probably because of the difficulties involved in calculating them. In order to measure occupancy over time it is necessary to know the history of occupation of each unit, which in some of the case study areas used in the present study, covered a period of eight years. This necessitated detailed analysis of the information obtained from official files, and interviews with programme managers and the managing directors of occupant firms.

Occupancy rates were calculated over two time periods. Firstly, in order to compare the results obtained by longitudinal analysis, with those

of the analysis at one point in time, occupancy levels were calculated longitudinally from the completion date of each unit up to April 1984, (table 9.8). Secondly, in order to provide as up to date a picture as possible, rates were also calculated up to August 1984, the time at which the first survey of the occupant firms was conducted, (table 9.9).

Table 9.8 Longitudinal analysis of occupancy rates up to April 1984

Location	Units			Floorspace (000's sq ft)		
	occupied (months)	vacant (months)	% time occupied	occupied (months)	vacant (months)	% time occupied
Market Drayton	248	151	62 %	1041.8	319.7	76 %
Ludlow	77	173	31 %	103.0	199.5	33 %
Bakewell	93	27	76 %	182.0	61.3	75 %
Weobley	181	52	78 %	506.4	107.8	82 %
Leintwardine	110	66	62 %	165.0	99.0	62 %
Ipstones	138	55	72 %	237.1	87.4	73 %
Waterhouses	12	42	22 %	137.0	35.3	20 %
Longnor	24	64	27 %	24.0	64.0	27 %
Total	883	630	58 %	2396.4	974.0	71 %

Source : English Estates records and survey of occupant firms 1984

Table 9.9 Longitudinal analysis of occupancy rates up to August 1984

Location	Units			Floorspace (000's sq ft)		
	occupied (months)	vacant (months)	% time occupied	occupied (months)	vacant (months)	% time occupied
Market Drayton	288	173	63 %	1134.8	374.3	75 %
Ludlow	114	211	35 %	151.5	243.5	38 %
Bakewell	131	31	81 %	258.3	66.8	80 %
Weobley	206	52	80 %	563.4	107.8	84 %
Leintwardine	131	65	77 %	196.5	97.5	77 %
Ipstones	158	60	78 %	272.5	93.6	74 %
Waterhouses	22	48	31 %	66.1	146.6	31 %
Longnor	34	64	35 %	34.0	64.0	35 %
Total	1084	704	61 %	2677.1	1194.1	69 %

Source : English Estates records and survey of occupant firms 1984

The longitudinal analysis of occupancy rates suggested that occupancy rates in the case study areas had been significantly lower than had been suggested by the analysis of occupancy at just one point in time. The average overall occupancy rates for the eight case study areas by April 1984 was 58 % measured longitudinally in terms of units occupied, compared to 70 % when measured in terms of the situation that existed in April 1984. Similarly, the occupancy rate measured in terms of floorspace occupied was 71 % when measured over time, compared to 74 % as of April 1984.

These differences demonstrate the inadequacy of measuring occupancy at just one point in time. They result from the fact that measurements of occupancy in terms of the situation in April 1984 alone, concealed the existence of long delays between the time when units were completed and their occupation, (section 3.4 above). The findings which are reached regarding occupancy rates when they are measured at just one point in time

are therefore largely dependent on the age of a project at the time when it is evaluated.

It is also clear that the apparent relative success of projects in different areas can be greatly distorted by measuring occupancy rates at just one point in time. For example, in the present study, all of the completed units in Longnor and Waterhouses were occupied in April 1984, and when occupancy rates were measured at just this point in time, they were therefore recorded as being 100 %, (table 9.7). However, this disguised the fact that the units in these areas had proved to be particularly difficult to let and had been vacant for much of the time since their completion. This information is taken into account by the longitudinal method of calculating occupancy, which therefore recorded much lower occupancy rates Longnor and Waterhouses, (27 % and 22 % respectively), (table 9.8).

Similar, though less extreme distortions were apparent in the case of occupancy rates in Weobley, which when measured purely in terms of the April 1984 situation were 100 %, (table 9.7), but which if measured over the time since completion were found to be only 78 % measured in terms of units, and 82 % measured in terms of floorspace, (table 9.8). Similarly, in both Ludlow and Leintwardine the occupancy rates calculated according to the April 1984 situation were 16 % and 13 % higher than that revealed by longitudinal analysis. Only in Bakewell was there no significant difference between the occupancy rates derived by the two different methods of calculation. This was because delays between completion and occupation had been much shorter in Bakewell than in the other case study areas, (section 3.4 above).

4.3 Alternative measures of occupancy rates

The present study demonstrated that it is possible to measure occupancy rates successfully over time in two main ways. Either in terms of the proportion of available units which have been occupied or in terms of the percentage of available floorspace which has been occupied. It is clear that these two measures may lead to somewhat different findings. For example in the present study overall occupancy rates for the eight case

study areas up to April had been 71 % if measured in terms of floorspace but only 58 % if measured in terms of the number of units which had been occupied (table 9.8). Similarly, up to August 1984 occupancy rates were 69 % if measured in terms of floorspace but only 61 % if measured in terms of the number of units which had been occupied (table 9.9). It is therefore important that researchers appreciate that the choice of which performance indicator is used to measure occupancy rates may have a significant affect on the findings of an evaluation. The most important consideration is that comparisons between programmes (or between projects within the same programme) must be made in terms of the same performance measures. However in most studies it will be unnecessary to choose between the two types of measures, since it will usually be advantageous to use both of them. This is because a comparison of the occupancy rates as measured in terms of the number of units with occupancy rates measured in terms of the amount of floorspace is likely to provide important information about the effectiveness of a programme and to highlight significant policy issues. The present study provides two examples of this.

Firstly, the present study showed that occupancy rates had been consistently higher if measured in terms of the amount of floorspace which had been occupied rather than in terms of the number of units. In addition to the quite large differences between the overall occupancy rates for all eight case study areas (mentioned above), there were significant differences between the apparent occupancy rates as measured by the two methods within individual case study areas. For example, occupancy rates in Market Drayton up to August 1984 had amounted to 75 % if measured in terms of floorspace but had reached only 63 % if measured in terms of the number of units which had been occupied (table 9.9). Similarly, occupancy rates were 4 % higher in Weobley and Waterhouses if measured in terms of floorspace rather than units.

Secondly, the present study showed that there were significant differences in the rate of change over time of occupancy rates as measured by the two alternative indicators. It is clear from a comparison of tables 9.8 and 9.9 that overall occupancy rates in the case study areas **increased** by 3 % in terms of the number of units which had been occupied between March and August 1984, but **decreased** by 3 % in terms of the amount of floorspace in use over the same time period.

Both of these findings provide important insights into the effectiveness of the programme in the case study areas, and highlight significant policy issues. It is clear that since occupancy rates as measured in terms of the number of units occupied were lower than occupancy rates as measured in terms of the amount of floorspace, occupancy rates for larger units had been higher than those for smaller units. This was confirmed by a detailed analysis of average occupancy rates by unit size. This showed that the average occupancy rate for all of the units in the case study areas which were more than 2,000 square feet (from the time when they were completed until August 1984) had been 80 % whereas the average occupancy rate for units of 2,000 square feet or less over the same time period had been just 46 %. This difference was statistically significant at 0.01 degrees of confidence.

It has been claimed that the difference between occupancy rates in smaller and larger units reflects the fact that ".... the level of turnover of occupants is higher for smaller properties than for the larger ones", (Chisholm 1985). However, the present work showed that in the case study areas, smaller units not only had lower occupancy rates, but also had on average remained been vacant for longer periods of time between their completion and first occupation than had larger units. This suggests that the differences in occupancy rates were therefore at least partly due to the existence of a higher level of demand for larger units, and this in turn may have important implications for D.C. policy regarding the types of units which should be built in the future (section 4.2.3 chapter 19).

The increase in occupancy rates as measured in terms of units and decrease as measured in terms of floorspace between March and August 1984, suggested that over this time period occupancy rates in smaller units had increased relative to occupancy rates in larger units. More detailed examination confirmed that this had in fact been the case, because many of the smaller units in Ludlow which had previously been vacant had been occupied between March and August. This had been made possible by a relaxation of CoSIRA's vetting procedures which had allowed a number of firms which had previously been regarded as unsuitable occupants (service firms and those with low employment creation potential), to move into the units. The necessity of having relaxed the vetting procedures points to the

lack of "suitable" tenants in the area and this also raises important policy issues (section 2 chapter 10).

4.4 Variations in occupancy rates between case study areas

The longitudinal analysis showed that there had been considerable differences between occupancy rates in the case study market towns and the villages. Contrary to what might have been expected, average occupancy rates in the three market town case study areas were lower than those in the five villages. The overall average occupancy rates in the three towns, measured longitudinally up to August 1984, had been 56 % calculated in terms of units occupied, and 61 % in terms of floorspace. Occupancy rates in the villages had been 66 % in terms of units, and 69 % in terms of floorspace, (table 9.10). Both differences were significant at the 0.01 confidence level. Average occupancy rates had also varied between sub-regions, having been highest in the case study areas in the Peak Park, and lowest in those in the Welsh Borders sub-region, (table 9.11).

Table 9.10 Comparison of occupancy rates in different sized settlements up to August 1984

Settlement size	Units occupied (months)	Units vacant (months)	% occupancy
Towns	533	415	56 %
Villages	551	289	66 %

Source : English Estates records and survey of occupant firms 1984

Table 9.11 Comparison of occupancy rates in different sub-regions up to August 1984

Sub-region	Units occupied (months)	Units vacant (months)	% occupancy
Potteries	468	281	63 %
Welsh Borders	451	328	58 %
Peak Park	165	95	64 %

Source : English Estates records and survey of occupant firms 1984

The differences in average occupancy rates between the towns and villages and between different sub-regions were caused by a number of inter-related factors which influenced the level of demand for the units in each area. Although there is clearly some co-variation between these factors, a number of them seem to have been of particular importance. Firstly, it is clear that the differences had in part, resulted from the way in which demand for the units had varied over time. Probably because of macro-economic conditions, demand seems to have been higher in the mid and late 1970's than in the early 1980's. Since the units provided in the villages had on the whole been built earlier than those in the towns, (section 3.3 above), demand for these premises had been greater.

Secondly, it was clear that the initial delay between completion and first letting was usually the longest, (and sometimes the only), period for which units had been empty. Since over time, this became a smaller proportion of the total amount of time for which the units had been available, longitudinal occupancy rates tended to increase with time and older units therefore had higher rates. Thirdly, demand for larger units had been higher than that for smaller units, (section 4.2 above). Since the average size of the units in the villages was greater than that of units built in the towns, (section 2 above), it is likely that this also contributed towards the observed differences in occupancy rates between larger and smaller settlements.

The relatively low average occupancy rates in the market towns resulted from the high vacancy rates which had occurred in Ludlow and Market Drayton. In Ludlow, although there was a relatively large pool of indigenous firms, very few fulfilled CoSIRA's requirements as suitable tenants, and this caused occupancy rates to be very low, (section 4.2 above). In Market Drayton there had been a very high rate of turnover of occupant firms. This seems to have been because in the past many of the occupant firms were branch factories of main concerns based in the Potteries, and many of these had been closed during the recession of the early 1980's. The high turnover had lowered occupancy rates because in spite of the fact that there was a high level of demand for the premises, there were inevitable delays in re-letting units while they were refurbished and re-advertised.

The differences in the occupancy rates between the sub-regions, seem to have been the consequence of the number of alternative premises available in the local area, and the relative remoteness of the areas. Thus occupancy rates had been highest in the Peak Park which was relatively close to major cities such as Sheffield but in which there was a great shortage of industrial sites, and highest in the Welsh Borders which was the most isolated of the three sub-regions.

It seems that in addition to these factors, occupancy rates in the individual case study areas were influenced by the particular characteristics of each area and the fortunes of the firms which occupied units in them. For example, the interviews with the managing directors of the occupant firms revealed that many of them had moved their firms to Weobley and Bakewell because they were attracted by the pleasant surroundings, and high occupancy rates had occurred in Ipstones because one of the occupant firms had expanded so rapidly that it had occupied four of five units provided in the village. The survey of occupant firms also suggested that proximity to other areas in which incentives were offered to in-moving firms may have affected occupancy rates, particularly in Ludlow which seems to have suffered as a result of competition with Mid-Wales where large incentives were on offer to in-moving firms.

5.0 SUMMARY AND CONCLUSIONS

It was clear that by 1984, a larger number of units and greater amount of floorspace had been provided in the market town case study areas than in the villages. The main reason for this was that the Commission believed that there was a higher level of demand for factory units in the towns, and that they contained a larger number of sites which were suitable for industrial development.

The units that had been constructed in the early 1980's tended to be smaller than those constructed in the 1970's. This reflects the shift of emphasis in the Commission's policy away from the attraction of in-moving firms, in favour of encouraging the establishment of new firms and growth of existing indigenous small businesses. The units which have been provided in the villages, were on average slightly larger than those built in the market towns. This reflects the fact that those built in the market towns, were on the whole completed later than those in the villages, by which time policy-makers favoured the provision of smaller units.

Several of the case study areas, particularly the villages, lacked a sufficient variety of unit sizes to provide an effective "workspace ladder". This is likely to cause problems in the future if firms expand to such an extent that they require larger premises and are therefore forced to leave the case study areas.

Delays between the submission of an Action Plan to the D.C. and the receipt of approval for factory building projects in the case study areas, have generally been quite short, usually less than six months. Delays between approval and completion of the units had been much longer, averaging more than three and a half years. The reasons for these delays included the lack of suitable sites for development, problems in servicing sites, changes to plans, timetabled delays and postponements due to the requirement that units be provided on a rolling programme.

The length of delays between completion and first occupation had varied between case study areas. It was clear that they had been longer in the smaller settlements, and in the case of smaller premises and units which

had been built in the 1980's. These differences appear to have been the result of the interplay of three main factors: the level of local demand for industrial premises, the economic climate at the time of construction, and the type of firms seeking to move into them.

It seems that the only previous study to measure occupancy rates, overestimated them, because of inaccuracies in the data which was used. The present study demonstrated that measures of occupancy at just one point in time were unlikely to provide an accurate indication of their true level. They were likely to underestimate occupancy rates if a project was evaluated shortly after the completion of factory units, and overestimate them if it was evaluated several years after their completion. It was also clear that once-off measures of occupancy were likely to distort the apparent relative effectiveness of initiatives in different locations.

Measuring occupancy rates over time took account of the complete history of the units from the time when they completed up to the time of the evaluation, including the long initial delays which had often occurred between completion and occupation of the units. Longitudinal measures were therefore more accurate performance indicators than measures at just one point in time.

Longitudinal occupancy rates measured in terms of floorspace were higher than measures based on the number of units occupied over time. It was also found that delays between completion and occupancy had been longer for smaller units. It seems clear therefore that, contrary to the Commission's claims, there had been more demand for larger units, than smaller premises. This calls into question the wisdom of the Commission's current emphasis on the provision of very small units.

Other factors which seemed to have influenced occupancy rates were the macro-economic conditions at the time when the units were completed, the viability of occupant firms, the level of incentives available in adjacent areas, and the attractiveness of the surroundings.

Average occupancy rates in the village case study areas had exceeded those in the market towns. This suggests that it is not necessarily more difficult to let units in small settlements, even in relatively remote

rural areas. It may be that in some cases the provision of units in villages may be a more appropriate response than concentrating provision in the larger settlements. This is in line with recent (though not past), Commission policy.

Occupancy rates up to mid 1984 had been higher in the case study areas in the Peak Park than those in either of the other two sub-regions. This appears to have been the result of the lack of alternative premises in the Park. The lower than expected occupancy rates in Market Drayton and Ludlow were related to the characteristics of the firms in these areas.

The amount of floorspace and / or number of units provided and the rate at which they have been occupied have often been the most sophisticated performance indicators used by programme managers and policy makers responsible for the D.C.'s advance factory building programme and other similar initiatives. The fact that the present study has demonstrated that the methods by which they have been calculated in the past have often been inaccurate is therefore a matter for concern. It is clear that in future occupancy rates should be monitored over time. The exclusive use of these indicators, however calculated, is nevertheless an unsatisfactory state of affairs, since they can give only a partial picture of the effectiveness of an initiative. The performance indicators discussed in this chapter should therefore be complemented by measures of higher level outputs, and it is with these more sophisticated measures that the remaining chapters of this thesis are concerned.

CHAPTER 10 THE CHARACTERISTICS OF FIRMS WHICH HAD OCCUPIED D.C. UNITS

1.0 INTRODUCTION

The characteristics of the firms which occupy the factory units are an important influence on the programme's effectiveness. The Commission has therefore attempted to attract particular types of firm, and these aims constitute the next level in the hierarchy of objectives after the building and letting the units, which were analysed in the previous chapter. As explained in that chapter the number of units which have been provided and their occupancy rates are inadequate performance measures unless they are complemented by other indicators. The characteristics of occupant firms is one such measure, which should therefore be included in an evaluation of the programme.

This was recognised by the Advance Factory Group, (an interdepartmental review of advance factory building programmes chaired by the Treasury), which stated that departments which sponsor factory programmes should collect detailed information about both the sizes of occupant firms and the types and goods and services which they produce (Durham 1986). The Public Accounts Committee has also recommended that one of the basic output measures used by agencies which fund advance factory building should be a ".... complete and up-to-date analysis of tenants by sector." (HC Paper 107, 1983). The Commission, (like most other agencies), does not in fact publish this information, and most previous evaluators of the programme have also overlooked its importance.

The D.C. has however recognised the necessity of attracting particular types of firms into the units if higher level objectives are to be met. In the 1970's, (the time at which the case study projects were approved), the Commission's had two major objectives concerning the types of firms which occupied the units. Firstly, since it was thought that small manufacturing firms had the greatest potential for employment growth, the Commission specifically targeted this type of company. Firms applying for accommodation in a factory unit had, (at least in theory), to demonstrate that they were primarily manufacturing concerns, and that they were likely

to create a substantial number of new jobs in the short to medium term future. Secondly, the Commission aimed to attract firms from outside of the priority areas, since it was anticipated that they would bring new types of job opportunity into these areas and thereby help to broaden the local economic base.

The extent to which these types of firm have in fact been attracted to the units is therefore an important performance indicator. This chapter analyses the data which was gathered in the present study about the types of firms which had moved into the units in the case study areas.

2.0 PRODUCTS AND SERVICES PROVIDED BY FIRMS OCCUPYING THE D.C. UNITS

One of the Commission's major objectives in expanding the advance factory building programme in the mid-1970's was to provide accommodation for small manufacturing concerns, and its original intention was that units would only be let to manufacturing firms. The present study therefore investigated the extent to which it had been successful in doing this. The analysis was based on information regarding the type of products and / or services provided by the occupant firms, which was gathered in the course of the first survey of the managing directors of occupant firms which was undertaken in mid-1984, and the follow up survey conducted in 1986. The results are presented in detail in appendix 5, and summarised in table 10.1 which shows the broad standard industrial classification to which each of the occupant firms belonged.

Table 10.1 Standard industrial classification of occupant firms

Location	Standard industrial classification														
	C	E	G	H	I	K	L	P	Q	R	S	T	V	W	Z
Market Drayton		1			2	1				1	1			1	1
Ludlow			1			1	1			1	1	1	1		1
Bakewell	1			1	1		1							3	
Weobley	1				2				1		1				
Leintwardine			2												1
Ipstones								1			1				
Waterhouses								1		1					
Longnor					1										
Total	2	1	3	1	6	2	2	2	1	3	4	1	1	8	3

Key : see appendix 6

Source : Survey of occupant firms 1984

Although it has been claimed that it is difficult to categorise most rural firms as being wholly "manufacturing" or "service" firms, (Williams 1985), it was clear from the present study that, contrary to the Commission's objectives, a large number of the firms which had occupied the units in the case study areas were not in fact engaged in any form of manufacturing at all. This was particularly the case in Ludlow where at least eight of the firms were not involved in any form of manufacturing activity. In total 15 (38 %), of the 40 firms were predominantly service firms, reflecting the extent to which the D.C. has relaxed its restrictions on the type of firms that are allowed to move into the units, particularly in the recent past, and in those areas where the units have proved to be difficult to let.

A number of the managing directors of the occupant firms which had been classified in CoSIRA's records as manufacturers, stated in the course of the survey that they had in fact started up a small-scale manufacturing sideline so as to become eligible for accommodation in D.C. premises, but that this had often been no more than a cosmetic change and their main business had continued to be some form of service provision or wholesaling. A number of these firms had also failed to meet the employment targets that they had specified at the time when they applied for accommodation in the units, and admitted that these had also been largely fictitious. (The employment characteristics of the firms are examined in detail in chapters 12 and 13). The follow up survey demonstrated that the proportion of occupant firms which were manufacturers was largely unchanged by 1986, (table 10.2).

Table 10.2 Mix of manufacturing and service firms in D.C. units in 1984 and 1986

	1984			1986		
Location	Mfg	Service	% Mfg	Mfg	Service	% Mfg
Market Drayton	5	3	63 %	6	4	60 %
Ludlow	3	9	25 %	3	10	23 %
Bakewell	5	2	71 %	5	2	71 %
Weobley	5	0	100 %	5	0	100 %
Leintwardine	3	0	100 %	3	0	100 %
Ipstones	2	0	100 %	2	0	100 %
Waterhouses	1	1	50 %	1	1	50 %
Longnor	1	0	100 %	1	0	100 %
Total	25	15	63 %	26	17	61 %

Source : Surveys of occupant firms 1984 and 1986

The small proportion of manufacturing firms in the units in some of the case study areas (particularly in Ludlow), was largely due to the fact that

it had proved difficult to attract manufacturing firms to the units, and as a result, local service firms had eventually been allowed to move into them. These firms were less likely to provide new types of job opportunity, and were therefore unlikely to have helped to broaden the economic bases of the case study areas.

3.0 THE MIX OF INDIGENOUS AND IN-MOVING FIRMS OCCUPYING THE UNITS

In the 1970's the Commission realised that although the accommodation of local firms in its factory units might lead to an increase in the number of jobs in priority areas, it was unlikely to lead to an increase in the range of employment opportunities. It therefore aimed to attract into the units firms which had previously been located outside of the priority areas, since it was anticipated that these were more likely to create new types of job opportunities. The extent to which the projects had in fact attracted in-movers to the case study areas was therefore an important performance indicator.

The first survey of the occupant firms showed that 25 (63 %) of them had been in existence before they moved to the units, (section 4.0 below); (these are hereafter referred to as "existing firms"). Most of these had been located in the case study areas before they moved to the units, ("indigenous firms") however 25 % had previously been located more than ten miles away from the units and 15 % had previously been located more than twenty miles away from the units ("in-movers") (table 10.3).

It was clear from the survey that the proportions of local and in-moving existing firms in the units varied between the case study areas. For example, none of the existing firms in Ludlow had previously been located more than 10 miles from the units, whereas 60 % of the existing firms which had moved into the units in Bakewell and 75 % of those in Weobley had previously been located more than 20 miles away. As a result of this the provision of the factory units in Ludlow is unlikely to have helped to broaden the local economic base and the range of local employment opportunities, whereas in Bakewell and Weobley, because firms which were

not typical of the existing pool of local firms had been attracted to the units, it is likely that new types of jobs had been provided.

Table 10.3 Previous locations of existing firms occupying factory units

Location	Distance moved from previous location			
	‹ 2 miles	2-10 miles	10-20 miles	› 20 miles
Market Drayton	4	1	2	0
Ludlow	5	2	0	0
Bakewell	0	1	1	3
Weobley	1	0	0	3
Leintwardine	0	0	0	0
Ipstones	0	1	1	0
Waterhouses	0	0	0	0
Longnor	0	0	0	0
Total	10	5	4	6
% of occupant firms	25 %	13 %	10 %	15 %

Source : Survey of occupant firms 1984

The number of in-moving firms which had been attracted to the case study areas seems not to have been related to the remoteness of the case study areas. None of the existing firms which had occupied units in the case study areas in the Potteries, (the most accessible sub-region), had moved from more than 20 miles away, whereas 27 % of the existing firms in the case study areas in the Welsh Borders and 60 % of those in the areas in the Peak Park, had done so, (table 10.4). In spite of its proximity to a major manufacturing area, fewer than a third of the existing firms which had occupied units in Market Drayton had moved from more than 10 miles away. The two areas at either extreme in terms of the numbers of in-movers

attracted, Weobley and Ludlow, are located in the same sub-region, and the former (which had attracted a larger number of in-movers than any other case study area), is the less accessible of the two.

Table 10.4 Comparison of the proportion of indigenous and in-moving firms by sub-region

Sub-region	Distance moved from previous location			
	‹ 2 miles	2-10 miles	10-20 miles	› 20 miles
Potteries	4	2	3	0
Welsh Borders	6	2	0	3
Peak Park	0	1	1	3

Source : Survey of occupant firms 1984

The size of the settlements may have been of some importance in determining the number of in-movers which had been attracted to them. Half of the existing firms which had occupied units in the village case study areas had moved from more than 20 miles away, compared to just 16 % of those in the market town case study areas, (table 10.5). However, since the number of in-movers in the villages was so small these figures should interpreted with caution.

Table 10.5 Comparison of the proportions of local and in-moving firms in the market town and village case study areas

Location	Distance moved from previous location							
	‹ 2 miles		2-10 miles		10-20 miles		› 20 miles	
	Number	%	Number	%	Number	%	Number	%
Towns	9	47 %	4	21 %	3	16 %	3	16 %
Villages	1	17 %	1	17 %	1	17 %	3	50 %

Source : Survey of occupant firms 1984

The evidence collected in the course of the surveys of the occupant firms suggested that an important influence on the number of in-moving firms which had been attracted to an area was the perceived quality of its environment. Five of the managing directors of the occupant firms stated in the course of the interviews conducted with them, that the main advantage of having located in one of the D.C. units was the attractiveness of their surroundings, and all but one of these had located either in Bakewell or in Weobley, the areas with the highest proportion of in-moving firms. Two others cited the attractiveness of the environment as the second most significant advantage, and both of these had located in Bakewell. This observation is in line with much of the recent research into the urban-rural shift of industry which has stressed the importance of the attractiveness of rural environments, (section 3 chapter 1).

Since one of the aims of the programme was to attract firms to move into the case study areas, the fact that only 15 % of the occupant firms had originated more than twenty miles from the D.C. units which they had occupied, might be taken as an indication that in this respect the case study projects had been largely unsucessful. However, the survey of the matched firms revealed that only one of these firms had moved to their present premises from a distance of more than 10 miles away. Since by comparison 10 (25 %) of the firms in the D.C. units had done so, it seems clear that the factory units had been more attractive to in-movers than other local premises. As a result they were more likely to have helped to broaden the economic bases of the case study areas.

The interviews with the managing directors of both the occupant and the matched firms, suggested that there were two main reasons why fewer matched firms were in-movers. Firstly, the D.C. units were of a higher quality than most other local premises, and had therefore been more attractive to re-locating firms. Secondly the availability of the D.C. units had been advertised outside of the immediate locality by E.E. regional offices, and which nearly a third of the managing directors of the occupant firms had learned of the availability of the units in this way.

The surveys of the occupant and matched firms showed that most of them had undertaken only very local, rather informal searches prior to moving into their present premises, and that one of the most common reasons for

the choice of premises was that they were near to the managing director's home. The survey of occupant firms revealed that the founders of 90 % of the occupant firms were local people, and the main owners of 72 % of the firms lived in the case study areas, (tables 10.6 and 10.7). The survey of matched firms showed a similar trend; by 1984 the main owners of 82 % of the matched firms lived in the same local area as that in which their firms were located, (table 10.8). It is not therefore surprising that only a small proportion of occupant firms were in-movers.

Table 10.6 Founder characteristics of the occupant firms

Location	Local people	Non-local people	Previously owned a firm	Not previously owned a firm
Market Drayton	7	1	4	4
Ludlow	12	0	4	8
Bakewell	7	0	2	5
Weobley	2	3	1	4
Leintwardine	3	0	0	3
Ipstones	2	0	1	1
Waterhouses	2	0	0	2
Longnor	0	1	0	1
Total	36	4	12	28

Source : Survey of occupant firms 1984

Table 10.7 Place of residence of main owners of occupant firms

Location	Local Area		County		Outside County	
	Number	%	Number	%	Number	%
Market Drayton	2	25 %	5	63 %	1	13 %
Ludlow	10	83 %	1	8 %	1	8 %
Bakewell	6	86 %	1	14 %	0	0 %
Weobley	4	80 %	1	20 %	0	0 %
Leintwardine	3	100 %	0	0 %	0	0 %
Ipstones	1	50 %	1	50 %	0	0 %
Waterhouses	2	100 %	0	0 %	0	0 %
Longnor	1	100 %	0	0 %	0	0 %
Total	29	73 %	9	23 %	2	5 %

Source : Survey of occupant firms 1984

In most cases the founders and major owners of the firms were the same people. This reflects the fact that all but three of the firms in the units were independently owned, typically by the managing director and members of his immediate family. Sixty percent of the founders of the firms which occupied D.C. units in the case study areas by 1984 had not previously run a business, (table 10.6). Most had worked for another firm in the same line of business as they were now operating. This finding reflects those of other more detailed studies of the characteristics of the founders of small firms, (Storey 1988), and in the light of the present government's emphasis on providing conditions which are conducive to new firm formation and which encourage first-time entrepreneurs, it might be considered to be a positive attribute of the programme. However, since a higher percentage of the founders of the matched firms had gone into business on their own for the first time than was the case for the occupant firms, any definitive statement regarding this aspect of the programme must await future more detailed research.

Table 10.8 Place of residence of main owners of occupant and matched firms

	Local Area		County		Outside County	
	Number	%	Number	%	Number	%
Occupant firms	29	72	9	23	2	5
Matched firms	22	82	1	4	4	14

Sources : Surveys of occupant and matched firms 1984

4.0 THE MIX OF NEW AND EXISTING FIRMS OCCUPYING THE D.C. UNITS

It is clear from the preceding two sections that the Commission's twin objectives of attracting in-moving and manufacturing firms had only been partially achieved in the case study areas by 1984. Many of the occupant firms were not in fact engaged in manufacturing activities and a minority were in-movers. However, the D.C.'s policy and objectives have shifted somewhat in recent years, and increasing emphasis has been placed on the way in which the advance factory building programme may facilitate the founding of new firms. It was therefore important to evaluate the programme's impacts not only in terms of the mix of manufacturing and in-moving firms, but also to analyse the extent to which the case study projects had provided accommodation for new firms.

The first survey of occupant firms, (undertaken in 1984), showed that most of the firms which occupied factory units in the case study areas at that time were relatively new businesses. More than three quarters of them were less than ten years old, and 55 % had been in existence for less than five years. Fifteen (38 %) had been founded at the time when they moved into the units, (table 10.9). A further three had previously been run from their founders' homes and three more had started up in D.C. units on sites outside the case study areas. Factories provided by the Commission had

therefore provided the first set of industrial premises for more than half of the firms.

At first sight it may therefore appear that units had played a vital role in facilitating new firm formation. However, only three of the managing directors of the occupant firms felt that their firms would not have been able to start up if the units had not been available. The survey of the matched firms revealed that 56 % of them had started up in the premises which they occupied in 1984. By contrast only 30 % of the 27 occupant firms with which they were matched had done so. It seems clear therefore that the D.C. units had not played a particularly important role in the founding of new firms. This is almost certainly because in spite of official claims to the contrary, the factory units are not ideally suited to the needs of most new businesses.

The evidence collected in the course of the present work suggested that the operating costs incurred by firms occupying the units were generally higher than those experienced by other local firms. The 1984 survey of occupant firms revealed that 73 % of the firms which had moved into the D.C. units from other premises had experienced an increase in their operating costs (in real terms) since doing so. Seven of the managing directors of occupant firms considered the "high level of rents" to be a major disadvantage of having located in the units, (section 3.4 chapter 11), and nearly all of the managing directors of new firms stated that they would favour the provision of lower quality units at lower rental levels. The managing directors of 11 % of the matched firms stated that high rent levels had been the main reason why they had not applied for a place in one of the D.C. units.

Several of the managing directors of the occupant firms also expressed concern about the length of the leases to which they been required to commit themselves, and it is clear that this had been of particular concern to the owners of new firms. The D.C. has recently introduced "easy-in, easy-out" tenancy agreements, (so-called "unsealed leases"), to meet this criticism, and it may be that future rates of new firm formation in the units will be higher as a result.

Table 10.9 Mix of new and existing firms in the D.C. units

Location	New firms		Existing firms	
	number	%	number	%
Market Drayton	1	13 %	7	87 %
Ludlow	5	42 %	7	58 %
Bakewell	2	29 %	5	71 %
Weobley	1	20 %	4	80 %
Leintwardine	3	100 %	0	0 %
Ipstones	1	50 %	1	50 %
Waterhouses	1	50 %	1	50 %
Longnor	1	100 %	0	0 %
Total	15	38 %	25	63 %

Source : Survey of occupant firms 1984

The number of new firms accommodated in the units varied considerably between the case study areas. With the exception of Weobley, a greater proportion of the firms accommodated in the units in the village case study areas were new firms than was the case in any of the market towns, (table 10.9). It seems that these differences were largely due to the greater proportion of very small units which were built in the villages. Forty five percent of the units which had been built in the villages were 1,500 square feet or less, (table 9.1), and 54 % of the firms which occupied units in the villages in 1984 were new businesses, (table 10.10). By contrast only 25 % of the units in the market towns were 1,500 square feet or less, and only 30 % of the occupant firms had been founded at the time when they moved into the units. In Weobley, where only one of the firms (20 %) was new, only one of the units was less than 1,500 square feet in size. It seems clear therefore that the greater the proportion of small units in an area, the larger the proportion of new firms which were accommodated.

Table 10.10 Comparison of the proportion of new and existing firms in case study towns and villages

Location	New firms		Existing firms	
	number	%	number	%
Towns	8	30	19	70
Villages	7	54	6	46

Source : Survey of occupant firms 1984

It seems that the number of new firms accommodated in the units was related to the size of the units and the level of demand for them, (as reflected in occupancy rates). Thus in the case study areas in the Welsh Borders sub-region, where occupancy rates had been lower than in the areas in the other two sub-regions, (section 4.3 chapter 9), a higher proportion of occupant firms (45 %) were new businesses, (table 10.11). In the case study areas in the Potteries sub-region where demand had been high and the units were relatively large (whereas 72 % of the units in the case study areas in the Peak Park and 62 % of those in the Welsh Borders areas were less than 1,500 square feet, only 31 % of those in the case study areas in the Potteries were that small (section 1 chapter 9)), only a quarter of the occupant firms were new businesses.

Table 10.11 Comparison of the proportion of new and existing firms in different sub-regions

Sub-region	New firms		Existing firms	
	number	%	number	%
Potteries	3	25 %	9	75 %
Welsh Borders	9	45 %	11	55 %
Peak Park	3	38 %	8	62 %

Source : Survey of occupant firms 1984

5.0 SUMMARY AND CONCLUSIONS

This chapter has analysed the evidence which was gathered in the course of the present study regarding the characteristics of the firms which occupied D.C. factory units in the case study areas in mid-1984. A number of conclusions can be made both about the extent to which the types of firms the Commission hoped to attract had actually moved into the units, and about the usefulness of information regarding the characteristics of occupant firms as an indicator of the effectiveness of the advance factory building programme.

The present research showed that more than a third of the firms occupying the units in the case study areas in 1984, were not manufacturing concerns. In some areas, for example Ludlow where 75 % of the occupant firms were service-orientated, the proportion was much higher. This appears to have been due to the low level of demand for the units from manufacturing firms, which resulted in the relaxation of the strict criteria regarding the type of firms which were deemed to be suitable occupants. It is likely that this has at least partly undermined the D.C.'s attempt to broaden the economic bases of these localities.

It was clear that in most of the case study areas, the programme had failed to attract a significant number of in-moving firms. This seems to have been because most of the firms had undertaken only very localised searches for premises, and related to the fact that the vast majority of both the occupant and the matched firms were owned and managed by local people.

A majority of the occupant firms which had been in existence before they located in the units were local businesses. Eighty five percent of these had previously been located within a 20 mile radius of the D.C. units. However the number of in-movers varied considerably between case study areas. At one extreme, none of the firms which had occupied D.C. units in Ludlow were in-movers, at the other, 75 % of the existing occupant firms in Weobley had previously been located more than 20 miles away from the D.C. units. Nevertheless, the units had been more attractive to non-indigenous firms than had other local industrial premises, probably because of their

superior quality and the wider publicity which they received. The programme can not therefore be deemed to have been a total failure in this respect.

The number of in-movers seemed to be linked to the perceived quality of an area's environment. More than half of the managing directors of in-moving firms which had located in D.C. units in Weobley and Bakewell, stated, (in the course of the interviews which were conducted with them), that the natural beauty of the area was one of the main advantages of having moved there. This finding is compatible with the results of previous studies into the reasons for counter-urbanisation.

Although there were clear differences between the proportions of in-movers in the villages compared to the towns, the number of firms involved was too small to be sure that settlement size had been an important factor in determining the number of in-movers in each of the case study areas, and it seemed that the relative remoteness of an area had little effect on its attractiveness to in-moving firms.

One of the Commission's more recent objectives has been to encourage the founding of new businesses in rural areas. The present study revealed that a majority of the firms in the D.C. units were less than five years old, and 35 % had been founded at the time when they moved into the units. This suggests that the case study projects may have helped to increase rates of new firm formation. However, since most of the managing directors stated that their firms would have been founded in the absence of the projects, and a larger proportion of the matched firms had been founded at the time when they moved to their present premises, this may not in fact be the case.

It seems clear from the present study that the number of new firms which had moved into each case study area had been largely dependent upon the size and cost of the units. The managing directors of several of the new firms which had occupied the units in the case study areas stated that the D.C. units were unsuited to the needs of new businesses because the rents charged were too high and firms were required to commit themselves to leases lasting several years. It is also clear that if the Commission wishes to accommodate more new firms, it will be necessary not only to

allow them to take out shorter leases (as it has now done), but also to provide cheaper, low specification premises at lower rents.

CHAPTER 11 IMPACTS ON OCCUPANT FIRMS

1.0 INTRODUCTION

This chapter is concerned with the impact which the programme had upon the location decisions, the survival and the expansion of the firms which had occupied factory units in the case study areas. Although previous researchers have overlooked these programme impacts, it is important that they are included in an evaluation. Firstly, because it is the nature of the programme's intermediate impacts which determines the extent to which higher level objectives, (such as job creation) are achieved. Therefore unless the scale and nature of the programme's intermediate outputs are known, it is impossible to understand how its delivery system operates. Secondly, because it is unlikely that all of the programme impacts will be manifested in higher level outputs, such as employment changes, to ignore intermediate outputs is to run the risk of overlooking important outcomes of the programme.

Two of the major objectives of the advance factory building programme were to attract in-moving firms to the target areas and to facilitate the founding of new firms. It was also anticipated that the provision of the units would enable new, in-moving and existing indigenous businesses to expand more rapidly than they would have done in the absence of the programme. The previous chapter analysed the characteristics of the firms which had occupied the units. It was not however concerned with an evaluation of what would have happened to these firms in the absence of the programme. This chapter therefore examines the likely alternative situations of the occupant firms in the absence of the programme, (including both their likely alternative locations and growth rates), in order to evaluate the extent to which the Commission's threefold intermediate objectives of attracting in-movers, encouraging the formation of new firms and enabling in-moving, new and existing local businesses to expand, had been achieved in the case study areas.

The analysis of the firms' alternative situations was based both on "internal" evidence gathered from the managing directors of the occupant

firms, and "external" evidence which was obtained from the survey of the matched firms. Both surveys contained a mix of questions some of which asked directly for the managing directors' perceptions of the impact which the provision of the units had had on their firms, and others which sought for indirect evidence in order to test the accuracy of their perceptions. It was therefore possible to check the responses which were obtained from a number of different perspectives. The key issues which were investigated included: the reasons why the firms had moved into the D.C. units, the likely location of each firm if the units had not been available to it, and the benefits and disbenefits which had been experienced by the occupant firms as a result of moving to the units, particularly in terms of impacts.

The matched firms were carefully selected to provide the best available control group with which to compare the occupant firms (section 4.4 chapter 7). It was intended that they would be as similar as possible to the occupant firms in all respects except that they had not occupied D.C. advance factory premises. Therefore only firms which produced the same sorts of products and services, were of approximately the same size, had the same company structure and (where possible) were located in the same localities as the occupant firms with which they were matched were chosen (section 4.4 chapter 7). Due to the lack of suitable local firms, it was not possible to find matched firms which were of exactly the same age as each of the occupant firms with which they were paired. The age range of the matched and occupant firms were very similar (the ages of the occupant firms ranged from three months to thirty nine years, whilst those of the matched firms varied from twelve months to thirty nine years). However the average age of the matched firms was twelve years, whereas that of the 27 occupant firms with which they were paired was seven years, and twice as many occupant firms as matched firms were less than five years old (14 firms compared to 7).

As a result it was possible that some of the observed differences in the performances of the matched and occupant firms were at least in part the result of differences between the ages of the firms rather because the latter had occupied D.C. premises and the former had not. This is of particular concern with respect to firms which were less than five years old since recent research has indicated that firms which have been

operating for less than five years can have very different growth and survival rates to firms which older than this (c.f. Storey 1988). Nevertheless the information which was gathered about the control group provided a useful means of checking the information which was given by the managing directors of the occupant firms. In the absence of independent documentary evidence about the firms' performances, the cross-checks which were provided by the analysis of the matched firms' performances were a useful means of ensuring that the accuracy of the findings of the present study were not unduly affected by any subjectivity on the part of the managing directors of the occupant firms.

2.0 PROGRAMME IMPACTS ON THE LOCATIONS OF THE OCCUPANT FIRMS

Previous researchers attempting to evaluate the impact of the programme on the locations of occupant firms, have usually done so by comparing the number of occupant firms which were located in the target areas before the units were built, with the number which occupied the units at the time of their studies. They therefore attributed all the changes of occupant firms' locations to the programme. This is clearly an inappropriate method of determining the programme's impact on the firms. Whilst it is important to know where the firms were located before moving into the units, in order to determine how many were in-movers, (section 3 chapter 10), the programme's impact on their locations can only be determined by discovering what would have happened to the firms in its absence. Two examples illustrate this point.

The first is the case of new firms which would have started up and located in a case study area even if the units had not been available. Clearly, the programme did not cause these firms to locate in the target area, however according to the before / after methodology used in previous studies, since they had not previously been located in the area, the fact that they had done so by the time of the evaluation would have been attributed to the programme. The second example concerns firms which had been located in a case study area before the units were built, but which would have been forced to move out of it in the near future if the units had not been provided. Although the programme had clearly caused them to

stay in the area, the before / after approach would not reveal this because they had been based in the area before the units were built.

2.1 Perceived alternative locations

Information about the occupant firms' likely alternative locations was obtained firstly from the managing directors of the occupant firms, since they were probably the best placed to be able to give an accurate assessment of this. However, it would have been dangerous to rely solely upon their retrospective judgements, and their views were therefore checked in two ways. Firstly, on the basis of information about the reasons for the firms' decision to locate in the units, (for example evidence regarding the other locations which had been considered at the time when the firms had moved to the D.C. units), (section 2.2 below), and secondly, on the basis of independent information about the state of the local industrial property market in the case study areas, which was obtained from the local authority, CoSIRA and English Estates officers, and from the managing directors of the matched firms.

According to their managing directors, more than half of the occupant firms would not have been located in the case study areas in 1984 if the units had not been provided. Twenty (50 %) would have been located outside of the case study areas, 3 (8 %) would not have been founded, and 1 (3 %) would have gone into liquidation. Only 16 (40 %) would have occupied alternative premises in the case study areas, (table 11.1).

Table 11.1 Perceived alternative situations of occupant firms

Case study area	Perceived alternative situation				% firms affected
	Not started up	Closed down	In local area	Not in local area	
Market Drayton	0	0	3	5	63 %
Ludlow	2	1	7	2	42 %
Bakewell	0	0	3	4	57 %
Weobley	0	0	1	4	80 %
Leintwardine	1	0	1	1	66 %
Ipstones	0	0	0	2	100 %
Waterhouses	0	0	1	1	50 %
Longnor	0	0	0	1	100 %
Total	3	1	16	20	60 %

Source : Survey of occupant firms 1984

Of the 15 occupant firms which were new businesses, 60 % would not (in their managing directors' opinion), have moved into the case study areas had the units not been available, 3 (20 %) would have been unable to start up, and 3 (20 %) would have found another site in the local area, (table 11.2). Almost half of the established firms, would not have been based in the case study areas. Of these 9 (36 %) were in-movers which would not have moved into the case study areas, 2 (8 %) were local firms would have moved out of the areas, and one would have gone into liquidation. The remaining 13 existing firms (52 %) would have located in the case study areas even in the absence of the programme. Five would have remained in their previous premises, and eight would, according to their managing directors, have found alternative sites in the case study areas, (table 11.2).

Table 11.2 Comparison of the alternative situations of new and existing firms

New firms

Not started up	3	(20 %)
Located on another site in local area	3	(20 %)
Not moved into area	9	(60 %)

Existing firms

Closed down	1	(4 %)
Continued on previous site in local area	5	(20 %)
Located at another site in local area	8	(32 %)
Moved out of local area	2	(8 %)
Not moved into local area	9	(36 %)

Source : Survey of occupant firms 1984

Therefore in the opinion of the managing directors, a majority of occupant firms would not have been in the case study areas if the units had not been available to them. On the basis of this evidence it would seem that the programme had led to the achievement of one of the Commission's major objectives - increasing the number of firms in the target areas.

It was clear that the scale of the impact of the initiatives had varied between case study areas. For example, according to their managing directors, more than half of the occupant firms in Ludlow would have been located in the local area even in the absence of the units, (table 11.1). By contrast none of the occupant firms in Ipstones and Longnor, and only one of the firms in Weobley would have located in these areas in the absence of the programme.

The type of firm whose location had been affected by the programme also varied between areas. In Bakewell and Weobley, for example, the main effect

of the programme had been to attract into the local area firms which would otherwise have located in other parts of the country. In Ludlow and Leintwardine however, the main impact had been on firms which would otherwise have been forced into liquidation or which would have been unable to start up.

The provision of the units also had different effects in the case study areas in the three different sub-regions. Fifty five percent of the firms in the case study areas in the Welsh Borders, 63 % of the firms in the areas in the Peak Park and 66 % of those in the areas in the Potteries region, would not have located in the case study areas in the absence of the programme. The areas in the Welsh Borders sub-region were the only ones in which the programme had facilitated the formation of new firms. By contrast, the programme's main impact in the case study areas in the Potteries and Peak Park sub-regions had been upon existing firms.

Table 11.3 Comparison of perceived alternative locations by sub-region

Sub-region	Perceived alternative location				% firms affected
	Not started up	Closed down	In local area	Not in local area	
Potteries	0	0	4	8	66 %
Welsh Borders	3	1	9	7	55 %
Peak Park	0	0	3	5	63 %

Source : Survey of occupant firms 1984

2.2 Alternative premises considered by occupant and matched firms

At the time when they moved into the units, a third of the occupant firms had not been able to find any suitable premises other than the D.C.

units, and 17 (43 %) had been able to find only one set of alternative premises. Between them the 40 firms had considered a total of only 38 alternative premises. A majority (68 %) of these alternative premises were privately owned. Most (66 %) were in the same county as the D.C. units which the firms occupied, and more than a quarter were in the same case study area as the units into which the firms had moved, (table 11.4).

Table 11.4 The locations and types of alternative premises considered by the occupant firms

	Local area	County	Region	Outside region	Total
Private sector	10	12	0	4	26
Development Commission	0	2	4	0	6
Local authorities	0	1	2	0	3
Development agencies	0	0	0	3	3
Total	10	15	6	7	38

Source : Survey of occupant firms 1984

The large number of alternative premises which were within the same county as the units, reflects the fact that the vast majority of firms had undertaken relatively unsophisticated searches for premises, which were largely based on the managing directors' personal knowledge of the local industrial property market. Seventeen (43 %) of the occupant firms' managing directors had been aware that the D.C. units were available as a result of their familiarity with the state of the local market, rather than through any formal search procedure. Only 11 (28 %) found out that the units were available as a result of a direct enquiry to English Estates or CoSIRA. The remainder had done so through the district council, local advertisements, friends, the local chamber of commerce or by noticing advertising boards when driving past the sites, (table 11.5).

Table 11.5 The nature of the occupant firms' search procedures

Main method of search	Number of firms	
	number	%
Knowledge of local area	17	43 %
Direct inquiry to E.E. / CoSIRA	11	28 %
Enquiry to local authorities	4	10 %
Local advertisements	3	8 %
Driving past site	3	8 %
Enquiries to chamber of commerce	1	3 %
Through friends	1	3 %

Source : Survey of occupant firms 1984

The survey of the managing directors of the matched firms showed that even fewer of them had been able to find alternative premises to those in which they were located, at the time when they had moved to them. Like the occupant firms, most had undertaken relatively informal searches. Only 8 (30 %) of the firms had considered alternative premises to those in which they were now located, at the time when they had moved. Four of these had considered alternative premises in the same local areas in which they were located at the time of the survey, two had considered sites which were within the same county but outside the local area, and two had considered sites outside the county. Only two had found more than one set of suitable alternative premises. Nearly half (44 %) of the managing directors of the matched firms had found out about the availability of their present premises through their personal knowledge of the local industrial property market, 15 % had found their premises through estate agents, and another 15 % had heard about the premises through friends, (table 11.6).

Table 11.6 The nature of the matched firms' search procedures

Main method of search	Number of firms	%
Knowledge of local area	12	44 %
Through estate agents	4	15 %
Through friends	4	15 %
Driving past site	2	7 %
Local advertisements	1	4 %
Through local authority	1	4 %
Built own premises	3	11 %

Source : Survey of occupant firms 1984

It might appear that the reason many of the managing directors had been unable to find suitable alternative premises was that most had undertaken rather informal searches, which had left them largely ignorant of the state of the market. However, the surveys undertaken in the present study suggested that this was not the case, since most of the managing directors had a very accurate knowledge of the state of the local industrial property market. The lack of suitable premises was the result of two factors. Firstly, a majority of the managing directors were local people who were unwilling to locate far from their own homes, most of which were close to the case study areas (section 3 chapter 10). Secondly, there was a shortage of industrial premises in which they were willing to locate.

The large proportion of both the matched and occupant firms which had been unable to find more than one set of alternative premises which they considered to be suitable for their firms, suggested strongly that the managing directors' perceptions of their firms' likely alternative locations had been reasonably accurate. It was clear that there had been very few alternative options available to them at the time they moved to the D.C. units. This reflects the fact that before the D.C. units were built, there had been a severe shortage of industrial premises in most of the case study areas, (section 4.2 chapter 8), and suggests that in the

absence of the advance factory building programme many of the occupant firms would have been lost from these areas.

2.3 The likely alternative locations of the matched firms

In the course of the survey of the managing directors of the matched firms, they were asked where they thought their firms would have located if their present premises had not been available. In contrast to the managing directors of the occupant firms, most (70 %) believed that they would have remained in the same local area. Less than a fifth (19 %) believed that their firms would have located outside of the area, and only two thought that they would have gone out of business or been unable to start up, (table 11.7).

Table 11.7 The perceived alternative locations of the matched firms

Not started up / forced to close down	2	(7 %)
Located in local area	19	(70 %)
Not located in local area	5	(19 %)
Don't know	1	(4 %)

Source : Survey of matched firms 1984

However, the managing directors' perceptions of their firm's likely alternative situations seem to contradict their own past experiences, since at the time when they had moved into their present premises, 70 % had been unable to find any alternative premises, (section 2.2 above). They also seem to be at odds with the fact that just over half (54 %) of the same managing directors stated that there was a serious shortage of industrial premises in their local areas.

Most of the managing directors who believed that their firms would have remained in the local area, had little evidence on which to base this opinion. Four reported that they had been able to find other premises which would have been suitable at the time they moved into their present premises, and another four stated that if alternative premises had not been available they would have continued to operate from their previous premises in the local area. It seemed that in these eight cases, there were therefore good grounds for believing that the firms would indeed have remained in the local area, even if their present premises had not been available. However, there were a further eleven firms whose managing directors believed that their firms would have been in the local area, apparently without any realistic basis for doing so. Some expressed a vague optimism that "something would have turned up", others admitted that they would have found it very difficult to find alternative premises locally, but would "have muddled through somehow".

The views of the managing directors of the occupant firms, regarding their firms' likely alternative locations, did not contradict their own evidence regarding the range of alternative premises which had been available to them. They were also more consistent with the information regarding the number of alternative premises which had been available to the matched firms, and with the information provided by local authority, CoSIRA and E.E. officers. This may have been because most of the matched firms had moved into their present premises much longer ago than the occupant firms, (an average of nine years ago compared to just over two years in the case of the occupant firms), and their managing directors therefore had difficulty recalling accurately what options had been available to them at that time.

Since the managing directors of the occupant firms seemed to possess a more accurate knowledge of the state of the local industrial property market at the time of the study, than the managing directors of the matched firms, their views were used as the basis on which judgements were made regarding the likely alternative locations of the occupant firms in 1984, in the absence of the programme. Since their responses suggested that while a substantial minority of the firms would have been based in the case study areas in the absence of the programme, a majority would not have been, (section 2.1 above), it was clear that although fewer of the occupant firms

were in-movers than the Commission had anticipated, (section 3 chapter 10), the provision of the units had helped to retain a number of indigenous firms within the case study areas.

3.0 PROGRAMME IMPACTS ON THE VIABILITY AND GROWTH OF OCCUPANT FIRMS

It was likely that since the programme had led to an increase in the number of firms which had located in the case study areas, it had also led to an increase the number of local employment opportunities in these areas. However, the magnitude of the employment impact depended in part on the extent to which the programme had enabled the occupant firms to enhance their viability, and increase their turnovers. As with the analysis of the programme's impact upon the occupant firms' alternative locations, its effects on their viability and rates of growth were assessed on the basis of evidence collected during interviews with the managing directors of the occupant and matched firms. The managing directors of the occupant firms were asked directly about the programme's impact on their firms' viability and growth. The accuracy of their perceptions was then cross-checked in relation to information about the occupant firms' performances between 1984 and 1986. In order to identify other impacts (both positive and negative), the occupant firms' managing directors were also asked what they considered the main advantages and disadvantages of moving their firms into the units had been, and their replies were compared to those of the managing directors of the matched firms.

3.1 Perceived impacts on firms' survival

The managing directors of four (10 %) of the occupant firms stated unequivocally that the availability of the units had been vital to their firm's continued existence. Three of them believed that their firms would not have been able to start up, and one stated that his firm would have gone out of business in the absence of the advance factory building programme. Several of the managing directors of the remaining 36 occupant firms stated that they would have found it very difficult to find

alternative premises if the units had not been available, but believed that they would have eventually been able to do so, albeit often outside the case study areas, (section 2.1 above).

As part of the follow up survey of the occupant firms conducted in 1986, the managing directors were asked to assess the medium term viability of their firms. Eighteen (47 %) of the respondents believed that their firms' futures were "very secure", a further 18 stated that they considered their firms to be "reasonably secure", and one interviewee felt that his firm was "probably secure". Only one respondent believed that his firm's future was in doubt. Between 1984 and 1986 only one of the forty firms which had occupied the units in the case study areas in 1984 had gone into liquidation. The fact that in 1986, 48 % of the firms had been in existence for less than five years, and 80 % for less than ten years, indicates a reasonably high survival rate, which suggests that the managing directors' generally optimistic views of their firms' chances of survival were probably justified.

3.2 Perceived impacts on growth rates

In the follow up survey of the occupant firms which was conducted in 1986, the managing directors of the 38 firms which had been included in 1984 and which still occupied D.C. premises in the case study areas, were asked whether they believed that moving into the units had affected their firms' growth rates. Just over half (53 %) stated that moving into the units had enabled their firms to grow at a faster rate than would have been possible in their next best alternative premises. Thirteen (34 %) believed that the programme had not affected their firms' rate of growth, 8 % did not know, and only two (5 %) believed that moving into the units had adversely affected their firm's growth rate, (table 11.8).

Table 11.8 Perceived impact on occupant firms' growth rates

Perceived impact on growth rates	Number of firms	%
Led to considerable increase	8	21 %
Led to some increase	12	32 %
No impact	13	34 %
Adverse impact	2	5 %
Don't know	3	8 %

3.3 Perceived advantages of having moved into the D.C. units

In 1984 the managing directors of the occupant and the matched firms were asked what they considered to be the main advantages of having located in their present premises. The advantages mentioned by the largest number of the managing directors of the occupant firms, were the quality of the building, the accessible location of the units, (both of which were cited by more than a third of the respondents), and the pleasantness of the rural environment, which was mentioned by a quarter of the managing directors, (table 11.9).

Since matched firms were only selected for the firms which had occupied D.C. units in the three market town case study areas, (section 4.4 chapter 7), the comparison of the perceived advantages of the occupant and matched firms' premises was based on an analysis of the responses from the managing directors of these 27 occupant firms and their corresponding matched firms, rather than upon the perceptions of the total of 40 occupant firms included in the 1984 survey. This revealed considerable differences between the perceived advantages of the D.C. units and the matched firms' premises.

Table 11.9 Perceived advantages of having located in the D.C. units

Advantage	Respondents who cited advantage	
	number	%
Quality of the building	14	35 %
Accessibility of the location	14	35 %
Rural surroundings	10	25 %
Local labour pool	7	18 %
Low operating costs	7	18 %
Room for expansion	6	15 %
Proximity to customers	5	13 %
Rapid sealing of lease	3	8 %
Accessibility of premises	3	8 %
Proximity to owner's home	3	8 %
Proximity to suppliers	2	5 %
Increased productivity	1	3 %
Increased product range	1	3 %
Increased profitability	1	3 %

Source : Survey of occupant firms 1984

The managing directors of the matched firms mentioned considerably fewer advantages than were mentioned by the managing directors of the occupant firms in the market towns. On average, the managing directors of the matched firms mentioned 1.3 advantages, whereas on average the managing directors of the occupant firms mentioned more than two advantages. It would seem therefore, that according to this criteria at least, the D.C. units were more highly regarded by their occupants than were the matched firms' premises.

The types of advantages mentioned most frequently varied between the two groups. The advantages which were cited most often by the managing directors of the occupant firms located in the market towns, were the accessibility of the location, (mentioned by 48 % of respondents), the quality of the building, (mentioned by 44 %), and the fact that they had

provided room for expansion (mentioned by 22 %), (table 11.10). By comparison, the advantages mentioned by the largest number of the managing directors of the matched firms were low operating costs, (referred to by 26 % of respondents), proximity to customers (mentioned by 22 %), and the level of access to their premises, (mentioned by 19 %), (table 11.10).

Particularly significant differences were that half of the managing directors of the occupant firms mentioned the accessibility of the location of their premises as a major advantage, whereas none of the managing directors of the matched firms did so. Similarly, four times as many of the managing directors of the occupant firms mentioned the quality of the building as an advantage, and twice as many mentioned the attractiveness of the rural surroundings. Conversely, more than a quarter of the managing directors of the matched firms mentioned low operating costs as an advantage, whereas only 15 % of their counterparts in the occupant firms did so.

These differences provide very useful indicators of the likely nature of the impacts of the programme on the occupant firms. They show that the D.C. units were perceived as being of a higher quality than other local premises, and that the new industrial estates on which they had been built were generally considered to be more accessible locations than those occupied by most of the matched firms. However, it is also apparent that, (as was suggested in section 3 chapter 10), the costs of operating from the D.C. units were higher than those incurred by firms in other local premises of a similar size, a fact which was bourne out by the number of managing directors of the occupant firms who mentioned the level of operating costs as a major disadvantage of having located in the units, (section 3.3 below). Rather than enabling occupant firms to reduce costs, it seems therefore that the one of the main impacts of the provision of the units on the occupant firms had been to provide them with sufficient room to expand, in a manner which would not have been possible in alternative locations, (an advantage which was mentioned by nearly a quarter of the firms), (section 3.5 below).

Table 11.10 Comparison of perceived advantages of occupant and matched firms' premises

	Occupant firms *	Matched firms
Quality of the building	44 %	11 %
Accessibility of the location	48 %	0 %
Rural surroundings	14 %	7 %
Local labour pool	11 %	11 %
Low operating costs	15 %	26 %
Room for expansion	22 %	15 %
Proximity to customers	19 %	22 %
Rapid sealing of lease	7 %	0 %
Accessibility of premises	11 %	19 %
Proximity to owner's home	4 %	0 %
Increased profitability	4 %	0 %
Increased productivity	4 %	0 %
Increased product range	0 %	0 %
Proximity to suppliers	0 %	7 %
Parking space	0 %	7 %
Own premises	0 %	4 %
Allows all operations under one roof	0 %	4 %

* occupant firms in market towns only

Source : Surveys of occupant and matched firms 1984

3.4 Perceived disadvantages of having moved into the D.C. units

In order to identify any unintended negative impacts of the programme upon occupant firms, their managing directors were asked what they considered to be the main disadvantages to their firms of having occupied the units. As with the analysis of the advantages of having occupied the units, the responses of the managing directors of the firms in the market

town case study areas were compared with those of the managing directors of the matched firms.

The complaints most frequently mentioned by the managing directors of the firms in the units were that the design of the units was not suited to their firms' requirements, (cited by a third of the respondents), that the units were located in areas which were isolated from suppliers, (mentioned by 18 % of the managing directors), and that operating costs were too high (also mentioned by 18 % of the interviewees), (table 11.11).

Table 11.11 Perceived disadvantages of the D.C. units

Disadvantage	Interviewees who cited disadvantage	
	number	%
Design of premises was unsuitable	13	33 %
Remoteness from suppliers	7	18 %
Higher operating costs	7	18 %
Lack of space	6	15 %
Lack of cooperation from E.E. / CoSIRA	5	13 %
Remoteness from customers	5	13 %
Delays in sealing lease	2	5 %
Quality and size of local labour pool	1	3 %

Source : Survey of occupant firms 1984

Despite the fact that the most frequently mentioned disadvantage was the design of the premises, the details of the complaints about premises varied. Some firms required more office space, others needed less, than had been provided in the units. Some complained that there was too much roof space, and that this had increased heating costs, while one managing director stated that his firm had benefitted greatly from the height of the building which permitted access for large machinery which could not be accommodated in the firm's previous premises. This firm had, as a result

been able to expand into a new area of the market, and had greatly increased its turnover.

Problems with design are an inevitable result of having provided factory units in advance of known demand. However, the fact that a third of the occupant firms in the case study areas were dissatisfied with the design of the premises, suggests that in addition to providing a greater range of units of different sizes, (section 5 chapter 9), the Commission should also consider providing a greater range of different types of units, with varying amounts of office space and of various heights, in each target area. Alternatively, it could begin to build modular units which could easily be adapted to the needs of particular occupants. This would have the advantage of reducing the risk of the Commission encountering the same problems which it experienced in the past, when it built several units to order for specific firms, and then found that they were so specialised that they were difficult to let when the original tenants moved out.

The disadvantages most frequently reported by the managing directors of the matched firms were similar to those which had afflicted the occupant firms. Six (22 %) reported that the premises were unsuited to their firm's requirements, and the remoteness of their present location from suppliers and from customers, and problems with access to the building were each mentioned by five (19 %) of the managing directors of the matched firms, (table 11.12). The most significant difference between the disadvantages mentioned by the managing directors of the occupant and matched firms was that only one of the managing directors of the matched firms complained of the high level of operating costs in his firms' premises, whereas seven (26 %) of the occupant firms in the market towns mentioned this as a major problem. This is in line with the findings regarding the advantages of having located in the D.C. units, (section 3.3 above).

Table 11.12 Comparison of occupant and matched firms perceived disadvantages of present premises

Disadvantage	% of interviewees who cited disadvantage	
	occupant firms *	matched firms
Quality / design of premises	26 %	22 %
Operating costs	26 %	4 %
Remoteness from suppliers	7 %	19 %
Lack of space	7 %	0 %
Remoteness from customers	4 %	19 %
Poor access to building	0 %	19 %
Local labour shortages	0 %	4 %
Vandalism	0 %	4 %
Parking problems	0 %	4 %
Environmental problems	0 %	4 %

* occupant firms in market towns only

Source : Surveys of occupant and matched firms 1984

Nine (23 %) of the managing directors of the occupant firms stated that there were no disadvantages with the D.C. units as locations for their businesses. All of these managed firms which had located in the market towns, which meant that roughly equal proportions of the matched firms, and the occupant firms in the market towns fell into this group, (37 % of the matched firms and 33 % of those in the units in the towns). However, whereas the managing directors of the occupant firms in the market towns mentioned only five types of disadvantages, the managing directors of the matched firms cited a total of nine ways in which their premises were unsuited to their firms' operation. The former mentioned an average of only 0.7 problems each, while on average the latter mentioned 1.0 problems each. It was clear therefore that the occupant firms in the market towns had encountered fewer problems related to their premises than had the matched firms, and that in this respect the programme might be judged to have been a success.

However, the managing directors of the occupant firms based in the five village case study areas had been less satisfied with their premises, than the managing directors of either the matched firms or the occupant firms in the market towns. On average they mentioned two problems each, and between them cited three types of problems which had not been experienced by their counterparts in the market towns. Two of the complaints concerned the actions of programme managers (their unsympathetic attitude, and the slowness with which they dealt with the firms' leases), and may therefore highlight one way in which delivery of the programme could be improved. Without further research however, it would be impossible to establish whether these criticisms were justified.

3.5 Checks on managing directors' perceptions

The perceptions of the managing directors of the occupant firms regarding the manner in which the programme had affected their firms, were checked in two ways. As has been described in previous sections, the accuracy of their perceptions was assessed in the light of the views of the managing directors of the matched firms. In addition, their views were cross-checked in the light of more objective information which was obtained from them about recent changes in their firms' product ranges, turnover, profitability, operating costs and investment levels. By comparing these changes with those which had occurred in the matched firms over the same time periods, it was possible to develop a useful basis on which to identify the extent to which the programme had impacted upon the occupant firms, and therefore to discover how its delivery system had operated.

3.5.1 Programme impacts on occupant firms' product ranges

One of the ways in which the occupant firms might have grown since moving into the units (thereby creating new income and employment opportunities in the case study areas), was by increasing the range of products and / or services which they provided. In many cases the units may have played an important role in facilitating such expansion, as for

example, in the case of the firm which had been able to take on new orders because the D.C. unit which it occupied had a higher roof than its previous premises, and had therefore been able to accommodate new machinery, (section 3.4 above). The managing directors of the occupant firms were therefore asked about the extent to which they had been able to increase their product ranges since moving to the units, in the course of both the 1984 and the 1986 surveys.

Between moving into the units and 1984, 43 % of the firms had increased their product ranges, and by 1986, 70 % of the firms had done so, of which 13 % reported a "large" degree of diversification, (table 11.13). Since by comparison only 30 % of the matched firms had increased their product ranges between 1980 and 1984, it was likely that much of the expansion in the occupant firms was the result of the availability of the units and could be attributed to the programme.

Table 11.13 Changes in the product ranges of occupant firms

	No change		Small change		Large change	
	Pre-1984	1984-86	Pre-1984	1984-86	Pre-1984	1984-86
Number of firms	23	10	17	23	0	5
% total firms	58 %	26 %	43 %	61 %	0 %	13 %

Source : Surveys of occupant firms 1984 and 1986

Notes : 1. "Pre-1984" refers to the period between the time when the firms moved into the units and 1984
2. Total of 40 firms in 1984, and 38 firms in 1986

3.5.2 Programme impacts on levels of turnover

By 1984, 65 % of the occupant firms had been located in the units for less than two years, and 30 % had been in a unit for less than a year. It was not therefore surprising that none of the firms had experienced large increases in their product ranges until after 1984, (table 11.13). For this reason it was decided to focus attention on changes in turnover which had occurred between 1984 and 1986 rather than before this time. By 1986, the 38 firms which still occupied the units in the case study areas, had done so for an average of more than three years, and all of them had been in the units for at least two years, and it was therefore more likely that the impact of having moved into the units would be apparent.

In the course of the 1986 survey, the managing directors of the occupant firms were therefore asked to provide details of their firm's current turnover, and that which it had achieved in 1984. Some were unwilling to disclose the exact level of their firm's turnover, but all of them provided at least some indication of the extent to which it had changed over the two year period. This information is summarised in table 11.14, (full details are given in appendix 7).

Between 1984 and 1986, 32 (84 %) of the occupant firms had experienced increases in turnover, in real terms. Forty percent of the firms had more than doubled their turnover in the two year period, and the average rate of increase had been 125 %. Not only had a remarkably large number of the occupant firms survived beyond their first three years, but most had actually prospered in these early years. It seems clear from the evidence relating to their increases in turnover that, as was indicated by the managing directors' perceptions, the provision of the units had helped to increase the viability and the growth rates of the occupant firms. However two notes of caution must be sounded.

Table 11.14 Changes in occupant firms' turnovers 1984 to 1986

Location	Number of firms with % changes in turnover					
	‹ 0	1 - 100	101 - 200	201 - 300	301 - 500	› 500
Market Drayton	1	2	2	1	2	0
Ludlow	1	8	1	1	0	1
Bakewell	2	3	2	0	0	0
Weobley	2	1	1	1	0	0
Leintwardine	0	1	0	2	0	0
Ipstones	0	1	0	0	0	0
Waterhouses	0	1	0	0	0	0
Longnor	0	0	1	0	0	0
Total	6	17	7	5	2	1

Source : Survey of occupant firms 1986

Firstly, although the average rate of increase in turnover had been very high, there were considerable variations between individual firms, (see standard deviations in table 11.15), and between different types of firms. In particular new firms and in-movers had expanded much more rapidly than indigenous firms, (table 11.15). Secondly, most of the firms were relatively new businesses. Fifteen (38 %) had started up in the units, and by 1986, 72 % were still less than ten years old. The recorded increases in turnover had therefore occurred from very low initial base levels, and it would have been surprising if at least some of them had not rapidly increased the level of business that there were able to handle, as they became more established in the market. This accounts at least in part for the differences between new and indigenous existing firms. In 1984, the latter had average turnovers of £ 411,000, whilst the former had average turnovers of just £ 169,000.

Table 11.15 Comparison of different types of firms' changes in turnover

Type of firm	Average % change in turnover	Standard deviation
New firms	171 %	196
In-moving firms	162 %	166
Local firms	69 %	105

Source : Survey of occupant firms 1986

Despite these provisos however, the evidence collected in the course of the present research, suggests that much of the increase in turnover in the occupant firms was attributed to the programme. It is clear for example, that although new firms had experienced the fastest rates of increase, in-movers had grown almost as rapidly from much higher base levels, and even the established firms had, on average, doubled their volume of turnover in the two year period. Further, eight of the 15 firms which had experienced increases in turnover in excess of 200 % were established businesses, rather than start-ups, and there was no statistically significant difference between the increases in turnover achieved by new and established firms.

Although as might have been expected, occupant firms which were less than five years old in 1986, had achieved greater percentage increases in turnover between 1984 and 1986 than those which had been established before 1981, even the latter had experienced average growth rates of 100 %. This is particularly important because the older firms had started from higher base levels and therefore although increases in their turnovers were smaller in percentage terms, they represented greater absolute increases, and were therefore likely to have had a more significant impact on local employment and income levels.

Most of the managing directors of the occupant firms stated that the increases in their firm's turnovers were due to the fact that they had been able to take on a larger volume of business since moving to the units,

because of the greater amount of space available in them. It is clear that many of the existing firms had out-grown their previous premises, since 44 % of the managing directors stated that the only reason they had moved to the D.C. units was that they were unable to expand any further in their previous premises. Since there were very few alternative industrial premises available in the case study areas, it is unlikely that these firms would have been able to find other premises in the case study areas which would have been large enough to enable them to expand. Many would therefore have moved out of the areas, (section 2.1 above), and the remainder would probably have been forced to restrict their rates of growth. In either case it is likely that potential new local jobs would not therefore have materialised.

Neither of the two firms whose turnover had decreased, attributed this to having moved to the units. One blamed the general economic climate, and the other believed that it was due to the fact that it was still in the process of developing new products for which a large market had not yet been established. There was therefore no evidence that moving into the units had adversely affected the growth rates of any of the occupant firms.

The rates at which the turnovers of the occupant firms had increased varied between case study areas. The largest percentage increases had occurred in Market Drayton, Leintwardine and Longnor, where they had averaged more than 200 %, and lowest in Bakewell, Weobley, Ipstones and Waterhouses, where average rates had been below 100 %, (table 11.16). The figures for Ipstones, Waterhouses and Longnor must however be treated with particular caution since there was only one firm in each of these areas which had occupied D.C. units continuously between 1984 and 1986.

The differences between the areas seem to have been the result of the relative proportions of new firms which had been accommodated in them. Thus in Leintwardine, where all of occupant firms were new businesses, turnovers had increased by an average of 202 %, in Ludlow, where 42 % of the firms were new at the time when they moved to the units, the average rate of increases in turnover was 126 %, and in Bakewell and Weobley, where only 29 % and 20 % respectively of the occupant firms were new start-ups, the average rates of increase in turnover were 49 % and 88%. Market Drayton did

not fit this general pattern, since only one of the occupant firms accommodated in the units provided there was a new business. The high overall rates of increase in turnover achieved by the firms in the units in Market Drayton were the result of the fact that the local firms and the in-movers accommodated in the units had grown at much faster rates than equivalent firms in other case study areas. The two in-moving firms had achieved average increases of 500 %, (compared to the average of 169 % for all case study areas, (table 11.15)), and the indigenous firms' turnovers had increased by an average of 138 %, (compared to an overall average of 69 % (table 11.15)).

Table 11.16 Changes in occupants firms' turnovers by case study area

Location	Average % increases in turnover
Market Drayton	211 %
Ludlow	126 %
Bakewell	49 %
Weobley	88 %
Leintwardine	202 %
Ipstones	43 %
Waterhouses	45 %
Longnor	200 %

Source : Survey of occupant firms 1986

3.5.3 Programme impacts on profit levels

The rapid increases in turnover which most firms had experienced did not necessarily indicate increased viability. In order to assess the extent to which their viability had changed between 1984 and 1986, changes in profitability were studied. Many of the occupant firms' managing directors were unwilling to discuss exact figures, and they were therefore asked to rank the changes in their firms' profitability on a five point scale from

"decreased" to "increased very substantially". Their responses showed that between 1984 and 1986, 61 % of the firms had experienced a growth in profits, (in real terms), 28 % had not experienced any significant change and just 11 % had experienced a decrease in profits, (table 11.17).

The increases in profits were, in most cases, the result of increases in turnover, (59 % of the managing directors attributed the increased profitability of their firms to an increase in the amount of business that they were doing), and since (as has been shown above) a large part of the increases in turnover were probably attributable to the availability of the units, it can be assumed that the improvements in profitability were at least in part the result of the programme.

Table 11.17 Changes in the profitability of occupant firms 1984-1986

Amount of change	Number of firms	% of firms
Very substantial increase	4	11
Significant increase	17	45
Slight increase	2	5
No change	11	29
Decrease	4	11

Source : Survey of occupant firms 1986

3.5.4 Programme impacts on operating costs

According to the managing directors, of the 25 existing firms which had moved into the units by 1984, 16 (64 %) had experienced an increase in operating costs in real terms, compared to those which they had faced in their previous premises. Four (16 %) had experienced no change, and five (20 %) had experienced a decrease. These results are in line with the findings reported in section 3.4 above. It seems that the units were of a

generally higher quality than other similar sized premises in the local area, and rents were correspondingly higher. According to their managing directors, 44 % of the matched firms had experienced an increase in the level of their real operating costs in the four years up to 1984. In comparison over the same period of time 80 % of the existing firms which occupied units in the market town case study areas had experienced an increase in operating costs, (in real terms).

Unfortunately, very few of the managing directors were able to give any accurate idea of the amount by which operating costs had increased, and it was therefore impossible to find out if the size of the increases experienced by the firms in the units had been any greater than those experienced by the matched firms. However, it seems clear that the D.C. units had on the whole proved to be more expensive premises from which to operate, and that it was therefore unlikely that the programme had freed up funds for increased investment in the way which was hypothesised in the model of the programme's delivery system, outlined in section 5 chapter 5.

3.5.5 Programme impacts on investment

According to their managing directors, by 1984, 65 % of the occupant firms had undertaken some new investment since moving into the units. Only 22 % had invested a "substantial amount"; the remaining 43 % had invested relatively small amounts. Fourteen (35 %) of the firms had undertaken no new investment. By 1986, 60 % of the occupant firms had undertaken what their managing directors considered to be "significant" investment. The average amount involved was about £ 22,800, but although a few firms had invested very large amounts, 80 % had invested less than £ 25,000 over the two year period.

In the four years up to 1984, 45 % of the matched firms had, according to their managing directors, had invested "substantial amounts". Five of these were new firms which had therefore bought all their stock and equipment in that time. A further eleven firms (41 %) had undertaken some investment. In total therefore, 85 % of the matched firms had undertaken some investment between 1981 and 1984. By contrast, only 70 % of the

occupant firms located in the market town case study areas had done so, (table 11.18). Eight of these were new firms which had therefore bought all their stocks and equipment in the preceding four years, the other eleven had invested only small amounts. It was clear therefore that the matched firms tended to have invested more heavily between 1981 and 1984 than the occupant firms, and this lends further support to the argument that rather than having reduced operating costs and therefore encouraged investment by the occupant firms, the programme's main effect had been to provide them with space in which to expand and therefore increase turnover.

Table 11.18 Investment by matched and occupant firms

Amount invested	Occupant firms *		Matched firms	
	Number	%	Number	%
All equipment bought	5	19 %	5	19 %
Substantial investment	3	11 %	7	26 %
Some investment	11	41 %	11	41 %
No new investment	8	30 %	4	15 %

* occupant firms in market towns only

Sources : Surveys of occupant and matched firms 1984

4.0 SUMMARY AND CONCLUSIONS

The intermediate objectives of the D.C.'s advance factory building programme were to attract new and in-moving firms into the target areas, and to enable these and established local firms to expand faster than they would have been able to do if the units had not been provided. The present study suggests that the provision of the units has facilitated the achievement of both of these objectives in the case study areas.

It seems clear that the case study projects had had a significant impact on the number of occupant firms which had located in the case study areas. According to the managing directors of the occupant firms, 60 % of them were unlikely to have done so in the absence of the programme. This view was supported by the independent evidence regarding the availability of alternative premises in the case study areas, which was obtained from the managing directors of the matched firms and from the local authority, CoSIRA and English Estates officers.

The managing directors' perceptions were also consistent with the information which was obtained about the range of options which had been available to their firms at the time when they had moved into the D.C. units. Because of the managing directors' local ties, their search procedures had often taken in only relatively small geographical areas. As a result, very few suitable alternative premises had been available to the firms. At the time when they moved to the units, a third had not been able to find any alternative premises, and three quarters had been able to find only one alternative location. The most common reason given by the managing directors of the occupant firms for having moved to the units was that their previous premises and their next best alternative premises were too small to allow them to expand as quickly as they wanted to.

The managing directors' views about the advantages and disadvantages of their premises indicated that the D.C. units were generally of a higher quality that other local premises, but that they were more expensive to rent. It was also clear that many failed to meet the occupant firms' requirements in terms of their internal lay-out, and that there is therefore a need for the Commission to consider providing a range of different sorts of design, or building modular units, such as those available in many Science Parks.

At least four of the occupant firms would not have been in business by 1984 if the units had not been available to them, and more than half of the managing directors believed that moving into the units had enabled their firms to expand more rapidly than they would otherwise have been able to. These views were supported by the fact that most of the occupant firms had increased their range of products since moving into the units, that 84 % had experienced an increase in turnover between 1984 and 1986, and that

over the same time period 61 % had increased their profits (in real terms). The average growth rates of the matched firms had been much lower, and this suggested that the changes in the occupant firms' fortunes were at least in part attributable to the availability of the units.

However, there was no evidence that the occupant firms had experienced lower operating costs since moving into the units, in fact, it seemed clear that the costs of operating from the units were higher than those of operating from similar sized local premises, such as those occupied by the matched firms. Nor did it seem that the occupant firms had invested more than the matched firms since moving to the units. Therefore although the provision of the D.C. units had enhanced the viability and growth of the occupant firms, it was clear that it had not operated in the way that was hypothesised in the model of the programme's delivery system which was developed in section 5 chapter 5.

The present work suggests that the programme had not helped occupant firms to reduce their operating costs, and thus encouraged them to invest and expand. Rather, it seems that its main effect had been to provide the occupant firms with sufficient room to take on an increased volume of business. This had enabled them to increase their product ranges and their turnovers and in most cases led to increased profitability. The key to the success of the case study projects therefore lay not in the provision of cheap premises, but in the fact that they had provided premises in areas where few, if any, other small industrial premises were available to the firms whose managing directors wished to locate there. The effect which this had had upon the one of the D.C.'s main higher level objectives, namely increasing the number of local job opportunities, is examined in the next chapter.

CHAPTER 12 DIRECT EMPLOYMENT IMPACTS OF THE PROGRAMME

1.0 INTRODUCTION

The major higher level objective of the advance factory building programme is to create new jobs in target areas which are perceived to have either a shortage of employment opportunities or an unacceptably narrow employment base. Both the number and type of jobs which were created as a direct result of the case study projects were therefore important measures of the performance of the programme. The employment impacts of local economic initiatives have attracted much more interest from policy-makers and academics than any of the other aspects of these programmes, and it is therefore crucial that an accurate idea of their nature and scale is obtained. However, the manner in which past studies have identified the employment impacts of these initiatives have often been imprecise and confused, (section 7.3.2 chapter 5). Previous researchers have also been unduly dependent on the use of quantitative measures, and thereby neglected important features of programme impacts.

The methodology developed in the present study represents an advance on previous studies because it enables the employment impacts of the initiatives to be identified in much greater detail, and therefore more certainty can be attached to the results obtained. The detailed empirical work upon which the present study was based, enabled a very accurate picture of the effects of the initiative upon individuals, firms, local areas, and the national economy to be obtained. In addition, the conceptual framework within which the work was carried out, facilitated the evaluation of the initiative's effectiveness against a wide range of different criteria and objectives, and at a number of different spatial scales, (section 8 chapter 5).

The quantitative analysis of the employment impacts of the advance factory building programme in this chapter follows a progression from the most general measures of programme effectiveness, some of which have been used in previous studies, through to the more detailed performance indicators which have been developed and used for the first time in the

present study. The differences in the results which were obtained using the same data but different measures of the employment impacts, are used to illustrate the deficiencies of the methodologies which have been employed in previous studies and to show the advantages of those which have been developed in the course of the present study.

2.0 MEASURES OF THE NUMBER OF JOBS DIRECTLY CREATED BY THE PROGRAMME

2.1 Jobs accommodated in the factory units

The crudest measure of the employment impact of the case study projects, and one which has been used as the sole measure of programme effectiveness in several previous studies, is the number of people employed by the firms occupying the factory units. The D.C. itself has now adopted this as a measure of the employment impacts of the advance factory building programme, referring to them in its annual reports, as "the number of jobs associated with" the developments. This measure is more accurately defined as the number of jobs housed or accommodated in the factory units, since this makes it clear that jobs provided or lost as a result of the knock-on effects of the initiative are not included.

2.1.1 Employees accommodated in the factory units

Researchers who have used the number of jobs accommodated in the units have rarely stated whether they have included the total number of employees or the number of full time equivalent jobs (F.T.E.'s). They have also usually failed to distinguish between on and off-site workers, for example, they have rarely specified whether they have included outworkers in the calculation. The results of the present work show that these distinctions can be very important. The first survey of the occupant firms showed that in mid-1984, 30 % of the jobs provided in the units were part-time, and that the forty firms employed a total of 360 permanent staff and 200 workers on a casual or seasonal basis. It was therefore vital that a

distinction was made between full and part time jobs and between permanent and casual / seasonal employment if an accurate idea of the true extent of the employment impacts was to be obtained.

2.1.2 Number of full time equivalent jobs accommodated in the units

Including the outworkers, a total of 387.5 F.T.E. jobs were accommodated in the forty occupant firms at the time of the first survey. Of these 319.5 were permanent jobs and 68 were off-site jobs casual / seasonal jobs. The largest employer provided 83 F.T.E.'s, most of which were casual jobs. There were considerable variations in the number of jobs provided in different case study areas, (table 12.1). The occupant firms located in Market Drayton provided nearly half of the total number of jobs accommodated in the forty firms, and they also employed far more outworkers than the firms in any of the other case study areas. Even excluding outworkers, the firms in Market Drayton employed an average 15.5 F.T.E.'s which was considerably more than those in Ludlow and Bakewell, the other two market towns, where the occupant firms employed an average of just 3.3 and 7.1 jobs per firm respectively. Even larger differences existed between the village case study areas, for example, the average number of F.T.E. jobs accommodated in each firm in Ipstones was 22.0 compared to just 3.7 in Leintwardine.

2.1.3 Employment densities

Many researchers have used either the number of employees or the number of F.T.E. jobs accommodated in the firms which were directly affected by the initiatives which they have studied, as the only measure of the employment impacts of these initiatives. However, in order to take into account the varying amounts of factory floorspace provided in each area, it is necessary to progress beyond this and to measure the number of jobs provided per unit area of floorspace. This measure is also useful because it can be compared directly with the target employment density of a minimum

of four F.T.E. jobs per 1,000 square feet of factory floorspace which the Commission has specified in a number of policy statements.

In the course of the interviews conducted in the present study, CoSIRA officers acknowledged that this target had rarely been achieved. The survey of occupant firms showed that in 1984 the average employment density in the units in the eight case study areas was 3.8 F.T.E.'s per 1,000 square feet, (including seasonal / casual workers and vacant floorspace), and 3.2 F.T.E.'s per 1,000 square feet of floorspace (excluding outworkers). The density of employment provision varied considerably between the areas, and between different firms in the same areas. In Market Drayton the overall employment density including outworkers was 6.8 F.T.E.'s per 1,000 square feet, (4.3 F.T.E.'s if outworkers were excluded), and relatively high densities were also apparent in Ipstones and Longnor. By comparison in Ludlow, Leintwardine and Waterhouses the average employment densities were less than half that in Market Drayton, (table 12.1).

Table 12.1 Employment densities by case study area in 1984

Case study area	Total number of F.T.E.'s *	Total floorspace square feet	Employment density per 1000 sq. ft.
Market Drayton	119.0	27,500	4.3
Ludlow	39.5	18,500	2.1
Bakewell	49.5	16,650	2.9
Weobley	30.0	10,630	2.8
Leintwardine	11.0	6,000	1.8
Ipstones	44.0	8,320	5.3
Waterhouses	16.5	9,281	1.8
Longnor	10.0	2,000	5.0
Total	319.5	98,881	3.2

* excluding outworkers

Source : Survey of firms in D.C. units 1984

2.2 Employment levels before and after firms moved into the units

Previous studies which have progressed beyond the very crude measures of the employment impacts of an initiative based on the number of jobs accommodated, have usually adopted what can be described as a "before / after methodology", (section 7.3.2.5 chapter 5). This approach is based on the assumption that all the jobs which have been provided in the occupant firms since they moved into the units are attributable to this move. The calculation of the number of "new" jobs using this method is a relatively straightforward exercise, and is based on a comparison of the number of jobs which existed in each firm at the time when it moved to the units with that which existed at the time of the study. There are however a number of very serious problems with this approach, the most important of which is that contrary to the claims made by researchers who have used it in previous studies, it does not actually give any accurate idea of the number of jobs which were created as a result of the move into the units, (section 3.2.3 chapter 4). In order to demonstrate this, in the present study, the number of jobs which would have been attributed to the advance factory building programme in 1984 using the before / after approach was calculated and then compared with the estimates arrived at by using other methodologies.

The difference between the employment levels in the forty firms in the D.C. units in 1984 and when they first moved into the units, was 208 F.T.E. jobs, and as with employment densities, the apparent employment effect of the initiatives in different case study areas varied considerably when measured by the before / after method, (table 12.2). It was also clear that the relative success of the case study projects varied according to the performance measure which was used, (table 12.5). This is significant since it suggests that the conclusions which are reached about programme effectiveness can vary considerably according to the way in which performance measures are calculated.

Table 12.2 Number of new jobs according to the before / after method

Case study area	F.T.E.'s before moving into units *	F.T.E.'s in 1984 *	Difference
Market Drayton	33.5	119.0	85.5
Ludlow	28.0	39.5	11.5
Bakewell	28.0	49.5	21.5
Weobley	10.0	30.0	20.0
Leintwardine	0.0	11.0	11.0
Ipstones	10.0	44.0	34.0
Waterhouses	0.0	16.5	16.5
Longnor	2.0	10.0	8.0
Total	111.5	319.5	208.0

* excluding out-workers

Source : Survey of firms in units 1984

2.3 Jobs with and without the D.C. units

One of the central tenets of the present thesis is that in order to evaluate the employment impacts of a local economic initiative, it is necessary to compare the situation which exists at the time of an evaluation with the hypothetical alternative situation which is likely to have existed if the initiative had not been undertaken, (section 7.3.2.5 chapter 5). Therefore in the present study, the number of jobs in the units in 1984 was compared with the number of jobs which it seemed would have existed in the occupant firms had they not been able to move into the units. Judgements about the number of jobs which would have existed in the alternative situation were based primarily, but not exclusively, upon the views of the managing directors of these firms.

From the evidence collected in the present study it seemed likely that if the units had not been available, the occupant firms would have accommodated a total of 253.5 permanent on-site F.T.E. jobs by 1984. Since this was only 66 fewer jobs than were accommodated in the D.C. units at that time, it seemed clear that the programme had led directly to the creation of just 66 jobs, which was 21 % of the total number accommodated in the units in 1984, (table 12.3). If casual / seasonal jobs were included, the number of new jobs created as a direct result of the programme increased to 134 F.T.E.'s, which was just over a third (35 %) of the total number accommodated in the occupant firms.

Table 12.3 Number of new jobs according to the with / without approach

Case study area	F.T.E. jobs in units *	F.T.E. jobs in absence of initiatives *	Difference
Market Drayton	119.0	88.5	30.5
Ludlow	39.5	25.5	14.0
Bakewell	49.5	49.5	0.0
Weobley	30.0	29.0	1.0
Leintwardine	11.0	4.0	7.0
Ipstones	44.0	44.0	0.0
Waterhouses	16.5	3.0	13.5
Longnor	10.0	10.0	0.0
Total	319.5	253.5	66.0

* excluding outworkers

Source : Survey of firms in units 1984

2.4 Differences between methodologies

It was clear from the present study that the number of jobs which were thought to have been directly created in the case study areas as a result of the advance factory building programme was dependent on the methodology used to calculate this. Only about a fifth of the permanent on-site jobs accommodated in the occupant firms would not have existed in the absence of the programme, therefore if the number of jobs which had been created by the programme by 1984 had been calculated in terms of the number of permanent F.T.E. jobs accommodated in the units, they would have been overestimated by almost five times. Similarly, if they had been calculated in terms of the before / after approach, they would have been overestimated by nearly two times, (table 12.4).

Table 12.4 The effect of using different measures of employment impacts

Case study area	Jobs accommodated in the units *	Before / after jobs in 1984 *	With / without jobs in 1984 *
Market Drayton	119.0	85.5	30.5
Ludlow	39.5	11.5	14.0
Bakewell	49.5	21.5	0.0
Weobley	30.0	20.5	1.0
Leintwardine	11.0	11.0	7.0
Ipstones	44.0	34.0	0.0
Waterhouses	16.5	16.5	13.5
Longnor	10.0	8.0	0.0
Total	319.5	208.0	66.0

* excludes outworkers

Source : Survey of firms in units 1984

It was also clear that the choice of methodology affected not only the conclusions which are reached about the overall effectiveness of the D.C.'s advance factory building programme, but also the apparent effectiveness of the programme in each of the case study areas, (table 12.5). The ranking of case study areas in the manner presented in table 12.5 takes no account of the differences in the costs of the different case study projects, nor of the differences between areas in terms of the amount of floorspace provided, and does not therefore constitute a measure either of employment density or of the cost-effectiveness of the projects in each area. However, it does show that the choice of methodology is an important determinant of the view which is formed about the nature of the programme's employment impacts. For example, areas like Bakewell and Ipstones, in which the occupant firms had accommodated a large number of jobs, and which would therefore have appeared to have been successful if employment impacts had been measured in these terms, were in fact found to be the least effective in terms of the creation of new jobs. Conversely, the provision of the D.C. units in Waterhouses and Leintwardine would have seemed to have been relatively ineffective if the number of jobs accommodated was used as a criterion, but had in fact led to the creation of a significant number of new jobs.

Table 12.5 Case study areas ranked in terms of numbers of jobs "created"

	Jobs accommodated	Before / after approach	With / without approach
1	Market Drayton	Market Drayton	Market Drayton
2	Bakewell	Ipstones	Ludlow
3	Ipstones	Bakewell	Waterhouses
4	Ludlow	Weobley	Leintwardine
5	Weobley	Waterhouses	Weobley
6	Waterhouses	Ludlow	(Bakewell)
7	Leintwardine	Leintwardine	(Ipstones)
8	Longnor	Longnor	(Longnor)

Source : Survey of firms 1984

2.5 The spatial impacts of the initiatives

The lack of clear spatial boundaries of target areas, (or the adoption of inappropriate ones), has been a serious weakness of many previous evaluations of economic initiatives, and of nearly all previous studies of the D.C.'s activities, (section 8 chapter 5). Since the primary aim of the advance factory building programme was to benefit specific rural localities, it is the impact which it has had upon these target areas which should be the main focus of an evaluation, and yet even the Commission itself has overlooked the need for a clear spatial perspective when assessing the significance of its achievements.

In the present research a clear distinction was made between the target areas (the "local area"), which was defined as the "areas of pull" designated by CoSIRA, and the areas which lay outside of these, (section 5.3 chapter 6). The detailed information which had been gathered in the course of the survey of occupant firms meant that it was possible to divide the jobs which were accommodated in the occupant firms into three types. Firstly, those which would not have existed in England if the D.C. units had not been built, ("new jobs to the national economy"); secondly, those which would have existed somewhere in England but which would not have existed in the case study areas ("new jobs to the local economy"); and thirdly, those jobs which would have existed in the case study areas even if the units had not been provided.

2.5.1 New jobs to the national economy

It seemed likely on the basis of the information provided by the managing directors of the occupant firms, and of other available evidence, that 66 (21 %) of the permanent on-site F.T.E. jobs accommodated in the D.C. units in 1984 would not have existed anywhere in the national economy if the units had not been available to the occupant firms, (section 2.3 above). These were therefore considered to be new jobs to the national economy.

2.5.2 New jobs to the local areas

Twenty four of the firms in the units would not, according to their managing directors, have been located in the case study areas if the units had not been available to them, (section 2.1 chapter 11). All of the jobs accommodated in these firms, a total of 248.5 permanent on-site F.T.E.'s, were therefore new to the case study areas. It seemed likely that the remaining sixteen occupant firms would have been located in the case study areas even if the units had not been available. However, their managing directors believed that by 1984, they would have employed only 39 of the 71 permanent F.T.E. jobs which they accommodated in the units, in the absence of the programme. It was clear therefore that 32 additional jobs had therefore been provided in the case study areas in these firms as a direct result of the programme. Combining the new local jobs provided by both sets of firms, it therefore seemed likely that approximately 280.5 F.T.E. new local jobs had been created as a result of the programme. In addition to these permanent jobs, a further 68 new local causal / seasonal F.T.E jobs which would not have existed in the absence of the programme, had been provided by occupant firms, and if these were included, the number of new local jobs which had been directly created as a consequence of the programme rose to 348.5 F.T.E.'s.

2.5.3 Differences between local and national employment impacts

It is important to distinguish between the number of jobs which were new to the national economy and those which were new to local area, because this affects the conclusions which are reached about the effectiveness of the overall programme, and also about the apparent relative success of the different case study projects. It was clear from the present study that more than four times as many new jobs had been created locally as nationally, as a direct result of the programme, (table 12.6). It was also apparent that in some of the case study areas in which no new jobs had been created in the national economy as a result of the programme, a relatively large number of new local jobs had been provided. For example, 44 new local jobs had been created in Ipstones, but none of the jobs accommodated in the

units were new to the national economy. Although the programme had been the less successful in Ipstones than in any other area in terms of new national jobs, if its effectiveness was measured in terms of new local jobs, it was second only to Market Drayton, (table 12.6). In contrast, more jobs which were new to the national economy had been created in Leintwardine, than in four of the other areas, and yet (along with Longnor), fewer new local jobs had been created there than in any other area.

Table 12.6 Comparison of jobs created at the local and national scale

Case study area	Number of new jobs to national economy *	Number of new jobs to local areas *
Market Drayton	30.5	115.0
Ludlow	14.0	21.5
Bakewell	0.0	35.0
Weobley	1.0	28.5
Leintwardine	7.0	10.0
Ipstones	0.0	44.0
Waterhouses	13.5	16.5
Longnor	0.0	10.0
Total	66.0	280.5

* excluding outworkers

Source : Survey of firms in the units 1984

It is clear from the present study that the spatial level at which the programme was evaluated largely determined the conclusions which were reached. Since only a fifth of the jobs accommodated in the units were new to the national economy, it was clear that one of the programme's major impacts had been to re-distribute jobs to the case study areas from other parts of the country. On this basis it might not be considered to have been

particularly worthwhile. However, the main aim of the programme was to provide new jobs within the target areas. Since 88 % of the jobs accommodated in the occupant firms were new to the case study areas, it was clear that the programme had, within its own terms of reference, been relatively successful. Since most programmes either do not have clear objectives or have multiple and / or contradictory aims, it seems that researchers should evaluate them in terms of a number of objectives, and at a number of spatial levels, (for example, at both the local and the national level). By so doing, they will provide policy makers with accurate information about the success of the programme against a range of different criteria, and therefore give them a basis on which decisions can be made about the best way to achieve objectives in the future.

2.6 Employees' perceived alternative situations

Some previous evaluators have measured the employment impacts of local economic programmes on the basis of the perceptions of the employees of the occupant firms, regarding what their employment situations would have been if their present job had not been available. Like the approach discussed in section 2.7 below, this is not a valid methodology because the nature of the jobs can not be deduced from the characteristics of those who have filled them. For example, a job which would not have existed in the absence of the programme is a new job opportunity regardless of whether it is taken up by an individual who would otherwise have been unemployed or someone who would have found another job if it had not been provided. Conversely, a job opportunity which would have existed in the absence of the programme, does not become a new job by virtue of the fact that it is filled by someone who would have been unemployed if they had not obtained it.

Twenty five of the employees of the occupant firms who were included in the survey undertaken in the present study, believed that they would have been unemployed if their present job had not been available, 30 % thought they would have found another job in the local area, 22 % believed that they would still be working at their old job (exactly half of which had been in the local area), and 17 % believed that they would have been employed in another job outside the local area. A further 6 % believed that

they would have been economically inactive, (either retired, in full-time education or working as housewives), (table 12.7).

Table 12.7 Employees' perceived alternative situations

Perceived alternative situation	Number	%
Working at previous job in area	23	11 %
Working at previous job outside area	23	11 %
Found new job in area	63	30 %
Found new job outside area	35	17 %
Unemployed	52	25 %
Economically inactive	12	6 %

Source : Survey of employee's perceptions 1984

If the employees' perceptions had been used as the basis for measuring the number of jobs created by the programme, since 31 % of the employees believed that they would not have been employed in the absence of their jobs in the occupant firms, it would have been concluded that 31 % of the jobs accommodated in the units (i.e. 99 F.T.E.'s) were new to the national economy. Similarly, since 41 % of the individuals believed that they would have been employed in the local area even if they had not been able to get their present job, it would have been concluded that 59 % of the jobs in the units, i.e. 228.5 F.T.E.'s, were new to the local area. It is clear from a comparison of these figures with those produced by the with / without analysis that in the present study, using this approach would have led to the number of new national jobs which had been directly created being overestimated by 50 %, and the number of local jobs being underestimated by 20 %. It is clear therefore that employees' perceptions do not provide an adequate basis on which to measure the employment impacts of the programme.

2.7 Employees' previous employment situations

Some previous researchers have used a modified version of the before / after methodology, based on the previous employment situations of the employees of the occupant firms, as a means of measuring the employment impacts of local economic initiatives. Although the employees' previous employment situations determine the nature of the impact which such programmes have on the local labour market (section 2 chapter 13), they are not an appropriate basis on which to calculate how many new jobs have been created. There are two reasons for this. Firstly, as explained in section 2.6 above, it is not the characteristics of the employee but whether the job would have existed in the absence of the programme which determines whether it can be considered to be a new job. Secondly, like the before / after approach, this methodology fails to measure what would have happened in the absence of the initiatives.

The information which was collected in the present study about the employees' previous employment situations showed that 55 % of the employees had previously been employed, (17 % in the case study areas and 38 % outside of them), 18 % had previously been unemployed and 27 % had previously been economically inactive, (table 12.8). If their previous employment situations had been used as a basis on which to measure the number of jobs which had been created, it would therefore have been concluded that 18 % (57.5) of the F.T.E. permanent jobs accommodated in the occupant firms were new to the national economy, and that a further 17 % (54) of the jobs accommodated in the occupant firms were new to the case study areas, i.e. a total of 111.5 F.T.E.'s. Comparison with the actual number of new jobs provided (section 2.5) shows that although by coincidence, this method happened to provide a reasonably accurate estimate of the number of new national jobs, it greatly underestimated the number of new local jobs which had been created by the programme.

Table 12.8 Previous employment situations of employees of occupant firms

Previous employment situation	Number	%
Employed by another firm	92	44 %
Self employed	9	4 %
MSC schemes	14	7 %
Unemployed	37	18 %
Housewife	29	14 %
Full time education	25	12 %
Retired	2	1 %
Total	208	100 %

Source : Survey of employees 1984

3.0 MEASURES OF THE TYPES OF JOB DIRECTLY CREATED BY THE PROGRAMME

Most previous studies have been concerned solely with the numbers of jobs provided. However, the types of job which were provided as a result of the programme is also an important influence on the degree to which the overall objectives of the programme were achieved. There are two main reasons for this. Firstly, one of the Commission's aims is to provide a broader range of jobs than previously existed in the target areas. The extent to which the programme has done this is therefore an important performance measure. Secondly, the effect which an initiative has on the rate of depopulation may vary according to the types of job which are provided. For example, it is generally thought to be important to provide jobs which are interesting and well paid if ambitious and talented people are to be retained in rural areas. Similarly, the extent to which the particular problems in rural labour markets, (such as low female activity rates), are alleviated by the programme, depends on the characteristics of the individuals who took up the new jobs provided by the programme.

Information about the types of job which had been provided in the units, and the characteristics of those who had filled them was obtained from the first survey of the occupant firms and the survey of their employees. The likely impact of the programme was assessed by comparing these jobs and employees with those accommodated in the matched firms.

3.1 Types of jobs provided in the occupant firms

The analysis of the information provided by the survey of occupant firms showed that in 1984, 59 % of the on-site employees of the occupant firms were male, that 78 % of the on-site workers were employed on a full-time basis, that a large proportion (40 %), were engaged in skilled jobs, that 29 % were doing unskilled jobs, that more than half (61 %) were between 25 and 45 years of age, and that a further 29 % were under 25, (tables 12.9 and 12.10).

Table 12.9 Types of job accommodated in the D.C. units in 1984

Type of job	Males	Females	Total	%
Professional	30	3	33	9 %
Technical / sales	34	5	39	11 %
Office	4	35	39	11 %
Skilled	121	24	145	40 %
Unskilled	24	80	104	29 %
Total	213	147	360	100 %

Source : Survey of occupant firms 1984

Table 12.10 Age and sex characteristics of employees of occupant firms

Ages of employees	Males	Females	Total	%
Less than 25	67	39	106	29 %
25 to 45	122	99	221	61 %
Over 45	24	9	33	9 %
Total	213	147	360	100 %

Source : Survey of occupant firms 1984

Assuming that the characteristics of the 88 % of jobs which were new to the local areas were typical of the total number of jobs accommodated in the units, a number of inferences can be made about the likely effects which the creation of new jobs had had upon the final objectives of the programme. It is clear for example, that the programme had led to the provision of a broad range of employment opportunities, and that this was likely to have decreased the dependence of the local economies on a narrow range of firms and sectors. The chances of this were enhanced by the fact that a large proportion of the jobs were skilled.

Since a majority of the employees were of an age when they were likely to have dependents, it seemed that the programme was likely to have had a significant impact on local population levels, since the provision of new jobs in the units will have retained not only the employees, but also their dependents, within the case study areas, (section 6 chapter 15). This in turn was likely to have helped to increase demand for local services. Finally, it is clear that most of the jobs were full-time, and this is likely to have increased the level of additional income injected into the areas as a result of the programme, (section 3 chapter 15).

The survey of the occupant firms also showed that 68 % of their permanent employees lived in the local area. Thirty six percent of the employees interviewed in the course of the survey of employees lived within a mile of the units. A further 28 % lived within five miles. This suggests that the programme had provided jobs for local people and / or encouraged

employees to move into the target areas. In either case this is likely to have helped to increase the population of the areas, (section 6 chapter 15).

3.2 Types of jobs and employees accommodated in matched firms

The survey of matched firms showed that in 1984, 70 % of their employees were male, 38 % were engaged in skilled jobs and 34 % unskilled jobs, (table 12.11), 31 % of the employees were under twenty five years of age, and only 13 % were over forty five, (tables 12.12 and 12.13).

Table 12.11 Types of jobs accommodated in the matched firms in 1984

Types of job	Male	Female	Total	%
Professional	19	1	20	8 %
Technical / sales	15	3	18	7 %
Office	2	32	34	13 %
Skilled	92	4	96	38 %
Unskilled	50	35	85	34 %
Total	178	75	253	100 %

Source : Survey of matched firms 1984

Table 12.12 Age and sex characteristics of employees of matched firms

Ages of employees	Male	Female	Total	%
Less than 25	41	38	79	28 %
25 - 45	113	27	140	55 %
Over 45	24	10	34	13 %
Total	178	75	253	100 %

Source : Survey of matched firms 1984

In 1984, the 27 occupant firms based in the market towns with which the matched firms were paired, employed 216 on-site workers, 70 % of whom were male, 57 % of whom did skilled jobs, and only 8 % of whom were engaged in unskilled tasks, (table 12.13). Only 10 % of the employees of these firms were over forty five, and 27 % were less than twenty five years old, (table 12.14).

Table 12.13 Types of jobs provided in the occupant firms in market towns

Type of job	Males	Females	Total	%
Professional	20	1	21	10 %
Technical / sales	25	4	29	13 %
Office	3	24	27	13 %
Skilled	98	24	122	57 %
Unskilled	4	13	17	8 %
Total	150	66	216	100 %

Source : Survey of occupant firms 1984

Table 12.14 Age and sex characteristics of occupant firms in market towns

Ages of employees	Males	Females	Total	%
Less than 25	40	19	59	27 %
25 - 45	94	43	137	63 %
Over 45	16	4	20	10 %
Total	150	66	216	100 %

Source : Survey of occupant firms 1984

Comparison of the matched firms and the firms which had occupied D.C. units in the three market towns, showed that although they employed identical proportions of men and women, there were differences in the age profiles of their respective workforces and in the relative proportions of the types of job in which they were engaged. A higher percentage of the employees of the occupant firms were engaged in professional, technical and skilled work, and correspondingly a much larger share of the jobs accommodated in the matched firms were of an unskilled nature, and a considerably higher proportion of the employees of the occupant firms were under the age of 45 than was the case for the matched firms (table 12.15).

Table 12.15 Comparison of the types of job and employees accommodated in matched and occupant firms

Type of job / characteristic	Occupant firms *		Matched firms	
	%	Number	%	Number
Male	70	150	30	178
Female	30	66	30	75
Less than 25	27	59	28	79
25 - 45	63	137	55	140
Over 45	9	20	13	34
Professional	21	10	8	20
Technical	13	29	7	18
Office	13	27	13	34
Skilled	57	122	38	96
Unskilled	8	17	34	85
Total	100	216	100	253

* occupant firms in market towns only

Sources : Surveys of occupant and matched firms 1984

On the whole, the differences between the types of jobs and employees accommodated in the occupant and matched firms, confirm the tentative inferences made about the programme's performance in section 3.1 (above). It is clear that the occupant firms had accommodated a much greater number of skilled jobs than were provided in similar local firms. This suggests that the availability of the units had broadened the economic bases of the case study areas. Since professional, technical and skilled jobs are likely to be higher paid than other jobs, the programme is likely to have led to increased levels of aggregate local income. This in turn may have helped to increase demand for local services. Further, the provision of higher paid and professional jobs has been seen as a pre-requisite for attracting / retaining the most dynamic and ambitious members of the community, (section 1.1 chapter 1).

As explained in section 3.1, the demographic effects of the programme are influenced by the number of dependents which each employee has. Since a greater proportion of the employees of the occupant firms were under forty five than was the case in the matched firms, it is likely that more of them had dependents, and this in turn increases the likelihood that the programme had a positive impact on the population size and structure of the case study areas.

The fact that the matched firms employed a slightly larger number of people was not significant. It reflected the fact that they were generally much older than the occupant firms, and the second survey of the occupant firms showed that by 1986, the occupant firms had become more established and many had experienced rapid increases in the size of their workforces, (chapter 16).

3.3 Jobs previously held by employees of firms in the units

A further indication of the extent to which the provision of the factory units had enhanced the range of job opportunities available in the target areas, was obtained from the survey of the employees of the occupant firms. In the course of this survey, employees who had been in work prior to taking up their present job in the D.C. unit, were asked about the type of job which they had previously held, why they left that job, and how their present wages compared with those which they had previously received.

Of the 208 employees who were interviewed, 55 % had been in employment immediately before they took a job in the one of the units. Of these, 44 % had been employed by another firm, 7 % had been on MSC schemes, and 4 % had been self employed. The vast majority of them (92 %) had previously been in full time employment, 41 % had previously been doing unskilled jobs, 26 % had been doing skilled jobs, and 17 % had been employed in some sort of professional job (table 12.16).

Table 12.16 Comparison of present and previous jobs of employees of occupant firms

Type of job	Previous job	Job in D.C. unit
Professional	17 %	9 %
Technical / sales	11 %	11 %
Office	5 %	11 %
Skilled	26 %	40 %
Unskilled	41 %	29 %

Source : Survey of employees 1984

The fact that in comparison to the jobs in the units, a much lower proportion of the employees' previous jobs had been skilled and a much higher proportion had been unskilled, supports the conclusion that the programme was likely to have had a positive impact on the range of local jobs and the level of local incomes, (sections 3.1 and 3.2 above). The fact that a lower proportion of the jobs in the units were of a professional type was due to the fact that many of the founders of the firms who had previously been engaged in professional jobs, had worked in other capacities in their own firms. Many of them had for example, spent a lot of time operating machinery rather than doing the sort of work (for example marketing or research), which they had done for their previous employers and therefore classified themselves not as professional but as skilled or even unskilled. The need for founders to be versatile and to do a number of different types of jobs, was a consequence of the fact that most of the occupant firms were small and at an early stage in their development.

The reason most frequently given by the employees for having taken a job in one of the occupant firms, was that they had been made redundant by their previous employer. (Many of the people to whom this applied had moved straight to their present jobs, and had not therefore been registered as unemployed). The second most frequently cited reason was that given by the majority of the firms' founders, namely the desire to start their own

company. Other reasons mentioned by several employees included the desire for better working conditions, for more pay, or for more interesting work, (table 12.17).

Table 12.17 Reasons for employees having taken jobs in the D.C. units

Reason given	% employees giving this reason
Made redundant	23 %
Desire to start own business	17 %
Wanted better working conditions	11 %
Wanted more pay	11 %
Wanted more interesting work	9 %
MSC scheme ending	9 %
Disagreements with previous employer	7 %
Wanted better prospects	6 %
Nearer to home	3 %
Wanted to work longer hours	3 %

Source : Survey of employees 1984

The evidence from the survey of employees suggests that while many of them had lost or disliked their previous jobs, and had therefore moved to jobs in the units as a result of "push" factors, an almost equal number had been attracted to the units by positive features such as better pay and conditions. This suggests that in addition to increasing the number and types of jobs available, the programme had also in some cases benefitted local people by providing them with jobs which they perceived to be better than their previous occupations. For example, 52 % of the respondents stated that they were paid more in real terms by the occupant firms, than they had been in their previous occupation.

4.0 SUMMARY AND CONCLUSIONS

The present study showed that in 1984, the occupant firms employed a total of 360 workers on a permanent basis, and a further 200 individuals on a more casual / seasonal basis. Including the casual / seasonal jobs the firms provided 387.5 F.T.E. jobs in 1984. Excluding seasonal / casual jobs, the firms accommodated 319.5 F.T.E. jobs. The average employment levels in the occupant firms varied considerably between the case study areas. In Ipstones the occupant firms provided an average of 22 F.T.E. jobs each, whereas in Ludlow they accommodated an average of just 3.3 F.T.E. jobs.

The overall employment density in the units in the eight case study areas in 1984 was 3.2 F.T.E.'s per 1,000 square feet of factory floorspace (excluding outworkers), which was not far short of the D.C.'s target density of 4 jobs per 1,000 square feet. However, wide variations were again apparent between different areas. In Market Drayton the density was 4.3 F.T.E.'s per 1,000 square feet and in Leintwardine and Waterhouses, it only 1.8.

The firms in the units provided 208 more F.T.E. jobs than they had done at the time when they moved into the units. Marked variations were again apparent between different case study areas. In Market Drayton 85.5 F.T.E. jobs which had not existed before the firms moved into the units were accommodated in the occupant firms by 1984, whereas in Longnor only 8.0 new jobs had been provided in the units.

Only 66 permanent F.T.E. jobs had been created as a direct result of the provision of the units (i.e. would not have existed in the national economy if the units had not been built). A further 68 new F.T.E. jobs had been provided for outworkers. In three case study areas (Bakewell, Ipstones and Longnor), no new national jobs had been created by the programme. The largest number of new national jobs had been created in Market Drayton, where 30 had been provided. The programme had directly created 349 new F.T.E. local jobs (i.e. jobs which would not have existed in the case study areas in the absence of the programme), (including outworkers), and 248.5 F.T.E. jobs, (excluding outworkers).

The way in which the employment impacts of the programme are evaluated can have a considerable effect on the number of new jobs which are attributed to it. In the present study, the number of new jobs which had apparently been created by the programme varied from 387.5 to 57.5 F.T.E.'s (a difference of more than 600 %), depending on which methodology was used. The apparent relative effectiveness of the programme in different case study areas was also greatly affected by the choice of methodology. For example, the use of the before / after approach suggested that the programme had been relatively successful in some of the case study areas in which no new jobs had actually been created by the programme.

It is clear therefore that it is vital to use an appropriate methodology if the employment impacts of a programme are to be measured accurately. The only accurate method of doing this is to use a with / without approach in which the existing situation is compared with that which would have existed in the absence of the programme which is being evaluated. Since most previous studies have failed to use this approach, it seems clear that their findings are likely to have been misleading.

The present study has also shown that it is necessary to distinguish between local and national employment impacts. Only a fifth of the jobs which were new to the case study areas were also new to the national economy. To take account only of the impact on the national economy, would therefore be to greatly underestimate the employment impacts of the programme, particularly because the main focus of the D.C.'s advance factory building programme is the creation of new jobs in specific rural localities, rather than in the national economy as a whole.

The present research showed that the occupant firms had provided a broad range of different types of jobs, that these jobs were likely to have helped to decrease the dependency of the case study areas on a few major employers and sectors, and that they were likely to be better paid than the jobs in the matched firms. Many of the employees who had taken skilled jobs in the occupant firms had previously been employed in unskilled jobs, and more than half were paid more than they had been in their previous jobs. A much higher proportion of the employees of the occupant firms in the market towns, were between the ages of 25 and 45, than was the case in the matched firms. This suggests that one effect of the provision of jobs in the units,

upon the case study areas, was to help to retain and / or attract people with dependants, who are likely to have used, and therefore to help to protect the future viability of, local services.

CHAPTER 13 PROGRAMME IMPACTS ON THE LOCAL LABOUR MARKET

1.0 INTRODUCTION

Previous evaluators of local economic initiatives, have assumed that job generation constitutes the final outcome of the programmes which they have studied. However, this is rarely the case. For example, it is clear from the hierarchy objectives specified for the advance factory building programme in the present study that there are a number of higher level objectives above and beyond the creation of new jobs (section 4 chapter 5). One of these is the intention that the creation of new jobs would lead to reduced unemployment and increased activity rates in the target areas. The extent to which the programme had resulted in these impacts on the labour markets in target areas is therefore an important performance indicator.

Nevertheless, local labour market impacts have generally been disregarded in previous studies. This may have been because previous researchers have not appreciated the importance of these effects, or because to obtain meaningful results, it is necessary to trace the sequences of job changes which were initiated in the labour market as a result of a programme, and doing this presents formidable practical problems. Whatever the reasons for the neglect of labour market impacts, it has meant that it has been impossible for researchers to evaluate the full range of programme impacts specified in the hierarchy of objectives, and hence little or nothing is known about the impact which the programme has on local labour markets. Therefore in the present study, a pioneering attempt was made to start to fill this gap in existing knowledge, by identifying the effects of the advance factory building programme upon the labour markets of the case study areas. It was anticipated that this would produce initial information about the nature of these effects and also provide a methodology which could be used in future studies.

2.0 THE RANGE OF POSSIBLE IMPACTS ON THE LOCAL LABOUR MARKET

The type of impact caused by the creation of new jobs in the D.C. units, was determined in part by the previous employment situation of the individuals who took up the new jobs in the D.C. units. There were three possible employment situations which each individual could have been in immediately before they took up a new job in the D.C. units. Firstly, they may have been registered as unemployed, in which case the provision of a new job led to reduction in the level of registered unemployment. Secondly, they may have been out of work, but not registered as unemployed, in which case the result of the provision of the new job in the D.C. units was to increase activity rates. Thirdly, they may have been employed, in which case the nature of the impact on the local labour market depends on whether they were replaced in their previous job, and if they were replaced upon the previous employment situation of their replacement.

If their previous employer did not find it necessary to replace them, it can be assumed that that firm was previously overstaffed. The effect of the provision of the new job in the D.C. units had therefore been to reduce the level of concealed unemployment or underemployment in the labour market. If they were replaced, the nature of the impact on the local labour market depends on the previous employment situation of the individual who replaced them, (i.e. whether they were registered unemployed, out of work but not registered unemployed, or employed).

The provision of each new job in the D.C. units will therefore have had one of the following four impacts: a direct reduction in concealed unemployment, a reduction in registered unemployment, an increase in activity rates, or it will have been taken by someone who was previously employed and this will have initiated a sequence of job changes. Each sequence will have continued until someone who was not previously in employment obtains a job, or someone involved in the sequence was not replaced in their previous job. The effect of every sequence of job changes is therefore eventually to lead to either a reduction in registered unemployment, or to an increase in activity rates, or to a decrease in concealed unemployment. As a result it is clear that every new job provided in the D.C. units will either directly or indirectly (through a sequence of

job changes) have had one of these three impacts.

Two other factors are important. Firstly, only the sequences of job changes which result from the provision of a job which would not have existed in the absence of the programme can be attributed to it. If a job in one of the D.C. units would have existed in the local area even in the absence of the initiative, the ensuing job changes can not be attributed to the programme. Secondly, since the main aim of the advance factory building programme was to benefit specific rural localities, the focus of the present study was upon the programme's impacts upon the labour markets of the case study areas (hereafter referred to as the "local labour markets"). Sequences of job changes initiated by the provision of the new jobs in the D.C. units which occurred outside the target areas, and therefore had no impact on the local labour markets were largely ignored.

Such a situation will have occurred in cases where a person who takes up a new job in a firm in the units, but was previously employed outside of the case study areas, or where they were previously not in employment and lived outside of the case study areas. In the latter case, any decrease in the level of registered unemployment or increase in activity rates will have occurred outside the case study areas. In the former case, there may have been a reduction in concealed unemployment outside the case study areas, but not within them. There are two circumstances in which job changes which occur outside the target areas may nevertheless have an impact upon them, but the present research found that these were rare, and did not have any significant impact on the overall findings (section 4.3 below).

Figure 13.1 summarises these points, and shows the range of possible consequences of the provision of new jobs in the D.C. units.

Figure 13.1 Possible job changes resulting from the creation of new jobs

New job in D.C. unit

Person taking new job was previously :	Employed		Registered unemployed		Economically inactive	
	Worked in target area	Worked outside target area	Lived in target area	Lived outside target area	Lived in target area	Lived outside target area
and was :						
Replaced in previous job						
Not replaced in previous job						

3.0 DATA SOURCES

As is clear from Figure 13.1, the effects of the programme upon the local labour market could only be assessed if the following detailed information was available : the number of jobs which had been created, the previous employment situations of the employees of the occupant firms, whether these employees had lived in the case study areas before taking jobs in the units, whether those who had been employed had previously worked in the local area and whether they had been replaced. This information therefore formed the basis on which the impacts of the advance factory building programme on the local labour markets in the case study areas, were assessed in the present study.

The necessary information was obtained from a variety of sources. The number of new local jobs which had been created by the programme was identified from the analysis of the local employment impacts of the programme (section 2.6 chapter 12). Information regarding the previous employment situations of the employees of the occupant firms was obtained from the survey of the employees of the firms which had occupied the D.C. units by 1984. This survey also provided details of how many of the employees had lived locally before taking jobs in the units, and how many had lived locally since doing so. Information regarding whether the employees who had been employed before moving to the units were replaced in their previous jobs, was obtained from the employees themselves and from their previous employers. The analysis was not therefore based on the employees' perceived **alternative** employment situations, but on detailed information regarding the **actual previous** employment situations of those employees who had filled jobs which it was known would not have existed in the absence of the factory building programme.

Detailed information was obtained from 208 (58 %) of the 360 employees of the occupant firms who responded to the survey of employees, (section 4.3 chapter 7). It was possible to find out the previous employment situations of all of these employees, and to discover which of these employees had previously lived in the case study areas. It was also possible to find out where those who had been employed immediately before they took a job in the D.C., had previously worked, and in all but five cases, to determine whether they had been replaced in their previous jobs.

The fact that it was possible to obtain the necessary information in nearly all cases suggests that the approach developed in the present study provides a practical way of measuring the impacts of local economic programmes on the labour market, which could therefore be used in future studies. The employees' previous employers were very co-operative, and usually had no difficulty providing the information requested. Large firms had comprehensive personnel records from which they could extract the information, and in smaller firms, the managing director had usually known the former employees and their replacement personally, and therefore had no difficulty providing the information. Only one firm raised any problems regarding the confidentiality of the information, and they were prepared to

co-operate once they had been given appropriate assurances about the use to which the results of the research would be put.

4.0 CHARACTERISTICS OF THE EMPLOYEES OF THE OCCUPANT FIRMS

4.1 Previous employment situations

Of the 208 employees in the sample, 115 (55 %) stated that they had been in work (either employed by another firm, self employed or on M.S.C. schemes), immediately before they took up a job in one of the D.C. units. However, the interviews which were conducted with their previous employers revealed that 29 of these employees had in fact been made redundant by their previous employers. It seems that because these employees had found jobs in the D.C. units soon after leaving their previous employers they either did not consider themselves to have been unemployed, or did not wish to admit to it, even in cases where they had in fact been registered as such. In the present study they were therefore considered to have been registered as unemployed immediately before they had taken the jobs in the D.C. units. In fact only 86 (41 %) of the employees in the sample had therefore been employed or on MSC schemes immediately before they took up a job in the D.C. units, (table 13.1).

A further 37 (18 %) of the respondents stated that they had been registered as unemployed immediately before they took up their present jobs. A total of 66 (32 %) of the employees in the sample were therefore considered to have been registered as unemployed. The remaining 56 employees (27 % of the sample), had not been in employment immediately before they had taken a job in the D.C. units, but had not been registered as unemployed, (table 13.1). These included housewives, students and retired people and are hereafter referred to as having been previously been economically inactive. Nearly half (43 %) of this group had been full time housewives, and this is of particular significance, because of the concern that has been expressed in the past about low female activity rates in rural areas.

Table 13.1 Previous employment situations of employees

Previous employment situation	Number	%
Employed by another firm	63	30 %
Self employed	9	4 %
MSC schemes	14	7 %
Unemployed	66	32 %
Housewife	29	14 %
Full time education	25	12 %
Retired	2	1 %
Total	208	

Source : Surveys of employees and previous employers 1984

4.2 Locations of employees' previous jobs and homes

A majority (58 %), of the employees who were interviewed had lived in the target areas before taking a job in one of the D.C. units. Fifty six percent of the employees who had been employed before moving to the units, 52 % of those who had previously been registered as unemployed or had been made redundant immediately before taking a job in the D.C. units, and 64 % of those who had not previously been economically active, had lived in the target areas, (table 13.2).

Table 13.2 Locations of employees' previous homes

Previous employment situation	Target Area	Same County	Same Region	Outside Region
Employed, self employed or MSC scheme	49	20	5	12
Registered unemployed or redundant	36	17	10	3
Not economically active	36	13	3	4
Total	121	50	18	19

Source : Survey of employees 1984

By 1984, the proportion of employees in the sample who lived in the case study areas had increased to 64 %, reflecting the fact that some of the employees had moved into the areas since taking a job in one of the units, a finding confirmed by the survey of the occupant firms, which showed that 62 % of their employees lived in the case study areas. By 1984, 23 (11 %) of the employees in the sample had moved into the target areas since taking up a job in the units. Most (17) of these had previously lived outside of the region in which the case study areas were located.

A majority (68 %) of the employees who been in employment immediately prior to moving to the units, had worked outside the case study areas. Less than a third had worked in the case study areas, although a further 42 % had worked in the county of the case study area, (table 13.3).

Table 13.3 Locations of employees' previous jobs

Location of previous employer	Number	%
In case study areas	28	32 %
In same county	36	42 %
In same region	7	8 %
Outside region	15	17 %

Source : Survey of employees 1984

4.3 Rate of replacement in previous occupations

Of the 115 respondents who stated that they had previously been in employment (including those who had been in fact been made redundant by their previous employers before they took up a job in one of the units), 42 (37 %) stated that they had been replaced in their previous occupation, 53 (46 %) thought that they had not been replaced, and 20 (17 %) did not know whether or not they had been replaced (table 13.4). According to their former employers however, only 31 (30 %) had been replaced, and 61 (53 %) had not been replaced. In two cases, the previous employer could not remember and in 21 cases (18 %), the previous employers could not be contacted, (table 13.4).

On the basis of the information which was obtained from the employees and their previous employers, it was possible to find out whether 92 (80 %) of the employees had been replaced. In addition, in 18 of the 23 cases where the previous employer could not be contacted or was unable to provide the required information, it was possible to make a judgement about the chances that the employee had been replaced, on the basis of evidence regarding their previous employers' recruitment policies at the time when they left. For example, in many cases it was known that their previous employers' firms had been involved in major restructuring at the time when the employees in question left, and it was therefore unlikely that they

would have been replaced. It seemed likely that in total 42 (37 %) of the employees had been replaced in their previous jobs, 68 (59 %) had not been replaced, and no decision could be made about 5 (4 %) of the employees (table 13.4).

Table 13.4 Rate of replacement of employees by their previous employers

Source of data	Replaced	Not replaced	Not known
Employees	42	53	20
Former employers	31	61	23
Decision reached	42	68	5

Source : Surveys of employees and previous employers 1984

These findings demonstrated the value of the cross-validation provided by checking the employees' responses with those of their previous employers. This exercise was important for three main reasons. Firstly, there were 20 respondents who did not know whether they had been replaced and in these cases their previous employers were the only available source of information. Secondly, the employees' statements regarding their previous employment situations were inaccurate in a substantial number of cases, (section 4.1 above). This would have gone undetected if their previous employers had not been interviewed. Thirdly, the employees' statements regarding whether they had been replaced were in many cases inaccurate; only 30 of the 42 respondents who stated that they had been replaced, had in fact been replaced.

5.0 FIRST ROUND IMPACTS ON THE LABOUR MARKET

5.1 Findings from the sample of employees

As explained in section 2.0 above, changes in the local labour market were only of interest if they had been caused by the provision of jobs which would not have existed in the case study areas, in the absence of the programme. It was therefore necessary to exclude from the analysis those employees who had taken jobs in the D.C. units, which would have existed in the case study areas, even if the units had not been available. The employees who fell into this group were identified from information obtained from the occupant firms' likely alternative locations and employment profiles in the absence of the programme, since in nearly all cases, it was clear from the managing directors' responses which, if any, of the jobs provided by their firms would still have been created in the case study areas, in the absence of the programme.

Of the 208 employees in the sample, 171 had taken jobs in the D.C. units which it seemed were unlikely to have existed in the case study areas in the absence of the factory building projects. Of these 69 were judged (on the basis described in section 4.3 above), to have been employed immediately before they had taken a job in the D.C. units, 56 had been registered as unemployed and 46 had not been economically active, (Figure 13.2). Of the 56 employees who had previously been registered as unemployed, 34 had lived in the case study areas, and in these cases the programme had therefore led to a reduction in the local level of registered unemployment. Of the 46 individuals who had previously been economically inactive, 30 had lived in the target areas, and in these cases the programme had therefore led to an increase in local activity rates.

Of the 69 employees who had previously been in employment, only 25 had previously worked in the case study areas. Thirteen of these had not been replaced in their previous jobs, and the programme had therefore in these cases led to a reduction in the local level of concealed unemployment or underemployment. Nine had been replaced in their previous jobs. In these cases the impact of the programme on the local labour market could only be

Figure 13.2 First round impacts on the local labour market

New job in D.C. units

171

Person taking new job was previously :	Employed		Registered unemployed		Economically inactive	
	69		56		46	
	Worked in target area	Worked outside target area	Lived in target area	Lived outside target area	Lived in target area	Lived outside target area
	25	44	34	22	30	16

and was :

Replaced in previous job	Replaced in previous job
9	27
Not replaced	Not replaced
13	15
Not known if replaced	Not known if replaced
3	2

discovered by tracing the resulting sequence of job changes further, by discovering what the previous employment situation of their replacement had been, (section 6 below). Of the 44 employees who had previously worked outside the target areas, 27 were found to have been replaced and 15 were shown not to have been replaced, (Figure 13.2).

It was clear from the information shown on Figure 13.2 that many of the sequences of job changes initiated by the provision of new jobs in the D.C. units were very short. Seventy six percent of them ended after only one change of job, i.e. involved only the individual who had taken the job in the D.C. units. These included the cases where the employees had previously been unemployed, economically inactive or had not been replaced in their previous jobs. It is also clear that a large number of the occupant firms' employees had previously lived and / or worked outside the case study areas, and that a substantial proportion of the programme's effects on the labour market had therefore not occurred in the target areas, (section 5.4 below).

5.2 Factoring up the sample

Since these results were based on a 58 % sample of the employees of the occupant firms, in order to estimate what the full impact of the programme had been on the local labour markets in the case study areas, it was necessary to "factor them up". Comparison of the characteristics of the employees included in the sample with those in the total population showed that the sample had been remarkably representative of the total population, (table 13.5).

Table 13.5 Comparison of the sample of employees with total population

	Population	Sample	% of total population
Male	213	119	56 %
Female	147	89	60 %
Full-time	279	172	62 %
Part-time	81	36	44 %
Professional	29	16	55 %
Technical	38	19	50 %
Clerical	43	27	63 %
Skilled	145	87	60 %
Unskilled	105	59	56 %
Total	360	208	58 %

However, it was also clear that a much better response rate had been obtained from the occupant firms in Ludlow, Leintwardine, Longnor and Weobley than the other four case study areas, (table 13.6), and this biased the sample in favour of the employees of occupant firms which would have located in the case study areas in the absence of the programme. As a result, the sample included 80 % (66) of the employees of firms which would have located in the target areas, even in the absence of the initiatives, but only 51 % (142) of the employees of firms which would not have located in the target areas.

In order to compensate for this, the sample was therefore weighted. Employees working in firms which would not have located in the case study areas in the absence of the programme were given a weighting of 1.96, and those employed by firms which would have been in the local area even if the units had not been available, were given a weighting of 1.24. In this way the balance of employes in the sample was adjusted so that it reflected that of the total population. The factored up data could then be used to draw reasonably reliable estimates of the programme's likely impact on the local labour markets of the case study areas.

Table 13.6 Proportion of employees from each case study area in sample

Location	Total number of employees	Number of employees in sample	% employees in sample
Market Drayton	120	60	50 %
Ludlow	43	32	74 %
Bakewell	53	16	30 %
Weobley	32	28	88 %
Leintwardine	11	11	100 %
Ipstones	66	36	55 %
Waterhouses	23	14	61 %
Longnor	12	11	92 %
Total	360	208	58 %

5.3 Direct impacts on the local labour markets

The survey of the occupant firms showed that the programme had led directly to the creation of 280.5 F.T.E. jobs which would not otherwise have existed in the target areas, (section 2.5 chapter 12). These jobs had been taken up by a total of 314 employees. The results of the analysis of the factored up sample, suggested that it was likely that approximately 126 (40 %) of these 314 employees had been employed immediately before they took a job in the D.C. units, that 104 (33 %) had been registered as unemployed, and 84 (27 %) had not been economically active, (Figure 13.3).

It seemed likely that 53 of the employees who had previously been registered as unemployed, had lived in one of the target areas. Therefore as a result the programme there had been a reduction in the level of registered unemployment in the case study areas by about this amount. Of the employees who had previously been economically inactive, 50 were likely to have lived locally and 34 to have lived outside of the target areas,

Figure 13.3 First round impacts on the local labour market (factored up)

New job in D.C. units

314

Person taking new job was previously :	Employed		Registered unemployed		Economically inactive	
	126		104		84	
	Worked in target area	Worked outside target area	Lived in target area	Lived outside target area	Lived in target area	Lived outside target area
	45	81	53	51	50	34

and was :

Replaced in previous job	Replaced in previous job
16	49
Not replaced	Not replaced
23	29
Not known if replaced	Not known if replaced
6	3

(Figure 13.3). It therefore seemed clear that the programme had led directly to an increase in local activity rates of about 50.

The results of the factored up sample also indicated that of the 126 employees who were likely to have been in employment before they had moved to a job in the D.C. units, 45 were likely to have worked in one of the case study areas. It was likely that about 23 of these had not been replaced, (Figure 13.3), and that the programme had therefore led directly to a reduction in concealed unemployment in the case study areas of about 23.

Clearly, the factored up results must be treated with caution. However it is clear that although the main impacts of the programme had been upon levels of registered unemployment and activity rates, it had also led to the "soaking up" of a surprisingly large amount of concealed unemployment. Clearly, this does not imply that the overall level of unemployment had necessarily decreased, nor that overall activity rates had increased since the initiatives were undertaken, but it does suggest that (disregarding possible displacement effects), unemployment rates were lower and activity rates were higher than they would have been in the absence of the programme.

In summary, it seems clear that approximately 17 % of the new jobs provided by the programme had had the effect of reducing local rates of registered unemployment, about 16 % of the jobs had led to an increase in local activity rates and at least 7 % of the jobs had "soaked up" concealed underemployment or unemployment in the case study areas.

5.4 Impacts occurring outside the target areas

It was clear that just over half of the programme's direct impacts on the labour market had occurred outside the case study areas. Fifty one of the 104 employees who had previously been unemployed, had previously lived outside of the target areas. They would have registered as unemployed outside of the target areas, and the fact that they have been provided with jobs will therefore have had no affect on the unemployment rates in the

target areas. Similarly, 34 of the employees who had previously not been economically active, lived outside of the target areas, and the fact that they had obtained jobs will have increased recorded activity rates in the areas where they lived but will not have affected activity rates in the target areas. Twenty nine of the employees who had not been replaced in their previous jobs had previously worked outside the target areas, and thus it is not local concealed unemployment that will have been reduced in these cases.

As explained in section 2.0 there were two instances in which job changes occurring outside the target areas, might have had an impact on the target areas. The first related to employees who were previously unemployed and lived outside the target areas, but who had moved into one of the target areas since taking a job in the units. The absolute level of unemployment in the target areas would not have been reduced as a result of the programme, because these people would have been previously registered as unemployed outside the target areas. However, the percentage rate of unemployment in the target area to which they moved will have been reduced. Similarly, in the case of employees who were previously not economically active, who lived outside the target areas, and who moved into one of the target areas since taking a job in one of the units, the programme will have led to an increase in the percentage activity rate.

Only four of the employees in the sample had previously been unemployed and had moved into one of the case study areas since taking a job in one of the units, and only one of the employees who had previously been economically inactive, had done the same. When factored up, these findings suggested that the programme may have led to a further reduction of 8 in the level of local registered unemployment, and a additional increase of 2 in activity rates in the case study areas. It was clear therefore that such cases were rather rare and that their inclusion did not greatly affect the overall results of the analysis.

The second instance in which job changes occurring outside the case study areas may have had an impact on them relates to individuals who previously worked outside the areas, and were not replaced but who lived locally. If it is assumed that the overstaffing which led to the concealed unemployment revealed in the present study, would in the absence of the

programme, have eventually led to the employees who had not been replaced in their previous jobs, being made redundant, it could be argued that any of these individuals who worked outside but lived in the case study areas would have then registered as unemployed in the case study areas. In these cases therefore, the programme might have prevented an increase in registered unemployment in the target areas in the long term.

Implicit in this reasoning is the assumption that the overstaffing in the employees' previous firms would have eventually led directly to the laying off of the particular individual who took up a job in one of the D.C. units. This would seem to be rather unlikely. It is possible that the overstaffing would have gone unnoticed and that no redundancies would have resulted, or that someone other than the employee who took a job in one of the units would have been made redundant. However, if the assumption is accepted, the results of the present study when factored up suggested that 33 of the employees may have been affected in this way, and that the programme might therefore in the long term have led to a further reduction in local rates of registered unemployment by this amount.

However, in the majority of cases, job changes occurring outside the case study areas had not had any impact on the local labour markets within them, and since the main aim of the advance factory building programme was to benefit particular local areas, they could therefore be disregarded. This is not an unexpected finding, in view of the small size of the target areas.

It should be noted that changes in the labour market occurring outside the case study areas could not be attributed to the programme, since the foregoing analysis was based on a consideration of the number of new local, not national jobs created by the programme. It would have been possible to study the programme's impact on the national labour market by tracing the jobs changes which occurred as a result of the provision of jobs which were new to the national economy, (identified in section 2.5 chapter 12). In fact because the number of jobs which were new to the national economy was only about a fifth of the number of new local jobs, the task of tracing jobs changes which resulted from them would have been somewhat easier. However, since the aim of the advance factory programme was to benefit

local target areas, such impacts seemed to be largely irrelevant to the present study.

6.0 SECOND ROUND IMPACTS ON THE LOCAL LABOUR MARKETS

The majority of the sequences of job changes caused by the initiatives were very short. However, the present study showed that thirty six of the employees who had been in employment immediately before moving to jobs in the D.C. units had been replaced in their previous jobs. These job changes would have created further vacancies and in order to discover what the full impact of the provision of the new jobs had been, it was therefore necessary to trace these "second round" changes. The impact which the second round of job changes had had on the local labour markets, depended on the characteristics of the people who replaced the employees who had moved to the jobs in the D.C. units. Information about these individuals' (hereafter referred to as "the replacements"), previous employment situations and where they had lived and / or worked prior to replacing the employee who had moved to a job in the D.C. units, was obtained from the previous employers of the workers who had moved to jobs in the D.C. units.

The information gathered from the previous employers, showed that 13 of the replacements had been employed before moving to the job vacated by a worker who had moved to a job in one of the D.C. units, 8 had previously been unemployed and 7 had not been economically active. It was not possible to obtain reliable information about the previous employment situation of the remaining six replacements. By tracing the former employers of the replacements, it was possible to find out that at least three of the thirteen who had previously been employed had not been replaced in their previous jobs. It is clear therefore that the second round job changes involving employees included in the sample had led to a reduction in concealed unemployment of at least three, a reduction in registered unemployment of 8 and an increase of 7 in activity rates.

As with the first round effects however, many of these impacts had occurred outside the case study areas. Only 2 of the replacements who had previously been unemployed, and only 4 of the replacements who had

previously not been economically active had previously lived in the case study areas. Further, only two of the replacements who had previously been in employment and had not been replaced in their previous jobs had previously lived or worked in the case study areas, and none of the replacements who had previously worked outside the target areas were found to have been replaced by local people. It was therefore clear that the second round job changes had led to only very small reductions in the levels of registered and concealed unemployment and a very small increase in activity rates in the case study areas. Even when these figures were weighted and factored up so as to be representative of the effects of the creation of all of the new local jobs provided in the D.C. units, it was clear that the programme had only led to a increase of about 6 in local activity rates, a decrease of about 4 in the level of local registered unemployment, and a decrease of about 3 in local concealed unemployment.

It is apparent from the foregoing discussion that it was possible to find out about the previous employment situations of 28 (77 %) of the 36 replacements. The eight about whom it was not possible to obtain reliable information had all worked for firms which were located well outside the case study areas. It was therefore very unlikely that the job changes in which they had been involved had any impact on the local labour markets in the case study areas, and since the main focus of the present research was upon the case study areas, their omission will not have affected the findings that were reached.

7.0 THIRD ROUND IMPACTS ON THE LOCAL LABOUR MARKET

Only two of the replacements who had previously worked in the case study areas were found to have been replaced when they moved to jobs vacated by those employees who had moved to jobs in the D.C. units. These were therefore the only two cases in which a third round of job changes were likely to have had an impact on the case study areas. As with the first and second round changes, the nature of the impact on the local labour market depended on whether they had been replaced, and if they had been, on the characteristics of the individuals who had replaced them.

The firms which had employed the two replacements were therefore contacted to obtain this information, and it was found that one of the replacements had not in fact been replaced when they left their previous job, and that the other had been replaced by an individual who had previously lived and worked many miles outside the case study area in question. It was therefore clear that in the former case the programme had led to a reduction by one in the local level of concealed unemployment, and that in the latter case there had been no impact on the local labour markets of the case study areas.

8.0 CUMULATIVE IMPACT OF JOB CHANGES

The present study showed that the first, second and third round job changes, which had been initiated when the employees in the sample had taken up new local jobs which had been provided in the factory units had had the following impacts : a reduction in registered unemployment by 64, an increase in activity rates by 53 and a reduction in concealed unemployment by 32 (table 13.7). It was clear therefore that 43 % of the new jobs filled by employees in the sample had led to a reduction in the level of registered unemployment, 36 % had served to increase activity rates, and 21 % had led to reduction in the level of concealed unemployment. It was not possible to trace the remaining 22 sequences of job changes (most of which had occurred outside of the target areas).

Not all of the job changes which occurred outside the case study areas, could be attributed unequivocally to the existence of the advance factory building programme, since not all of the 171 employees with whom these job changes are associated, had taken jobs in the units which were new to the national economy. However, since all of these employees had taken jobs which were new to the local areas, those impacts which had occurred within the areas could be attributed to the programme. The provision of 86 (just over half) of the new local jobs which had been taken by employees who were included in the sample were shown to have had an impact on the labour market within the case study areas. They had led to a reduction in registered unemployment in the case study areas of 36, an increase in

activity rates by 34 and a decrease in concealed unemployment by 16, (table 13.8).

Table 13.7 Cumulative impacts of job changes

	Reduction in registered unemployment	Increase in activity rates	Reduction in concealed unemployment	Not traced
1st round	56	46	28	5
2nd round	8	7	3	16
3rd round	0	0	1	1
Total	64	53	32	22

Table 13.8 Cumulative impacts of job changes on the case study areas

	Reduction in registered unemployment	Increase in activity rates	Reduction in concealed unemployment
1st round	34	30	13
2nd round	2	4	2
3rd round	0	0	1
Total	36	34	16

When these results, which were based on the sample of employees, were weighted and factored up, it was clear that approximately 139 (44 %) of the job changes which had been initiated as a result of the provision of the

new local jobs in the D.C. units had an impact in the case study areas. These job changes were likely to have had the following impacts. A reduction of 57 in the local level of registered unemployment, an increase of 56 in local activity rates and a decrease of 26 in local concealed unemployment, (table 13.9). Thus it seemed likely that about 18 % of the job changes had led to a reduction in local registered unemployment, 18 % had resulted in an increase in local activity rates, and 8 % had soaked up concealed unemployment in the local economies of the target areas.

Table 13.9 Cumulative impacts of job changes on target areas (factored up)

	Reduction in registered unemployment	Increase in activity rates	Reduction in concealed unemployment
1st round	53	50	23
2nd round	4	6	2
3rd round	0	0	1
Total	57	56	26

Although much of the impact of job changes which resulted from the programme had occurred outside of the target areas, it is clear that the initiatives had resulted in a number of positive impacts in the target areas. By 1984, the programme had a positive impact on all of the three main employment problems facing the case study areas, namely high levels of registered unemployment, low activity rates (particularly among women), and a high incidence of underemployment and concealed unemployment.

The fact that a substantial proportion of the impact of job changes had served to soak up concealed unemployment and / or underemployment seems to confirm the observations of rural sociologists that these are common

attributes of rural labour markets. Although policy makers might be disappointed that so much of the total impact of the job changes had been absorbed by concealed unemployment or underemployment, it might therefore be argued that since underemployment and concealed unemployment can be expected to lead to registered unemployment in the long term, the reduction of concealed unemployment is likely to have reduced future levels of registered unemployment. Decreases in the level of underemployment and concealed unemployment are also likely increase the efficiency of the local economy, and thus benefit target areas in the long term.

The job changes studied in the the present work occurred at a time of major recession, 1977 to 1984, and it may be that the high level of concealed unemployment in the case study areas, is in part a consequence of this. However, since no comparable studies exist it is impossible to make definitive conclusions about this. Nevertheless it seems likely that, at a time when firms are under great pressure to cut costs and improve efficiency, few will replace workers who leave voluntarily. In a more favourable economic climate a larger proportion of those who took up jobs in the D.C. units might have been replaced, and the effect on registered unemployment and activity rates might therefore have been greater.

9.0 THE LENGTH OF SEQUENCES OF JOB CHANGES

The sequences of job changes which were initiated as a result of the provision of new jobs in the D.C. units, were much shorter than might have been expected. The impacts of 130 (76 %) of the chains were experienced in the first round, and by the third round, every sequence about which information was available had been traced to its conclusion, and its impact on the labour market been identified, (Figure 13.4). As a result, although the task of tracing the sequences of job changes was a labourious one which required a great deal of empirical work, it was not as difficult as had been expected.

Of the total number of 171 chains of job changes involving employees included in the sample, 139 (81 %) were successfully traced to a conclusion. It would have been possible to trace a further nine sequences

to their conclusion, but in these cases although the previous employers of the replacements were successfully identified, they were only willing to provide the required information in a face to face meeting. Since all of these nine cases involved changes which had occurred well outside the case study areas, and were therefore irrelevant to the main focus of the research, the time that would have been involved in collecting this further information was not thought to be justified. It was clear that enough of the job changes had already been traced to a final conclusion to demonstrate that the approach that was developed in the present study was workable, and produced reliable results.

Figure 13.4 Number of sequences of job changes traced to a conclusion

Previously :	Employed	Unemployed	Economically inactive	Not Known
1st round	69	56 *	46 *	
	replaced	not replaced	Not known	
	36	28 *	5 **	
2nd round	12	8 *	7 *	9 **
	replaced	not replaced	Not known	
	2	3 *	7 **	
3rd round	1	0	0	1 **
	replaced	not replaced	Not known	
	0	1 *	0	

* successfully traced end of job chain
** job chain not traced beyond this stage

10.0 CONCLUSIONS

The creation of jobs as a result of a local economic initiative can have three effects on the labour market. A new job provided by such a programme must ultimately lead either to a reduction in registered unemployment, or to an increase in activity rates, or to a reduction in concealed unemployment. These impacts can be experienced either as a direct result of the provision of new jobs, or through a series of one or more job changes. The present study demonstrated that by undertaking detailed empirical work it was possible to trace the job changes which had occurred as a result of the creation of new jobs by the advance factory building programme, and that by doing this it was possible to discover what impact the programme had had upon the labour markets of the case study areas.

It was shown that the nature of the impacts on the labour market depended on the characteristics of the employees who had taken up the new jobs which had been created as a result of the programme, and on the characteristics of the individuals who had replaced them in their previous jobs. The most important characteristics were: where the employees had lived both before and after they had taken the jobs in the D.C. units, whether they had been employed immediately before they took up jobs in the D.C. units, if they had been employed, whether their previous employers had replaced them when they left. In the present research, this information was collected through a series of detailed interviews with the managing directors of the occupant firms, their employees, and the employees' previous employers.

The results of the present research suggested that much of the impact of the provision of new jobs by the programme had "leaked out" of the target areas, and had therefore failed to benefit local people, but it was also clear that the programme had nevertheless resulted in significant reductions in the level of registered unemployment and increases in activity rates in the case study areas, and had also helped to "soak up" some of the concealed unemployment which existed in their local economies. Approximately 18 % of the new local jobs which had been created by the programme had led to decreases in the level of registered unemployment in the target areas, a further 18 % had led to increases in local activity

rates and 8 % had led to a reduction in concealed unemployment in the case study areas.

The advance factory building programme was in part a response to official concern about low activity rates and higher than average rates of registered unemployment in rural areas. It is clear that the case study projects had therefore been at least partially successful in meeting their objectives. It may be that the incidence of concealed unemployment was atypically high at the time of the present study, because of the adverse macro-economic conditions which existed at the time. However without further research into the local labour market impacts which the advance factory building programme (and ideally other similar programmes) have had either in other areas and / or at other times, it is impossible to discover whether the balance of local labour impacts of the job changes studied in the present research were unusual. In any case the reduction of concealed unemployment should not necessarily be regarded as an undesirable impact of the programme, since it is likely to have benefitted local people in the medium / long term by causing a reduction in the level of registered unemployment, and may also have helped local firms to increase their efficiency.

Most of the sequences of job changes which had occurred as a result of the programme were much shorter that had been expected. More than three quarters involved only the employees who had taken the new jobs in the D.C. units. Of the 171 sequences of job changes which had been initiated when individuals who were included in the survey of employees had taken up new jobs in the units, 81 % were successfully traced to a final conclusion. These included all of the changes which it seemed had ultimately led to impacts in the case study areas. Since the main focus of the present study was upon the target areas, it was not thought to be necessary to follow up all of the sequences which had occurred outside of the target areas. However, it would have been possible to trace the end result of even more of the sequences of jobs changes had this been considered to be worthwhile. It seems clear therefore that the approach which was developed in the present study could provide a useful basis for evaluating the local labour market impacts of both the advance factory building programme and other similar local economic programmes in the future.