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Female Labour Market Adjustment Processes in the UK Coalfields

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Abstract

This study focuses on the processes occurring in the female labour markets of coalfield areas in Great Britain. During the 1980s and 1990s these areas experienced a major loss of male employment as a result of the decline of the coal industry. The research looks at how female employment in these areas was affected by the large male labour supply released by job loss in the coal industry. Do the male and female labour markets provide one pool of labour supply in these areas or do they operate quite separately? Have women taken on a new role as breadwinners or has their traditional role at home, outside the paid labour market remained unaffected?

Labour market accounts are constructed for the period 1981-91, mainly using Census data, to demonstrate the adjustment processes which have taken place in the female labour markets in the coalfields. These are compared with male labour market accounts for the same areas and also with female labour market accounts in areas with alternative experiences of employment change. Trends in economic activity and unemployment in the coalfields, among men and women, are also considered in the context of national trends.

The analysis reveals that the male and female labour markets in the coalfields appear to operate more or less independently of each other. The major response to the loss of jobs for men was a reduction in labour supply as many men exited the labour market entirely into economic inactivity. Conversely, the demand for female labour increased in the coalfields and new female labour was drawn into paid employment from economic inactivity. The labour market accounts also highlight the insensitivity of conventional measures of unemployment to changing levels of labour demand.

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Contents

List of tables

List of figures

Chapter 1

Introduction

The structure of the British labour market is not fixed. It is fluid and factors such as who is employed, on what basis, in what type of work and in what location all change over time. These factors are not independent of each other. Rather, they influence each other. Over the past twenty years the British labour market has experienced major structural change in all of these aspects of employment. The British economy has seen a shift in production from the industrial to the service sector, the location of manufacturing has experienced an urban-rural shift, increasingly new jobs that are created are casualized, fixed-term contracts, temporary and/or part-time. Meanwhile the demand for male manual labour has declined whilst the demand for female labour has risen.

This study concerns the changing nature of 'who' is employed and considers how 'what' types of job is available and 'where' the job is located interacts with who is employed. More specifically, this thesis intends to investigate the changing gender balance in the workforce. The supply and demand for female labour has increased nationally and much has already been written about the changing role of female participation in the labour market (Dex 1985, Bradley 1989, Rees 1992, Crompton 1997). Rising economic activity rates amongst women of working age, as greater numbers of women are drawn into the labour market, is one indicator of the increasing participation of women in paid work. Conversely, the demand for male labour has declined and, in response, the supply has also diminished. This phenomenon can be seen most clearly in the trend of falling male economic activity rates.

A key factor associated with the increase in female economic activity and decline in male economic activity has been the restructuring of the British economy. The traditional heavy industries of coal, steel and shipbuilding have contracted, manufacturing employment has declined and instead the service sectors have increasingly employed a greater proportion of the total labour force. This shift decreases employment in sectors traditionally dominated by men and increases employment in sectors often dominated by women.

This study focuses on the British coalfields to observe and compare the changing fortunes of the male and female labour markets within them. There are a number of reasons why the coalfields have been chosen as a case study. Firstly, the compact nature of the labour markets within these areas. The coalfields were traditionally relatively self-contained labour markets with the majority of the population living and working within the local area. This self-containment is often reinforced by the physical isolation of some coalfield settlements due to the geology of coal while the frequently poor transport links reduce accessibility to the wider labour market. The compact nature of the labour markets makes them ideal to study the adjustments which take place when major restructuring occurs.

Secondly, the coalfields provide an interesting context to investigate the changing nature of male and female attachment to the labour market as they provide a stark example of an area affected by economic restructuring. The coalfields have experienced chronic industrial decline over the past twenty years. This decline has had a very gender specific effect on employment prospects resulting in a major loss of male jobs. At least 250,000 men lost their jobs in the coal industry from 1984 to 2000 alone. The coalfields were areas economically dominated by the coal industry as the main employer of men. This in turn frequently led to a lack of diversity in the local labour markets and few opportunities for women to engage in paid employment.

For men in the coalfields, the decline of the coal industry has removed a major opportunity to work. This raises the question of how the labour market has adjusted to this change. By contrast, for women in the coalfields the issue is less one of declining opportunities to work but of increasing ones. Although traditionally the coalfields provided women with few opportunities for employment, has this changed in the context of a national trend of rising female employment? The expansion of the service sector nationally has been a factor in the increased demand for female labour, but it is unclear how far this trend has been replicated in the coalfields. What adjustments in the female labour market in coalfields have taken place over time that may indicate a higher level of opportunity present?

Mackay (1999) highlights the importance of opportunity to work in influencing the responses of individuals to fluctuations in demand for labour. He demonstrates the regional variance in opportunity and adds weight to the argument that:

> "*Between 1981 and 1991 male unemployment is not sensitive to loss of work and opportunity*" (p1925).

This highlights the need to consider different forms of adjustments which have taken place in the female labour markets in coalfield areas and whether female unemployment has been responsive to increased levels of opportunity. Levels of unemployment alone can only provide an indication of one aspect of the health of these labour markets.

Increasingly, measurements of labour market slack have broadened to consider not only levels of employment and unemployment but employment and non-employment, economic activity compared to economic inactivity, work versus non-work, jobs versus joblessness and labour market attachment versus detachment. The coalfields provide a chance to consider what form adjustments in the labour market have taken in response to decreased opportunities for men and any increased opportunities for women to work within the context of a local labour market.

The thesis will attempt to address a number of issues of labour market participation amongst women in the coalfields. Trends in economic activity will be investigated, adjustment processes which have occurred in response to fluctuations in demand for labour will be identified and wider measures of unemployment considered. The changes in female attachment to the labour force are considered in the context of the major restructuring of the male labour markets of the coalfields.

The analysis is situated within a framework provided by a review of appropriate literature (Chapters 2 and 3). Chapter 2 considers the restructuring of the British economy as de-industrialisation shifts the balance of both production and employment towards the service sector. Chapter 3 covers issues and debates surrounding the changing role of women within the world of paid work.

Chapter 4 discusses the use of Census of Population data as the primary source of empirical evidence used to analyse the coalfield labour markets. The majority of the data analysis covers the critical period of change in the coalfields including the majority of pit closures and the miners' year long strike using the 1981 and 1991 census data. The chapter also considers which areas constitute the coalfields for the purposes of this study and explains how this definition is operationalised. The research questions and the methods employed are outlined in this chapter.

Presentation of the data analysis begins in Chapter 5. Descriptive statistics present a picture of the social and economic characteristics of the population within the coalfields. The economic activity rates of various sub-groups of women are analysed for the ten year period to determine the degree to which the level of participation of women in the coalfields labour market has changed.

Chapter 6 employs labour market accounts to determine what adjustments took place in the supply and demand of labour in the coalfields from 1981-1991. Labour market accounts provide a powerful tool to analyse components of change which occur in response to influxes in the demand for labour. In addition, accounts using the same methodology for Rural Development Areas (Beatty and Fothergill 1997) and Britain's 20 largest cities (Turok and Edge 1999) are drawn on to provide comparitors to contrast the performance of the coalfields.

In Chapter 7 the change in the industrial distribution of both male and female employment is investigated. Evidence of a shift of employment towards the service sector is examined, along with differences between male and female sectors of growth or decline in employment.

The final stage of the analysis (Chapter 8) considers the levels of registered unemployment amongst women in the coalfields from 1983 to the present date. The debates surrounding registered unemployment as an appropriate indicator of labour market slack are considered and wider measures of unemployment and labour reserve constructed.

The final chapter draws together the findings of the analysis in the context of the literature reviewed and research questions posed.

Chapter 2

Structural Change in the British Economy

Britain's industrial revolution imposed a distinctive economic geography on the country. This was particularly pronounced in the coalfields which were at the heart of the revolution. The very nature of coal meant that geology dictated that the coal industry was highly localised. Over the past century the coalfields have experienced major change as the demand for coal has fluctuated and the British economy has undergone several periods of re-structuring.

2.1 The decline of the coal industry in the context of structural change in Britain

The decline of the British coal industry has been long-standing. Factors, including the recession of the early 1980s and the new political climate which emerged with Thatcherism, triggered another period of structural change in the British economy and a rapid spiral of decline in the British coal industry.

The past twenty years have been a time of great upheaval in the coalfield communities, with the near decimation of the coal industry over the period of this study - a workforce of 279,200 in September 1981 in 211 collieries to 73,300 in 65 collieries by March 1991. At the time of privatisation in 1994, (see Table 2.1.1), the total workforce was down to only 18,900 in 19 collieries. By March 2000 only 17 pits were left, employing only 12,000 miners.

The loss of over a quarter of a million mainly male jobs by the main employer in these areas is compounded by the continuing decline in the demand for manual labour, both skilled and non-skilled. The number of men with occupations classified as skilled manual had declined by nearly a fifth of its size in 1971 by 1981 (Goldblatt 1983). A similar decline was experienced among those in semi-skilled occupations and the number of non-skilled male workers in 1981 had decreased by nearly a half of the level in 1971. Heath and McDonald (1987) completed a similar study based on 1971 and 1981 census data though using a different classification of occupation. They found that 51.1% of the entire economically active population was employed in skilled, semi-skilled and unskilled manual occupations in 1971 but by 1981 this had declined to

45.4%. Both studies took account of the added complication of changes in the classification of occupations between the two points in time.

Table 2.1.1: Employment in British Coal 1981-94

	Total BC workforce (thousands)	No. of miners (thousands)	No. of Collieries
Sept 1981	279.2	218.8	211
Sept 1982	266.3	208.0	200
Sept 1983	246.8	191.7	191
March 1985	221.3	171.4	169
March 1986	179.6	138.5	133
March 1987	141.5	107.7	110
March 1988	117.3	89.0	94
March 1989	105.0	80.1	86
March 1990	85.0	65.4	73
March 1991	73.3	57.3	65
March 1992	58.1	43.8	50
March 1993	44.2	31.7	50
March 1994	18.9	10.8	19

Source: British Coal Corporation, Annual Reports

N.B. There are no figures for 1984, reflecting the shift from September to March as the recording date for British Coal's statistics.

This decline in the demand for manual labour, especially skilled male manual labour, exacerbated the lack of opportunities open to men made redundant from the coal industry.

The closure of pits had wider repercussions on the surrounding economy of the areas. Job loss was not only confined to mining jobs but throughout the associated industries which tended to locate in the area - industries like the engineering firms which supplied mining equipment. The decline of associated industries may in turn have affected manufacturing exports if these firms did not survive. Additional suppliers to the industry which were hard hit included those companies which provided computerised systems for the monitoring of the coal face and other colliery functions. Haulage firms and rail services were also harshly affected. Glynn (1988) estimated that if the top 12% of loss-making pits (as claimed by the National Coal Board in 1983) were closed then not only would 40,000 miners lose their jobs but an additional 35,000 jobs which were dependent on these pits would also be at risk. Fothergill and Witt (1990) came to

a similar estimate, calculating that in the longer term every coal industry job lost would be matched by another job lost in the local economy.

Studies of the assessment of numbers of jobs lost does not however take into account the general loss to the whole economy through lost production, lost contributions to the state, lost local revenue via rates and increased cost to the state via unemployment and related benefits. Beynon et al (1991) stressed that these overall economic costs incurred by pit closure should be considered as well as the wider implications of redundancies in coal districts. They felt the National Coal Board (NCB) review procedure was too narrow, as it did not address in projections of potential savings from pits earmarked for closure the full, wider associative costs involved. Creative accounting was also employed to place redundancy costs under the production costs of the remaining collieries thereby adding to the case for further pit closures to reduce production costs. Hudson et al. (1984) considered all aspects of the associated costs involved in the closure of coal mines in the North East. They estimated the cumulative measurable cost of the closure of Horden Colliery would be £35 million over a four year period and that only 10% of the total cost would be picked up by the NCB.

The coal industry was not only the dominant employer of men in these areas, but also often the linchpin of these communities. Colliery closures not only created redundant miners but removed a major source of job opportunities for young men. This is likely to have been an additional factor in influencing increased out-migration as young people left in search of better job prospects. Inevitably, depopulation and further decline in the area followed. Beynon et al (1991) demonstrated this effect for the case of the East Durham coalfield. In 1986 the population of Easington District declined by nearly 4,000 from 1981 levels in a period which saw the number of mining jobs in the area halve.

Wass's (1989) study of the effects of colliery closure followed the experiences of ex-miners within the constraints imposed by coalfield local economies. Prospects were shown to be heavily influenced by their age, health and skill level. Older men often had no experience of any other work and many were in poor health. As a consequence withdrawals from the labour market via early retirement or for health reasons were inevitable.

Mining involved many highly specific as well as highly skilled tasks which resulted in many miners not having easily transferable skills. Witt's (1990) study of the employment experiences of redundant miners found that former miners looked for new

employment in a limited number of sectors and few diversified into significantly new occupations. Indeed, many returned to the mining industry through private contractors. Skilled men were the most likely to find work after redundancy, though often the new jobs were classified as semi-skilled or unskilled. There was also the possibility of a shift towards self-employment although previously there had been a lack of an entrepreneurial tradition in coalfield areas.

In time the search for alternative employment opportunities meant the traditional location pattern became disrupted after a closure, with local men at the pit being the worst affected. In the findings of a study of a pit closure in Yorkshire, Witt (1990) showed that the majority of men lived within five miles of the pit but that after the closures a third of those surveyed who were back in work were subsequently travelling over 20 miles to work.

The search for alternative employment opportunities was often hindered by the fact that many mining settlements suffer from poor infrastructure isolating them from the wider economy. The railway network is geared towards the movement of coal from its point of extraction to its market and hence may be of little use for passengers. Road links also tended to be weak for a number of reasons including topography and location. The poor infrastructure also hindered the development of new industries such as tourism and leisure. Many declining industrial areas have turned to these alternatives as an answer to the loss of jobs in traditional industries and in response to the advent of a world increasingly dominated by more leisure time and the service industries to support it. Where some traditional communities such as small ports can supplement the destruction of traditional life by turning a working boat into use for leisure trips for tourists in a quaint fishing village, this option is often not open to communities in the coalfields as to many a day out to the pit top offers little in the way of souvenirs.

Pit closures also had differing impacts depending on the nature of the community where they occurred. Rural coalfields were often dominated by the presence of the pit and there were fewer alternative employment opportunities available. Many of these less diverse rural coalfields are included within the Rural Development Commission's definition of Rural Development Areas - a classification of the most deprived rural areas in the country. In the more urban coalfields such economic and social dependence on the colliery tended not to be as high as in rural areas.

The traditionally high dependence on the coal industry and the collapse of the industry does not bode well for the future of the coalfields. Things look especially stark in light of the work of Massey (1988), which considered the decline of manufacturing nationally. She argued that different regions, or the people and economic activities within them, play different roles in the overall division of labour. Regions in this country, and the major differences in the economic activity between them, were based on different sectors of production. Hence, as a result of Britain's spatial division of labour based on specialisation by sector, if a sector collapses it is likely to take 'its region' with it.

The literature indicates that the coalfields are likely to have undergone major structural change. This is not only due to the massive local impact of the decline of the coal industry but also ramifications from the wider restructuring of the British economy as a whole. The changing structure of the coalfields in the context of the British economy will be explored further using Census of Population data for both 1981 and 1991 in Chapter 8. This attempts to assess how these shifts have affected the industrial structure of the coalfields.

2.2 Wider social implications of decline of the coal industry

The exceptionally concentrated geography of coal has meant that, traditionally, there has been a settlement pattern based around collieries with many coalfield settlements having little or no function other than to house the workforce for the local pit. Bulmer (1975) suggests that mining communities tended to have little contact with the 'outside' world due to their isolation both physically and geographically. These were historically tight-knit communities with distinct labour markets where many of the men lived and worked locally. The dependence on the coal industry also created occupational homogeneity amongst the labour force and strengthened the trade unionism. This lack of outsiders travelling in for work, and the influences of different cultures and ideals they would bring with them, and few insiders venturing far for work has reinforced the strong sense of community identity and traditional family structures. Research carried out by Waddington, Wykes and Critcher (1991) during 1987-1988 in three central northern mining communities backs up this perception by finding that a strong sense of community was still felt by each of the areas.

Things had been gradually changing over time. The continuous dissipation of the coal industry was likely to continue to affect the very nature of the communities in the long term. Massey (1984) in her study of the effect of changing spatial divisions of labour,

concluded that the coalfields which were once homogenous areas - in terms of their social and economic characteristics - had become more varied. An influx of new industries and the travelling of miners to work in pits further afield meant that the population and employment within the coalfields were no longer as self-contained as had formerly been the case. Massey also points towards the future integration of the previously economically isolated coalfield communities with their surrounding areas.

Davies and Metcalf (1988) hit on a key point of future instability of the coalfield communities when measuring the social costs incurred by pit closure. The benefits of living in a thriving, homogeneous community are lost as the community is transformed and divided into the haves and have nots . The loss is not only at an individual level but to the community as a whole. Many community facilities are based on the colliery whether it be the recreation grounds, allotments, community halls or Miners' Welfare Clubs. These facilities often faced closure once British Coal withdrew from an area. The need for these leisure and community facilities is now more important than ever as many men have large amounts of free time on their hands through their enforced joblessness. As Waddington et al. (1991) put it:

> "The main focal points of the miner's social activity are outside the home, involving work colleagues in pubs, clubs and sports groups. By contrast, the miner's wife is chiefly concerned with servicing her husband's needs and maintaining the home and family life." (page 14)

The dependence on the coal industry was further compounded by the fact that some communities not only relied on British Coal for employment and social and community facilities but also on the houses they lived in. British Coal was for many, landlord as well as employer. Waddington, Wykes and Critcher's (1991) study of mining communities found renting was likely to be either from the local authority or their employer or if an owner occupier then these were often the source of the purchase. Due to this interest held by British Coal in some local housing markets, concern was raised over the selling off of British Coal assets and how this would affect the costs of rents and house prices locally.

Since the miners' strike of 1984/1985 through the subsequent closure programs, a recurring slogan has surfaced - 'COAL NOT DOLE'. This summed up the likely alternative for many men when the industry collapsed. The social fabric of these areas was often stretched to breaking point. Factors influencing this breakdown are numerous and interlinked and include the economic strain caused by the lack of a

wage and the effects on the physical and mental well-being of those who lost employment and their families.

There is a large literature on the psychological effects of being unemployed (e.g. Burchell 1994, Fryer 1986, Fryer and Payne 1984). For some, the key to coping with unemployment is if they can continue to structure their lives and turn the experience into a positive one. Burchell (1994) concludes that it is loss of control and the corresponding insecurity that has a negative effect on the unemployed rather than the actuality of being unemployed.

Men and their families in the coalfields had to deal with the economic consequences of the loss of their jobs and corresponding social effects. Dicks, Waddington and Critcher (1993) surveyed four South Yorkshire mining communities after the announcement of the pit closures in 1992. At the time only two of the localities had their collieries still open. They found:

> "two-thirds of the survey sample felt that factors such as marital breakdown, problems with teenagers, poverty and a decline in community spirit had changed family life. Over 80% expected things to get harder in the future. While a strong sense of community still prevailed, many people felt that the 'atmosphere' of the village had gone, along with the shared rhythms of work and social life that mining used to generate." (page 176)

The wider implications of pit closure for the local economy suggest the need to look at the labour market as a whole, not just specifically at ex-miners and their families. As mentioned earlier, the decline of the coal industry had knock-on effects among local manufacturers of mining equipment and supply industries. There was inevitably reduced consumption of goods and services when miners were not re-employed or had to take lower paid jobs.

2.3 Women within the coalfields

The class structure of the coalfields has been predominantly working class (Massey 1984). The dominance of a single industry and the nature of the work meant that the majority of men employed in the industry had a similar work experience. This solidarity was further strengthened by the strong, organised unionism which evolved within the coalfields.

The coalfields have been areas where traditionally there has been a lower participation of women in paid work than the national average – 'where men were men and women knew their place' - and for women their 'place' was firmly grounded in looking after the running of the home and in meeting the needs of the breadwinner (Humphries 1972, Allen 1981). The men were predominately the main breadwinner, if not the only one, and the pit dominated everyone in the community's social as well as working life.

Lower female participation in paid labour was due in part to the lack of job opportunities for women in some coalfields. This was however not the only factor and indeed many of the coalfields have a strong manufacturing history in the clothing and textile industries which often relied heavily on female labour. Other factors included the tendency for local economies in the coalfields to be less diverse than larger urban conurbations. In turn they often had weaker service sectors - traditionally an employer of women. Historically there was also a low level of local small firms in the coalfields (Massey 1984).

Historically, another factor in the lower level of female economic activity in the coalfields was the nature of the domestic burden on miners' wives. The hard and dirty nature of the miner's work in the pit in turn required large amounts of corresponding female labour. Wade (1984) gives an account of washday at the beginning of the century which depicts the work of women as hard but essential. Williamson (1982) went as far as to say that without the input of women in terms of domestic labour the mining communities would be no more than labour camps. In addition the nature of the shift system worked in pits also hindered the ability of miners' wives to take employment opportunities which arose since the changing nature of their husbands' working hours made childcare arrangements difficult.

The combination of factors influencing the ability to and opportunities of women to work in the coalfields will vary amongst different types of women and different coalfields. For example, traditionally gendered roles and the need for large investments of time in domestic labour is likely to have had most effect on women who were the wives or partners of miners. It must be remembered though that the coalfields were never wholly inhabited by miners[1].

At a local level, a recent influence on the life of women married to miners - whether in

[1] Just over a quarter of all men in the coalfields were employed in the Energy and Water Sector in 1981. This rises to nearly half of all men in 'pit villages'. Miners represented approximated three quarters of the British Coal workforce.

terms of participation in paid employment or their position within the social structures present - was the lengthy miners' strike of 1984-5. Again though this only affected a proportion of miners' wives as only two thirds went on strike and in some areas there were virtually none. The strike caused political conflict and strife that resulted in some communities being torn in two with rifts between strike makers and strike breakers not easily healed. Waddington et al (1991) found that there was evidence that for some women however, the participation in the campaigning, picketing, fund raising and running of community kitchens in support of their husbands' strike was a liberating and empowering experience, challenging stereotypical gender roles present in the communities. The Waddington et al study collated evidence from a number of works which considered the effects of the 1984-5 strikes on women involved:

> "The strike has resulted in many changes in women's lives and in their consciousness. It has shown them their strengths and capabilities; it has extended their lives beyond the home where traditionally women are confined." Coulter et al (1984) p214

> "The men of the mining industry have finally been compelled to come of age, to join the twentieth century, and must now deal with the personal and institutional revolution which will finally bury proletarian patriarchy: that domination of the working-class by men." Campbell (1986) p252.

Evidence from women and men interviewed by the Waddington team in three mining communities of Yorkshire, Derbyshire and Nottinghamshire confirmed these opinions but some questioned whether the effects were lasting for women. The women felt the strike had contributed to or been the catalyst of the breakdown of a marriage for some while for others it had strengthened their relationship. For many women the active participation in the strikes had changed them forever; they became more confident and independent and discovered that they had a role outside the domestic responsibilities of the home. However, of the women interviewed who felt there had been a change of domestic responsibilities during the strike, three quarters felt that things had reverted to the normality of traditional roles after the strike. Interestingly, when men in these communities were asked the same questions, a far lower proportion felt that things had gone back to normal. The research confirmed that it was felt that the lack of paid work available to women was the primary cause of the low rates of women working in these communities. It also emerged that the proportion of women working fell after the pit strike. What work there was was often poorly paid and part-time. After the end of the strikes and the subsequent redundancy of some of the men it was felt that there was a

disincentive for women to work for a number of reasons. Firstly, the income that could be gained from working was not enough to support a family and they would still be reliant on benefits. This led to some feeling they were working for nothing since their pay just reduced their benefit entitlement and so felt no better off than if they survived on benefits alone. In addition, for some women, going out to work while their husbands stayed at home challenged the traditional gendered roles too much.

The wider national changes in the British economy and society which may also have influenced opportunities for women in the coalfields to take part in paid employment will be discussed in the next chapter.

Chapter 3

Female Labour Market Participation

Numerous social and economic changes have affected the participation of women in paid work over time. The complicated interaction of gender and employment was summarised succinctly by Game and Pringle (1984):

> "Gender is fundamental to the way work is organised; and work is central in the social construction of gender" (p15)

The British economy has undergone a number of structural changes which have influenced the opportunities for women to work . De-industrialisation and a shift towards the service sector, de-centralisation of manufacturing industry alongside an increased casualisation of the workforce and flexibility of working practices have all affected the demand for female labour. Women's changing position in society has in turn affected the supply of female labour.

3.1 De-industrialisation and the de-centralisation of the manufacturing sector

The structural shift in the economy towards the industrial sectors - mining (and public utilities), manufacturing and construction - continued until 1955. However, even by this point jobs in the mining industry were already being shed as demand for coal declined in the face of increased competition from oil. Nevertheless Britain had become the 'workshop of the world' and manufacturing was important both in terms of national employment and trade surpluses. The share of total employment taken by the industrial sectors peaked in 1955 when it accounted for 48% of all those employed. At this point Britain had one of the most highly industrialised economies - in terms of employment - the capitalist world had ever seen (Rowthorn 1986).

The peak in industrial employment as a share of total employment signified a major structural shift in the economy - de-industrialisation. There are many definitions of what exactly de-industrialisation is and how to measure it, but on the whole the concept is concerned with the decline in heavy industry and manufacturing. A full discussion of the alternative concepts and definitions of de-industrialisation was offered by Rowthorn (1986) and Massey (1988).

De-industrialisation led to de-centralisation of industry and Keeble (1976) pinpoints 1966 as key moment when the geography of manufacturing began to change:

> "concentration has been replaced by increasing spatial dispersion of manufacturing industry, both to relatively un-industrialised sub regions and to the peripheral areas." (p15)

Fothergill and Gudgin (1982) argue that since the mid 1960s the most important component of the changing geography of manufacturing industries has been the 'urban-rural shift' from inner cities and conurbations to smaller towns and rural areas with cities becoming a principal location of de-industrialisation (Fothergill et al 1986). Many factors influenced the relocation of manufacturing from traditional urban production centres, including the availability elsewhere of cheaper land and property prices, availability of land to expand production, improved infrastructure, government grants in assisted areas and cheaper labour sources.

Keeble (1980) considered that reserves of female labour were a potential source of cheaper 'green' labour which would influence the re-location of manufacturing. This 'green' labour had not previously been utilised due to peripheral and rural areas traditionally offering little opportunity for women to have waged work - the coalfields being a classic example. Beechey (1978) elaborated on the factors which contributed to women being seen as a good source of green labour supply: a uniquely flexible, disposable, low skilled and low-paid work force since domestic work and the care of the home is seen as their primary responsibility.

The de-centralisation of manufacturing and the changing geography of manufacturing which emerged were characterised by un-even growth and development. Peripheral and rural areas benefited from new employment opportunities. Rubery, Smith and Fagan (1996) highlight the benefits relocation of manufacturing and restructuring of the economy are likely to have had on women:

> 'they have also up to now tended to benefit from the **relocation of manufacturing activities and the restructuring towards service sector employment**, both because of gender segregation by job task and because of the lower pay and more flexible contracts found particularly in private services.' Rubery, Smith and Fagan (1996, p5)

3.2 The growth of the service sector

The great sectorial shift away from the industrial sectors meant a subsequent shift in employment towards the service sector. McDowell (1989) argues that this sectorial shift is the main factor associated with the loss of male employment and the increase in female participation rates. In turn this has led to an increasing feminisation of the workforce.

One factor in the shift of labour from industrial sectors to service sectors has been increasing productivity in the industrial sector. Technological advances, increased mechanisation and computerisation has constantly resulted in more being produced for less labour input. The service sector however tends to be labour intensive and demonstrates a lower level of productivity growth compared to other sectors. So an increased demand for coal could be met by increased productivity achieved via new machinery but required no increase in labour supply - jobless growth - whilst increased demand for services - say a haircut - would require additional hairdressers to be employed. This additional labour is needed since there may be little scope for increasing productivity without lowering the quality of the service provided. Logically this meant that as an increase in demand for services was created then a larger number of people needed to be employed in the service sector to meet the demand.

3.3 Supply and demand of female labour

There are a number of alternative theories concerning the increased participation of women in paid labour. One way of considering the increased participation of women in paid employment is in terms of the *supply and demand theory* developed by neo-classical economists (McDowell 1989). There are complex issues on both sides of the equation and increasingly commentators have explored the interlocking relationship of both supply and demand (Vogler 1994).

Increased supply of female labour arises from a range of social changes - greater access to education and skills, changes in demography and in the structure of the family, social attitudes to women's roles.

The attainment of educational qualifications and skills has increased women's employability and ability to compete with men for jobs. However, subject choice is still highly gendered. Cockburn (1987) highlighted that boys' choices of courses concentrate on those which lead to better paid occupations and professions, ultimately those dominated by men. This gender differentiation between courses continues in

higher education, though overall participation rates now show negligible gender differences.

The ability for women to access a wider job market may increase the potential supply of female labour available. Increasing numbers of women have learnt to drive (Whitmarsh, 1995) and greater numbers of households have more than one car enabling more women to travel further to work.

Demographic factors have also radically changed the potential supply of female labour. Increased availability and social acceptance of contraception has enabled women to have a greater control over if, when and how many children they have. Women tend to marry later, to delay childbirth and to have fewer children (Whitmarsh 1995). Birth and early childcare become less significant as constraints on labour market participation. The average age of women for all live births has increased from 26.4 in 1976 to 28.1 in 1993 and total fertility rates have also declined with women on average having 1.8 children in the nineties compared to nearly 3 children each in the early sixties. The decision to defer childbirth until later in life is confirmed by an increase in fertility rates of women over 35. In 1992, for the first time, women in their thirties were more likely to have a baby than women in their early twenties.

Technological changes have also influenced women's ability to take part in paid work. The availability of labour saving devices such as washing machines, should in theory reduce the amount of labour and time needed for housework. In turn this would lead to women having more time available for other things and hence a greater ability to go out to work. However, though labour saving devices can lessen the need for direct physical input of labour and lead to greater productivity of work time this did not necessarily translate into less time spent on housework (Gershuny 1983). Though greater numbers of women are going out to work, this has not led to a relative decline in the amount of domestic labour they also do. In reality, analysis of the domestic division of labour within households tends to show that little has actually changed (Yeandle, Gore and Herrington 1999).

Crompton (1997) provides a comprehensive review of the position of women in relation to paid employment during the 20th century and how things have changed. She argues that:

> "by the beginning of this century there had emerged the male-breadwinner model of the gender division of labour, in which men were held to be largely responsible for market work, whilst women were responsible for domestic work." R. Crompton (1997) , p8

'Second-wave' feminism which developed in the 1960s sought to improve the position of women in the realm of paid work through equal rights. Women themselves have taken greater control over their lives and made their own decisions on whether to take part in paid employment or not. It has become more acceptable for women to return to work after the birth of children and increasingly women are returning to work after shorter periods of time after the birth of a child.

The traditional supply and demand theories suggest that demand for female labour increases as a function of the overall need for labour in the economy and declines in periods of economic contraction. However trends in female participation have continued to increase and seem to be relatively unaffected by downturns in the economic cycle (McDowell 1989).

Mincer (1962) and Becker (1965, 1975) developed the supply and demand model further in the form of *human capital theory.* This considered the amount invested in an individual - human capital - whether in terms of time or money, to gain training, skills, education, qualifications and labour market experience. In turn they related this investment to the prospective financial returns from entering the labour market to explain why the conventional gender division of labour - both in paid and unpaid work - had arisen. Men tended to be better educated than women and could command higher wages because of the greater levels of skills or qualifications attained. Women tended to invest less in their education and acquisition of skills - human capital - as they anticipated care of the home and child-rearing would in time lead to breaks in labour market participation and the investment would be wasted. A fundamental basis of this theory then is to consider decision making as a function of the household and decisions are based purely on calculations of economic benefit. If women do take part in paid labour, since they receive a lower return for their labour than men, it makes sense to only work part-time and lose as little time as possible in travelling to and from work.

Walby (1988) criticises its assumption of a 'perfect labour market', one where wages are proportionate to human capital invested. The assumption that all women make a choice to work or not purely on the basis of a rational financial calculation also has its

weaknesses. Women may work because they wish to not because they have to for money. Other women may choose to stay at home and look after their children even if they are highly qualified and could command high wages. Human beings are, on the whole, not driven purely by rational economic decisions.

3.4 Segmentation and segregation in the labour market

Segmentation theory is offered as another explanation as to the supply and demand of female labour.

> "Segmentation involves the cumulative development of advantage and disadvantage in the labour market, and divergences in attitudes and expectations between labour force groups" (Burchell and Rubery 1994, p80)

Segmentation theories tend to concentrate on the demand-side of the equation and the fact that employers prefer a differentiated workforce (Beechey and Perkins 1987). This in turn reinforces gender segregation in the workforce which is in part a by-product of labour market segmentation Beechey (1987). Employers intent on maximising profitability lead to employment strategies - and indeed discrimination - which affect various groups of the labour force and in turn reinforce the advantages of one group relative to the disadvantages of another.

The segmentation of the labour force exists when groups of workers fulfill different roles and thus each group has a varying bargaining power in terms of wages and conditions. Segmentation can lead to a dual labour market with the workforce divided into core and periphery workers or primary and secondary workers (Doeringer and Piore 1971, Hudson 1988). The core or primary workers are valued, specialised and skilled labour. Employers recruit and retain these workers by offering good pay, security and decent employment conditions. These workers tend to be employed full-time, on a permanent basis, a good career structure and have strong trade unions. The secondary or periphery workers on the other hand are seen as un-skilled and non-specialised labour, a flexible and disposable workforce. The work involved tends to have been de-skilled to enable anyone without any qualifications or experience to do it, the work is often employed on a part-time, casual basis, with temporary contracts rather than permanency being the norm . The people employed in these jobs tend to have few employee rights and often low levels of unionisation.

How do women fit into this model of segmentation of the labour market? On the whole women are a pool of labour drawn upon to fulfill the role as secondary workers. They are more likely to work part-time and in lower paid jobs than men. This segmentation on the supply-side of labour enables employers to pursue policies of segmentation of labour market demand. Both the segmentation of labour demand and segmentation of labour supply become inextricably linked. Hence it is not that jobs become female dominated because they are low paid but rather that jobs may be low paid because the majority of the workers in this area are women (Craig et al 1982).

Burchell and Rubery (1994) point out that the supply side segmentation cannot be explained by labour quality alone. There are two main aspects of women's' participation in paid labour which contribute to them often being within the secondary or periphery group of workers. Firstly, gender segregation in the labour market exists which reinforces segmentation of the labour market. Women tend to be concentrated within certain types of jobs or occupations and fellow workers are predominantly women (MacEwen Scott 1994). Conversely men are concentrated in jobs which are dominated by men. McDowell (1989) highlights that women are also concentrated in a narrower range of occupations than men.

Hakim (1979) stated that the segregation that exists - with men and women doing different jobs - means you can identify a male and a female labour force as two separate labour forces, neither of which is in direct competition for the same jobs. She also demonstrated that gender segregation occurs both horizontally and vertically with the use of occupational sex-ratios. Horizontal segregation is when men and women are concentrated in a particular occupation or industry and means these jobs become considered as either 'men's work' or 'women's work' (Bradley 1989). Vertical segregation is when men and women are polarised at either end of the hierarchy of a particular industry or occupation (Rees 1992).

Overall the segregation into male and female jobs reinforces the segmentation of the labour supply with women in a disadvantaged position in terms of bargaining for better pay and conditions than men. Cockburn (1988) went as far to suggest that sex-typing of jobs is reinforced by men - sometimes with the help of unions - in order to protect their position and privileges. Sexual harassment at times re-enforces the perception of certain jobs being men's work in order to deter women from entering these occupations. Walby (1988) sees the continued gender segregation at work as the most influential factor in the wages gap between men and women.

Segmentation of the labour market and the continued position of many women as secondary workers - and the gender segregation which goes hand in hand with it - would not be possible unless employers were able to differentiate labour demand and there was a pool of workers it was able to treat as a flexible, low paid and disposable workforce.

3.5 Reserve army of labour

The Marxist concept of a *reserve army of labour* has been used to explain various aspects of the participation of women in paid labour (Beechey 1978, Power 1983), women's position in the labour market in comparison to other groups at various points of the economic cycle (Breugel 1979), and the effect of economic restructuring and de-skilling on women's employment (Braverman 1974). Marx's original theory did not relate to women in particular but considered the interaction of capital and labour as a whole. Marx considered a reserve army of labour as a necessary component of the success of capital accumulation (Rees, 1992).

The *reserve army of labour* is a surplus pool of labour which can be drawn upon by capital in times of economic expansion and discarded in times of economic decline. Braverman (1974) saw women as an increasing part of the labour reserve as changes in the home enabled them to participate in the labour market. Women were then drawn into the labour market to provide a low paid workforce to fill the unskilled jobs created. Power (1983) argues the reduction in need for input of domestic labour means women will be able to remain in the workforce for the foreseeable future rather than be drawn in temporarily. A major component of the analysis is the increased demand for female labour as the growth of the service sector is dominated by jobs defined as female jobs, new female occupations have been created and some male occupations have been redefined as female.

Beechey (1987) highlighted the role of married women as a potential labour source:

> 'I would argue that married women function as a disposable and flexible labour force in particular ways, and that the specificity of the position of women arises from their domestic role and the prevalent assumption that this is their primary role.' (p48)

This specific position of women in the labour reserve is a function of a number of factors including their low level of unionisation, willingness to take part-time work, less

likely to be entitled to redundancy payments and often their ineligibility for unemployment benefits.

Bruegel (1979) examined the 'disposability' of the female workforce. The analysis only found limited support for the disposability of women. She concluded that women in the manufacturing sector - especially part-time employees - were more likely to lose their jobs than men in this sector. However, women in the service sector were safeguarded from economic downturns due to the overall growth of the service sector and their dominance within its workforce. Dex and Perry (1984) take Bruegel's analysis one step further by considering individual sectors within manufacturing. They found that fluctuations varied within these sub-groups. Though part-time workers suffered more from fluctuation in the economic cycle compared to full-time workers this was the same for men and women.

Ultimately, then, perhaps the basis of women's position in a dual or segmented labour market position as secondary workers who are seen as disposable is a result of the preference of women to work part-time (Beechey 1978, 1987, Beechey and Perkins 1987). Martin and Roberts (1984) found just over half of all women surveyed in 1980 had returned to work part-time after a break, in comparison to about one in five who returned full-time. The incidence of part-time employment cannot either be dismissed as the only work available for women. On the whole it is women's choice to work part-time as results from the Spring 1997 Labour Force Survey indicate 79% of women who worked part-time said they did not want a full-time job compared to only 37.8% of men.

Rubery, Smith and Fagan (1996) also support the idea that women's position as a disposable workforce that can be discarded when no longer needed has changed:

> 'Women can no longer be regarded as a flexible reserve of labour and resist pressure for their participation in employment to be reversed. This resistance is indicated by both participation in education and by falls in fertility rates.' (pIII)

3.6 The social security system

So far this chapter has considered the changes in supply and demand for female labour in terms of the restructuring of the labour market and women's position in the labour force. This final section considers the interaction of women with the social security system and how it may affect the willingness of some to take up employment.

The benefits system is complex and the extent to which some people choose not to take up job opportunities - because they think they will be no better off in work than out of work - is unknown. For women the process is further complicated by the interaction of her employment status with that of her husband or partner. Evidence from a number of commentators has shown there is a powerful relationship between the labour market status of wives with their husband (Joshi 1984, Pahl 1984). Cooke (1987) surmises that controlling for other factors, the wife of an unemployed man is less likely to be in paid employment than her counterpart who is married to an employed man.

Morris(1995) argues there is a perceived disincentive for women to work if their husband is out of work since earnings disregards are low and couples may feel there is little benefit in working if they see no real increase in their earnings:

> 'The associated argument that husbands' unemployment causes wives to withdraw from paid employment, and that benefit regulations present an obstacle to the availability of female labour and a disincentive to female labour-supply flexibility.' (p76)

Joshi (1984) argues that it is the mutual labour market disadvantage which reduces both husband and wife employment opportunities. Hence if they live in an area of economic decline then there is likely to be a high level of both male and female unemployment in the area.

Another influence on the complex association between a couple's employment status is seen by some as the effects of traditional gendered views on a woman's place. Perhaps for some women they do not wish - or for that matter their husbands do not wish them - to take the man's place as main or only breadwinner in order to preserve his position as head of household. Morris (1995 p79) terms this the "bruised machismo effect".

These complex processes are likely to have varying effects on different individuals. Clear evidence is emerging of the continued polarisation of the country into "work-rich" and "work-poor" households (Pahl 1988, Gregg and Wadsworth 1998a). The implications for households where the male loses his job and stays unemployed are bleak. Rather than the creation of a greater incentive for married women to go out to work to provide a replacement income, there would seem by this evidence to be a

greater disincentive-incentive to work unless the woman has the ability and opportunity to command high wages.

3.7 Quantifying female labour market participation

So far this chapter has discussed some of the main issues surrounding the increasing supply and demand of female labour. It is worth noting some specific points with regards to a main measure used to quantify participation rates in the labour market - economic activity rates. These measure the number of women actively participating in the labour market; the employed and unemployed, as a proportion of the female working age population.

Joshi (1989) proffered the view that increase in female economic activity rates has been the most influential factor on the size of the workforce since the Second World War. However, though these figures may look clear cut at surface level, Green (1994) makes the important distinction that though female activity rates have risen, has this so called feminisation of the workforce changed the *quality* of women's experience of the labour market, or are they taking low paid, temporary and/or part time work? That the increase in activity rates are due to the replacement of full-time jobs by part-time jobs is offered by Hakim (1993) as one facet of an argument that in reality there has been little change in the overall level of female workforce participation from 1851 to the late 1980's.

Green (1994) points out that although there have been large increases in overall participation of women in labour markets since 1980, these have primarily been fuelled by the higher re-entry of married women to the workforce. Instead of women taking long breaks from paid work when they have young children an increasing proportion are returning to work ever more quickly whether through choice or necessity. When female activity rates are considered by age it is the 25-44 age group has shown the most noticeable change during the 80's. Sly (1994) concludes from an analysis of sub-groups of the female population from 1981-1993 that economic activity rates of mothers with at least one dependent child has risen faster than for working age females as a whole. The greatest increase in labour market participation has been among women with children aged under 5. Thair and Risdon (1999) also highlight the increasing economic activity rates of women with dependent children.

3.8 Summary

There are a number of key issues raised in the literature which are worth considering when undertaking the empirical analysis of the labour market situation of women in the coalfields:

- There has been increased participation of women in the labour force due to increased supply and demand for female labour. This has occurred against the context of declining supply and demand of male labour.

- Supply of female labour has been influenced by a number of factors including: women obtaining more education, training and qualifications, more rights to employment protection and maternity benefits, fewer women having less children over a shorter period of time, an increasing social acceptance for women to return to work after the birth of children and a greater availability of part-time work.

- Increased economic activity amongst women has been greatest amongst women aged 25-44, married women, and women with children.

- Declining participation of men in the labour force has been driven by de-industrialisation and a decreasing demand for male manual labour.

- Increased participation of women in the labour market has been fuelled by the expansion of the service sector. Employment in this sector tends to be dominated by women workers so as it expands the demand for female labour expands also.

- Decentralisation of manufacturing to more rural and peripheral areas has utilised women as a source of 'green' labour available in these areas.

- Increased demand for labour amongst women is frequently met by drawing in 'green' labour supply from the labour reserve amongst the economically inactive.

- Male and female labour markets tend to be relatively separate. Horizontal segregation by occupation and industry mean that women tend to be concentrated certain types of job and men in others.

The empirical analysis intends to examine to what degree have these processes occurred labour markets in the Great Britain coalfields. Has female labour market participation increased and has it been more rapid amongst various sub-groups of women? Has the industrial structure of the coalfields changed and how is likely to have affected the opportunities of women to work in these areas?

Chapter 4

Methodology

The structural changes which have occurred in the British economy over the past twenty years have been highlighted in the previous chapters. There has been a gradual shift in the nature of employment in terms of the division of labour by sector, the changing location of manufacturing and an increasing feminisation of the workforce.

4.1 Research questions to be addressed

Key themes have emerged from the review of literature concerning the restructuring of the British economy and women's labour market participation. These culminate in the formation of research questions which need to be addressed in the empirical analysis. The questions relate to both the supply and demand for female labour and how this relates to the total supply and demand of all labour within the labour markets of coalfield areas.

- How have the female labour markets in the coalfields performed in the context of the decline of the coal industry? Has the national trend of increasing female economic activity been replicated in the coalfields and does this vary between sub-groups?
- How has the distribution of employment through industrial sectors changed since the decline of the coal industry and has there been a shift in employment towards the service sectors?
- If there is a surplus of male labour supply, has this affected female employment opportunities and is there any evidence of displacement of women from jobs as surplus male labour supply finds employment? Are women drawn on as a green labour supply or if a male labour reserve is present are they more likely to take up new job opportunities? Do male and female labour markets provide one overall pool of labour supply or are they quite distinct labour markets?
- Do traditional measures of unemployment reflect the degree of labour market slack in coalfields or are wider measures of non-employment necessary?

4.2 The geography of the coalfields defined.

Before an analysis of the labour markets within the coalfields could be contemplated, a definition of what areas of Britain actually constitute the coalfields had to be decided upon. No administrative area had previously been defined as the coalfields. This meant usual sources of data available at various spatial scales via NOMIS[1] or MIMAS[2] were not readily utilised for data collection concerning the coalfields.

A working definition of which areas constituted the British coalfields was operationalised (Beatty and Fothergill 1996) which is based not on the geology of coal, but the economic dependence of the male work force on the coal industry. This definition is especially relevant for a labour market study of this type.

Eighteen separate coalfields were defined across Great Britain. Each is a contiguous set of wards in which at least 10% of all resident male population was employed in the coal industry in 1981 (as measured by the Census of Population). In addition a second tier of the geography of the coalfields was defined as 'pit villages'. These were wards where at least 25% of men were employed in the coal industry. Pit villages have a strong self-identity as 'mining communities', but did not have to contain a pit to be included in this definition. Comparable areas were defined using the 1991 ward boundaries taking into account any boundary changes over the ten year period. This facilitates the analysis of data over time.

The definition of the coalfields used in this study has now also been widely used elsewhere and is acknowledged as a useful tool for data collection for the British coalfields. The Department of Environment, Transport and the Regions used the definition in the Coalfields Task Force Report (1998). The Coalfields Regeneration Trust is currently using the definition as the basis for its grant giving programme. Other organisations such as the Princes Trust are also using the definition to monitor grants and target funds to coalfield areas.

A map of the final definition of areas classified as British coalfields can be seen in Figure 4.1. The majority of coalfields had areas of pit villages defined within them. Table 4.2.1 details the eighteen coalfields defined and the population within each area at the time of the 1981 Census.

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[1] NOMIS (National On-Line Manpower Information System). A national data resource providing employment and unemployment data at a variety of spatial scales. Used extensively by local and central government as well as the academic community.

[2] MIMAS (Manchester Information and Associated Services). A national data resource for the academic community. Supplies all major government survey data including the Census of Population.

Table 4.2.1 - Coalfield areas of Great Britain

Coalfield	Population 1981
Yorkshire	1,109,000
South Wales	729,000
Durham	525,000
Nottinghamshire	492,000
Lancashire	385,000
North Derbyshire	299,000
North Staffordshire	284,000
Fife/Central	256,000
North Warwickshire	162,000
Northumberland	138,000
South Derbyshire/North West Leicestershire	122,000
Lothian	116,000
South Staffordshire	99,000
Ayrshire	59,000
Clydesdale	40,000
Kent	35,000
North Wales	21,000
Strathkelvin	17,000

The coalfields cover a wide expanse of England, Wales and Scotland. They account for a substantial section of Great Britain and comprise of nearly five million people, or 9% of the entire population. This emphasises the importance of considering the changing labour market fortunes of the coalfields, since the processes taking place there are likely to affect almost one in ten of the whole nation.

4.3 The data

This study analyses various aspects of the changing nature of female labour markets within Britain's coalfields over the period of 1981-1991. This period covers the rapid decline of the British coal industry. Both the beginning and end of the period are at similar stages of the economy - recession.

Amongst the themes to be investigated are patterns in female labour market participation, adjustment factors which took place in response to major job loss and the changing industrial structure of jobs in the coalfields. For such an analysis to be

FIGURE 4.1 : COALFIELD AREAS OF GREAT BRITAIN

possible a source of detailed data on the nature of labour market participation and economic status of individuals was needed. The requirements from the data included the need for consistent data in terms of definitions, coverage and collection methods used as well as the availability of data for small areas in order to collate material on the basis of the coalfields geography defined.

The only national data set which fulfilled all these criteria was the Census of Population and both the 1981 and 1991 censuses have been used extensively to facilitate an analysis. Other national data resources - such as the Labour Force Survey (LFS) or General Household Survey (GHS) - are sample surveys and are only available at higher levels of resolution.

The use of census data has many benefits, not least the availability of ward level data, the fine level of detail of labour market information collected for individuals and the attempted 100% coverage of all persons and households nationally. Though the most recent census data relates to 1991, it is still the best source of detailed data available for small areas, and no more recent data can substitute for it.

In addition to the main data set generated there are a number of sub-sets of data created via the additional processing of a 10% sample of all census returns. The Special Workplace Statistics are one such data set which have also been used extensively for this study. These contain detailed data not only of residents in employment but, more importantly, of those who actually work in an area.

During the collation of data for this research it was discovered that the 1981 Special Workplace Statistics for Scotland were unavailable in machine readable form. As a result the labour market accounts produced in Chapter 6 are only provided for coalfields and pit villages in England and Wales.

A full description of the collection, collation and coverage of census data is discussed in Appendix 1. Technicalities of comparing Census data over time, adjustments necessary and changing definitions used are covered in this appendix.

4.4 The quantitative methods

This study uses exclusively quantitative methods. It draws on the wide range of census data available, highlighting important aspects of male and female labour market participation, especially change in economic activity over time.

Labour Market Accounts are a research tool used to analyse adjustments in the labour market over the 1981 to 1991 period. Labour Market Accounts have previously been used to study regional and sub regional labour market flows by Begg, Moore and Rhodes (1986), Owen and Green (1989) and Green and Owen (1991). A full description of the technique and its further development to apply it to small areas (Beatty and Fothergill 1996) is covered in depth in Chapter 6 where the technique is used to provide labour market accounts for females in both the coalfields and pit villages.

The analysis also draws on empirical evidence collated by Beatty and Fothergill (1997) and Turok and Edge (1999) both of which draw on the labour market accounts technique detailed in Beatty and Fothergill (1996). The first of these studies investigates the changing participation of men and women in rural areas. The second carries out a similar exercise for British cities. Both these studies provide important comparitors to contrast the coalfields performance with.

Chapter 5

The Social and Economic Characteristics of the Coalfields

This chapter draws on a selection of relevant census data in order to understand the social and economic characteristics of the coalfields in relation to the nation as a whole. Much of the information is provided for the coalfields in entirety, though where appropriate the figures are split by individual coalfields and pit villages.

5.1 Demographic characteristics

In 1991, over 4.9 million people lived in the areas defined as British coalfields to be utilised in this study[1]. The age structure of this population was similar to that of Great Britain as a whole (Table 5.1.1). The data has been divided into three broad age groups; children, the population of working age and those above pensionable age.

Table 5.1.1: Age structure of coalfields and pit villages, Great Britain, 1991

	each age group a % of total population		
	Pit villages	**Coalfields**	**Great Britain**
Males			
0-15	21.8	21.7	21.2
16-64	65.0	65.5	65.4
65+	13.2	12.8	13.3
Females			
0-15	19.8	19.6	18.9
16-59	57.3	57.5	57.2
60+	22.9	22.9	23.8

Data is also provided on the proportion of women who are married by age group (Table 5.1.2). This is provided to highlight change in traditional household structures. The overall proportion of females of working age who were married fell by 7.6 percentage points from 1981-1991 in Great Britain. The decline was even greater in the coalfields with a fall of 8.1% between 1981-1991. This is likely to be a reflection of the national trend towards fewer marriages in Great Britain.

[1] This is the definition derived by Beatty and Fothergill (1996).

Whitmarsh (1995) reported that the number of marriages in Great Britain fell by nearly a quarter from 1971 to 1992. It may be an indication of cohabitation now partly replacing marriage. Alternatively, people may be putting off marriage till later in life. This may offer some explanation in Table 5.1.2 of the large differences between 1981 to 1991 of the percentage of women aged under 30 who are married.

Table 5.1.2 - Proportion of women who are married in coalfields and pit villages, Great Britain, 1981-1991

	Percentage of each age group married					
	1981			1991		
	Pit Villages	Coalfields	Great Britain	Pit Villages	Coalfields	Great Britain
16-19	8.5	7.6	5.7	2.8	2.3	2.0
20-24	56.3	55.0	44.6	31.3	28.7	23.0
25-29	82.0	82.0	75.2	64.0	63.2	55.4
30-34	87.7	87.8	84.2	75.3	75.7	71.5
35-39	88.6	88.6	85.8	80.2	80.1	77.2
40-44	88.3	88.2	85.5	85.5	82.7	79.9
45-49	87.5	86.9	84.3	83.4	83.3	80.4
50-54	84.7	83.8	81.3	82.1	82.1	79.2
55-59	79.1	77.9	75.8	78.7	78.0	75.9
16-59	72.6	72.5	68.3	64.5	64.4	60.7

Though there is little difference in the proportion of women of working age who are married in coalfields and pit villages for both 1981 and 1991, there is a noticeable difference between these levels and the GB average. An additional 4.2% in 1981 and 3.7% in 1991 of working age women were married in the coalfields compared to the level in Great Britain as a whole. This convergence towards the national average is especially noticeable among the younger age groups where by 1991 the prevalence of marriage amongst 16-19 year olds hardly differs from the national average. The trend is most marked amongst the 20-24 year olds where the difference has almost halved in the ten year period; from a level amongst working age women in the coalfields of 10.4% higher than for Great Britain in 1981 to only a 5.7% difference in 1991. Though the contrast between rates of marriage in the coalfields and Great Britain amongst older age groups has stayed consistent over time, these too are likely to converge with the national average as the younger cohorts progress.

This difference (in rates of marriage presented in Table 5.1.2) may be an indication of a more traditional family structure present within the coalfield communities and may have consequences on levels of female participation in the labour market. Changing patterns of marriage are inextricably linked with the economic dependency of women, though it is difficult to determine the cause and effect relationship between the two.

The next section will turn to looking at the differences between individual coalfields on indicators which can be measured with census data. Level of qualifications, staying on rates in further education and the level of car ownership will be considered.

5.2 Indicators of social and economic well being

Table 5.2.1 shows the proportion of households with no car in 1991. Car ownership is 4.1% lower in the coalfields than the national average and this gap widens to 6.1% when the pit villages are considered. Only six of the eighteen coalfields have a level of car ownership higher than the national average when measured in terms of at least one car in a household.

Car ownership can be seen as an indicator of opportunity as well as wealth. Indeed, the Coalfields Task Force Report (1998, p24) acknowledged these lower levels of car ownership and poor transport infrastructure as a hindrance to jobseekers accessing job opportunities and some of the key recommendations from the report sought to address this problem.

A further indicator of opportunity amongst residents in the coalfields is given in Table 5.2.2 where the number of 17 year olds in education is considered. Supply side solutions to labour market problems are not new, the theory goes that the better qualified and skilled the labour force is, the better chances for survival in a competitive world. The current Labour government is especially keen on improving the employability of those not in work as a solution to unemployment.

In 1991 only 33.0% of 17 year olds in the coalfields were in full time education, 7.3 percentage points lower than the national average. When the comparable figures for pit villages are considered the figure falls to 30.5%. Only one of the individual coalfields reached the national average. At the extreme end of the table, the Clydesdale coalfield trailed by nearly 19%. The lowest staying on rate of all was in the

Ayrshire pit villages with only 18.5%, which was less than half the proportion of 17 year olds staying in full time education in Great Britain.

Table 5.2.1 - Total households with no car in individual coalfields, Great Britain, 1991

	Total households	% of total households with no car
Coalfields		
Durham	215,000	46.2
Clydesdale	13,800	44.5
Ayrshire	21,800	42.9
Fife/Central	102,400	42.1
Northumberland	57,000	41.7
Lothian	44,900	40.5
Yorkshire	442,600	37.8
Lancashire	144,000	37.7
Strathkelvin	5,600	37.5
South Wales	280,400	37.2
North Staffordshire	109,400	36.3
North Derbyshire	123,000	36.1
Nottinghamshire	195,600	32.7
Kent	14,900	30.2
North Wales	8,700	28.3
North Warwickshire	62,500	27.1
South Staffordshire	38,700	26.9
S.Derbyshire/NW.Leicestershire	48,800	25.4
Total GB Coalfields	1,929,100	37.5
Pit villages		
Durham	60,200	47.3
Ayrshire	12,800	47.1
Northumberland	36,700	45.2
Lothian	11,100	42.5
Fife/Central	23,200	42.0
Yorkshire	238,900	41.3
North Staffordshire	2,300	41.3
South Wales	81,300	39.2
North Derbyshire	52,900	36.5
Kent	5,500	34.4
Nottinghamshire	97,600	33.4
South Staffordshire	9,100	33.0
North Warwickshire	7,600	29.1
S.Derbyshire/NW.Leicestershire	31,900	28.0
Total GB Pit villages	671,100	39.5
Great Britain	21,897,300	33.4

Table 5.2.2 - 17 year olds in full time education in individual coalfields, Great Britain, 1991

	Total persons aged 17	% of all 17 year olds in full time education
Coalfields		
Clydesdale	500	21.8
Ayrshire	800	22.0
North Staffordshire	3,500	24.8
Lothian	1,600	25.1
Fife/Central	3,300	28.1
South Staffordshire	1,400	29.9
Nottinghamshire	6,600	31.4
North Warwickshire	2,400	32.3
Durham	6,800	32.7
S.Derbyshire/NW.Leicestershire	1,700	32.8
North Derbyshire	3,800	33.0
Yorkshire	14,600	33.4
Northumberland	1,800	33.9
Strathkelvin	200	34.3
Lancashire	5,300	34.6
Kent	400	38.4
North Wales	300	40.1
South Wales	9,600	40.4
Total GB Coalfields	64,600	33.0
Great Britain	698,000	40.3

Attainment levels of further or higher education formal qualifications was even weaker (Table 5.2.3). Less than one in ten of working age residents (18+) in the coalfields had a qualification above A'Level compared to nearly one in six in Great Britain as a whole. No individual coalfield came close to the national average and when pit villages were considered the figures were even more stark. Only 4.7% and 5.3% of residents of working age in the Kent and South Staffordshire pit villages held qualifications at this level. For pit villages as a whole the figure was 7.4%.

Table 5.2.4 shows the proportion of households with no resident in employment in 1991. Again the coalfields and pit villages when taken as a whole have a higher proportion of workless households than the national average. This is not the case across the board though and several coalfields had levels of no earner households below the national average. These include those in the Midlands and central Scotland.

Table 5.2.3 - Qualified residents in individual coalfields, Great Britain, 1991

	total persons aged 18 to pensionable age	% of persons 18-PA with qualifications*
Coalfields		
North Staffordshire	162,500	7.7
Clydesdale	21,800	7.9
Ayrshire	33,500	8.0
North Warwickshire	102,500	8.9
South Staffordshire	63,200	8.9
North Derbyshire	179,700	9.1
Durham	313,900	9.2
Nottinghamshire	297,100	9.4
Lancashire	223,200	9.5
South Wales	415,300	9.5
Lothian/	68,200	9.6
Yorkshire	667,300	9.8
Kent	21,100	10.2
Northumberland	80,500	10.6
Fife/Central	148,700	11.1
North Wales	13,000	11.1
Strathkelvin	9,400	11.3
S.Derbyshire/NW.Leicestershire	74,600	11.5
Total GB Coalfields	2,895,500	9.5
Great Britain	32,210,600	15.4

Notes: *Qualifications - all persons aged 18+ with any of the following three levels of qualifications are included:
a - higher degrees of UK standard
b - first degrees and all other qualifications of UK 1st degree standard
c - qualifications that are (i) generally obtained at 18+; (ii) above A'level standard; and (iii) below UK 1st degree standard

Table 5.2.4 - Total households with no resident in employment in individual coalfields, Great Britain, 1991

	Total households	% of total households with no resident in employment
Coalfields		
South Wales	280,400	43.4
Ayrshire	21,900	42.8
Durham	215,100	42.6
Northumberland	57,000	41.5
Clydesdale	13,800	40.5
Fife/Central	102,400	40.1
Yorkshire	442,600	38.9
Lancashire	144,000	38.6
North Derbyshire	123,100	38.6
North Wales	8,800	38.6
Kent	14,900	37.3
North Staffordshire	109,500	36.8
Nottinghamshire	195,600	35.9
Lothian	44,900	34.4
Strathkelvin	5,600	33.2
S.Derbyshire/NW.Leicestershire	48,800	33.2
South Staffordshire	38,700	31.0
North Warwickshire	62,500	30.0
Total GB Coalfields	1,929,600	39.0
Pit villages		
Ayrshire	12,800	46.2
South Wales	81,300	46.1
Durham	60,200	46.1
North Staffordshire	2,300	45.0
Northumberland	36,700	43.3
Yorkshire	238,900	41.5
Fife/Central	23,200	40.2
North Derbyshire	52,900	40.0
Kent	5,500	37.0
Nottinghamshire	97,600	36.7
Lothian	11,100	36.2
South Staffordshire	9,100	35.0
S.Derbyshire/NW.Leicestershire	31,900	34.8
North Warwickshire	7,600	34.0
Total GB Pit Villages	671,100	41.2
Great Britain	21,897,322	35.6

Economic activity rates will be examined to see if there is any evidence of increased participation amongst various groups of women. It is possible that if there has been an increase in the number of women in paid work then this will have contributed to the numbers of households with at least one member in employment.

5.3 Economic activity rates

Economic activity rates quantify the participation of people of working age in the labour market. They are calculated by taking the total number of people who are actively participating in the labour market, the employed and unemployed, as a proportion of the working age population. This is an important indication of the health of a labour market as often when the demand for labour increases so will the supply and vice versa. Though some of this labour will be provided by the unemployed, there is also a tendency for some of the reserve labour supply, amongst the economically inactive, to also find employment. Various arguments concerning how many of these economically inactive may in reality be defined as unemployed and alternative statistical measures available for unemployment are discussed later in Chapter 8, but for now they will be considered as economically inactive.

The economically inactive are people who, for a variety of reasons, are neither in employment or unemployed. They may be unable to work due to long term illness or disability, be in full-time education or training, have retired early from paid work altogether or fall into the catch all category of 'other'.

This last category includes any people who are of independent means and have no need or desire to work, but for the majority, it is people who due to other commitments are either unable to or have no desire to search for, or take up paid employment. They may be full-time carers, full-time parents or full-time 'housewives'/'househusbands'. This was traditionally seen as the woman's primary role in life, to be responsible for the care of children and running of the family home. The term 'househusband' is included though, as changing attitudes within British society mean that now it is not always automatically the case that only women fulfill these roles.

Table 5.3.1 shows the trends in economic activity rates amongst men and women of working age in Great Britain over the past fifteen years as measured by the Labour Force Survey (LFS)[2]. This data is used here in order to give a more up to date picture of trends in economic activity than census data can offer. The definitions of employment and unemployment used by this large sample survey conform to standard definitions used by the International Labour Office (ILO).

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[2] Labour Force Survey; Government household survey for collection of labour market statistics. Bi-annual 1973-1983, annual 1984-1992, quarterly 1992 to present. Sample size of approximately 60,000 households per quarter. Is conducted as a condition of membership of the EU in order to collate international comparisons of employment and unemployment measures which conform to International Labour Office (ILO) standard definitions.

Table 5.3.1 - Economic activity by sex as a percentage of working age population - not seasonally adjusted, Great Britain, 1984-2000

	Economic activity rates	
	Male	Female
1984	88.1	66.3
1985	88.3	67.3
1986	87.7	68.2
1987	87.7	69.2
1988	88.3	70.1
1989	88.5	71.2
1990	88.5	71.6
1991	87.8	71.3
1992	86.5	70.9
1993	85.6	71.0
1994	85.3	71.0
1995	84.9	70.9
1996	84.8	71.3
1997	84.5	71.6
1998	84.0	71.8
1999	84.3	72.3
2000	84.5	72.8

Source: 1984-1991 Labour Force Survey Historical Supplement 1997
1992-2000 Labour Force Survey, NOMIS
NB Figures relate to the spring quarter

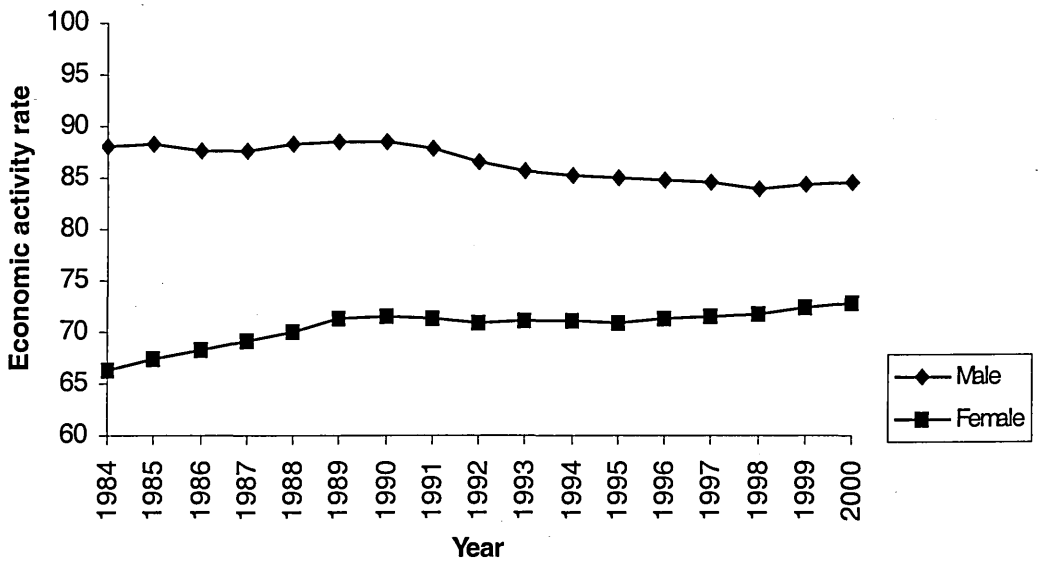
There has been a steady fall in male economic activity over this period from 88.1% in 1984 to 84.5% in 2000. It is worth noting though that the decline in male activity rates has shown a slight improvement in the past couple of years. The trend in female activity rates has been in the opposite direction and experienced greater change, rising from 66.3% in 1984 to 72.8 % in 2000. The convergence of the two series is readily visible when the data is charted in Figure 5.3.1,

This is a clear indication of the increasing feminisation of the labour market as women take an increasingly higher proportion of new jobs. There are more women entering the world of paid employment as the service sector grows. Conversely, the decline of male employment as the increasing mechanisation of heavy industry and production industries requires less labour. The coalfields provide a ideal case in point, with all but 10,000 miners jobs lost from an industry which employed over 200,000 in 1981.

How have the coalfields fared in comparison to the national trends? The level of male and female economic inactivity measured by the census[3] is given for the coalfields for both 1981 and 1991 in Table 5.3.2.

[3] It is worth noting that this measure will differ slightly from the one given in the previous table from the Labour Force Survey. Where as the LFS uses the ILO definitions, the Census is filled in by the individuals in a household and so relies on each person's own self definition of their economic status

Figure 5.3.1 - Economic activity by sex as a percentage of working age population - not seasonally adjusted, Great Britain, 1984-2000



The decrease in male participation over time and the increase in female rates of participation are apparent in Table 5.3.2. There are interesting differences in rates of change in the coalfields and pit villages compared to the national average, particularly when the differences in the male and female labour markets are contrasted.

Table 5.3.2 - Economic activity rates by sex for coalfields and pit villages, and Great Britain, 1981-1991

	Percentage of working age economically active					
	male			female		
	1981	1991	Diff. 81-91	1981	1991	Diff. 81-91
Pit Villages	88.6	81.1	-7.5	56.0	62.1	6.1
Coalfields	89.4	83.0	-6.4	58.5	64.5	6.0
Great Britain	90.4	86.6	-3.8	60.9	67.6	6.7

The decline in male economic activity rates in the coalfields has far outstripped the national average. Compared to the fall of 3.8 percentage points in Great Britain, there was a corresponding decrease of 6.4 % in the coalfields and an even larger fall of 7.5 % in the pit villages. This is likely to be in some part a response to the massive male job loss in the coalfields in this period.

By contrast, the change in female economic activity rates were of a similar magnitude when compared to the nation as a whole. The participation rates for women started from a lower base in 1981 compared to the national average confirming the more

traditional nature of the women's role in these areas as discussed previously. This is most noticeable in the pit villages, where nearly 5 % fewer women than the GB average took an active part in the labour market in 1981. Contrary to the convergence with national trends in marriage (Table 5.1.2) there is in fact a slight widening of the difference in economic activity rates from 1981 to 1991. There was a 6.1 and 6.0 percentage point increase in the pit villages and coalfields respectively compared to an increase of 6.7% in GB as a whole.

Economic activity rates in coalfields are by no means homogenous and growth has varied between coalfields over the 1981-1991 period (Table 5.3.3). Wide variations in female participation rates in coalfield areas in 1981 are apparent, ranging from 66.5% in Lothian to only 52.8% in North Wales. Five coalfields had female activity rates above the national average in 1981; Lothian, North Staffordshire, Strathkelvin, Fife/Central and Lancashire, all areas where traditionally it was the norm for women to be employed in manufacturing and textile industries. There was a similar ranking amongst the pit villages for economic activity rates in 1981 as for the coalfields. However, all pit village areas had slightly lower rates than the wider surrounding coalfield area. Lothian had the highest economic activity rate amongst pit villages and was the only one above the national average. There was also slightly less variance amongst the pit villages in 1981 than the coalfields with a range of 9.9% in pit villages from highest to lowest activity rates compared to 13.7% amongst the coalfields.

From 1981-1991 there were considerable differences in growth of economic activity rates amongst the coalfields. These ranged from an increase of 11.3% in the South Derbyshire/North West Leicestershire coalfield to only 3% in North Staffordshire. Eight coalfields experienced growth higher than the national average - the majority of these were in the Midlands. The coalfields that had activity rates above the national average at the beginning of the period experienced rates of growth below the national average over the ten year period. This led to a slight narrowing of the spread of rates amongst the coalfields to 12.8% and by 1991 only three coalfields now had rates above the national average.

Table 5.3.3 - Female economic activity rates in individual coalfields, Great Britain, 1981-1991

	Female Economic Activity Rates		
	1981	1991	Difference 81-91
Coalfields			
Lothian	66.5	71.9	5.4
North Staffordshire	65.3	68.2	3.0
Strathkelvin	62.4	66.5	4.1
Lancashire	61.6	64.7	3.1
Fife/Central	61.5	66.1	4.6
Nottinghamshire	59.2	66.8	7.5
Clydesdale	58.7	63.5	4.9
Northumberland	58.4	66.7	8.3
South Staffordshire	57.9	67.1	9.2
Durham	57.9	62.6	4.7
Yorkshire	57.8	64.3	6.5
North Derbyshire	56.9	66.0	9.1
North Warwickshire	56.8	66.4	9.6
S.Derbyshire/N.W.Leicestershire	56.7	68.0	11.3
Ayrshire	56.3	60.1	3.8
Kent	54.8	65.4	10.6
South Wales	54.7	59.1	4.4
North Wales	52.8	62.1	9.3
Total GB Coalfields	58.5	64.5	6.0
Pit Villages			
Lothian	65.9	69.6	3.7
Fife/Central	60.1	65.8	5.7
North Staffordshire	58.5	54.3	-4.2
Northumberland	57.6	65.5	7.9
South Staffordshire	57.5	64.4	6.8
Nottinghamshire	57.0	64.9	7.9
Ayrshire	56.6	57.6	1.0
Yorkshire	56.1	61.4	5.2
Durham	56.1	59.6	3.5
S.Derbyshire/N.W.Leicestershire	56.1	67.0	10.9
Kent	54.4	63.7	9.3
North Warwickshire	54.3	64.3	10.0
North Derbyshire	54.3	63.2	9.0
South Wales	52.0	56.6	4.5
Total GB Pit Villages	56.0	62.1	6.1
Great Britain	60.9	67.6	6.7

The pit villages also experienced a wide range of growth in economic activity rates. Again, the pit villages of the Midlands tended to do well and those which had highest levels of economic activity in 1981 tended to perform below the national average. The

figures for the area defined as North Staffordshire pit villages should be treated with caution. Though they have experienced a fall of 4.2% in the female economic activity rates from 1981-1991 this is the smallest pit village area defined and only consists of 2 wards. The resident population of 6,800 in 1981 had declined by over 7% by 1991 and out-migration of economically active women or one major factory closure could have affected the rates quite dramatically.

The similar growth in female economic activity rates in the coalfields as a whole compared to the national average is worth considering in the light of a previous study of a similar nature investigating labour market change over the same period in Rural Development Areas (Beatty and Fothergill 1997). This study considered areas with the worst social and economic problems of rural England and covered a population of nearly 3 million people. They are areas which have also traditionally experienced low levels of female participation in paid employment. The female economic activity rates began from a low base in 1981 of only 53.6%. However growth was rapid and by 1991 they had surpassed levels in the coalfields and gone a long way to catch up with the national average with an increase of 11.3 percentage points to a female economic activity rate of 64.9%. The differences in the expansion of female employment in the coalfields compared to Rural Development Areas will be considered in later chapters. In Chapter 7 the sectorial split of employment amongst the female labour market will also be considered to see if this throws some light on the slightly slower growth of female activity in the coalfields relative to the national average.

In order to investigate further the nature of increased activity rates amongst women in the coalfields tables 5.3.4 to 5.3.6 consider women not as a homogenous group but rather in terms of the very different labour market participation patterns amongst women who are married compared to those who are not. Perhaps a more appropriate split of the data given the earlier discussion of declining rates of marriage would be those women who are married or cohabiting versus those who are not. However, the data does not provide any detailed economic status data split on this basis and no analysis would be possible over time. This was due to how the question was asked in 1981 regarding the relationship of each member of the household to each other. In 1991 a category for 'living together as a couple' was provided for the first time (Dale 1993a p41). In 1981 this was not available and though respondents who gave responses such as 'cohabitant' were added to output using the antiquated term 'de facto spouse' and it is likely that this underestimated the true level of people living together as couples. Therefore the following tables are split by married or single/widowed/divorced women. This enables consistent data to be looked at over

time. The single, widowed and divorced category is not split into its individual components as detailed tables of economic status are only available for the group as a whole.

The importance of investigating changes in economic activity rates amongst women who are married versus those who are either single, widowed or divorced and disaggregated by age was highlighted earlier in Chapter 3 (Green 1994). Previously in Table 5.3.2, the coalfields were found to have increases in economic activity of broadly the same magnitude as national trends when women of all marital status's were considered. It can be seen from Table 5.3.4 that this change was not distributed evenly amongst married and non-married women or age group.

Table 5.3.4 - Economic activity rates by marital Status and age in coalfields and pit villages, Great Britain, 1981-1991

	Pit villages			Coalfields			Great Britain		
	81	91	diff. 81-91	81	91	diff. 81-91	81	91	diff. 81-91
married									
16-24	47.7	56.8	9.1	52.0	60.0	8.0	53.7	61.7	8.0
25-44	52.9	65.0	12.1	55.6	67.3	11.7	55.8	67.7	11.9
45-59	51.4	54.5	3.1	55.2	58.4	3.2	59.6	64.8	5.2
16-59	51.8	60.6	8.8	55.1	63.6	8.5	56.9	66.3	9.4
single/widowed/divorced									
16-24	71.2	67.7	-3.5	69.5	67.3	-2.2	66.6	66.2	-0.4
25-44	67.4	65.6	-1.8	70.4	68.6	-1.8	77.0	75.4	-1.6
45-59	54.0	53.4	-0.6	58.0	56.3	-1.7	68.1	66.2	-1.9
16-59	67.2	64.8	-2.4	67.5	66.1	-1.4	69.5	69.7	0.2

The economic activity rate for married women has expanded rapidly. There was an increase of 9.4 percentage points in Great Britain between 1981 and 1991 according to the Census. The coalfields followed suit but again at a slightly slower pace with an increase of 8.5% over the same period. The pit villages experienced a slightly higher rise of 8.8%.

The small convergence between the economic activity rates of married women in the coalfields and pit villages may be an indication of the labour markets becoming more similar. Perhaps a factor in this trend is that as the high economic dependency on the coal industry within the pit villages is lost they become more like the surrounding areas. Worth note from Table 5.3.4 is that the gap between activity rates amongst married women in the coalfields and the national average is increasing, from 1.8% in 1981 to

2.7% in 1991 and for the pit villages from 5.1% to 5.7%. There are many factors which may have had a bearing on the slightly slower growth in economic activity amongst married women in the coalfields, not least an availability of jobs. One other factor may have been that some married women were deterred from entering the labour market as employment would not now be a source of additional household income but the only one. This is especially so with part-time work. Whereas part-time work can be a useful source of extra income, it is unlikely to provide enough income if the woman becomes the sole earner in the household. Benefit rules in relation to means tested benefits have a very low disregard for income earned from part-time work. This means very little of the income actually goes to the claimant and is likely to provide a disincentive to continue with or take up part-time work - if it is available - if a partner is in receipt of unemployment related benefits. The growth of work-poor and work rich households has grown as a phenomenon in Britain and there is an increasing divide between the no-earner and two earner households (Gregg and Wadsworth 1998a).

Economic activity rates amongst married women for individual coalfields are considered in Table 5.3.5. The Fife/Central, Strathkelvin and Lancashire coalfields, as noted earlier, are all areas where traditionally women have been well represented in textile and clothing industries. All experienced increases below the national average and dropped from levels above the national benchmark in 1981 to below it in 1991. Lothian and North Staffordshire also with a traditional of women working, did however, manage to stay above the national average, although they too experienced below the average Great Britain growth. This lower than national rate of growth may be an indication of a declining manufacturing sector in these areas or perhaps a reflection that the already high participation rates have less capacity to expand.

Eight coalfields experienced increases in economic activity rates amongst married women which were above the national average. The majority of these were in the Midlands or were very small coalfields. These small coalfields - North Wales and Kent - had a very low female economically active base in 1981, so small absolute increases in the workforce would translate into large percentage increases in the economic activity rate. A small convergence of rates amongst the coalfields occurred from 1981-1991, as although eight increased above the national rate, the numbers of coalfields with economic activity rates amongst married women above the national average fell from five in 1981 to three in 1991.

Table 5.3.5 - Married female economic activity rates for individual coalfields, Great Britain, 1981-1991

	Married Female Economic Activity Rates		
	1981	1991	Difference 81-91
Coalfields			
Lothian	63.4	71.7	8.2
North Staffordshire	63.0	68.0	5.0
Lancashire	58.9	64.3	5.4
Strathkelvin	58.7	64.2	5.4
Fife/Central	57.5	65.3	7.8
Nottinghamshire	55.8	65.5	9.7
Northumberland	55.1	66.4	11.3
South Staffordshire	54.7	65.1	10.4
Yorkshire	54.4	63.2	8.7
Clydesdale	54.2	61.3	7.1
Durham	53.8	62.1	8.3
North Warwickshire	53.5	64.9	11.4
North Derbyshire	53.0	64.2	11.2
S.Derbyshire/N.W.Leicestershire	52.3	66.3	14.1
South Wales	51.8	59.1	7.3
Kent	50.6	64.4	13.8
Ayrshire	50.3	57.4	7.2
North Wales	47.9	61.0	13.2
Total GB Coalfields	55.1	63.6	8.5
Pit Villages			
Lothian	62.5	68.9	6.3
Fife/Central	55.1	64.6	9.4
North Staffordshire	54.1	54.5	0.4
Northumberland	53.9	64.7	10.8
Nottinghamshire	52.8	62.7	9.9
South Staffordshire	52.8	61.5	8.8
Yorkshire	52.3	59.9	7.6
S.Derbyshire/N.W.Leicestershire	51.5	65.3	13.8
Durham	51.4	58.7	7.2
Kent	50.2	63.5	13.3
Ayrshire	50.1	54.9	4.8
North Derbyshire	49.6	60.9	11.3
North Warwickshire	49.6	61.7	12.1
South Wales	47.9	55.7	7.8
Total GB Pit Villages	51.8	60.6	8.8
Great Britain	56.9	66.3	9.4

Amongst the pit villages little changed in terms of the range and rankings of economic activity rates amongst married women. The range of rates was virtually the same for both 1981 and 1991 and only Lothian was above the national average in both 1981 and 1991.

Economic activity rates for women who are single, widowed or divorced are now considered (Table 5.3.6). Though levels were relatively stable nationally over the ten year period with 0.2% more women of working age economically active by 1991, in the coalfields the rates fell and by 1991 were 1.4% lower than in 1981. Within the pit villages the fall was greater with a 2.4% decline. This widened the gap between the coalfields and Great Britain to 3.6% in 91 with the pit villages now almost 5% adrift from the national average.

The falls experienced amongst single widowed and divorced women within certain individual coalfields are also worthy of note. Twelve coalfields experienced a decline in activity rates amongst non-married women. Those coalfield labour markets which continued to expand participation of single, widowed and divorced women were again situated in the Midlands. The coalfields also converged slightly between 1981-1991.

Amongst the pit villages however, the difference between the highest and lowest activity rate increased from 11.1% in 1981 to 17.0% in 1991 and only two pit village areas experienced any growth in non-married economic activity rates. This contributed to the pit villages with the lowest level of economic activity amongst non-married females being 15.7% adrift of the national average compared to coalfield with the lowest rate being 7.1% lower than the national average.

There are a number of possible explanations as to the decline. The glut of labour supply from men may have had an effect on women's opportunities to work. Perhaps a greater number of female workforce become discouraged workers due to this surplus of male labour. The changing patterns of marriage discussed earlier in this chapter may have a bearing as this may be associated with an increase of children born to women outside marriage. If a greater number of mothers now fall into the single/widowed/divorced classification then participation rates may be lower due to an increased level of full-time parenthood amongst this group.

Table 5.3.6 - Single, widowed and divorced female economic activity rates for individual coalfields, Great Britain, 1981-1991

	Single/Widowed/Divorced Female Economic Activity Rates		
	1981	1991	Difference 81-91
Coalfields			
Lothian	74.0	72.4	-1.5
Fife/Central	71.5	67.6	-3.9
North Staffordshire	71.3	68.7	-2.6
Strathkelvin	71.2	70.7	-0.5
S.Derbyshire/N.W.Leicestershire	71.1	71.5	0.4
Ayrshire	70.3	65.2	-5.1
Nottinghamshire	68.8	69.1	0.3
Clydesdale	68.4	67.5	-0.8
Lancashire	68.4	65.3	-3.0
North Derbyshire	67.9	69.4	1.5
Durham	67.8	63.5	-4.3
South Staffordshire	67.6	71.0	3.4
Northumberland	67.5	67.2	-0.3
North Warwickshire	67.2	69.2	2.0
Yorkshire	66.8	66.5	-0.4
Kent	65.7	67.3	1.6
North Wales	64.7	64.0	-0.7
South Wales	62.2	59.1	-3.1
Total GB Coalfields	67.5	66.1	-1.4
Pit Villages			
Lothian	73.5	71.0	-2.6
Fife/Central	72.8	68.1	-4.7
Ayrshire	71.7	62.6	-9.1
S.Derbyshire/N.W.Leicestershire	70.8	70.7	-0.2
South Staffordshire	69.6	69.5	-0.1
Nottinghamshire	69.3	68.9	-0.3
North Warwickshire	68.6	69.8	1.2
Durham	67.6	61.3	-6.3
North Derbyshire	67.5	67.6	0.1
Northumberland	67.4	66.9	-0.4
North Staffordshire	67.1	54.0	-13.1
Yorkshire	66.2	64.0	-2.2
Kent	65.9	64.0	-1.8
South Wales	62.4	58.1	-4.3
Total GB Pit Villages	67.2	64.8	-2.4
Great Britain	69.5	69.7	0.2

The 1991 census cannot provide data sub-divided by the same groups as the LFS analyses referred to above. The census is though, the only source of data which provides the small area data necessary to look at the coalfield areas. Table 5.3.7 will instead split data on a similar but not equivalent basis. This utilises tabulations available for women in couple households with children disaggregated by pre-school

and school age. The data is not however confined to women of working age and includes those aged 16 and above. This data is also not available in the 1981 Census so no comparisons over time are possible.

Table 5.3.7 - Economic activity rates of women in 'couples'* by age of children within household in coalfields and pit villages, Great Britain, 1991

		In households with		
	no person aged 0-15	person aged 0-4 only	person aged 5-15 only	person aged 0-4 and 5-15
Pit villages	41.3%	42.2%	67.1%	39.2%
Coalfields	43.5%	46.7%	69.6%	42.5%
Great Britain	47.9%	46.6%	71.1%	43.4%

*This includes married and cohabiting women

The lower rates of economic activity in pit villages compared to coalfields is again apparent. For all but one of the categories of women in couples, the GB average participation rates were higher than in the coalfields and pit villages.

The most notable difference between rates of economic activity in both pit villages and coalfields versus the national average are amongst women with no dependent children. In the pit villages this group lagged by over 6 percentage points from the national average. This group may be dominated by older women whose children have grown up. More traditional values may still be held amongst the older generation in coalfield areas and a woman's place may still be seen as predominately at home.

Overall the examination of economic activity rates has raised some interesting lines of investigation which are worth following.

- Nationally, female economic activity rates are rising, though the growth has predominantly been amongst married women. Over the ten year period this has resulted in a convergence between labour market participation rates amongst married and non-married women.

- The increase in economic activity rates amongst women as a whole was slower in the coalfields and pit villages than nationally. This was due in part to smaller increases in activity rates amongst married women in coalfields and pit villages than nationally. For single/widowed/divorced women in coalfields and pit villages the economic activity rates declined compared to a small increase nationally.

- Coalfields which experienced above average rates of growth for both married and single/widowed and divorced women were within the Central English coalfields and Kent.

- The slowest rates of growth amongst married women and the largest falls in participation of S/W/D women were concentrated in the more industrial northern and Scottish coalfields.

- The gap in economic activity rates for both men and women between the national average and the coalfields and pit villages has increased over time.

The major changes which occurred in the patterns of labour market participation point towards the need to investigate the increase in labour supply in the context of the labour markets as a whole. How has the additional supply been absorbed into the labour force? Has there been a corresponding increase in demand for labour or are women leaving the area or searching and finding work elsewhere? In the following chapter labour market accounts for women will be analysed and compared to male labour markets in the coalfields. Female labour markets for areas experiencing similar problems of large scale male job loss or conversely no male job loss will also be examined to try and determine how female employment prospects within the coalfields may have been affected by the lack of employment opportunities for men.

Chapter 6

Labour Market Accounts

The previous chapter laid the foundation for the understanding of female labour markets in the coalfields of Great Britain. They are areas of traditionally low active participation of women in the labour market. Though this has increased from 81-91, the rate is slower than the national average and hence the female economic activity rates are diverging from the national trend. This is in the context of major male job loss due to the decimation of the coal industry that has contributed to falling male economic activity rates and contraction of the number of men employed.

As the previous chapters have emphasised, the processes occurring in labour markets during times of massive fluxes of supply and demand are by no means straightforward. Logically one would expect a large job loss to feed though into an equivalent rise in unemployment. Conversely a new source of employment in an area would be expected to soak up a certain amount of surplus labour and reduce the level of unemployment. However, far from there being a easily defined relationship between supply and demand and how this affects unemployment, there are in fact a range of processes in between which diffuse the interaction of one process on the other.

6.1 Methodology of labour market accounts

In order to get a clear picture of the processes that actually took place in the coalfields during the 1981-91 period, labour market accounts have been assembled. This quantitative method of assessing labour market flows in the form of balance sheets or accounts is based on a relatively simple concept. The Cambridge Economic Policy Group (1980, 1982) first applied the method in a UK regional context. Begg, Moore and Rhodes (1986) furthered the methodology by successfully applying it to British inner city areas over the 1951-81 period. Others have also seen the benefits of the methodology in quantifying labour market flows at a sub-regional level. Owen and Green (1989) and Green and Owen (1991) utilised the procedure for an analysis of all travel to work areas for the 1981-84 and 1984-87 period though the availability of data for a non censal period meant a greater level of imputation was needed.

The methodology used in this study is based on one developed during a year long

project funded by the ESRC (Beatty and Fothergill 1996). This developed labour market accounts for males in the GB coalfields in the context of the 1981 and 1991 Census of population and enabled technicalities concerning differences in definition and coverage to be tackled. A full analysis of the intricacies of the male labour market accounts derived through this previous study are provided in Beatty and Fothergill (1996) and Beatty, Fothergill and Lawless (1997a). The successful techniques were further applied to assess Rural Development Areas over the same period (Beatty and Fothergill, 1997).

The present thesis complements the original study of the coalfields in 1995 by applying the same methodology to the female labour markets of the coalfields. This side of the picture was not covered in the original study as it fell outside the original remit of the research proposal. It became apparent during the analysis of the male labour market accounts that application of the successfully developed technique could potentially provide a wealth of information for the female labour markets.

The male labour market accounts will also be discussed in this chapter as it is impossible to understand the female labour market in isolation. The analysis of the accounts shows major loss of male jobs and the adjustments in patterns of labour market participation which took place as a result. These are needed to understand the context of female labour market change. In addition, the analysis of female labour market accounts provided by the RDC study provides an important comparitor for the coalfields, and recent work carried out by Turok and Edge (1999) enables change in British cities also to be considered.

The accounts calculate the components of change that occur in conjunction with employment and unemployment change and illustrate succinctly how the interaction of labour supply and demand feed through to unemployment. This simple arithmetic account can be adjusted to suit specific cases. The account below is appropriate for the female labour markets in the coalfields.

	NATURAL CHANGE IN WORKFORCE
PLUS	**INCREASE IN LABOUR FORCE PARTICIPATION**
MINUS	**NET OUT-MIGRATION**
MINUS	**INCREASE IN NET OUT-COMMUTING**
MINUS	**INCREASE IN EMPLOYMENT**
MINUS	**NUMBER ON GOVERNMENT SCHEMES**
EQUALS	**CHANGE IN UNEMPLOYMENT**

The main source of data is the 1981 and 1991 Census of Population and the Special Workplace Statistics which are derived from census data. These provide detailed information on the labour markets of not only the residents in the area but also those who actually work in the area. This enables levels of commuting to be calculated for inclusion in the accounts as well as employment change.

To determine levels of natural increase to the workforce a complex cohort projection model was constructed to project the 1981 age structure forward to 1991. Age and gender specific survival rates were calculated and applied to the 1981 age structure.

The cohort model also enabled net out-migration to be derived by subtracting the actual population in 1991 from the projected population for 1991. All of the other sources of labour market adjustments could be directly measured from the 100% Census data including change in economic activity and unemployment.

The figure provided for government schemes is a direct count of those in this category in the 1991 census. This was due to those on Government schemes in 1981 not being identified as a separate category in the census. Though the Youth Opportunities Programme existed in 1981 for the young unemployed or those looking for training these people were either classified as in employment or education in the 1981 census.

The final result is a straight forward arithmetic account which can utilise an enormous amount of data collection, and summarise the processes taking place in labour markets over time in a simple sum. The definitional problems discussed earlier in Appendix 1 have been overcome and, though there is some overall residual effect, which has been incorporated into the economic activity variable, this is not large and is likely only to affect marginally the magnitude of change recorded in the accounts and unlikely to affect the direction.

The following section describes each component in the accounts in detail.

6.2 Components in the accounts

All components of the accounts below refer to men and women of working age. For men this encompasses those aged 16-64 and for women 16-59. The relevant question in the Census asked the respondent to say what each member of the household was doing the previous week.

Natural increase in workforce

For this component, the expected additional number of people who reach working age and join the potential labour force over the 1981-91 period is calculated. This increase is the excess after those leaving the workforce through death or reaching retirement age are taken into account. The actual measure is calculated as the difference between the actual population aged 16-59/64 in 1981 and the projected population for 1991. The projections were produced by creating a cohort survival model which estimates the 1991 population. The Vital Statistics from the Office of Population Censuses and Surveys (OPCS) provide numbers of births and deaths by sex and by quinary age group and were used to create 10 year district level survival rates. The relevant district rates were then applied to the 1981 population age structure on an individual ward by ward basis. These are then re-aggregated to create projected 1991 population figures for each coalfield.

Increase in economically active

Economic activity is a measure of labour force participation. It includes not only those who are in employment, whether it be as an employee, self-employed or on a government scheme, but also those who are unemployed or temporarily sick. An economic activity rate was calculated for both the 1981 and 1991 workforce. The difference in rates over the period was then multiplied by the 1991 population of working age adjusted to a 1981 population base. This component in the accounts also incorporates the residual though this did not alter the measure significantly from the change in economic activity when measured directly.

Net out-migration

This is the overall change in the number of the working age population who either left the coalfields over the period or moved into the area. It does not take account of the flows in and out of the area over the period but rather gives a net out-flow from the area 1981-1991. This component is measured as the difference between the actual population of working age measured by the 1991 Census adjusted to a 1981 base and the expected population for 1991 derived from the cohort projection model which is also calculated on a 1981 population base. The difference measures net population change not accounted for by natural increase and are either those who have either left the area over and above the number who moved in or alternatively if there is net in-migration to the area, in which case this will be represented by a negative figure on the accounts of this component, this will indicate the number of people who moved to the area during the period over and above those who left.

Increase in Net Out-Commuting

Again this component measures a net flow. As stated earlier the 1981 and 1991 SWS give information on residents in employment and people actually working in the zone. Obviously there is some overlap between these two groups but a net flow of people who live in the area but work elsewhere can be calculated. A net out-commuting flow is calculated for both 1981 and 1991 as the number of people who work in the coalfields minus the residents in employment for each year. The difference between both levels of net out-commuting in 1981 and 1991 provides this measure of increase in net out-commuting over the period. The England and Wales adjustment factors are applied to all of the 1981 workplace based counts accordingly to take account of those with no fixed workplace. The same rule applies as for the previous component and any negative figure is an indication of increase in net in-commuting to the area.

Increase in Employment

This is a straightforward count of the difference in the number of jobs located in the coalfields in 1981 and 1991. The figures are supplied by the Special Workplace Statistics and the English and Welsh adjustment factors are again applied to the 1981 workplace based figures.

Number on Government Schemes

As mentioned previously this was not categorised as a separate category in 1981. This component is therefore the working age population who were on a government scheme in 1991 as measured by the 1991 Census.

Change in Unemployment

The difference between the working age population who were unemployed in 1981 and 1991 as measured by the Census. This is likely to give a truer indication of levels of unemployed women than the Department of Employment claimant count as the category is self reported and not dependent on whether they are eligible for benefit. It includes those who said they were unemployed and looking for a job in the previous week or were waiting to start a job they had already accepted.

6.3 Female labour market accounts

The female labour market accounts presented here demonstrate the processes occurring amongst one section of the labour force in the coalfields - women. These

will later be compared to the processes occurring in the parallel male labour market and also female labour markets in different types of local economies.

Table 6.3.1 clearly indicates an expanding female labour market. The first point to note is that increases in the numbers of females employed does not necessarily lead to a straightforward reduction in the number of unemployed.

The largest component of change in the female labour market accounts for coalfields was an increase in the number of economically active women. Hence, the additional labour supply needed to sustain increased demand is not drawn entirely from the current stock of labour, but a fresh source is supplied from the previously economically inactive women, a portion of whom provide a labour reserve. These were women who formerly neither took part in paid employment nor were unemployed, many may have been full-time mothers, housewives or carers. This reservoir of untapped labour has added an extra 76,300 women available for work to the labour market. Overall this led to a rise in economically active females, equivalent to 6.0% of the female population of working age in 1981. So though these have traditionally been areas with lower involvement of women in the labour market, they have not been passed by in this decade of rapid growth in female participation in labour force.

Table 6.3.1 - Female labour market accounts for coalfields, England and Wales, 1981-91

		Number of females	As % of resident females of working age (16-59) in 1981
	Natural increase in workforce	42,400	3.3
PLUS	Increase in economically active	76,300	6.0
MINUS	Net out-migration	22,300	1.8
MINUS	Increase in net out-commuting	16,900	1.3
MINUS	Increase in employment	68,500	5.4
MINUS	Number on government schemes	14,900	1.2
EQUALS	Increase in unemployment	-3,800	-0.3

By far the largest component in the accounts, after the increase in economic activity, was an increase in demand for labour with an additional 68,500 females in employment by 1991. The female labour market accounts demonstrate that the demand for labour is counterbalanced by the supply. As the demand has risen so has the supply from the labour reserve. Of course this is not to say that demand is the only factor influencing the increased participation, changing social factors discussed in

previous chapters will have played an important part in the process, with an increasing number of women choosing to go to work for other than purely economic reasons.

It is also not the case that all of the increase in supply was from the rise in economic activity, in addition there was a 42,400 natural increase in the labour force or 3.3% of the female working age population in 1981. This substantial growth in the population of working age is due to larger numbers of young people who are a result of the 1960s 'baby boom' and reached working age in the 1980s. Additional workers may also have been drawn from the stock of unemployed. Indeed since the supply was greater than the demand, there is no guarantee that all of those who entered the labour force necessarily found employment.

The number of females unemployed fell over this period by only a little under 4,000. This poses an anomaly as to how it is that though the number of jobs has increased substantially unemployment has only decreased slightly. The answer lies in the major differences between non-married and married women's participation rates. As the previous chapter explained whilst there have been increases in the overall number of women economically active, this has been due to growth in participation amongst married women but economic activity has actually decreased in the coalfields amongst single, widowed and divorced women. Since many married women are ineligible for unemployment benefit if they have a partner in work, the increased participation is likely to have taken the form of employment, few, if any, will be added to the ranks of the unemployed and correspondingly few will be removed from the unemployment stock as this is likely to be dominated by single, widowed or divorced women who do not receive financial support from a partner in work.

The small reduction in the unemployed could also indicate that the jobs created are possibly of a type that may be more acceptable to married women in a household where there is already one income and juggling family commitments often makes part-time work preferable and the corresponding lower wages associated with it more palatable.

For those who are single, widowed or divorced the additional demand created by full - time jobs which provide an income above benefit levels, in addition to covering the cost of any childcare may not be as abundant. Hence many of the new jobs may be filled by the additional participants in the labour market rather than the stock of unemployed.

The growth of government schemes may also have played a part in the reduction of the unemployed. With nearly 15,000 women in the coalfields on government schemes in 1991 this may now be providing an alternative training option instead of being unemployed. Though there may have been some women in similar schemes in 1981 and which were then either classified as in full-time education or in employment if the training took the form of an apprenticeship, this is likely to have been a smaller proportion than men who entered traditional apprenticeships. Hence, government schemes may now be providing a training alternative for some rather than being unemployed.

The remaining adjustment processes in the accounts soaked up the additional labour supply. There was an increase in net out-commuting of nearly 17,000, or 1.3% of the female working age population. This may be evidence that employment opportunities for females are not only increasing within the coalfields but also in the surrounding labour markets and possibly at a more rapid rate. Perhaps this is an indication of an increase in employment in the growth sectors of the service industries which are often dominated by female workers and given the nature of the coalfields labour market may be more likely to be located in surrounding local towns.

A net loss of 1.8% of females of working age in 1981 through out-migration removed 23,000 women from the labour supply. The women who have left, possibly as a result of their partner leaving or perhaps in search of better education or employment opportunities, may also have been influenced by the level of demand not keeping up with supply of labour.

Table 6.3.2 shows the corresponding accounts for females within the heart of the coalfield communities, the tighter definition of pit villages which constitute approximately a third of the coalfields.

Many of the components of adjustment in the pit villages were of a similar magnitude to these in the coalfields as a whole. There was a large increase in the numbers in employment but unemployment was relatively stable, as in the coalfields, and only fell by less than a thousand. Numbers on government schemes in pit villages, when expressed as the percentage of the female working age population in 1981, was the same as the percentage in the coalfields as a whole.

Table 6.3.2 - Female labour market accounts for pit villages, England and Wales, 1981-91

		Number of females	As % of resident females of working age (16-59) in 1981
	Natural increase in workforce	14,500	3.1
PLUS	Increase in economically active	33,500	7.2
MINUS	Net out-migration	22,300	4.8
MINUS	Increase in net out-commuting	-1,600	-0.3
MINUS	Increase in employment	22,500	4.8
MINUS	Number on government schemes	5,700	1.2
EQUALS	Increase in unemployment	-900	-0.2

The final component which replicated the pattern found in the coalfield accounts was for natural increase in the workforce which added 14,500 women, or the equivalent of 3.1 % of the female working age population in 1981, to the 1991 supply of labour.

In pit villages, the increased supply of labour provided by the rise in female economic activity was at a higher level than in the coalfields, but at the same time the demand created by new employment was lower than that experienced in the coalfields.

Given this higher degree of mismatch between supply and demand in the pit villages, the major intermediary factor which compensated for the excess labour supply was an increase in net out-migration. This adjustment removed 22,300 women of working age from the labour market and was more than two and a half times higher than the rate for women in the coalfields as a whole. Some of these net out-migrants may have previously filled jobs in the area. As they leave the potential supply of labour available in the area, previously economically inactive women in the labour reserve may have been drawn into the workforce to replace them. Hence some of the previously economically inactive women may begin to work without an associated net rise in employment as they are filling jobs which already existed.

The final component in the accounts, net out-commuting, actually declined over the ten year period, though admittedly by only a small amount. This may have meant that fewer women travelled outside their area for work or alternatively that more women may have travelled into the area for work or a combination of the two. Either way, this component points to differences between opportunities to work for residents and actual jobs in the area. When the coalfields as a whole are considered the increase in both

resident females in employment and actual female jobs within the area grew at the same rate, 12.2%, and net-out commuting increased slightly. In the pit villages, however, there was a higher rate of growth of female jobs in the area at 12.9% compared to an 8.5% increase in the number of resident females in employment. This may point to more women finding work locally and not having to travel further afield for a job.

Overall, both sets of accounts present the picture of expanding female labour markets with additional labour supply drawn from the labour reserve amongst those classed as economically inactive. An increasing number of women take part in paid employment and, in the case of the coalfields also travelling further afield to do so.

The expansion of the female labour market in coalfields raises the question, how does this compare to the parallel male labour force. Does the gender division of labour mean that very different labour market processes can be concurrent in the same geographic space?.

6.4 Male labour market accounts

The male labour market accounts presented within this section are in a slightly different form than previously published. For the purposes of this study, components in the accounts are presented in terms of percentage of working age male residents instead of economically active males. This is to allow easy comparison between male and female accounts. Because of the higher level of economic activity amongst males this would make absolute change seem relatively larger amongst women because of the smaller denominator for economically active. It should be remembered also that the accounts concern the entire male labour force of an area and not just ex-miners. The comparison of the male labour market accounts in Table 6.4.1 with the female accounts from earlier (Table 6.3.1) highlight the very different levels of demand in male and female labour in the coalfields.

The male accounts reveal the magnitude of the decline in male employment in the coal industry. Nearly 160,000 jobs lost in just a ten year period, equivalent to 11.4% of the male population of working age in 1981. In addition to this, the natural increase in the workforce also added over 62,000 men to the labour supply, the equivalent of an additional 4.4% of men of working age in 1981. The fact that complex adjustments in the labour market took place over this time is at once evident when it is seen that though there was such a major increase in the supply of male labour of over 220,000

men, unemployment barely changed at all with an increase of only 500 compared to the level in 1981. This once again shows, as in the female accounts, that a major change in employment does not necessarily lead to an equal and opposite change in unemployment.

Table 6.4.1 - Male labour market accounts for coalfields, England and Wales, 1981-1991

		Number of males	As % of resident males of working age (16-64) in 1981
	Job loss in coal	159,400	11.4
PLUS	Natural increase in workforce	62,100	4.4
MINUS	Net out-migration	59,600	4.3
MINUS	Increase in net out-commuting	4,500	0.3
MINUS	Reduction in economically active	84,700	6.1
MINUS	Increase in non coal jobs	44,900	3.2
MINUS	Number on government schemes	27,300	2.0
EQUALS	Increase in unemployment	500	0.04

So if these men were not adding to the stock of the unemployed then what had soaked up this large additional supply of labour? The logical expectation would be that if they were not unemployed they have found alternative employment. However, from the accounts it can be seen that the increase in employment in sectors other than coal accounted for an additional 45,000 jobs. These new jobs can be seen as a success story for the regeneration efforts within the coalfields as is evident by the fact that male employment in sectors other than coal fared some 10 percentage points better than the economy as a whole. The increase though is still nowhere near replacing the jobs lost in the coal industry and only accounts for just over a quarter of the loss.

These major differences in changes in employment for men and women in the coalfields indicates their labour markets may indeed be very separate. For men the balance of jobs lost after additional employment in other sectors is taken account of represents an overall decline of 114,500 jobs or the equivalent of 8.2% of the male population of working age in 1981. This compares starkly with the change in employment presented in the female labour market accounts earlier, with an additional 68,500 women in work by 1991, the equivalent of 5.4% of the 1981 female working age population.

A further component in the increase in non-coal male employment is represented by the numbers on Government schemes. The absolute number in 1991 accounted for over 27,000 men. Again, the overall counteracting effect to the additional labour supply is relatively minor. It does though represent nearly half the number of men added to the labour supply through natural increase and may indicate the decline in prospects for younger males entering the labour force. This is not to say that all those participating in government schemes will have been younger new entrants to the labour force. There are also likely to be a number of longer term unemployed or older men within the group who are attempting to gain new training after redundancy or a long spell of unemployment. The level of take up of government schemes was only slightly higher amongst males than females - 2.0% of 1981 male population compared to 1.2% of female population. This could be a reflection that some women who live with a partner are more likely to stay economically inactive rather than enter the social security system if they cannot find a job. Alternatively, it may be that female employment prospects are better and so there is less call for an employment or training scheme alternative.

Given the additional demand factor of 72,000 men (via employment and government schemes) is less than half the additional supply factor caused by the collapse of the coal industry, what has happened to the surplus supply? If the men did not find employment in these areas perhaps they went further afield in the search for work? The accounts demonstrate though, that the increase in net out-commuting was only minor. There was substantial net out-commuting of residents in the coalfields to jobs outside the area; these were of similar proportions for men as for women in 1991 with 125 resident men of working age in employment compared to every 100 jobs within the area. However, this was only slightly higher than the level in 1981 when there was already substantial out-commuting. The increase only accounted for 4,500 men or is equivalent to less than half a percent of the resident males of working age in 1981. This could be an indication of new types of jobs being created in the coalfields. Unlike the coal industry which drew the majority of its workforce locally, new types of job are more likely to attract a wider range of workers from a wider area than the jobs they have replaced. Hence there may have been more in-commuting to the areas and this would in turn offset any additional out-commuting from miners travelling further afield for work.

The next largest counterbalancing component in the accounts is the increase in net out-migration. Nearly 60,000 men of working age left the area over the ten year period accounting for over 4% of the original male working age population in 1981. The

classic Thatcherite response to lack of employment opportunities epitomized in the term coined by Tebbit 'On your bike' would seem to have been an answer for some to the decline of the coalfields. However, since these accounts refer to all males of working age in the coalfields and not just ex-miners, these out migrants are just as likely to be the younger population who leave in search of better prospects or higher education and do not return. Alternatively, other candidates for leaving are often the better qualified with jobs who are the more affluent and mobile workers. Over time if this out-migration continues it could add to the cycle of decline in the coalfields with less qualified manpower and an ageing population hence adding to problems of attracting inward investment.

The level of out-migration amongst males in the coalfields was more than twice the level amongst females of working age. Perhaps this is an indication that some of the migrant men who left the area may have been young and single since there was not a corresponding fall amongst women. The difference between levels of male and female out-migration may also reflect the different employment prospects of men and women in these areas. The expansion of the female labour market may have had a stabilizing effect on the female population, as with increased employment opportunities there may be fewer reasons to leave the area. In time this could result in a changing demography for the coalfields as the balance between male and female population may by influenced by their corresponding opportunities. The social fabric of the communities will also suffer as younger, more skilled and mobile workers are more likely to leave and those who are less mobile or affluent stay behind.

Finally we come to the largest component of adjustment in the labour market accounts to counteract the additional supply of labour, the fall in economic activity. This single component represented a big reduction in the labour supply to these areas with nearly 85,000 fewer men economically active in the coalfields in 1991 compared to ten years earlier, the equivalent of 6.1% of all resident males of working age in the coalfields in 1981. Though there was a decline in economic activity amongst males nationally it was far below this level. These were men who were now neither employed or unemployed. The decline in male economic activity was almost equal and opposite the level of increase amongst women. For women in the coalfields, unlike the men, the change was very similar to the national average.

Table 6.4.2 considers the accounts for the pit villages. These areas which had a higher dependency on the coal industry for male jobs felt the decline in the industry more acutely. Nearly a quarter of all resident males within the area lost jobs in coal,

Table 6.4.2 - Male labour market accounts for pit villages, England and Wales, 1981-1991

		Number of males	As % of resident males of working age (16-64) in 1981
	Job loss in coal	114,600	22.1
PLUS	Natural increase in workforce	20,900	4.0
MINUS	Net out-migration	38,000	7.3
MINUS	Increase in net out-commuting	22,100	4.3
MINUS	Reduction in economically active	33,500	6.5
MINUS	Increase in non coal jobs	22,900	4.4
MINUS	Number on government schemes	11,300	2.2
EQUALS	Increase in unemployment	7,700	1.4

twice the level of the coalfields; but again the accounts show that this had a minimum effect on the unemployment levels. Though this time an increase was registered over the ten year period, the rise was only equivalent to 1.4% of resident males of working age in 1981.

For many of the components in the accounts the adjustment factors were of a similar magnitude to those for the coalfields as a whole. A slightly higher take up of government schemes and a higher proportion of men found employment in other industries excluding coal. The proportion of men who left the labour market altogether and became economically inactive was also slightly higher. The two noticeably larger adjustment factors in these more compact labour markets took the form of increased net out-commuting and net out-migration. The likelihood is that a large portion of this increase in net out-commuting is accounted for by the reduction in in-commuting to these areas from the surrounding coalfields by men who worked at the local pit in addition to men from these areas having to travel further afield for work.

The level of out-migration is the largest component in the accounts and equivalent to 7.3% of the 1981 male working age population. If this continued unchecked over time it would lead to large scale depopulation of the former heart of the coalfields. Male out-migration in pit villages is 1.7 times higher than in the coalfields as a whole. This pattern of higher net-out migration in the pit villages compared to the coalfields was also evident in the female labour market accounts. However, though a larger percentage of working age men left the labour supply through this mechanism, the differential between the coalfields and pit villages was not as marked as in the female accounts (with a ratio of 2.6). This may be an indication of different reasons why

women left the coalfields or pit villages. Perhaps the major loss of employment opportunities by men in the pit-villages - which bore the brunt of the decline of the coal industry - influenced the level of women whose reason to move was with their husband or partner in response to the major male job loss in the area.

The high level of net out-migration in the pit villages highlights the diverse adjustment processes which took place in order to balance the effects of a major increase in the supply of labour. Though there is evidence of job regeneration the major response is one of men leaving the labour market altogether by either dropping out of economic activity and relying on alternative means of support or moving from the area entirely.

The contrasting male and female labour market accounts would seem to add weight to an argument that there is a strong gender division of labour in the coalfields and that both markets are relatively independent of each other. If there were more flexibility between the male and female labour markets, one logical adjustment in a more cohesive labour market would be for a greater proportion of the supply of labour needed to fill new employment opportunities to be provided by the surplus male labour instead of the major new influx of supply drawn from the female labour reserve. This raises the need to look at the type of employment created not only in terms of sector but also by full-time versus part-time jobs. This may shed some light on why a section of the female labour reserve has been drawn into economic activity whilst at the same time the male labour surplus has dropped out of labour market participation and into economic inactivity. The following chapter considers the change in employment growth in different industrial sectors. This will help to disentangle the changing labour market structure behind these adjustment processes and shed some light on the growth areas of employment and why these jobs may be going to women and not to men.

First, the female labour market accounts for coalfields will be contrasted with alternative types of area. How have they have performed compared to other areas which have or have not experienced a major decline in male employment opportunities?

6.5 Comparison of female accounts in coalfields with other female labour markets

The previous chapter has shown that the growth of female economic activity has been virtually on par with the national average. Has this growth been hindered by the

excess male labour supply, with men taking some of the employment opportunities that would have otherwise been taken by women?

The development of the labour market accounts method to utilise census data has, as already mentioned, been replicated to quantify flows in the Rural Development Areas (Beatty and Fothergill 1997). More recently the method was used by Turok and Edge (1999) to investigate employment in Britain's cities.

The results from the female labour market accounts for all the Rural Development Areas (RDA) in England is presented in Table 6.5.1. These represent the least well off rural areas in England. Inclusion within RDA status was dependent on a number of deprivation indicators which were not necessarily financial or labour market orientated but also considered poor transport links and infrastructure.

Table 6.5.1 - Female labour market accounts for Rural Development Areas and coalfields in England and Wales, 1981-91

		RDAs		Coalfields	
		Number of females	As % of resident females of working age (16-59) in 1981	Number of females	As % of resident females of working age (16-59) in 1981
	Natural increase in workforce	15,800	2.0	42,400	3.3
PLUS	Net in-migration	42,400	5.5	-22,300	-1.8
PLUS	Increase in economically active	79,900	10.3	76,300	6.0
MINUS	Increase in net out-commuting	22,100	2.8	16,900	1.3
MINUS	Increase in employment	108,200	13.9	68,500	5.4
MINUS	Number on government schemes	7,800	1.0	14,900	1.2
EQUALS	Increase in unemployment	0	0.0	-3,800	-0.3

The RDAs present an interesting comparison to the performance of labour markets in coalfields and pit villages for a number of reasons. Rural areas have traditionally experienced lower levels of participation in paid work amongst women than nationally, as in the coalfields. They are similar in geography as many of the coalfields, in that they are small settlements with poor transport links and often a less diverse economic base than in larger towns or cities. The RDA definition does in fact cover sections of the coalfields including parts of South Yorkshire, South Derbyshire and Nottinghamshire. However, in contrast to the coalfields, the RDAs have not

experienced the major decline of dominant male employer and the associated increase in supply of male labour available.

On the supply side, natural increase in the female population provided the equivalent of 2% of the 1981 resident working age female population. This was slightly lower than in the coalfields, and may be an indication of an older age structure in these areas. However, this was more than compensated for by gains in net in-migration, with an additional 42,400 (or the equivalent of 5.5% of working age female residents in 1981) coming into the area over the ten year period. This contrasts with the coalfields, which were losing population through net out-migration in the same period. So although the RDAs are the most disadvantaged of rural areas, they have benefited from the urban rural shift, although this time in terms of population. This trend in Britain has been long standing, with population tending to migrate from decaying cities to either smaller towns or rural areas (Champion and Townsend 1990).

Together, both of these factors added the equivalent of 7.5% of the 1981 female resident population of RDAs to the labour supply. A still larger element of increase in supply was created by higher economic activity. The RDAs, like the coalfields, have a tradition of lower levels of female participation in the labour market, and in 1981 the economic activity rate stood at 53.6%, way below even the pit villages with a corresponding rate of 56%. By 1991, the female economic activity rate in the RDAs had experienced a rise which was almost double the national increase over the same time period, to 64.9%. So by 1991, although they still lagged behind the national average, the female economic activity rate in the RDAs had not only risen above that in the pit villages but had surpassed the level in the coalfields also.

In terms of the labour market accounts this increase of nearly 80,000 economically active women equates to 10.3% of the 1981 female working age population. When taken with the increase in the net in-migration and natural increase in the workforce and a small decline in supply through net-out commuting, this brings the overall increase in supply to 15%.

With the enormous increase in supply experienced in the RDAs, it might have been expected that unemployment would rise. That this did not happen is attributable to the largest component in the accounts. The RDAs experienced an increase in female employment of 108,200 (the equivalent of 13.9% of the 1981 female working age population). This growth in employment more than offset three quarters of the increase in supply. When the rise in the numbers of females in employment is

expressed as a percentage of total female employment in 1981, this represents an increase of 35%. This large percentage increase needs to be seen in the context of the low base of employed women at the start of the period.

This large rise in female employment, of 13.9% of the 1981 female working age population in RDAs, overshadows the comparable gains in the coalfields, of 5.4%. When the accounts for females in RDAs are considered in the context of the male accounts for these areas, the large growth in both supply and demand for female labour occurred against a background of smaller flows in supply and demand for male labour in RDAs[1].

The slower rate of growth in female participation and employment in the coalfields compared to RDAs could be a function of a number of factors. These include weaker local economies present in some coalfield areas or perhaps the excess male labour supply in the coalfields may have had an influence. Excess male labour supply may have led to some displacement of female jobs or a disincentive for women in families now dependent on benefit to engage in the labour market. An alternative explanation could be that the RDAs benefited more from the growth in the service sector which often employs women. To explore these points the Standard Industrial Classification of jobs for both the coalfields and the RDAs will be considered for employment growth by sector and as a proportion of the overall employment in Chapter 7.

As a final point of comparison, the accounts produced by Turok and Edge (1999) for Britain's cities are presented in Table 6.5.2. They collated data for the 20 largest cities in Great Britain accounting for nearly 40% of the entire population. The methodology used by these authors presents the components as a percentage of the female economically active working age population rather than as a percentage of all females of working age, as produced in the accounts so far. This later method was chosen in preference to using an economically active base to ease comparison of male and female accounts. This is because of the smaller base of economically active women in 1981 compared to economically active men. This smaller denominator for women makes the components appear relatively larger than the comparable components in male accounts. When based on the entire working age population the components converted to percentages are grounded in a denominator of the same magnitude.

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[1] In the male labour market accounts for RDAs employment increased by 1.2% and the economically active fell by 4.4% of the resident working age male population. (Beatty and Forthergill 1997)

To ease comparison with the Turok and Edge accounts for cities, the components of the coalfield accounts have therefore been converted to the same basis and in the following commentary both refer to components as a percentage of economically active working age population in 1981 in each area.

The adjustments in the female labour markets in Britain's cities occurred in the context of large scale male job losses in Britain's cities - higher than those experienced in the coalfields. The male labour market accounts[2] show large scale adjustments to counteract this loss, mainly through a combination of out-migration and a reduction in economically active men. How then have the female labour markets in cities performed in comparison? The components of the female coalfield accounts have also been added to Table 6.5.2 as a proportion of the economically active female population in 1981.

The comparison of these figures would seem to add more weight to the hypothesis that in areas of high male job loss there is a slowing effect on the growth of female employment. The coalfields had a far higher increase in labour supply compared to the cities, with natural increase and rises in economic activity adding the equivalent of 16.2% of the 1981 economically active female population. For the cities, not only was the natural increase smaller than in the coalfields, but the rise in economic activity was also small in comparison, overall adding 5.1% of the level of the 1981 female workforce. In addition, a decline in net out-commuting lead to an increase in female labour supply in British cities equivalent to a further 1.5% of the 1981 economically active female population in these areas.

The difference in overall supply between cities and coalfields is undoubtedly mainly influenced by the economic activity component. Two main contributory factors influenced this. Firstly there were higher levels of participation of women in cities at the beginning of the period. As was seen from comparisons with national trends, RDAs and coalfields, the areas of lowest female labour market participation rates experienced the largest rises in economic activity over the ten year period. Other areas grew at a slower pace, possibly towards a saturation point where no further females may be drawn into the labour market. However, the other driving force behind increased supply is demand. Turok and Edge investigated the phenomenon by comparing LMAs for each of the individual cities on their list of twenty. Those cities with fastest job growth also tended to have the strongest growth in economic activity

[2] See Turok and Edge 1999.

amongst women. This points towards a demand led process where the higher the level of suitable jobs, the more women that are drawn into the labour market.

Table 6.5.2 - Female labour market accounts for Britain's cities and coalfields in England and Wales, 1981-91

		Britain's cities		Coalfields
		Number of females	As % of economically active females of working age (16-59) in 1981	As % of economically active females of working age (16-59) in 1981
	Natural increase in workforce	59,000	1.4	5.8
PLUS	Increase in economically active	154,000	3.7	10.4
MINUS	Net out-migration	164,000	3.9	3.0
MINUS	Increase in net out-commuting	-61,000	-1.5	2.3
MINUS	Increase in employment	44,000	1.1	9.3
MINUS	Number on government schemes	59,000	1.4	2.0
EQUALS	Increase in unemployment	7,000	0.2	-0.5

This leads to the difference in growth of female employment between the two types of area. The increase in the cities accounts was only 1.1% of the female workforce in 1981 compared to growth of 9.3% in the coalfields and an equivalent figure for the RDAs of 26%.

6.6 Summary

The comparison of the three sets of accounts indicates that the higher the increase in female employment, the greater the increase in female labour supply via increased economic activity. In turn this is correlated to the performance of the associated male labour markets.

Overall the comparison of the coalfields, Rural Development Areas and Britain's cities would seem to point towards the following:

- Increases in female economic activity rates were experienced across all areas examined.

- The increases in female economic activity appear to be demand led and the faster the rate of growth in employment the higher the number of women drawn into the labour market.

- Female unemployment has stayed relatively stable in all three types of area even though each experienced very different levels of jobs growth.

- Net out-migration by women, though stablised by jobs growth in areas, is not independent of the state of the male labour market in the area. It is likely that a higher level of out-migration by women is experienced in areas with major male job loss. This occurs as women leave not only in search of better employment or training opportunities, but also women leave with their partner in response to his lack of opportunities.

- Male economic activity rates decreased in all three areas.

- There has been evidence of urban rural shift both in terms of employment and population.

This chapter has shown the importance of the labour market accounts technique in assessing adjustment processes which take place in both male and female labour markets over time. It has highlighted the weakness of using unemployment alone as a measure of the health of a labour market. This leads to the need for further investigation into alternative measures of unemployment or non-employment. This will be considered in Chapter 8.

This chapter has also raised the important issue of the underlying industrial structure of the coalfields. Which sectors have experienced most growth and has the traditionally weak service sector in the coalfields hindered the growth in employment amongst women? Questions have also been raised about quality over quantity of employment which has been created and the following chapter will consider this also.

Chapter 7

Employment Change

This chapter probes the changing nature of women's employment in the coalfields. The distribution of employment by industrial sector will be considered and growth sectors identified. This may shed light on the increasing participation of women in the labour force in the context of the declining male employment. The examination of the industrial structure, its strengths and weaknesses, may provide insights to why the level of growth in female employment in the coalfields was similar to the national average but lower than that which occurred in Rural Development Areas.

The proportion of total employment taken by women within individual industrial sectors will be considered for evidence of horizontal segregation (Hakim 1979). This phenomenon arises when women become concentrated in particular areas of employment and in turn jobs in this field can tend to be considered as 'women's work' (Bradley 1989).

The examination of the areas of work in which women find employment provides important context for the points raised in previous chapters. The discussion of rising female economic activity rates highlights the importance of the measurement of quality, not just quantity, when considering female labour market participation. Aggregate statistics provide limited opportunity to examine quality of employment but an attempt will be made by considering the balance of part-time to full-time employment.

7.1 The industrial structure of the coalfields

Bruegel (1979) offered some evidence that in times of poor labour market conditions, women may be less affected than males. Women in the service sector were safeguarded from economic downturns due to the overall growth of the service sector and their dominance within its workforce. The sectoral split of an area will alter the impact of recession or major job loss. A downturn in a business cycle is often more severe in the industrial sector compared to the service sector which on the other hand is affected least or last. This on the whole means that women, who tend to be

concentrated in the service sector, are cushioned more in economic downturn than men.

The coalfields are industrial areas and as such the employment prospects of both men and women are likely to be affected by de-industrialisation or an economic downturn. The manufacturing sector is a major employer of women in these areas and the share of employment in the service sector tends to be weaker than nationally. Hence, a decline in production industries may have a greater effect on women in the coalfields than women in the economy as a whole. This could encourage out-commuting by women from these areas to increase employment opportunities.

At this stage of the analysis the Special Workplace Statistics (SWS) allows the distribution of employment across Standard Industrial Classifications for both male and female labour markets to be considered not only for residents in employment, but actual jobs in the area. By incorporating data from the SWS the analysis needs to be confined to the English and Welsh coalfields due to the difficulty of obtaining comparable data for Scotland (see notes in Chapter 4). The data for SIC distribution based on residence based figures for the English and Welsh coalfields was compared to that for the GB coalfields as a whole and there was found to be very little difference in the overall sectoral spread.

Table 7.1.1 shows the distribution of employment amongst men and women working in the coalfields, pit villages and nationally in 1981 and 1991. By presenting workplace based figures we are able to look at the true nature of actual jobs located within the coalfields rather than residence based figures which will include employed people who commute outside the area for their jobs. Later in this chapter the difference in distribution between the residence based and workplace based figures will be looked at to see if the sectoral split of jobs available within the area is similar to that of the residents in employment.

There has been a national shift in employment from the manufacturing and production industries[1] towards the service sectors[2]. This was true for both men and women in pit villages, coalfields and England and Wales. The decrease in the percentage of total employment in the production and manufacturing industries was greatest in the areas which had the highest dependence on this form of employment in 1981. So, the share

[1] Manufacturing and Production Industries: Includes Energy and Water, Metals and Chemicals, Engineering and Vehicles and Other Manufacturing sectors.

Table 7.1.1 - Distribution of employment by Standard Industrial Classification by sex for coalfields and pit villages, England and Wales, 1981-1991

	% of total employment in each SIC category					
	Pit Villages		Coalfields		England & Wales	
	1981	1991	1981	1991	1981	1991
Females						
Agriculture,forestry,fishing	0.5	0.5	0.7	0.5	1.0	0.9
Energy and water	3.2	1.1	2.2	1.0	1.0	0.8
Metals and chemicals	2.5	1.9	4.5	3.2	2.4	1.7
Engineering and vehicles	5.4	5.1	6.6	5.2	6.8	4.5
Other manufacturing	22.9	17.6	17.0	13.1	10.7	7.8
Construction	1.3	1.4	1.3	1.5	1.4	1.5
Distribution, hotels, catering, repairs	25.7	27.5	26.8	27.5	24.9	24.6
Transport and communication	2.0	2.2	2.1	2.3	3.2	3.3
Banking, finance, business services	3.4	5.3	4.2	6.7	9.3	13.6
Other services	33.2	36.6	34.7	38.5	39.4	40.7
Not specified	N/A	0.7	N/A	0.6	N/A	0.7
Total	100	100	100	100	100	100
Total Employment (000's)	174.61	197.11	561.56	630.03	8285.01	9400.1
Males						
Agriculture,forestry,fishing	1.7	1.8	1.8	1.7	2.9	2.6
Energy and water	47.3	18.6	28.2	10.7	4.4	2.6
Metals and chemicals	5.3	6.2	6.9	6.7	5.4	3.8
Engineering and vehicles	7.7	10.9	11.8	13.0	16.5	13.1
Other manufacturing	6.3	10.5	8.8	11.1	10.4	9.3
Construction	8.6	14.3	10.6	14.0	10.5	11.9
Distribution, hotels, catering, repairs	8.8	14.5	11.8	16.2	15.5	17.6
Transport and communication	4.0	6.2	5.8	7.1	8.7	8.8
Banking, finance, business services	1.6	4.0	2.5	5.0	7.1	11.3
Other services	8.8	12.3	11.7	13.8	18.5	18.2
Not specified	N/A	0.7	N/A	0.6	N/A	0.8
Total	100	100	100	100	100	100
Total Employment (000's)	355.97	263.4	908.22	793.7	12510.06	11962.7

Note: Workplace based figures

of total male employment in these industries declined by 20.4% in the pit villages, 14.2% in the coalfields and 7.9% in England and Wales as a whole. For women the respective figures are 8.3%, 7.8% and 6.1%. Table 7.1.2 presents the data condensed by broad sectors to ease comparison.

[2] Service Sectors: Distribution, hotels, catering, repairs, Banking, finance, business services and Other Services

Table 7.1.2 - Distribution of employment by industry by sex for coalfields and pit villages, England and Wales, 1981-1991

	% of total employment in each industry					
	Pit Villages		Coalfields		England & Wales	
	1981	1991	1981	1991	1981	1991
Females						
Agriculture,forestry,fishing	0.5	0.5	0.7	0.5	1.0	0.9
Energy and water	3.2	1.1	2.2	1.0	1.0	0.8
Manufacturing	30.8	24.6	28.1	21.5	19.9	14.0
Construction	1.3	1.4	1.3	1.5	1.4	1.5
Transport and communication	2.0	2.2	2.1	2.3	3.2	3.3
Services	62.3	69.4	65.7	72.7	73.6	78.9
Not specified	N/A	0.7	N/A	0.6	N/A	0.7
Males						
Agriculture,forestry,fishing	1.7	1.8	1.8	1.7	2.9	2.6
Energy and water	47.3	18.6	28.2	10.7	4.4	2.6
Manufacturing	19.3	27.6	27.5	30.8	32.3	26.2
Construction	8.6	14.3	10.6	14.0	10.5	11.9
Transport and communication	4.0	6.2	5.8	7.1	8.7	8.8
Services	19.4	30.8	26.0	45.0	41.1	47.1
Not specified	N/A	0.7	N/A	0.6	N/A	0.8

Note: Workplace based figures

The dramatic change in employment structure not only highlights the difference in the economic base of the coalfields and pit villages compared to England and Wales, but also the different employment structure of men and women. In England and Wales in 1991 nearly eight out of ten female jobs are in the service sectors compared to just under half of all male jobs and there is a higher concentration of male jobs in the production, manufacturing and construction sectors compared to women. There is a weaker service sector in the coalfields and weaker still in the pit villages compared to the national average. For females in 1991, the proportion of total employment in the service sector is 72.2% and 69.4% in the coalfields and pit villages respectively compared to the national average of 78.9%. For males in 1991 the difference is even more noticeable with 47.1% of men employed in the service sector nationally compared to only 35% in the coalfields and 30.8% in the pit villages. The importance of the service sector as an employer of both men and women in the coalfields and pit villages has grown over the ten year period and difference from the national average has narrowed.

The figures in Table 7.1.1 show that the radical effect of the decline of the coal industry as a major employer cannot be overstated. In 1981 nearly half of all male employment in the pit villages was in the Energy and Water Supply Industries, by 1991 this accounted for less than one in five male jobs. The weak service sector and higher concentration of male jobs in manufacturing also confirm the industrial nature of the coalfields labour markets.

Table 7.1.2 highlights the importance of manufacturing in the coalfields for female employment opportunities. In 1981 nearly a third of all female jobs in the pit villages and over a quarter of female jobs in the coalfields were in the manufacturing sector. This compares with nearly one in five women nationally. However, the share of female employment in the manufacturing sector declined nationally from 1981-1991. This decline was more rapid in the pit villages and coalfields than nationally. By 1991 a quarter of females in the pit villages were employed in manufacturing compared to just over a fifth of females in coalfields and nearly one in seven women in England and Wales. These figures show that although manufacturing in the coalfields and pit villages accounted for a smaller proportion of total female employment in 1991, it was still a stronger sector in these areas than nationally. Table 7.1.1 shows that this owed a lot to the dominance of the Other Manufacturing sector in these areas and in pit villages an additional one out of every ten female jobs was in the Other Manufacturing sector compared to the national average.

Though manufacturing has declined as a share of male employment nationally, it can be seen from Table 7.1.2 that it has increased in both the coalfields and pit villages. In the coalfields this owes more to the decline of total male employment rather than an increase in male employment in manufacturing. However, male employment in the coalfields has stayed virtually stable and this represents a comparatively better performance than nationally or than female manufacturing employment in the coalfields. In the pit villages the increase in the share of male employment by 1991 in manufacturing is due to both a decline in total male employment and an increase in male employment in the manufacturing sector. This stronger performance of male compared to female employment in manufacturing deserves further investigation as could possibly indicate some displacement of females from this sector by males. Later in this chapter change in employment by sector will be looked at both as a percentage each sector in 1981 and as a percentage of total employment in 1981.

Table 7.1.1 confirms the weakness of parts of the service sector in providing female jobs in the coalfields. A far lower proportion of female jobs are in Banking and Finance and the Other Services sectors compared to the national average, and accounts for an even lower proportion of female employment in pit villages. The position is improving with the percentage of female employment in these sectors converging slightly with the national average by 1991. Not all parts of the service sector in the coalfields are weak. The Distribution, Hotels and Catering sector accounts for just over one in every four females in employment in the pit villages and coalfields in both 1981 and 1991, which is slightly higher than the national average.

Employment change by industry is presented in Table 7.1.3 both in terms of the number of people employed and as a percentage of total employment at the start of the period in 1981. The sub category of Coal (SIC 1.1) is identified separately with the remainder of jobs in SIC1 presented as 'Other energy and water'.

Table 7.1.3 - Employment change in coalfields by industry, England and Wales, 1981-1991

		Males		Females	
		Number of males	% of total male employment in the coalfields in 1981	Number of females	% of total female employment in the coalfields in 1981
0	Agriculture,forestry,fishing	-3,200	-0.3	-300	-0.1
1.1	Coal	-159,400	-17.6	-5,100	-0.9
1	Other Energy and water	-11,700	-1.3	-900	-0.2
2	Metals and chemicals	-10,100	-1.1	-5,100	-0.9
3	Engineering and vehicles	-4,000	-0.4	-4,200	-0.7
4	Other manufacturing	+8,100	+0.9	-13,300	-2.4
5	Construction	+15,000	+1.6	+2,100	+0.4
6	Distribution, hotels, catering, repairs	+21,800	+2.4	+22,700	+4.0
7	Transport and communication	+3,300	+0.4	+2,800	+0.5
8	Banking, finance, business services	+16,900	+1.9	+18,200	+3.2
9	Other services	+3,700	+0.4	+47,700	+8.5
	Not specified	+5,100	+0.6	+4,000	+0.7
	All employment	-114,500	-12.6	68,500	+12.2

The figures show stark differences in the fortunes of the male and female labour markets. Whilst the number of males in employment has contracted by 12.6% the number of females in employment has expanded by a similar proportion. The impact

of the loss of jobs in the coal industry was enormous - the equivalent of nearly one in five of all male jobs in 1981 lost through its demise. There were also fewer jobs in the rest of the energy and water, minerals and chemicals, and metal goods and engineering sectors. The small gains in other manufacturing, construction, and the service sector could barely counteract the male job loss in coal with the net gain in employment in other sectors equivalent to only a quarter of the jobs lost in coal.

Female employment also saw a decline in the same areas as for men but with one exception. The number of women employed in the 'other manufacturing' sector declined more than any other, relative to total female employment in 1981. This compared to growth in this sector by men. When considered as a percentage of male employment in the sector in 1981, there was a 10.2% increase in male employment compared to a fall of 14.6% in England and Wales.

The contraction of female employment in Other Manufacturing compared to expanding male employment in this sector is worth further consideration. Could it possibly be in part due to the decline of the coal industry and the surge in male labour supply it caused? Perhaps it is evidence of displacement of women from jobs by men, or as new jobs arise in this sector competition from men for jobs in this area may have increased, in turn discouraging women from looking for this type of work. This could be the case as men may be more likely to go for jobs in manufacturing industries rather than jobs traditionally considered as 'women's work'. The fall was even larger in the pit villages where the decline of female employment in other manufacturing was equivalent to 3% of total female employment in 1981 compared to 2.4% in the coalfields and 1.9% in England and Wales. This contrasts with an increase for pit villages in male employment in other manufacturing equivalent to 1.9% of total male employment in 1981 compared to 0.9% in the coalfields and a decline of 1.5% in England and Wales.

Alternatively, the decline in female employment in this sector could be entirely expected given the strength of the manufacturing sector as an employer of women in these areas and may owe nothing to displacement of employment amongst women by men. The literature has already highlighted many of the coalfields were traditionally employers of women in textiles and clothing industries. These are manufacturing jobs which are often dominated by women. As Bruegel (1979) highlighted, women's employment in recession may be cushioned by their dominance in the service sector, but as there is a stronger reliance on manufacturing for female employment in the coalfields they too would feel the effects manufacturing decline. Consequently, the pit

villages and coalfields would be expected to experience a greater effect from the decline in manufacturing relative to total female employment than the national average since it was relatively more important to total female employment to start with.

The increase in male employment in the Other Manufacturing sector may be in entirely different jobs than the type lost by women. The rise may owe more to regeneration efforts than displacement of women from job opportunities. Without a further detailed analysis of the sub-groups of this industrial sector it is impossible to say whether any displacement has taken place.

The service sector continued to grow as a provider of female jobs in the coalfields. The growth in female employment in the Distribution, Hotels and Catering sector was relatively more important to total female jobs the than male employment growth in this sector, though the absolute number of jobs created was of a similar magnitude. By far the largest increase was in female employment was in the Other Services sector. The growth was equivalent to 8.5% of total female employment in 1981 and was far greater than the growth in male employment in these types of job which only increased by the equivalent of 0.4% in the same time period. Other Services include jobs in public administration, education, medical and health services and personal and domestic services. A number of occupations within this sector tend to be female dominated so as the sector expands it is likely to create more jobs for women than for men. By 1991 this resulted in the narrowing of differences in SIC distribution between the coalfields and England and Wales, as shown in Table 7.1.1. The service sector now employed a similar proportion of women in both the coalfields and nationally by 1991 accounting for approximately three quarters of all female jobs.

Figure 7.1.1 presents the growth in industrial sectors as a percentage of total employment in 1981 for the coalfields and pit villages compared to the national average. The chart indicates that the female labour market in the coalfields has withstood the decline of the major employer in the coalfields. Though some sectors have lagged behind the national average others have experienced faster growth. When total employment is considered it can be seen that the coalfields and pit villages have virtually kept pace with the national increase in female employment and this is a creditable performance considering the major upheaval in the male labour markets of these areas.

Figure 7.1.1 - Female employment change by industry in coalfields and pit villages, England and Wales, 1981-1991

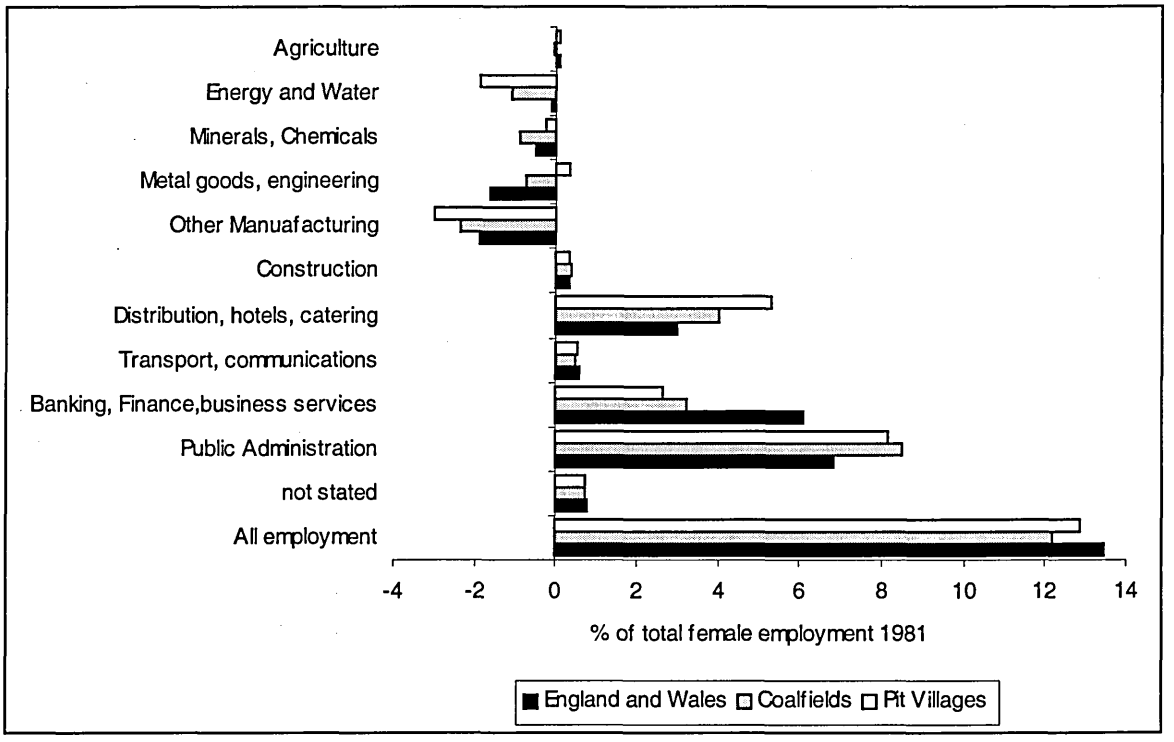

Table 7.1.4 compares the change in female employment for each sector - presenting change as a percentage of the employment in each industry in 1981 - against the national average. This confirms there is little difference between the growth in total female employment within the coalfields and pit villages compared to nationally.

Table 7.1.4 - Change in female employment by industry for coalfields and pit villages, England and Wales, 1981-1991

	change as % female employment in each industry 1981		
	Pit Villages	**Coalfields**	**England & Wales**
Agriculture,forestry,fishing	14.6	-9.3	6.9
Energy and water	-59.7	-49.9	-11.8
Metals and chemicals	-10.9	-20.2	-20.8
Engineering and vehicles	5.8	-11.2	-24.6
Other manufacturing	-13.2	-13.9	-17.5
Construction	26.7	28.6	23.5
Distribution, hotels, catering, repairs	20.6	15.0	12.0
Transport and communication	27.8	23.8	17.3
Banking, finance, business services	77.5	76.4	65.3
Other services	24.5	24.5	17.3
All Employment	12.9	12.2	13.5

That the growth in female employment in the coalfields has kept pace with the national average is due to the fact that although female manufacturing jobs have been lost, this has been more than compensated for by increases in service sector jobs. Earlier, Table 7.13 showed that the loss of manufacturing jobs was equivalent to 4% of total female employment in 1981. The growth of the Distribution, Hotels and Catering sector alone balanced this loss before the other increases in the service sector are taken into account. Table 7.1.4 also shows that for the coalfields the rates of growth were higher in all of the service sectors and the decline in manufacturing sectors less than the national trend.

One direct effect of the decline of the coal industry can be seen in Table 7.1.4 by the decline of female jobs in the Energy and Water sector. In the coalfields this has halved and in the pit villages six out of every ten jobs in this sector have been lost. This compares to one in ten jobs nationally. However, it should be remembered that although this represents a loss of 6,100 jobs in the coalfields - of which 3,300 were in pit villages - this accounts for less than 1% of the total female employment in the coalfields in 1981.

Manufacturing in the coalfields and pit villages has performed relatively well compared to the national average. The decline in the Metals and Chemicals sector in the coalfields was on par with the national average but in the pit villages it declined at half this rate. The Engineering and Vehicles sector in the coalfields also decreased by less than half of the national rate and in the pit villages they actually gained some jobs in this sector. The Other Manufacturing sector - which is by far the largest of the manufacturing industries in the coalfields and pit villages - also performed slightly better than the national average. So, although the coalfields and pit villages lost female manufacturing jobs they would have lost more if they had been on the scale of national losses.

The growth in the service sectors in the coalfields and pit villages have been above the national trends. Distribution, Hotels and Catering increased slightly faster than England and Wales in the coalfields, and the pit villages were an additional 7 percentage points higher. This sector employed an additional 22,700 females in the coalfields and 9,300 in the pit villages by 1991. Banking, Finance and Business Services increased by three quarters of its size in both the coalfields and pit villages and this was 10 percentage points higher than nationally. This added another 18,200 jobs in the coalfields and 4,600 in the pit villages. The Other Services sector - which represented the highest increase in female jobs in terms of total female employment in

1981 - also increased faster than the national trends and by 1991 there was an additional one job for every four held in this sector in 1981, in both the coalfields and pit villages. This sector employed an additional 47,700 females in the coalfields and 14,200 in the pit villages by 1991.

It must not be forgotten that within the coalfields the individual areas also vary greatly. Table 7.1.5 ranks individual coalfields by the highest level of growth in female employment from 1981-1991. Although the top of the list is North Wales, with growth of 72.1%, this is the smallest coalfield. Therefore, this should be considered in the context of the small geographic area the North Wales coalfield covers and the growth of 800 jobs may have been due to one or more large employers moving into the area. The majority of additional females employed in North Wales were accounted for by an extra 200 jobs in Metal, Minerals and Chemicals sector and 400 jobs in Distribution, Hotels and Catering. The next smallest coalfield (Kent) also performed well as did the Midlands coalfields which dominate the list of other coalfields experiencing high levels of growth in female employment. On the whole these were due to a rapidly expanding service sector. The North Staffordshire coalfield was the only one to experience a decrease in female employment over the ten year period. This is in line with the fact that it is in an urban area and has the highest dependence on manufacturing jobs and lowest proportion of women in the service sector.

Table 7.1.5 - Change in female employment by individual coalfields, England and Wales , 1981-1991

	No of females	change as % total female employment in coalfields 1981
North Wales	800	72.1
North Warwickshire	5,400	37.8
Kent	1,200	37.7
S.Derbyshire/N.W.Leicestershire	5,400	37.0
South Staffordshire	3,000	23.5
North Derbyshire	7,500	17.4
Northumberland	3,000	16.5
Nottinghamshire	9,800	14.8
South Wales	10,600	13.5
Durham	6,600	11.3
Yorkshire	14,800	9.7
Lancashire	1,000	1.7
North Staffordshire	-600	-1.5
English and Welsh coalfields	68,500	12.2

Having considered the distribution of employment for women actually working in the coalfields, the SIC distribution for resident females in work was also considered. There was found to be very little difference in sectoral distribution between those working in the area or resident in the area. This could be an indication of two factors; the majority of employed women who are resident in the area are likely to actually work within the local area; secondly the labour markets in close proximity to the coalfields offer similar employment opportunities.

To investigate this further commuting patterns for women resident in the coalfields is considered in Table 7.1.6. In 1991 women held 630,000 jobs located in the coalfields, however there were nearly 782,000 resident females actually in employment. Thus 152,000 women were commuting out of coalfields areas over and above any into the areas. For the coalfields as a whole there is considerable movement of workers on a daily basis to work outside their area.

Table 7.1.6 - Commuting patterns in individual coalfields , England and Wales, 1991

	Number of employed resident females per 100 jobs in the area
Kent	198
North Wales	159
South Wales	145
Yorkshire	139
North Derbyshire	134
S.Derbyshire/N.W.Leicestershire	128
Nottinghamshire	127
Durham	124
Northumberland	122
North Warwickshire	118
South Staffordshire	117
North Staffordshire	111
Lancashire	110
Total Coalfields	124

For every 124 resident women in employment there are in fact only 100 female jobs within the coalfields. This is very similar to the level of net out commuting in the Rural Development Areas where the figure for females was 129 residents in employment per 100 jobs in the area. This out-commuting is likely to be a result of female jobs in retail and service sectors more prevalent in bigger local towns or cities, many of which will fall outside the coalfield definition. Female residents in employment increased by 14.0% from 1981 to 1991, higher than the increase of 12.2% in female employment within the coalfields. The labour market accounts also confirm this greater demand for

female labour outside the coalfields with an increase in net out-commuting as more women travelled further afield to gain employment.

7.2 Gender segregation by industry

As pointed out in the introduction of this chapter, the SIC distribution also provides important information on labour market participation in terms of female employment by sector in relation to total employment by sector. By considering the proportion of all jobs in each industrial sector taken by women, the degree to which the labour market is segregated can be considered. Often segregation is measured objectively by considering the ratio of male to females by occupation (Hakim 1979, MacEwen Scott and Burchell 1994). This method considers vertical segregation and how women may be concentrated in lower skilled and hence lower paid jobs. However, the data needs to be considered at a highly disaggregated level in order accurately to measure the degree of segregation, as it is often at its most extreme at the level of jobs rather than occupations (MacEwen Scott 1994).

For the purposes of this study, instead of vertical segregation by occupation, horizontal segregation will be considered using a sex ratio in industrial sectors. This measure of concentration of female employment by sector will provide an indication of the relative opportunities of men and women since it has already been shown that growth in employment is unevenly distributed by sector.

Table 7.2.1 - Gender segregation of employment by industry in coalfields and pit villages, England and Wales, 1981-1991

	Female employment as % of total employment in each sector					
	Pit Villages		Coalfields		Eng and Wales	
	1981	1991	1981	1991	1981	1991
Agriculture, Forestry & Fishing	13.0	17.5	18.3	20.1	18.5	22.2
Energy and Water	3.2	4.4	4.5	6.7	13.3	19.4
Minerals, Chemicals	18.6	19.1	28.4	27.4	22.4	25.2
Metal goods, engineering	25.5	25.8	25.7	24.2	21.3	21.2
Other Manufacturing	64.1	55.7	54.5	48.4	40.5	39.7
Construction	6.8	7.0	7.0	7.7	8.0	9.0
Distribution, hotels, catering	58.9	58.6	58.4	57.3	51.5	52.3
Transport, communications	19.5	21.2	17.9	20.3	19.5	22.7
Banking, Finance,business services	51.5	49.9	50.7	51.2	46.4	48.5
Other Services	65.0	69.0	64.7	68.8	58.5	63.7
All employment	32.9	42.8	38.2	44.3	39.8	44.0

Table 7.2.1 indicates that the feminisation of the workforce is a growing phenomenon with 44% of all employment in England and Wales held by women in 1991. An

additional 4.2% of the total workforce is female in England and Wales in 1991 compared to 1981. The shift in the characteristics of the workforce in the coalfields was greater with an additional 6.1% of all employment in 1991 was amongst women compared to ten years earlier. In pit villages the increase was even greater with a rise of 9.9%. These increases have led to a level of feminisation of the workforce in the coalfields which is slightly above the national average, with pit villages not far behind. This shift in the gender balance of the workforce in the coalfields and pit villages is influenced not only by an increase in the number of women working but also by a reduction in the number of men working in these areas.

The division between women's and men's world of work is still very evident in some industries. Only a very small proportion of total employment in the construction industry or energy and water sector are held by women, the last true bastions of a working environment dominated almost exclusively by men.

The service sector on the other hand is predominantly, though not exclusively, populated by female employees. The gender ratios indicate that the growth of employment in the service sector is likely to produce more opportunities for women to work than men. The national trend has also seen females forming an increasing proportion of the total workforce in the service sector industries. However, in the coalfields and pit villages, the Distribution, Hotels and Catering sector experienced a small shift in the opposite direction of the gender segregation ratios, as did the Banking, Finance and Business Services sector in the pit villages. This may be evidence of a greater supply of men looking for and taking up new employment opportunities in these sectors in response to reduced opportunities in the coal industry. Perhaps this is evidence of displacement of women from these job opportunities due to the greater supply of male labour available. These movements, though small, in the gender segregation ratios of two of the three service sectors indicate that it is not only women but men also who benefit from the expansion of the service sectors. Indeed, in areas of major male job loss it seems likely that female jobs growth will be hindered if they have to compete with surplus male labour supply.

There is one final element of the table worth discussing, the decline of the overall proportion of jobs in 'other' manufacturing that are held by women. As the previous paragraph highlights, this was not the only sector where there has been a decline in the share of total employment taken by women, but it is by far the largest shift experienced in any sector. In the coalfields and pit villages the Other Manufacturing sector traditionally employed more women than men compared to the national

average. As previously discussed this is likely to be in part due to the strength of the clothing and textiles industries in these areas which often employ women. The coalfields experienced a shift of 6.1% in the favour of male employment in this sector so that by 1991 over half of all employment in this sector was now male. In the pit villages the shift was even greater and by 1991 women accounted for 8.4% less of the total workforce in this sector compared to 1981. This compared to the national picture where the gender split of the workforce shifted by only 0.8% towards male employment. The more rapid gender shift experienced by the coalfields and pit villages in this sector is likely to be a result of a combination of two factors: the decline of female employment in clothing and textiles industries and a small growth in male employment in Other Manufacturing. These factors combined are likely to have generated the shift, rather than it being an indication of displacement of women from jobs in manufacturing by males due to the surplus supply of labour available.

7.3 The balance of full and part-time employment

Sly (1994) analysed the winter 1993/4 Labour Force survey to consider the nature of part-time versus full-time work amongst women in Great Britain. Those women who were employed part-time taking part in the LFS were asked about their reasons for taking part-time work, 80% of women aged 16-59 said they did not want a full-time job compared to only 11% who gave not being able to find a full-time job as their reason.

This highlights the difference between the labour market experience of males and females as, of the males aged 16-64 who were employed part-time, only 26% did not want a full-time job and 33% gave the reason for taking part-time work as being unable to find a full-time job. The other main response for men, with 36% of respondents, was being a student compared to 8% of women.

Table 7.3.1 indicates the distribution of hours worked by all male and female employees and self-employed. This information is derived from the 10% Census data set. Though similar information is available from the 100% data set, the split by full and part-time work is only given for those in employment and not the self-employed. The 10% data is used in preference so as not to exclude the self-employed. The 10% data has the added advantage of being able to consider actual hours worked instead of the usual definition used in the Census which classifies 31 hours or more per week as full-time and 30 or fewer hours per week as part-time employment. The table below has an additional split for part-time work of 15 hours or less or 16-30 hours. This is an important division in part-time work as Job Seekers Allowance or previously

Unemployment Benefit may be claimed by a person who works less than 16 hours a week.

Table 7.3.1 - Hours worked weekly by sex in coalfields and pit villages, Great Britain, 1991

	Pit Villages	Coalfields	Great Britain
Males aged 16-64			
15 hours and under	0.9	1.0	1.4
16-30 hours	2.3	2.3	2.6
31+ hours	93.6	93.5	92.5
Not Stated	3.2	3.2	3.5
All	100.0	100.0	100.0
Females aged 16-59			
15 hours and under	17.0	16.0	14.6
16-30 hours	26.2	26.0	24.4
31+ hours	54.3	55.6	58.3
Not Stated	2.4	2.4	2.7
All	100.0	100.0	100.0

There is little difference in the distribution of hours worked amongst males in the coalfields and pit villages in comparison to the national average. The overwhelming majority of men are employed full-time and work 31 hours or more a week. There is a slightly lower proportion of males working part-time within the coalfields. This may be an indication of more traditional working practices amongst males in these areas and perhaps the growth of non standard, flexible employment may not be as wide spread in the coalfields as nationally. When the data was further disaggregated by age there was found to be a slightly higher level of part time employment amongst both the younger and older ends of the age spectrum than the middle but on the whole there were no major differences between age groups.

There are greater differences between the pattern of hours worked by females in pit villages, coalfields and the national average. The first point worth note is the large difference in hours worked by females compared to males. Whereas over nine out of ten men in work are employed full-time, for women the comparable figure only accounts for just over half of them. A sliding scale between the pit villages, coalfields and national figures is also apparent with the pit villages having the lowest proportion of women in full-time work, alongside corresponding higher levels of women in both part-time categories of 15 hours and less or 16-30 hours.

The distribution of hours worked by women amongst various age groups were also more varied than for males. The data for women disaggregated by three broad age bands is presented in Table 7.3.2.

Table 7.3.2 - Hours worked by females by age group in coalfields and pit villages, Great Britain, 1991

	Pit Villages	Coalfields	Great Britain
Females aged 16-29			
15 hours and under	9.8	10.0	9.4
16-30 hours	15.1	13.9	11.3
31+ hours	72.3	73.3	76.2
Not Stated	2.9	2.8	3.0
All	100.0	100.0	100.0
Females aged 30-44			
15 hours and under	20.2	18.9	17.8
16-30 hours	32.1	31.7	29.3
31+ hours	45.5	47.1	50.4
Not Stated	2.2	2.2	2.4
All	100.0	100.0	100.0
Females aged 45-59			
15 hours and under	21.2	18.9	16.2
16-30 hours	31.7	32.1	32.7
31+ hours	44.5	46.7	48.4
Not Stated	2.3	2.3	2.7
All	100.0	100.0	100.0

There are little differences between the distribution of hours worked amongst women aged 30-44 and those aged 45-59. Less than half these two age groups are employed full-time with the highest incidence of part-time employment of less than 16 hours occurring in the pit villages. It would be expected that many of the women who were going to have children will have started their families by this life stage and the additional responsibility of looking after children is likely to be the main influence on the higher level of part-time employment. For the younger age group however full-time work is the norm, though not at the same high levels as for males.

Overall the distribution of hours worked highlights the traditional nature of both the male and female labour markets in the coalfields compared to the national norm. The men are less likely to work part-time and the women more so than the national average. Men differ little across age groups in contrast to women where the older age groups are more likely to work part-time in response of their domestic responsibilities.

The higher level of part-time work amongst females in the coalfields and pit villages compared to the national average could be an indication of many things; perhaps the more traditional social structures of families in these areas, or they may also be a sign of less well paid work meaning the financial benefits of working full-time are outweighed by the cost or difficulties of availability of child care.

To re-address the original question posed, has the quality as well as quantity of work changed over time, the split of full and part-time work from both the 1981 and 1991 censuses are considered. In 1981 information on actual number of hours worked was not collected for budgetary reasons (Dale 1993a, p44). The distinction between full-time and part-time time work was made in 1981 on the basis of 30 hours or less for part-time and 31 hours or more for full-time. There are further complications in comparisons caused by the data only available for those aged 16+. Although those who are still in work after retiring age will be a minority, it is worth considering that they are more likely to have different characteristics and probably there is a higher level of part-time employment amongst them. The not stated category is also missing from the 81 definitions and so this sub group has been excluded from the 91 figures and the percentages re-calculated on this basis in Table 7.3.3.

The figures for males confirm there is little difference between the males in both coalfields and pit villages over time. There has been a small growth in part-time work and the level in 1991 is slightly below the national average.

Table 7.3.3 - Employment by full and part-time work in coalfields and pit villages, Great Britain, 1981-1991

	Pit Villages		Coalfields		Great Britain	
	1981	1991	1981	1991	1981	1991
Males						
Working full-time	98.7	96.7	98.5	96.6	97.4	95.9
Working part-time	1.3	3.3	1.5	3.4	2.6	4.1
Females						
Working full-time	60.1	55.7	60.9	57.0	60.8	59.9
Working part-time	39.9	44.3	39.1	43.0	39.2	40.1

By 1991 full-time work in the coalfields and the pit villages accounts for a smaller proportion of all female employment than in 1981 and is at lower levels than the national average. This is probably a result of the higher levels of married women entering the labour force, a group who are more likely to work part-time. The increase

in part-time working amongst women was also more rapid in the pit villages than the coalfields.

Perhaps then, though the quantity of women in work has increased, the quality when measured in terms of full-time employment, has actually decreased. However as noted earlier, aggregate statistics are weak as a measure of quality of labour market experience. The balance of employment may have shifted in favour of part-time work due to a number of factors, including the increase in participation of married women in the labour market. It was this group, married women, which experienced the largest increases in economic activity during the analysis presented in Chapter 5. For women with other commitments, part-time work may be a more attractive option than full-time work. Earlier evidence noted from the Labour Force Survey showed part-time work is often taken by women in preference to full-time work and many do not actually want to work full-time. It is presumptuous then to interpret the ratio of part-time to full-time work as a decline in the quality of the female labour market experience. Alternatively it may be a more accurate reflection of the reality to say that the quality has actually improved; since if it is the preference of many women to work part-time and the labour market seems to be able to provide an increasing demand for this type of work, then women have more choice on whether they enter the labour market or not, and on their terms.

The balance of part-time to full-time work does point towards the need to re-visit the growth of female employment in the labour market accounts in this new light. The increase in female employment, excluding the loss of jobs in the coal industry, was 73,600 compared to the equivalent figure for males of an increase of 44,900 jobs. If these figures are adjusted to full-time equivalent jobs[3] using the ratio of part-time to full-time employment in 1991, the difference is now much smaller with 44,100 male and 57,800 female jobs created in non coal jobs over the ten year period. If a similar calculation is carried out using the same ratios on the RDA accounts, though this time for total employment, the full-time job equivalent for males is 10,300 compared to 84,900 for females. These calculations of course exclude the massive male job loss in the coal industry in the coalfield areas and indeed there would have been some male job joss in this sector within the RDAS which in turn would mean the actual number of male full-time jobs created would be slightly higher if calculated on exactly the same basis. Given these differences in the two groups to be compared, the figures go some way to demonstrate that though the absolute number of new jobs created was similar in both coalfields and RDAs the balance was far more in women's favour in the RDAs.

This highlights again the slower growth in female employment opportunities compared with an area which did not experience exceptional male job loss such as the RDAs. This may also be evidence of the slowing effect on female employment when there is a large surplus of male labour available, with males taking a far larger proportion of all additional employment created.

7.4 Summary

The analysis of female employment by standard industrial classification, gender segregation ratios and the balance of full-time versus part-time work has revealed some interesting aspects of female labour markets within the coalfields.

- Growth in female employment within the coalfields was virtually on a par with the national average.

- The female labour market in the coalfields and pit villages seems to have survived the pit closures relatively unscathed, considering that the growth in female employment has occurred in the context of the major decline in male employment in these areas.

- The level of growth of female jobs in the coalfields and that for resident females in employment was identical.

- The coalfields are net exporters of female workers on a daily basis.

- The female labour markets in the coalfields have a stronger manufacturing sector and weaker service sector than that in England and Wales as a whole, however over time the SIC distribution has become more like the national average.

- In the coalfields there has been a decline in female employment in the Other Manufacturing sector compared to an increase in male employment in this sector. This has led to a shift in the gender ratio of employment in this sector in favour of men.

- The relatively better performance of male employment, compared to female employment, in the Other Manufacturing sector is unlikely to be evidence of

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[3] Full-time equivalent jobs: two part-time jobs count as 1 full-time job.

displacement of females from employment by males. It is likely to owe more to the effects of the contraction of textiles and clothing industries - which will impact on female employment - and the creation of new alternative jobs in this sector for men as a result of successful regeneration efforts.

- The gender segregation ratios of employment by industry reveal an increasing feminisation of the labour market nationally, in the coalfields and pit villages.

- The increased feminisation of the labour market is due to a contracting male workforce as well as an expanding female workforce. The process was most rapid in the pit villages which experienced the largest relative decline in male jobs.

- Male and female employment in the coalfields over the ten year period - excluding the loses in the coal industry - has increased by an additional 73,600 employed women and 44,900 employed men. However, when this is converted into full-time job equivalents the difference is much smaller with 57,800 female jobs created compared to 44,100 male jobs.

This chapter has considered how the structure of employment has changed in the female labour markets in the coalfields and pit villages compares with the national trends and the male labour markets in the areas. The overall picture is one of female employment growth in the coalfields at a level very similar to the national average and it seems to be relatively unaffected by the major male job loss in the area. The next chapter will consider how female claimant count unemployment has changed over and time and whether this is responsive to the increased demand for female labour in the coalfields.

Chapter 8

Recorded and Hidden Unemployment

The labour market accounts have demonstrated that the level of unemployment alone can be misleading as an indication of the capacity of an area to absorb labour market slack. Though the coalfields experienced major job loss amongst males and increases in employment amongst females, the actual level of unemployment for either group changed little between 1981 and 1991.

8.1 The rise and fall of unemployment rates

The unemployed claimant count[1] is the most commonly used of the two main measures of unemployment available for the UK. Indeed, claimant count unemployment has been used as an indicator of the health of labour markets since figures have been collected. Unemployment rates are also used as a social indicator and a measure of deprivation.

Falling claimant unemployment rates have been consistently drawn on in recent years by both the current and previous government to trumpet the success of the British economy and to boost the 'feelgood' factor. Conversely, when times were not so good, the figures were quickly quoted by the opposition of the previous government as evidence that government policies and recession had a negative effect on the job prospects of many. Unemployment was an important issue that could affect everyone, not just the unlucky few.

The validity of the figures as an appropriate measure of unemployment have continued to be questioned over the past decade. The public debate culminated in the publication of a report by a special working party of the Royal Statistical Society (1995). The House of Commons Employment Select Committee further investigated evidence as to the

[1] This is an administrative measure of the number of people who are 'signing on' at an Employment Service local office (previously the Unemployment Benefit Office) and who are eligible to claim unemployment related benefits.

appropriateness of the figures, including the evidence from the Royal Statistical Society, and published its findings in February 1996.

A major part of the widespread debate surrounding unemployment figures and the use of the claimant count as an accurate tool to measure actual levels of unemployment are due to concerns that have arisen about their reliability. The first area of concern is that the figures are influenced and manipulated for political gain by a series of administrative, operational and policy changes governing who is actually included in the count. The doubts about consistency are hardly surprising and the Royal Statistical Society report summed up the general lack of confidence in the figures as;

> "It is clear to us that the general public, many politicians, the media and various pressure groups do not trust the unemployment figures or find them convincing." (p39)

Evidence submitted to the Employment Select Committee by The Unemployment Unit (an independent research organisation) claimed there had been 31 changes to the calculations since the Conservatives came to power in 1979. This differs from the 6 major changes to the count acknowledged the DfEE (Denman and Mc Donald 1996). One administrative change in the unemployment count which is particularly relevant to the coalfields took place in 1989. Ex-miners were at this time covered by the Redundant Mineworkers Pension Scheme and the requirement to sign-on to register for benefits was removed. According to the Department of Employment (Lawlor 1990) this new rule decreased claimant unemployment by 15,000 in one go. According to the Unemployment Unit the reduction was even larger with 26,000 removed from the figures (Taylor 1989).

The second main area of concern with the claimant count underestimating the 'real' level of unemployment present, has been the growth over the past two decades of those classified as economically inactive (Beatty et al 1997b, Beatty and Fothergill 1999a 1999b, Gregg and Wadsworth 1998b). Increasingly, though unemployment has fallen, non-employment has not necessarily followed suit. Instead there has been a growth in the numbers of people who are neither employed or unemployed.

An alternative unemployment measure to the claimant count is provided by the Labour Force Survey (LFS). Since the Royal Statistical Society's report and debate by the select committee in the House of Commons this has come to the fore and is now supposedly the preferred choice of the current government. However, they frequently still quote the claimant count as it is consistently lower. The LFS uses the International Labour Organisation (ILO) definition of unemployment. This includes those who are without a job at the time they were surveyed, were able to begin work during the following two weeks and had actively looked for work within the past four weeks or were waiting to begin a new job.

The ILO measure of unemployment also has considerable drawbacks. Though broader than a measure of only people eligible for benefits, it still excludes a large number of people who want a job and would take a suitable job if one was available. They may not though meet all the criteria for actively seeking work or availability and so are classified as economically inactive. The ILO measure also excludes anyone who has worked for at least one hour in the previous week. This means that larger number of the claimant unemployed who take part-time work or casual work while still wanting for and looking for full-time work are also excluded from the measure. An additional drawback of the ILO measure is the fact that is derived from the LFS. This is a quarterly sample survey and so estimates are not available for small areas unlike the monthly claimant count.

Given that the definition of the coalfields in this study is based on wards, then the claimant count will be considered as it is the only measure available over time for such a fine disaggregation of areas. Additional data from the Census which contains a self-defined category of unemployed will also be considered.

8.2 Female claimant unemployment rates

Unemployment rates are usually published for specific areas such as Travel to Work Areas, counties and regions though not areas below this resolution. The raw data of the monthly claimant count is however readily accessible via NOMIS on a ward to ward basis using the 1981 boundaries from July 1983 to January 1996. The series moved over to a 1991 ward base from April 1996 and from this date a comparable definition

using 1991 ward boundaries is used. For Scotland the data is available on a postcode sector basis which was not available till 1985.

A female unemployment rate was calculated for the precisely defined coalfields by using as the denominator the number of economically active females aged 16-59 in each area provided by the 1991 Census of Population. Though this denominator is a fixed point in time and hence not as ideal as a moving count of economically active women on a month to month basis, the latter is unavailable and so the Census based denominator provides the best solution to the problem. It is a valid method of calculating rates as the base provided by the census in April 1991 is approximately mid way in the series and the population has been relatively stable over the entire period when natural increase and migration is considered.

The figures also shed light on the more recent history of the coalfields than is possible from the decennial censuses, and give levels of unemployment for the period including the enormous pit closure programme announced in Autumn 1992 and the privatisation of the industry in 1994.

Before considering the entire series of unemployment data, Table 8.2.1 displays the calculated claimant unemployment rates for both males and females at April 1991 in individual coalfields. This is the end of the time period covered by the labour market accounts. The data is ranked by the highest female unemployment rate.

Both the male and female unemployment rates in the coalfields were above the national average in April 1991, though only marginally. Considering the large male job loss in the area in the previous years the difference in the male unemployment rate in the coalfields compared to the national rate was small at only 1.8 percentage points higher. This is mainly due to the large rise in the number of men who were economically inactive and left the labour force entirely, as indicated by labour market accounts in Chapter 6. These men, though not in employment, will also not count amongst the unemployed and this goes some way to explaining the closeness of the coalfields male unemployment rate to the national level.

Table 8.2.1 - Claimant unemployment rates by sex for individual coalfields, Great Britain, April 1991

	claimant unemployment as % of economically active working age population	
	female	male
Ayrshire	7.8	17.2
Fife/Central	6.1	13.5
Lancashire	5.9	12.7
Durham	5.7	14.3
Clydesdale	5.5	14.0
North Derbyshire	5.5	11.4
Northumberland	5.4	13.8
Yorkshire	5.3	12.9
Strathkelvin	5.1	11.9
North Warwickshire	5.0	9.5
South Wales	4.9	14.3
South Staffordshire	4.8	9.6
Nottinghamshire	4.5	11.0
Kent	4.2	9.3
Lothian	4.1	11.0
North Staffordshire	4.1	9.5
North Wales	3.8	8.6
S.Derbyshire/N.W.Leicestershire	3.4	6.9
Total	5.1	12.4
Great Britain	4.6	10.6

Source : WPN and PPN from NOMIS and OPCS 1991 Census

The range of the female unemployment rates is narrower than for males and is explained by the fact that many women who enter the labour market do so via employment and the alternative is often non-participation in the labour force rather than becoming claimant unemployed due to ineligibility for benefit. The higher rates are concentrated in the more northern and Scottish coalfields, areas with traditionally higher levels of female labour market participation and those which also experienced the

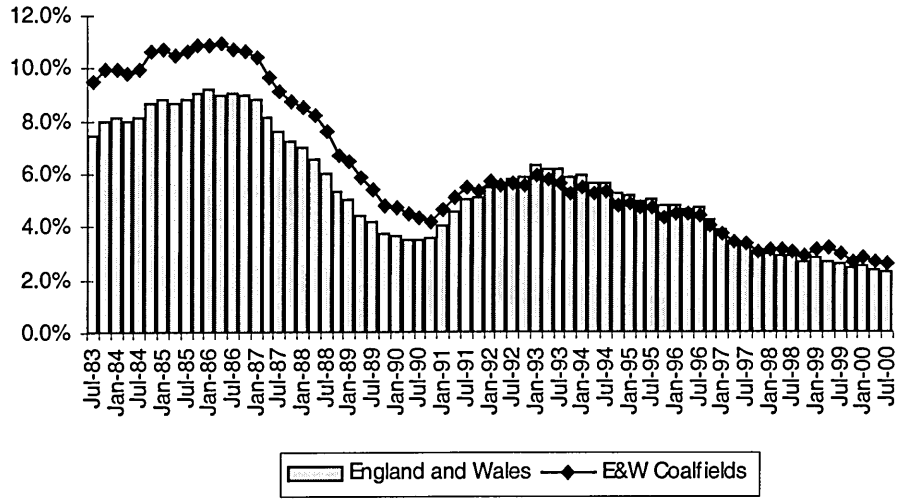
highest rates of unemployment amongst men. The coalfields with some of the lowest female unemployment rates were also those which experienced the largest increases in economic activity rates amongst married women from 1981-1991.

The rates were slightly higher in the pit villages than the coalfields but on the whole followed a similar pattern. The unemployment rate for males for all pit villages was 14.0% and for females the rate was 5.5%. The South Derbyshire/North West Leicestershire pit village area was the only one below the national rate.

The charts presented in Figure 8.2.1 and Figure 8.2.2 show the female unemployment rates for coalfields and the difference between this rate and the national average over time. The Scottish data again proves problematic as the geographic base used is postcode sectors which has a fluid geography and periodically changes as additional sectors are formed. The postcode sector level is only available from October 1985 onwards and a consistent matching of coded areas was completed up until October 1993 when the geography once again altered. After this point it became difficult to ensure that a consistently comparable area was defined over time. In order to maximise the length of the time series presented in these charts and ensure the consistency of data over time, unemployment rates for only the English and Welsh coalfields only are presented. This more complete time series is given in preference to the data for all coalfields in Great Britain as there was very little difference between the rates for both. When the unemployment rate for the Great Britain coalfields is considered for the section of the time series data was collated for (1985-1993), it was only 0.1% higher than the rate for English and Welsh coalfields and no more for the majority of the series.

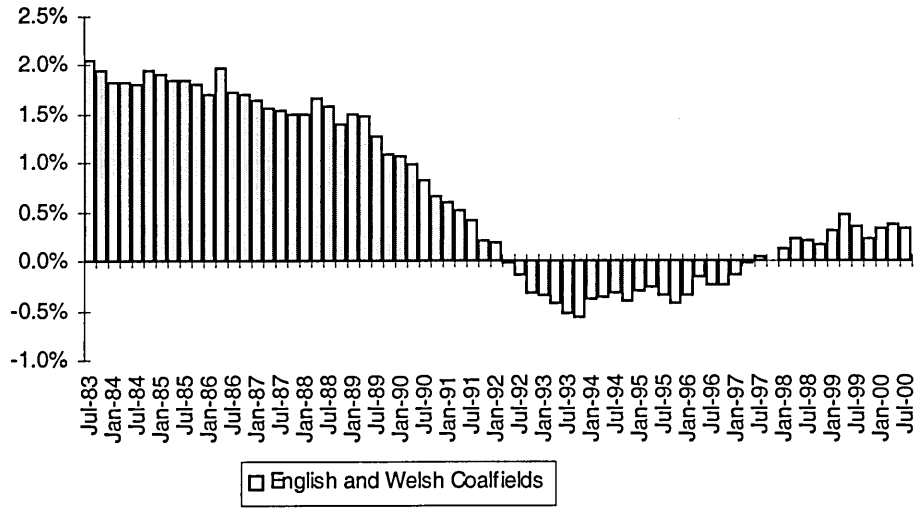
The female unemployment rates in the coalfields presented in Figure 8.2.1 follow the underlying national trends in the trade cycle peaking in the recessions of the mid eighties and 1993 and falling at the time of the boom in 1989-90. The graph clearly shows that the female unemployment rate in the coalfields was consistently higher than the national rate from July 1983 to April 1989 by between 1.5% to 2%. At this point the rate in the coalfields begins to converge with the national rate until April 1992 when the rate falls below the national average. After nearly a year on par with the national average, in January 1998 the rate in the coalfields again rose above the level in England and Wales as a whole.

Figure 8.2.1 - Female claimant unemployment rates coalfields, England and Wales, 1983-2000



The chart shown in Figure 8.2.2 shows this comparative performance clearly. It depicts the difference between the coalfields and national average over the same period of time.

Figure 8.2.2 - Difference between female claimant unemployment rate in coalfields and national average, England and Wales, 1983-2000



The pit villages show very similar trends (Figure 8.2.3 and Figure 8.2.4) although slightly more pronounced. At the beginning of the period in July 1983 they had an unemployment rate of 10.2% which was 2.8% higher than the national rate. The gap was consistently higher than that between the coalfields and the national rate with a 2-3% difference from July 1983 to April 1989. The convergence after this point is slower than the coalfields with pit villages staying above the national average for six months longer up until October 1992.

Figure 8.2.3 - Female claimant unemployment rates pit villages, England and Wales, 1983-2000

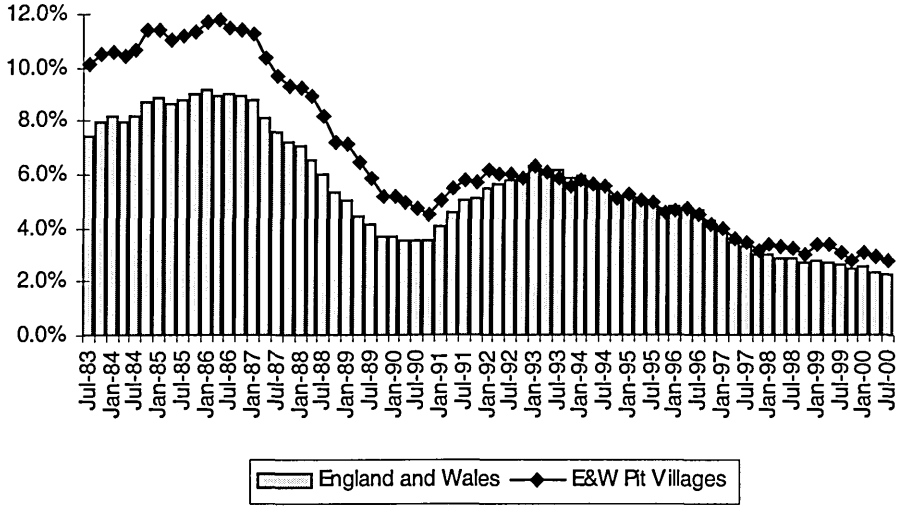
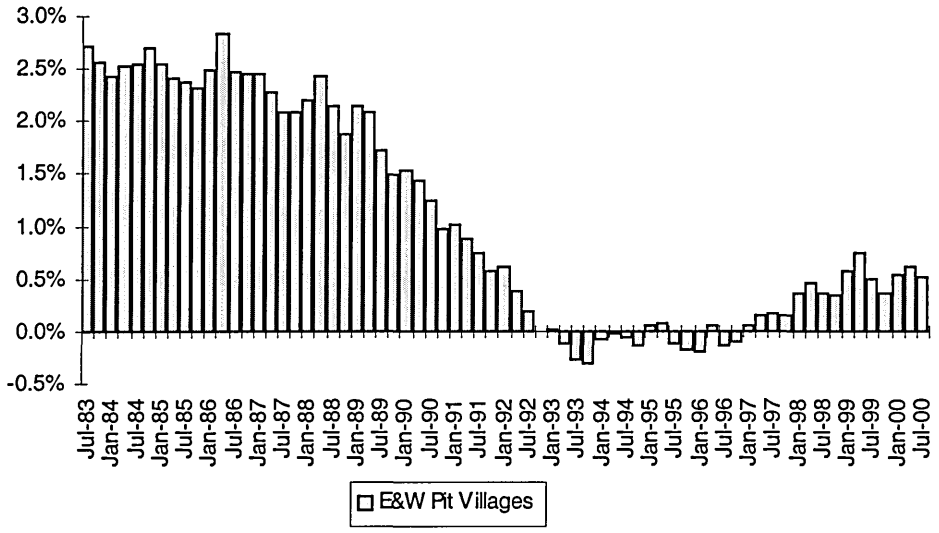


Figure 8.2.4 shows the difference between the pit villages and the national average The charts confirm that the female unemployment rate in the pit villages was higher for longer than in the coalfields and once rates began to climb, after a period of stability in the mid-nineties, they increased earlier and by larger amounts than in the coalfields.

Figure 8.2.4 - Difference between female claimant unemployment rate in pit villages and national average, England and Wales, 1983-2000

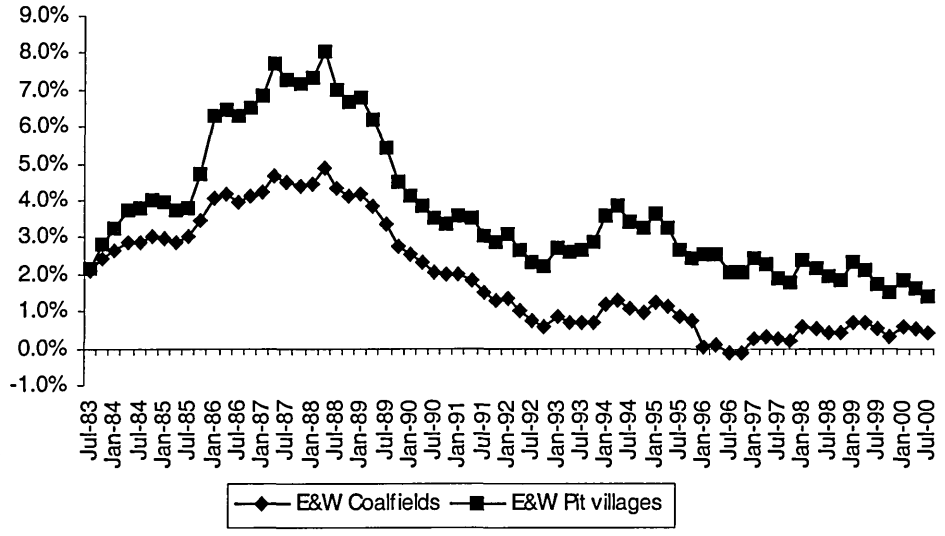


Similar charts generated for male unemployment rates in the coalfields (Beatty and Fothergill 1996) also present a picture of improving male unemployment rates over time in relation to the national average for both coalfields and pit villages. An updated version of the chart can be seen in Figure 8.2.5. The difference from the national average for male unemployment rates was wider than for females and peaked at 6-7% higher in the pit villages and 3-4% in the coalfields from 1986-1989. After this point the male unemployment rates also gradually converge towards the national rate though the pit villages do not actually fall below it.

The graphs presented in this section confirm the earlier findings from the labour market accounts. Unemployment is not sensitive to major increases or decreases in demand for labour. Instead, the main response to loss of jobs amongst males was an increase in economic inactivity and the main response to increased demand for labour amongst females was increased economic activity. If a traditional measure of claimant unemployment is used, or even the self-defined category of unemployment available from the Census which encompasses a wider breadth of people, then the coalfields

appear to have unemployment levels only marginally worse than the national average for males and at points marginally better for females. The discussion of the inadequacies of claimant unemployment as a true measure of the number of men and women unemployed points to the need for wider alternative indicators of both unemployment and non-employment to be created.

Figure 8.2.5 - Difference between male claimant unemployment rates in coalfields and pit villages and the national average, England and Wales, 1983-2000



8.3 Alternative measures of unemployment

So far both the labour market accounts and the claimant unemployment rates in the coalfields point towards the need to consider wider definitions of unemployment to gauge the true levels of joblessness or non-employment in these areas. Conventionally the labour force is often divided into three groups, the employed, the unemployed and the economically inactive. Labour market statistics are often concerned with the participants, that is the employed and the unemployed, and the health of labour markets are often given in terms of this group by measures including employment and unemployment rates.

The powerful insights provided by the labour market accounts of the adjustment processes occurring in the coalfields indicate that the situation is not a simple division into participants and non-participants. The economically inactive provided a huge additional supply of female labour in the coalfields, Rural Development Areas and nationally. In the male labour markets the economically inactive soaked up a large portion of men of working age who were no longer in employment. This fact points towards the need to consider the economically inactive as a group of people with a sliding scale of attachment to the labour market.

Depending on the circumstances within a local labour market, various groups of the inactive may be drawn into active participation because they still have varying degrees of attachment to the labour force. They may be people who want to work but are not actively seeking work or may not be available to start work straight away due to family or caring responsibilities. Discouraged workers may feel there is no point in actively searching for work as they are of the opinion that there are no jobs, or no suitable jobs available. This may be because the level of pay being offered will not make them any better off financially than benefits they currently receive. Alternatively, the terms and conditions on offer may not be acceptable when other factors, including family commitments, are taken into consideration.

Various alternative measures of the unemployed, non-employed, jobless and labour reserve have increasingly been used over recent years in acknowledgement of the growing importance of discouraged workers within the economically inactive. These help to gain a better understanding of the labour market and get beyond a straightforward unemployment rate.

The labour reserve is a wider concept than unemployment and includes all those who may provide potential labour resources (Green and Hasluck 1998). These are people who want to work, have varying degrees of attachment to the labour market and may not necessarily be actively looking for work or immediately available to take up employment but given the right circumstances will be drawn into the labour market. The coalfields provide an excellent example of this with women drawn from the economically inactive or labour reserve due to the high demand for their labour. There are a number of alternative complimentary measures of labour reserve defined by the International

Labour Office. The indicators U1 to U7 listed by Green and Hasluck increase in size by adding additional groups such as government scheme participants, discouraged workers and the underemployed to the base indicator U1 - the ILO unemployed.

A whole stream of work investigating the nature of these 'new landscapes' of non-employment has also developed. Green (1995a) first considered the pros and cons of the various alternative measures of unemployment including the claimant count, ILO unemployed from the Labour Force Survey and the unemployed as measured by the Census of Population. Green (1995b) examined the changing distribution and spatial segregation of the unemployed and inactive across Great Britain by considering the *degree*, *extent* and *intensity* of non-employment in local labour markets. Green found the *degree* of non-employment, when measured by unemployment and inactivity rates, was higher in northern Britain compared to southern Britain in both 1981 and 1991. The levels were also higher in large cities compared to small or medium sized towns and rural areas. The *extent* of non-employment within each area was measured as the proportion of wards in each area which were in the top 10% of all wards in Great Britain ranked on inactivity and unemployment rates. The *extent* of non-employment was most marked in former coalmining areas and other areas with a narrow industrial base such as a dominance of heavy manufacturing and textiles. Finally, the *intensity* of non-employment was calculated as the mean on each indicator for the three wards in each LLMA with the highest inactivity and unemployment rates. This concluded the intensity was highest in large northern metropolitan areas and London.

The exacerbation of trends in non-employment in Britain and the consequences on those in society who become socially excluded as a consequence was further investigated by Green (1997). Green and Owen (1998) also highlight geographic differences in non-employment in British cities and regions. There has been an increasing polarisation of labour markets between those with high unemployment and high inactivity rates and those with low unemployment and likewise low inactivity rates. The highest levels of non-employment were found to be in Inner London and Mining and Industrial areas. Interestingly, though the rise in non-employment in Inner London from 1981-1991 was based mainly on increases in unemployment, higher levels of inactivity in the Mining and Industrial areas accounted for nearly the entire growth in non-employment.

The labour market accounts for males and females in the coalfields confirm Green's findings that it is not the unemployed alone who should be considered but the wider group of the non-employed or jobless. For the males the largest adjustment which took place was the high number of men who became economically inactive rather than unemployed. Though of working age they have dropped out of the labour market entirely. They do not appear in the unemployment figures but are not in work either. For women, the largest increase in supply of labour came from the stock of the economically inactive rather than the unemployed.

This indicates a proportion of the economically inactive should be considered as unemployed or perhaps a better term to describe them is 'hidden unemployed'. These people are often not considered as officially unemployed as they do not fulfil all the criteria to be included in either the LFS or claimant count unemployed. This is often due to being unavailable for work in the immediate future due to other commitments, or that they have become discouraged workers and are no longer actively searching for work. This means for many that if a suitable job was available to them and childcare or other commitments could be taken care of then the individuals would re-join the labour force and take up the job.

Rates of economic inactivity have moved in opposite directions for both males and females over time. The female labour market in the coalfields will be considered to estimate not only how many women may be considered as 'hidden' unemployed, but also the degree to which there is an excess labour reserve over and above those who are unemployed; those who may provide a potential labour supply in the future.

8.4 Real levels of unemployment

A method to calculate the level of 'real' unemployment - that is, recorded unemployment plus those considered as 'hidden' unemployed - was derived for the case of men in the coalfields in 1991 using Census data by Beatty and Fothergill (1996). This methodology was further applied to Rural Development Areas in Beatty and Fothergill (1997). This measure attempts to quantify *those who might reasonably be expected to have been in work in a full-employed economy.* The 'real' level of unemployment endeavours to

incorporate discouraged workers - those who have decided that the prevailing conditions of the labour market and the poor job prospects available make it very unlikely they will find employment - and those who are more formally considered as unemployed.

Several components were included in the calculation for 1991. First of all the level of unemployment measured by the Census is used as the base. This often includes additional people above the level of the claimant count since this broader measure is self- defined and will include people ineligible for benefit. Those on government schemes are included as it is likely that most of the participants on these schemes would take a 'proper job' if one were available to them. Beatty and Fothergill (1996, 1999b), Beatty et al (1997b) have argued that in slack labour market conditions some men exit the labour market altogether via early retirement or diversion onto sickness benefits. To provide a reasonable estimate of those who may be regarded as hidden unemployed among the inactive, levels of permanent sickness and early retirement for the South East of England were used as a benchmark. This was chosen because of this area's recent history as the closest example there is of a fully employed economy from 1986-90. The lower levels of permanent sickness that occur in the South East are used as those expected within a reasonably fully employed economy. Those above the rate of early retirement or permanently sick in the South East were considered as 'hidden' unemployed in the new estimates of 'real' unemployment. It is important to stress that the implication of the inclusion of the excess sick is not that these people are benefit fraudsters (Beatty and Fothergill 1999b).

For women the largest component of change in the labour market accounts was an increase in the number of women who became economically active. Although there was a large increase in the number of women employed, the unemployment rate hardly changes. This was due to the majority of the new labour supply being drawn from the non-employed working age population - those who previously took no active part in the labour market.

It is worth noting that the distribution of women across components of hidden unemployment is different than for men. A relatively higher proportion of women in the final calculation of real unemployment are included via the census measure of unemployment rather than the other components of hidden unemployment. This is due

a higher level of women who consider themselves as unemployed - and hence are included in the self-defined category in the census - above the levels of claimant unemployment which are low due to fewer women than men being eligible for Job Seekers Allowance. The modest contribution to the level of real unemployment from the other components is a result of a smaller excess rate of early retirement and permanent sickness over and the benchmark used. Though these were above the national average, they were smaller than the excess levels amongst men.

The method for estimating the level of 'real' unemployment was developed further to provide more up to date estimates (Beatty et al 1997b). The scope of the areas considered was also widened to produce figures for all local authorities in Great Britain. The subsequent report 'The Real Level of Unemployment' incorporated data from various sources including 1996 Incapacity Benefit Claimants by local authority provided by the Department of Social Security, and numbers participating on Government Schemes for every Training and Enterprise Council (TEC), supplied by the DfEE. The figures were also re-worked to provide figures for the Rural Development Areas updated to January 1997 (Beatty and Fothergill 1997).

One of the main criticisms of the method - for either the 1991 estimates or the 1997 updates - which surfaced was the use of the South East as a benchmark for calculating the excess proportion of sick who may be considered as hidden unemployed. It was argued that the use of the South East benchmark did not take account of the varying morbidity and mortality ratios that were evident across Britain. The fact that there was a higher incidence of ill health in the coalfields was to be expected as there was bound to be a higher incidence of industrial related injuries and illnesses. This was a fair point, but it was felt this did not fully explain the increases in sickness in the coalfields between 1981 to 1991. If anything, the successive pit closures in previous years meant that the coal industry had already laid off many of the older men working in the industry. Those who were left tended to be younger and fitter.

In order to take this criticism on board however, and to improve the estimate of real unemployment for females, the geographic distribution of the underlying level of illness amongst women has been taken into consideration. This updated method for estimating real unemployment is applied for females within individual coalfields in 1991

(Table 8.4.1) and pit villages (Table 8.4.2). Ideally, it would have been interesting to also calculate the real level of unemployment for women in the coalfields in 1997 using the new method. However, this would have required a substantial re-working of the data collected for the 1997 Beatty et al study and the continued expansion of this thesis, so this has not been possible.

Table 8.4.1 - Female 'real' and claimant unemployment in coalfields, Great Britain, April 1991

Coalfields	Claimant Unemployment Rate	Real Unemployment Rate	Labour reserve
South Wales	4.9	17.9	2.9
Ayrshire	7.8	17.2	6.7
Durham	5.7	16.4	3.6
Lancashire	5.9	16.4	0.5
Fife/Central	6.1	14.8	1.2
Strathkelvin	5.1	14.7	-
Clydesdale	5.5	14.3	-
Northumberland	5.4	13.7	1.0
Yorkshire	5.3	12.9	3.5
North Staffordshire	4.1	12.6	-
North Wales	3.8	12.3	2.7
North Warwickshire	5.0	11.1	3.5
Nottinghamshire	4.5	10.6	2.3
South Staffordshire	4.8	10.6	2.6
North Derbyshire	5.5	10.3	3.2
Kent	4.2	9.4	3.3
Lothian	4.1	8.3	-
S.Derbyshire/NW.Leicestershire	3.4	8.2	1.5
Total GB coalfields	5.1	13.6	2.6
Great Britain	4.6	9.9	0.4

Source: NOMIS, Census of Population, author's estimates

Female real unemployment rates in 1991 of 13.6% in the coalfields (Table 8.4.1) and 15.2% in the pit villages (Table 8.4.2) are of a similar magnitude to the levels of claimant

unemployment amongst men in the coalfields, and far lower than the high levels of male real unemployment in these areas. The calculations confirm that the level of real unemployment amongst women in the coalfields and pit villages is higher than the national average. The coalfields are 3.7% higher than for Great Britain as a whole and for pit villages the differential increases to 5.3%.

As previously noted the distribution of economic activity across sub-groups is different for females than for males. The largest group of the economically inactive females are classified as 'other' inactive. A large proportion of these are likely to be full-time housewives and mothers. The performance of the female labour markets in coalfield areas, as illustrated by the labour market accounts, show that large numbers of women from the economically inactive still have some attachment to the labour force and are drawn into the labour market when the demand for their labour is high. In order to take account of this additional capacity amongst the 'other inactive' group to provide extra labour resources, a measure of labour reserve has been added to Table 8.4.1 and Table 8.4.2.

The labour reserve is calculated as the excess proportion of the 'other' inactive group using the rate in the South East in 1991 as a benchmark once more. The labour reserve is calculated as a percentage of all women of working age in the areas. To describe this as a labour reserve rather than hidden unemployment is a more accurate reflection of the measure as many included within its scope may not currently wish to work. It is also a very crude method for estimating the potential female labour reserve available at a particular fixed point in time. As the expansion of female economic activity has continued to expand, the proportion of women described as 'other' inactive is likely to have fallen in the South East. Hence, the benchmark would also be falling and so the potential labour reserve available may change in relation to it over time. Having noted the rudimentary nature of the measure of labour reserve used here, it does still provide a basic estimate of the potential female labour supply available in the coalfields in 1991.

If the female participation rates continue to rise in the coalfield areas, and additional employment opportunities for females arise, then Table 8.2.1 and 8.2.2 show there is still capacity within these areas to provide extra labour resources from the inactive. It can be seen that the potential is greatest in the pit villages with a labour reserve of 4.8%

compared to 2.6% in the coalfields and 0.4% for the national average. The comparable figure for the RDAs indicates a potential labour reserve of 3.3%.

The relationship between claimant and real unemployment rates is not so clear cut for women as for men in the coalfields. The interaction of the unemployment rate and the levels of potential labour supply as measured by the Labour Reserve means that there is not a straightforward linear relationship between the real and claimant rates. A correlation coefficient calculated for the two measures confirms this and at 0.69 is a weaker positive relationship than for the male rates with a coefficient of 0.93. The coalfields with the highest female 'real' unemployment rates are the same as those with the highest male 'real' unemployment rates. Coalfields with high female real unemployment rates are also concentrated amongst the coalfields which had the lowest participation rates for both married and single/widowed/divorced women.

The Ayrshire coalfield had by far the highest level of labour reserve coupled with the highest claimant and second highest 'real' unemployment rates. This was also the coalfield with the largest drop in participation rates amongst single women from 1981-1991. This labour reserve is likely to remain high for as long as the claimant rates remain high and women will continue not be drawn into the labour market unless the demand for female labour increases.

Some of the coalfields are performing relatively well compared to the national average. Six coalfields show claimant rates below the national average and the South Derbyshire/North West Leicestershire, Kent and Lothian coalfields also have below national average 'real' unemployment rates.

The pit villages again present pockets of poorer labour market opportunities for women within the coalfields. The figures for individual pit villages in Table 8.4.2 indicate higher levels of claimant and real unemployment rates and labour reserve are prevalent. Whereas there were four coalfields with relatively tight labour markets and no level of labour reserve using this indicator, all the pit villages have some degree of labour reserve and for six areas of pit villages the levels are above 5% of the female working age population. The levels of 'real' unemployment amongst women are quite high in

some of the pit villages and rise to nearly one in five women in over a quarter of the areas.

Overall, the calculation of an alternative measure of unemployment which includes portions of the economically inactive has been a worthwhile exercise. Though claimant unemployment rates have declined steadily over the years in the coalfields, the 'real' unemployment rate has been consistently higher. The association between claimant and real unemployment has also been borne out with largest increases in non-employment in areas with the greatest increases in claimant unemployment.

Table 8.4.2 - Female 'real' and claimant unemployment in pit villages, Great Britain, April 1991

Pit villages	Claimant Unemployment Rate	Real Unemployment Rate	Labour reserve
Ayrshire	8.6	22.2	8.1
North Staffordshire	7.0	19.8	3.4
South Wales	5.3	19.6	4.8
Durham	5.4	19.5	4.4
Yorkshire	5.9	15.7	5.9
Northumberland	5.8	15.5	2.1
Fife/Central	5.8	15.3	1.9
South Staffordshire	5.2	13.8	5.2
North Warwickshire	5.2	12.3	5.5
Nottinghamshire	4.8	11.9	4.3
North Derbyshire	5.7	11.8	5.9
Lothian	5.1	10.9	0.2
Kent	4.8	10.8	5.3
S.Derbyshire/NW.Leicestershire	3.9	9.0	2.5
Total GB Pit Villages	5.5	15.2	4.8
Great Britain	4.6	9.9	0.4

Source: NOMIS, Census of Population, author's estimates

8.5 Summary

The calculation of claimant and real unemployment rates and an indicator of labour reserve within the coalfields and pit villages has highlighted that there is potential for the female labour markets in these areas to expand further:

- Female claimant unemployment rates are similar to the national average in both the coalfields and pit villages.

- Claimant unemployment is not sensitive to major increases in demand for female labour or decreases in demand for male labour.

- 'Real' unemployment rates for women in the coalfields in 1991 are more than twice as high as the level of claimant unemployment present and in the pit villages the differential increases to three times the level.

- The 'real' level of unemployment amongst women in the coalfields and pit villages in 1991 is higher than the national level.

- The relative importance of the components for real unemployment are different for men and women. For men the excess level of permanently sick is the largest element whereas for women it is the self-declared measure of unemployment from the Census. This contains many women ineligible for unemployment related benefits and hence are not included in the claimant count.

- There was a potential labour reserve of 2.6% of working age women in the coalfields in 1991 who may be drawn into the labour market. In the pit villages in 1991 this figure rises to 4.8% of working age women compared to only 0.4% nationally.

The estimates of real unemployment and the labour reserve in 1991 suggest that there is a higher level of potential female labour available than is acknowledged by the claimant unemployment measure. If demand for female labour continued to increase - perhaps as the service sector continues to grow - the likelihood is that more women would be drawn from the economically inactive and join the ranks of the employed. As a

consequence, the level of female claimant unemployment will not necessarily fall as the demand for labour increases.

Chapter 9

Conclusions

The labour markets in Great Britain's coalfields have been previously investigated on several occasions. However, the primary focus of much research to date has been how the decline of the coal industry affected the labour market position of men formerly employed by the coal industry and the effects of male job loss on the individual, the local economy and the coalfield communities. This study instead looks at a frequently neglected aspect of change in the coalfield labour markets - that of women's participation within them.

To consider the female labour markets within coalfield areas is especially relevant given their changing position within the workforce as a whole. Nationally, women have increasingly played a larger part in the labour market. Greater numbers of women now actively participate in the labour market compared to twenty years ago, with growth most rapid amongst married women returning to work. The growth in female economic activity and employment has been fuelled by the growth of the service sector and the demand for female labour this has generated. Conversely, the demand for male labour has fallen as traditional heavy industry has declined. This gradual shift in the structure of the economy has lead to an increasing feminisation of the labour market with trends in economic activity moving in opposite directions for men and women.

The main thrust of this study then, has been to consider how the female labour markets in the coalfields performed in the context of increased female participation nationally, set against local labour market conditions with an excess male labour supply available. The coalfields provide an extreme example of an area which has experienced the major decline of a traditional industry and with it an associated fall in demand for male labour.

The overwhelming picture which emerged from the analysis has been one that shows that, though a major source of male job opportunities has been removed creating a large potential supply of male labour, the employment prospects of women appear comparatively unscathed. The male and female labour markets in coalfield areas seem relatively independent of each other.

The strong message which emerges is one of expanding female opportunities in both the coalfields and the pit villages which both virtually kept pace with the levels of growth in economic activity and employment experienced amongst women nationally. Growth in economic activity rates amongst various sub groups of women – by age or marital status – also kept pace with the national trends. This contrasts with the relative performance of the male labour markets in the coalfields compared to national trends. The coalfields and pit villages experienced a decline in male economic activity rates twice that experienced amongst men nationally and employment fell by almost three times the national rate in the coalfields while in the pit villages the decline was nearly six times the national rate.

The female labour markets in coalfield areas appear then not to have been greatly hindered by the large working age male population who were potentially seeking work after pit closures. This is most evident from the comparison of the male and female labour market accounts for 1981-1991 and the completely different responses of the male and female labour markets to changes in demand over the ten year period. The main response to the falling demand for male labour was for the surplus supply to withdraw from the labour market entirely, although new employment opportunities outside the loss in the coal industry absorbed 44,900 of the male surplus labour supply available. In addition a further 68,500 new employment opportunities were filled by women. These jobs were not necessarily filled by the female labour supply available but instead a large, new, green female labour supply was drawn from the economically inactive. If greater competition between males and females for all these jobs had existed, and the labour market had acted more as one pool of labour rather than two distinct pools, then the logical response to the overall increased demand would have been expected to be different. One would have thought that instead of a completely new female labour supply being drawn into the labour force, that a larger proportion of the surplus male labour supply available would have taken these new job opportunities rather than dropping out of the labour market. So, when demand for labour is increased by the creation of new jobs, the labour supply appears to be gender specific as to who actually fills the different types of jobs available. The male and female labour markets do then appear to function relatively independently of each other and, though there is bound to be some interaction between the two, they do not seem to act as one homogeneous pool of labour.

Though the performance of the female labour markets in coalfields kept pace well with national trends, considering the upheaval of the male labour markets in these areas, they

are unlikely to have been completely unaffected. The major male job loss which occurred is likely to have had some dampening effect both on the local economy and on the growth in female employment. In addition, due to the importance of manufacturing in the coalfields, as the sector declined nationally it will have caused job losses for both males and females in these areas. In all likelihood, if the pit closure programme through the Eighties had not taken place, and manufacturing were less important as a female employer in these areas, then the expansion of the female labour markets would not only have kept pace with the national average, but surpassed it. This has been demonstrated by comparison of the coalfield labour market accounts with those from areas which had different experiences of male labour market performance and differing degrees of reliance on manufacturing for female employment.

The female labour market accounts for coalfields were compared with those for Rural Development Areas - areas where male employment prospects remained stable alongside stable manufacturing sectors. They show that the potential for female employment growth was great in areas where demand for male labour was not contracting, female employment was not concentrated in manufacturing and large sources of untapped female labour supply were available for the expanding service sector. Conversely, when the performance of the labour markets in Britain's largest cities are considered - where male employment contracted at an even more rapid rate than the coalfields and manufacturing was the largest source of job losses – then female employment managed to remain stable as increases in employment in the service sector were offset by the declining manufacturing sectors.

There is then a relationship between the health of the male labour market and the potential for female employment growth. There has been growth in the service sector in most areas yet this does not seem to be creating an equal division of new opportunities to work amongst men and women. This does not mean that men have not benefited from the expansion of the service sector, as they clearly have - the majority of new male employment opportunities, which offset some of the decline in the coal industry, were in service industries. However, the net gain of females employed in the service sectors was more than that for men. There are a number of possible factors which may influence the fact that women are being drawn into the labour market to fill these new employment opportunities rather than the existing male labour supply taking up the jobs.

The jobs created may be less attractive to men than women. They may be part-time, flexible or casualised jobs. The new jobs created may be seen as 'women's work' if they are within certain service industries. They may also be lower paid jobs. Any or all of these factors may influence men's decisions not to compete for these jobs. Or perhaps they did compete for them but either the employers felt that women were the better candidates for the jobs or that women were the preferred employees. Men who find themselves without employment as older industries shed male labour may also have alternative financial 'cushions' that may mean they feel it is not necessary or worthwhile to look for or take up alternative work opportunities. Older, redundant workers may have a pension they can draw on or, if in ill health, they may be entitled to Incapacity Benefit which is non-means tested.

The gender differential as to who benefited from additional employment opportunities is shown by the analysis of employment change by industrial sector. As already highlighted, the majority of all employment growth for both men and women in the coalfields was in the service sectors. The balance of absolute increases in employment, though slightly in women's favour, was very similar for both men and women in the Distribution, Hotels, Catering and Repairs and the Banking, Finance and Business Services sectors (these absolute job gains do though account for a larger percentage increase relative to the size of female total employment). The major gender difference in who gained new employment opportunities occurred in the growth of the Other Services sector. Whereas only an additional 3,700 men were employed in this sector in 1991 compared to 1981, for women the increase in employment was 47,700. This was more than the extra female employment created in both other service sectors together.

Other Services - which includes public administration, education, medical and health services and personal and domestic services – was also the most highly gender segregated industrial sector in women's favour in the coalfields. Since this was the sector which experienced greatest growth and women are concentrated in this sector then it would be expected that a higher proportion of these additional jobs went to women. That the employment gains were so skewed in women's favour suggest that the sub-sectors the jobs were created in may be even more gender segregated than the analysis at sector level reveals.

Overall, there appears to be no evidence of displacement of women from employment as the large male labour supply was released into the labour market. Though the Other

Manufacturing sector shed female labour and gained some additional male employment, this is much more likely to be due to the dominance of women in contracting textiles and clothing industries and the success of regeneration efforts to create new manufacturing opportunities rather than men taking women's jobs. This does not discount the possibility that there may have been some displacement of women from new job opportunities as they arose through a greater pool of labour in competition for jobs. However, this is likely only to affect certain types of job, as men did not seem to be in direct competition with women for jobs across all sectors. Again, there is no clear evidence of displacement from opportunity by the analysis offered here, and in reality even if all job applications for all jobs were monitored and compared to previous trends, this still would not pick up those people who never applied in the first place as they felt the competition would be too great. However, men did account for approximately half of all new jobs in Distribution, Hotels, Catering and Repairs and the Banking, Finance and Business Services sectors. This was slightly higher than the representation of men employed by these sectors, though once again this could be influenced by the gender segregation within the sub-sectors the jobs were actually created in. However, it is worth noting that the gender segregation in these two sectors moved slightly in men's favour and was contrary to the national trends.

The investigation of the industrial structure of coalfields employment confirmed that manufacturing declined in importance in its share of total employment for women from 1981-1991 and that there was a continued shift towards the service sector. This was a consequence of both job loss in manufacturing and the service sector expanding. However, manufacturing still employed one in four women in the pit villages and one in five women in the coalfields which was above the national average. For men, the large shift towards the service sector was as much a consequence of the overall contraction of the male labour market due to the major decline of the Energy and Water sector as to the additional employment in services. The share of total male employment in manufacturing actually increased over the ten year period. This again was a result of the decline in total male employment rather than an increase in manufacturing jobs.

The study has not only highlighted the relative lack of interaction between sections of the male and female labour markets - in that demand in one area does not necessarily soak up available supply in the other – but it also reinforces the idea that fluctuations in demand do not feed through into direct changes in conventional measures of unemployment. The female labour markets experienced a large increase in demand for labour yet unemployment decreased only slightly. Conversely, the demand for male labour fell

drastically and yet unemployment rose only minutely in comparison. In both labour markets the interaction of change in economic activity rates was the primary intermediary. Other factors also intervened including increased net out-migration. Amongst males that remained, the lack of demand resulted in a large section of the working-age population becoming detached from the labour market entirely. They were no longer in employment or conventionally unemployed; instead the unemployment became hidden. The non-mutually exclusive mechanisms through which this happened included diversion onto other forms of benefit, such as Incapacity Benefit, relying on another wage in the household, living on redundancy payments and pension entitlements.

The inverse was true for the female labour markets. Demand for labour increased but those measured as unemployed only fell slightly. The increased demand for labour was instead balanced by an increase in economic activity amongst women. Women who were previously not participating in the labour market were drawn into the labour market. Some of these women could be considered as hidden unemployed – in that they wanted work but were ineligible for unemployment benefit. In addition, there was also capacity to meet increased demand from the labour reserve. Many of these women may have been engaged in non-paid work looking after a home and family. However, as demand for labour increased, opportunities arose to participate in paid employment which these women decided to take. The labour market accounts emphasised the need for alternative broader measures of unemployment and labour reserve if a more accurate reflection of the true degree of labour market slack in an area is to be gauged.

This study has presented a picture of coalfield labour markets which focuses on the increasingly important position of women within them. The engagement of women in paid work in these areas is likely not only to have affected the local economy but the social fabric of the communities also. The bulk of the analysis was dependent on the timing of the Census of Population (from 1981 to 1991) and covered a time of radical change within these labour markets. With 2001 fast approaching, the next Census seems ever closer. Perhaps the major question the completion of this work now raises - given that data will soon be available to repeat the analysis for 2001 - is, have women continued to join the workforce in these areas and, as things have settled, have the male and female labour markets become more integrated over time or have the differences persisted?

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