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THE CHANGING COMPONENTS OF THE LABOUR FORCE IN THE UNITED KINGDOM AND ITS REGIONS^a

Clive Collis, Tony Mallier, David Morris
Coventry Business School, Coventry University, UK

ABSTRACT

The proportion of the civilian labour force in the working age population (the economic activity or participation rate) remained fairly constant in the United Kingdom between the mid-1950's and the mid-1970's. However this consistency masked changes in the components and deployment of the labour force which became particularly apparent between the mid-1970's and mid-1990's when the proportion of the civilian labour force in the working age population grew. In the United Kingdom the average economic activity rate for the periods 1956-1965 and 1966-1975 is estimated to have been 71%, but it subsequently rose first to an average of 73% for the period 1976-1985 and then to an average of 75% for the period 1986-1996. The increases in the activity rate from the mid-1970's appear to be associated with an increase in the numbers of working age females joining the labour force and is thought to be related to the growth in part-time employment. At the sub-national level a notable feature is that in the traditionally depressed regions of the United Kingdom many males have withdrawn from the labour force prior to retirement age and joined the "hidden unemployed".

I. INTRODUCTION

A generation ago a new industry, the "end of work industry", emerged which offered as a product the theme that work, as it was known, in the older industrial nations was about to come to an end: see for example Parker (1971), Jenkins et al (1979) and Handy (1984). In the future THE CHIP would replace the need for individuals to seek employment and the former wage earners in affected nations would henceforth have to work only at their golf and/or other leisure pursuits. Those goods and services required in western nations would, with the aid of THE CHIP, be produced in the developing nations, whose growing populations required work rather more than those fortunate enough to live in the former industrial nations.

However as Rojas (1999) argues, this scenario has not proven correct. In the United Kingdom (UK), and a number of other industrial nations, a higher proportion of people now wish to work than on any previous occasion and the numbers employed are at record levels. Rather than the "end of work" being a consequence of technological innovation, technological change, as in the past, has created opportunities for employment where none existed before. In this context, the aim of the research presented in this paper is to examine the changing components of the labour force in the UK and its regions. The method employed was to gather relevant statistical data from numerous published sources in order to assemble key tables which provided the factual basis upon which an interpretative analysis was developed.

II. BACKGROUND

Data from the Organization for Economic Co-operation and Development Labour Force Statistics volumes has been utilised to estimate for the UK an economic activity (participation) rate and an employment rate for the forty year period concluding in 1996, the resulting estimates are reproduced in Diagram 1.

The economic activity rate is calculated as follows:

$$(\text{Civilian Labour Force/Population aged 15-64 years}) \times 100.$$

The employment rate is calculated as follows:

$$(\text{Civilian Employment/Population aged 15-64 years}) \times 100.$$

Diagram 1 reveals a substantial degree of stability in the participation rate until the mid-1970's. While the civilian labour force and the population at risk both increased between 1956 and 1976 the average economic activity varied little over this period. However, from the mid-1970's the economic activity rate began to rise and after a decline in the early 1980's this upward trend continued again.

There were fluctuations in the economic activity rate around the long term trend reflecting short term changes in labour market conditions. There were occasions when individuals on the margin, who are not regular participants in the civilian labour force, were drawn into the labour force and when their services were no longer required they withdrew and did not register as unemployed. The indications are that the membership of this "reserve army of labour" changed over time. In the earlier period, until the mid-1970's, the evidence developed by Mallier and Rosser (1987) would suggest this reserve army was predominantly female. However, during the more recent period women appear to have been replaced by older people many of whom, having taken early retirement from their lifelong jobs, sometimes wish to undertake employment within limited time horizons (Dench and Norton 1996).

The employment rate curve, reflecting the actual demand for labour, was more volatile around a declining trend until the early 1980's. After rising in the rest of the 1980's, it declined in the early 1990's, after which there was a modest recovery.

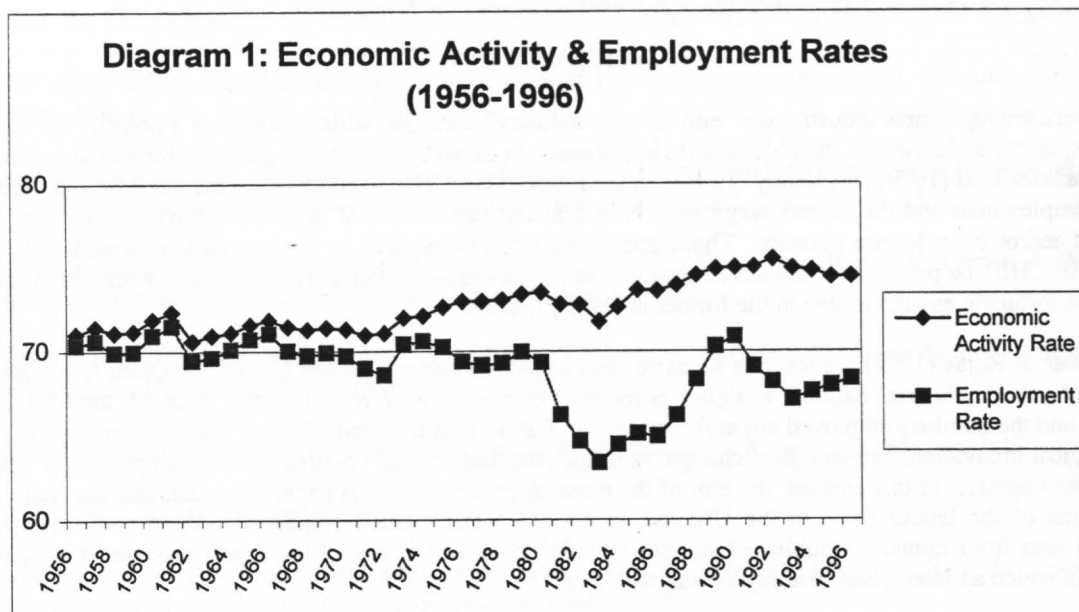


Table 1 shows average activity rates for each of four decades.

TABLE 1:
Average Economic Activity Rates for the UK by decade, 1956-1996

Decade	Average economic activity rate
1956-1966	71.316
1966-1976	71.599
1976-1986	72.860
1986-1996	74.646

(Source: OECD Labour Force Statistics – see Appendix I and II)

In each of the first two decades the economic activity rate exhibits a high degree of stability and, while the population at risk and the civilian labour force were increasing numerically between 1956 and 1976, the average economic activity rate changed little in this period. This condition did not continue: from the mid-1970's the economic activity rate began to increase and continued to do so into the 1990's and it this latter period which is the concern of this paper.

The changing relationship between the size of the civilian labour force and the population at risk from the 1970's confirms the findings of Ross MacKay (1997). In his study of long term trends in job vacancies and the level of unemployment he perceived there was a change in the UK labour market from the mid-1970's onwards. Similarly in her study of female employment Hakim (1993) concluded the nature of the UK labour market changed, with a significant increase in women's economic participation which began to take place in the mid-1970's as part-time employment became increasingly significant. That there were changes occurring in the UK labour market during the 1970's is clear and the changes in the level of the aggregate UK economic activity rates over the last two decades may be attributed to the increasing participation, and acceptance, of women in the civilian labour force.

In acknowledging that increased levels economic activity by women have become a significant aspect of the contemporary UK labour market it is also necessary to evaluate the parallel changes in the size of the population of risk and the civilian labour force over the last two decades.

TABLE 2:

Population at Risk and Civilian Labour Force in the UK, 1976/1996, in '000's

	1976	1996	Change %
Population (15-64 years)			
-total	35,162	37,452	6.51(+)
-male	17,548	18,882	7.60(+)
-female	17,614	18,570	5.42(+)
Civilian labour force			
-total	25,756	28,553	10.85(+)
-male	15,911	15,992	00.50(+)
-female	9,845	12,561	27.58(+)

(Source: Central Statistical Office 1977, 1979 and Office of National Statistics 1996, 1997)

Table 2 shows that between 1976 and 1996 the UK population aged 15-64 years, the divisor in the equations used to estimate the economic activity and employment rates, grew by 6.5%, or approximately 2.3 million, with males accounting for 60% of the increase. Data on migration suggests this had only a limited impact on the observed population growth which can be attributed mainly to natural growth. The explanation for the differential increase in the number of males when compared with females reflects two considerations: firstly, the 1976 male figure was artificially depressed as a result of deaths in the second world war and secondly, the net migration data indicates there was a modest positive male bias.

During the same period the civilian labour force, the dividend in the activity rate equation, grew by 2.8 million, twenty percent faster than the population growth. The percentage rates of growth differed, with the population at risk increasing by 6.5% while the civilian labour force rose by nearly 11%. These differential rates of growth were reflected in the increase in the economic activity rate. While the civilian labour force increased numerically there were significant gender differences in the rate of increase between males and females. In fact the number of males in the civilian labour force was virtually unchanged in 1996 when compared with 1976, although the male population had grown by 7.6%. The consequence of these differential movements was a decrease in the economic activity of males, and the entire numerical growth in the civilian labour force between 1976 and 1996 may be attributed to the increased economic participation of females.

These changes in economic activity for both sexes reflect profound changes in social attitudes towards employment in the UK. Young people are delaying entry to the civilian labour force as they extend their education and this will have an equal effect on the economic activity rates of both sexes and so this change does not explain the differing trends between the sexes noted above. The decline in the number of males in the civilian labour force arises not because of the increased education participation by the young but rather as the consequence of the withdrawal of those aged over 50 years from the labour market, see Collis and Mallier

(1996), which has reduced the size of the male labour force. The increased social acceptance of early retirement by males and the parallel social acceptance that women are entitled to seek employment have profoundly changed the gender balance of the UK civilian labour force between 1976 and 1996.

The changes in the economic activity rate identified in Table 1 above reflect the changes that have been occurring to the population aged 15-64 and the numbers entering the civilian labour force. The economic activity rate is focused upon the proportion of the population at risk who are available and willing to be employed, *ceteris paribus*, and does not reveal anything about either the number and/or trends in employment. To appreciate what has been occurring to civilian employment an employment rate has been calculated by decade, from the data in Appendix I. The results are shown in Table 3.

III. EMPLOYMENT CHANGE IN THE UK

TABLE 3:

The Average Number in Employment ('000's) and the Average Employment Rate (%) for the United Kingdom, by decade 1956-1996

Decade	Average Number Employed	Average Employment Rate
1956-1966	24,157	70,304
1966-1976	24,534	69,942
1976-1986	24,285	67,076
1986-1996	25,652	68,082

(Source: OECD Labour Force Statistics – see Appendix I and II)

Table 3 reveals that the highest average employment rate was in the first decade but although there was a modest decline in the subsequent decade the average number in employment between 1966 and 1976 was one and a half percentage points higher than in the first decade. The decade running from 1976 to 1986 began with the "oil price shock" and concluded with the economic reforms designed to restructure the British economy associated with the Conservative Government and Mrs Thatcher. During this decade there was both a three percent fall in the employment rate and a one percent decline in the average number of those in employment when compared with the previous decade. In the final decade employment increased from the previous decade and there was a modest rise in the employment rate, although this remained below the levels existing between 1956 and 1976. During this final decade, 1986-1996, the average numbers in employment in the UK reached a new high, although the percentage of population in employment was below the figures noted in earlier decades. The experience of the two decades, 1976-1986 and 1986-1996, were dissimilar. The first decade saw a decline in both employment and the employment rate while in the final decade employment grew more rapidly than in the previous decades.

On occasions the volatility in employment and the employment rate may be attributed to specific external factors, eg the oil price shock. More often the short term fluctuations around the declining trend owe more to the actions, or inactions, of governments against a background of the UK's failure to fully respond to the needs of a frontier-less global economy.

While the employment rate fluctuated over time there were significant changes taking place in the deployment of those employed, reflecting the changing nature of employment in the UK economy. The OECD Labour Force Statistics publications provide data on a three sector economy as shown in Table 4.

Compared with 1976 there was a 7.5% increase, 1.8 million more people, in civilian employment by 1996. However the increase in employment over the period is attributable only to growth in the service sector: both agriculture, forestry and fishing and the productive industries experienced declines in their employment levels over the period 1976-1996.

It is important to note there were instances when the decline in productive industry employment matched the growth in service sector employment as firms adopted a more flexible approach to their operations and contracting out non-core activities, often to the service sector (Institute of Manpower Studies, 1986). The potential size of this transfer between sectors is not known, but it would have been relatively small when

TABLE 4:

Civilian Employment in the UK by sector, 1976/1996, in '000's

	1976		1996		Numerical change
	Number	%	Number	%	1976-1996
Agriculture etc	685	2.8	598	2.3	87(-)
Productive industry	9,699	39.6	8,183	31.1	1,516(-)
All services	14,120	57.6	17,527	66.6	3,407(+)

(Source: OECD Labour Force Statistics 1997)

measured against the 3.4 million increase in service sector employment. This employment shift from productive industry to the service sector involving as it did the loss of 1.5 million jobs in the productive industry and the creation of 3.4 million new jobs in the service sector provides a partial explanation for the decline in the male activity rate and the parallel increase in the number of females in employment.

The changing deployment of the UK labour force between the different sectors lead simultaneously to changes in the occupational structure of the labour force, for different sectors require different skill mixes. As a broad generalisation it might be anticipated the decline in the productive sector would result in a reduction of the numbers of manual jobs while the employment growth in the service sector created new gender-neutral knowledge-based occupations.

TABLE 5:

Civilian Employment in Great Britain by occupation, 1971/1991, in '000's

	Male			Female		
	1971	1991	Change	1971	1991	Change
Professional occupations	857	975	117(+)	96	203	107(+)
Managerial and technical	3,104	3,931	826(+)	1,656	2,993	1,337(+)
Skilled (non-manual)	2,056	1,563	493(-)	3,596	4,182	586(+)
Skilled (manual)	6,645	4,595	2,050(-)	981	773	209(-)
Partly skilled	3,131	2,199	932(-)	2,473	1,806	667(-)
Unskilled	1,485	769	716(-)	727	784	56(+)

(Source: Office of Population Censuses and Surveys, 1975: Table 30 and 1994: Table 17)

The data in Table 5 has been drawn from the Census of Great Britain and does not contain information relating to Northern Ireland. Secondly, the data in the Table is based upon individuals' self-reported labour market status in the census.

The most significant change would appear to be the 30% fall in the number of individuals classified as being in the three manual occupations: skilled, partly skilled and unskilled. While not all manual workers are employed in the productive industry sector, the reduction in the numbers of these occupations does reflect the decline of the productive industry. Against the decline in the number of manual jobs there have been significant increases in the knowledge-based occupations: the numbers in professional occupations rose by a quarter and in the managerial and technical occupations the increase was 45%. Some of those within these occupations will have found employment in the productive sector but the majority have entered the increasingly significant service sector. While both males and females benefited from the increased numbers employed in knowledge-based occupations, among the skilled non-manual occupations the changes between 1971 and 1991 were more complicated. The numbers in this occupational category grew by under 2%, but the net change reflected a fall for males and an increase for females.

IV. EMPLOYMENT CHANGE IN THE UK REGIONS

In examining the evolving character of employment in the UK economy between 1976-1996 numerous changes have been observed. Economic activity rates rose, after two decades of stability. The civilian labour force increased by 7.5% with this growth reflecting growth in the female labour force (the male component remaining stable). In parallel with the numerical growth of the civilian labour force there was a 6.5% increase in the numbers in employment by 1996. The increase in the number employed was a consequence of service sector employment growth, whilst in the productive industry sector employment declined absolutely and relatively. These sectoral changes in the labour force deployment lead to significant changes in employment skills resulting in a decline in the number of manual workers and an increase in the number employed in knowledge-based occupations.

It is against the changing employment environment that the experiences of the eleven regional labour markets that constitute the United Kingdom will be evaluated. A number of those regions are regarded as "problem" regions, see Smith (1989), reflecting their above average unemployment levels in the past. Therefore interest will be focused on whether these regions, the Northern, North West, Yorkshire and Humberside, Scotland and Wales have been further adversely disadvantaged by the changing character of the UK labour market.

TABLE 6:

Male and Female Population at Risk and Civilian Labour Force in the UK regions, 1976/1996, '000's

TABLE 6-A: Males

	Pop'n of working age			Civilian labour force		
	1976	1996	+/- (%)	1976	1996	+/- (%)
Northern	994	994	0	902	802	11.1(-)
Yorkshire & Humber	1,536	1,628	5.9(+)	1,403	1,358	3.2(-)
East Midlands	1,187	1,335	12.5(+)	1,048	1,145	9.2(+)
East Anglia	567	677	17.6(+)	495	607	22.6(+)
South East	5,341	5,869	9.9(+)	4,985	5,072	1.7(+)
South West	1,295	1,515	17.0(+)	1,115	1,319	18.3(+)
West Midlands	1,669	1,719	3.0(+)	1,546	1,484	4.0(+)
North West	2,036	2,052	0.8(+)	1,854	1,677	9.5(-)
Scotland	1,594	1,668	4.6(+)	1,424	1,397	1.9(-)
Wales	863	916	6.1(+)	748	730	2.4(-)
Northern Ireland	466	509	9.2(+)	386	400	3.6(+)
UK	17,548	18,882	7.6(+)	15,911	15,992	0.5(+)

The data relating to the changes in the male population of working age and the male civilian labour force for the UK regions is presented in Table 6-A. A comparison between 1976 and 1996 shows two regions, the Northern and North West experienced little or no growth in their male population aged 15-64 years, a situation which suggests substantial outward migration by males to other UK regions and/or emigration. The male population of working age did increase in the three remaining problem regions but at a rate below the national average and this was also the experience of the West Midlands region. During the same period the female population of working age, see Table 6-B, exhibited a similar pattern although by 1996 the relevant female populations in the Northern and North West regions had declined in size when compared with 1976. These regions benefited the most from an influx of both male and female migrants from other parts of Britain. There was exceptionally fast population growth for both sexes in East Anglia and the South West experienced similar growth of its male population although the percentage increase of females was lower. The third region to benefit from internal migration was the East Midlands whose population of working age increased by 12%.

TABLE 6-B: Females

	Pop'n of working age			Civilian labour force		
	1976	1996	+/(%)	1976	1996	+/(%)
Northern	983	977	0.6(-)	533	637	19.5(+)
Yorkshire & Humber	1,528	1,581	3.5(+)	837	1,072	28.1(+)
East Midlands	1,165	1,300	11.6(+)	641	890	38.8(+)
East Anglia	551	656	19.0(+)	285	473	66.0(+)
South East	5,398	5,815	7.7(+)	3,183	3,975	24.9(+)
South West	1,317	1,474	11.9(+)	682	1,052	54.2(+)
West Midlands	1,624	1,663	2.4(+)	923	1,133	22.7(+)
North West	2,059	2,018	2.0(-)	1,190	1,335	12.2(+)
Scotland	1,657	1,673	1.0(+)	925	1,134	22.6(+)
Wales	870	896	3.0(+)	424	573	35.1(+)
Northern Ireland	461	516	11.9(+)	220	287	30.4(+)
UK	17,614	18,570	5.4(+)	9,845	12,561	27.6(+)

(Source: Central Statistical Office 1977, 1979 and Office for National Statistics 1996, 1997)

Not all of the population at risk seek employment, those who do constitute the civilian labour force. However, while the male working age population increased male membership of the civilian labour force remained unchanged at the aggregate level. In these circumstances it was anticipated the experience at regional level would not mirror the national picture. Each of the five problem regions experienced reductions in their male civilian labour force size, the largest at 11% occurring in the Northern region. The magnitude of the percentage decline in the male labour forces in other problem regions was smaller but these trends suggest an increasing proportion of males in these two regions had become "discouraged" workers. In contrast to the problem regions, all other regions experienced varying degrees of growth in their male civilian labour forces. The situation regarding the female labour force was more complex. Whilst at the aggregate level there was a 27% growth, the civilian labour forces in six regions experienced higher levels of growth. Equally significant is that two of the problem regions, Yorkshire and Humberside and Wales exceeded the aggregate growth figure, whilst the remaining problem regions, the Northern, North West and Scotland had the lowest regional percentage increases in the female labour force.

When the data for 1976 and 1996 is compared a high degree of consistency in the regional trends is identifiable. The five problem regions experienced slower than national growth in their male and female populations of working age whilst the most rapid growth in male and female populations occurred in the same three prosperous regions (East Midlands, East Anglia and South West). Similarly, for males, five of the six regions that experienced a slower than national growth in their population of working age simultaneously experienced decreases in the size of their male labour forces. For both sexes it is the same two regions, East Anglia and the South West, that exhibited the largest growth in civilian labour forces. However, there were different experiences when considering the growth of the female labour force: while three problem areas experienced below average percentage increases the same was true in the South East and West Midlands regions.

Using the civilian labour force and population of working age data regional economic activity rates by gender are shown in Table 7. The male activity rate for the UK in 1996 was 6.6% lower than the figure in 1976 reflecting the lack of growth in the male civilian labour force compared with the population of working age increase. Despite the overall decline the male activity rate did increase in two regions, East Anglia and the South West, and four of the largest percentage falls in male activity were in the problem regions, Scotland being the exception. There were also significant percentage reductions in the level of male activity in the South East and West Midlands regions. Regional activity rates for females, reflecting the growth in the female labour force, were of a different order of magnitude and for the UK the average rose by 21%. The largest increases, each being over 30%, were in East Anglia, the South West regions and Wales. However in three regions, the South East, North West and Northern Ireland, the increases were all at least 20% below the UK average. The growth in both male and female activity rates in East Anglia and South West place these two regions in a

TABLE 7:
Economic Activity Rates in the UK regions, 1976/1996

	Male			Female		
	1976	1996	+/- (%)	1976	1996	+/- (%)
Northern	90.7	80.7	11.0(-)	54.2	65.2	20.2(+)
Yorkshire & Humber	91.3	83.4	8.6(-)	54.8	67.8	23.8(+)
East Midlands	88.3	85.8	2.9(-)	55.0	68.5	24.4(+)
East Anglia	87.3	89.7	2.7(+)	51.7	72.1	39.4(+)
South East	93.3	86.4	7.4(-)	59.0	68.4	15.9(+)
South West	86.1	87.1	1.1(+)	51.8	71.4	37.8(+)
West Midlands	92.6	86.3	6.8(-)	56.8	68.1	19.9(+)
North West	91.1	81.7	10.2(-)	57.8	66.2	14.5(+)
Scotland	89.3	83.8	6.2(-)	55.8	67.8	21.4(+)
Wales	86.7	79.7	8.0(-)	48.7	63.9	31.2(+)
Northern Ireland	82.8	78.5	5.1(-)	47.7	55.6	16.6(+)
UK	90.7	84.7	6.6(-)	55.9	67.6	21.0(+)

(Source: Central Statistical Office 1977, 1979 and Office for National Statistics 1996, 1997)

different category from the other regions. For different reasons the trend in the activity rates between 1976 and 1996 in the South East region should be noted, namely for males a decline from top ranking resultant from a greater than national decline, and for females a decline from top ranking because of a growth below the national increase.

Civilian employment in the UK at the conclusion of the twenty year period was 5.2% higher than in 1976 (see Table 8). Three regions were the main beneficiaries of this growth and in 1996 employment, full and part-time or self-employed, was 28% higher in East Anglia and the South West than in 1976 and in a third region, Northern Ireland, the numbers in civilian employment increased by 18%. By any criteria these were significant increases although it should be noted East Anglia and Northern Ireland are the two smallest UK regions in employment terms. Four other regions, East Midlands (+11%), South East (+7%), Wales (+3%) and Yorkshire and Humberside (+2%) experienced more modest increases, and in the case of the latter two regions their increases were below the aggregate increase for the UK. There were, however, three regions, the Northern, North West and West Midlands regions, where the number in civilian employment fell.

While the absolute level of regional employment changed there were simultaneous changes in the deployment of regional labour forces. Data in Table 8 relates to the percentage of each region's employed labour force in two sectors: the Productive Industries and the Service Sector. Data relating to Agriculture, Forestry and Fishing is not included reflecting its relative insignificance as an employment generator in the UK economy. In 1976, 2.6% of the employed population were in this sector, and in 1996 the figure was 2.5%. In most regions employment in this sector was below the national average, the major exception being Northern Ireland.

The data in Table 8 reveals that nationally employment in the productive industry sector, which includes construction, fell by over 40%, and the largest declines, each over 50%, occurred in the Northern, North West, South East and Scottish regions. At the same time, employment in the Service Sector of the national economy increased by nearly 30%. Although the greatest percentage increase in Service Sector employment and the largest percentage decline in employment in the Productive Industries were both in the Northern region, there appears to be, at a regional level, little relationship between the employment changes in the two sectors. Thus, with the exception of the Northern region, significant losses in productive industry employment did not necessarily lead to correspondingly large increases in service sector employment. It should be noted that 32% of the total employment in both 1976 and 1996 was located in the South East, a region which had an atypical distribution of employment in both years but the changes occurring within this region do have a significant effect upon the figures for the UK.

TABLE 8:

Civilian Employment in the UK regions ('000's) and its distribution between sectors (%), 1976/1996

	Civilian Employment		Civilian employment by sector			
	(000's)		(Productive)		(Service)	
	1976	1996	1976	1996	1976	1996
Northern	1,330	1,206	46.5	21.3	51.0	76.5
Yorkshire & Humber	2,124	2,163	46.0	24.1	51.5	73.5
East Midlands	1,615	1,793	49.3	28.8	47.4	68.5
East Anglia	746	954	36.5	20.5	55.4	75.2
South East	7,860	8,427	32.2	15.9	66.4	82.4
South West	1,699	2,167	35.7	20.6	59.1	75.2
West Midlands	2,342	2,334	50.6	27.8	47.1	69.7
North West	2,845	2,656	43.9	21.8	55.0	76.8
Scotland	2,205	2,216	40.5	19.0	56.0	77.9
Wales	1,099	1,134	40.8	24.8	54.1	70.7
Northern Ireland	552	652	37.9	20.2	53.8	72.9
UK	24,425	25,703	40.0	23.6	57.3	73.9

(Source: Central Statistical Office 1977, 1979 and Office of National Statistics 1996, 1997)

The changing deployment of the labour force has to be viewed against the continuing decline of the productive industries and the increasing significance of the service sector and is mirrored in the changes which have taken place in the character of the occupation structure as shown in Table 9.

TABLE 9:

Distribution of civilian employment by occupation in the regions of Great Britain, 1971/1991

	Professional, Managerial, Technical		Skilled (non-manual)		All manual	
	1971	1991	1971	1991	1971	1991
Northern	18.5	27.3	18.4	22.1	63.1	50.6
Yorkshire & Humber	18.0	29.2	18.2	21.6	63.8	49.2
East Midlands	18.5	29.9	17.8	20.9	63.7	49.2
East Anglia	22.6	32.2	18.5	22.1	58.9	45.7
South East	24.4	37.7	25.4	25.3	50.2	37.0
-Greater London	22.2	38.8	28.2	26.3	49.6	34.9
-rest of South East	26.4	37.1	23.0	24.7	50.6	38.2
South West	25.1	33.4	20.4	23.3	54.5	43.4
West Midlands	18.4	29.1	18.9	21.8	62.7	49.1
North West	19.2	30.5	20.2	23.2	60.5	46.3
Scotland	19.7	30.7	19.5	22.4	60.8	46.9
Wales	22.0	32.4	17.2	22.8	60.8	44.8
Great Britain	21.3	32.7	21.1	23.2	57.6	45.1

(Source: Office of Population Censuses and Surveys, 1975 Table 30 and 1996 Table 17)

In 1971, in each region there were at least 50% of the civilian labour force who pursued manual occupations. That was the type of labour the economy then required. By 1991 in only one region, the Northern, were more than fifty percent of the labour force still regarded as manual workers. Over the twenty year period from 1971 the relative significance of manual occupations declined by over one fifth. The greatest reductions occurred in the South East and Northern Ireland, but every region experienced at least a 20% fall in the relative significance of their manual occupations. While the percentage increase in the skilled (non-manual) occupations was relatively modest, 10% across the British economy, two regions experienced rapid growth: the percentage of the labour force in Wales in this occupational category rose by 32% and in the Northern region by 30%. In the South East, however, the percentage remained constant. The proportion of the labour force in the Professional, Managerial and Technical group of occupations increased by 50% and in 1991 every third employee was in this occupational group. Every region benefited from the increasing significance of these occupations with the numbers increasing by over 60% in the Yorkshire and Humberside and the East Midlands regions. The data in Table 9 provides evidence of the knowledge-based occupations replacing the traditional manual occupations in all regional labour markets.

V. CONCLUSIONS

The starting point of this paper was a reference to the "end of work" hypothesis developed in the 1970's and the assumption that, because twenty years later the numbers wishing to be employed and who are employed have risen, the "end of work" approach was somehow flawed. But when the changing UK and regional labour markets are examined it is possible to recognise the ideas expounded have been proved partially correct. For many, the world of work they knew in the 1970's has come to an end: the productive industry sector has continued its decline and the numbers of workers in manual jobs have decreased. Much of what remains of productive industry is radically different from that which existed twenty years ago. The products may be the same, but the technologies used to produce them and the skills required of the workforce have changed radically. In parallel with the decline in productive industry employment, the service sector has grown and this sector is increasingly dependent upon employees with knowledge-based skills. These new occupations, unlike many of the old manual jobs, are gender neutral and increasing numbers of females now participate in the labour markets in every region replacing older males who opt to retire early. "The end of work" approach has been found to be partially correct: what its proponents anticipated has occurred across large sectors of the UK economy. They were not entirely correct, however, because from the mid 1970s there has developed as Gershuny (1978) anticipated, an economy which continues to offer employment and continues to generate wealth, albeit where services dominate.

^a The authors gratefully acknowledge the helpful comments of both the reviewer and the discussant.

APPENDIX I

United Kingdom: Population 15-64 years, Civilian Labour Force and Employment extracted from Organization for Economic Co-operation and Development (OECD) publications

Year	Population 15-64 years	Civilian Labour Force	Civilian Employment	Participation Rate	Employment Rate
1956	33,741	23,963	23,748	71.020	70.383
1957	33,762	24,111	23,835	71.415	70.597
1958	33,841	24,062	23,656	71.103	69.903
1959	34,000	24,199	23,779	71.174	69.938
1960	34,195	24,583	24,257	71.891	70.937
1961	34,384	24,872	24,585	72.336	71.501
1962	34,825	24,591	24,185	70.613	69.447
1963	34,855	24,726	24,230	70.940	69.617
1964	34,980	24,871	24,522	71.101	70.103
1965	35,037	25,075	24,776	71.567	70.714
1966	35,096	25,215	24,934	71.846	71.045
1967	35,089	25,073	24,570	71.455	70.022
1968	35,043	24,978	24,436	71.278	69.731
1969	35,015	24,996	24,478	71.387	69.907
1970	34,976	24,936	24,381	71.295	69.708
1971	35,037	24,861	24,165	70.956	68.970
1972	35,060	24,917	24,139	71.070	68.571
1973	35,109	25,272	24,715	71.982	70.395
1974	35,132	25,331	24,803	72.102	70.599
1975	35,192	25,557	24,719	72.622	70.240
1976	35,329	25,775	24,509	72.953	69.374
1977	35,488	25,897	24,538	72.974	69.144
1978	35,648	26,039	24,696	73.045	69.277
1979	35,858	26,314	25,080	73.384	69.943
1980	36,079	26,517	25,004	73.497	69.303
1981	36,278	26,406	24,011	72.788	66.186
1982	36,479	26,354	23,584	72.744	64.651
1983	36,779	26,288	23,304	71.746	63.362
1984	37,103	26,939	23,909	72.606	64.440
1985	37,198	27,389	24,210	73.630	65.084
1986	37,326	27,469	24,240	73.592	64.941
1987	37,420	27,661	24,755	73.920	66.154
1988	37,481	27,939	25,598	74.542	68.296
1989	37,537	28,119	26,376	74.910	70.267
1990	37,603	28,195	26,639	74.981	70.843
1991	37,648	28,249	26,008	75.035	69.082
1992	37,667	28,440	25,671	75.504	68.152
1993	37,782	28,317	25,381	74.948	67.117
1994	37,850	28,315	25,579	74.808	67.580
1995	38,019	28,293	25,839	74.414	67.963
1996	38,176	28,422	26,088	74.450	68.336

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