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DID THE THATCHER REFORMS CHANGE BRITISH LABOUR PERFORMANCE?

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ABSTRACT

In this paper we evaluate the success of policies that were implemented in the 1980s that were designed to improve the workings of the UK labour market. Our primary conclusion is that the Thatcherite reforms succeeded in their goals of weakening union power; may have marginally increased employment and wage responsiveness to market conditions and may have increased self-employment. They were accompanied by a substantial improvement in the labour market position of women. But the reforms failed to improve the responsiveness of real wages to unemployment; they were associated with a slower transition from nonemployment to employment for men; a devastating loss in full-time jobs for male workers and produced substantial seemingly noncompetitive increases in earnings inequality.

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Did the Thatcher Reforms Change British Labour Market Performance?

> 'They used ... to talk about us in terms of the British disease. Now, they talk about us and say, "Look Britain has the cure. Come to Britain and see how Britain has done it." '-- M. Thatcher in 1988 (as quoted by Gilmour, p 76).

In the 1980s the United Kingdom led the West in altering economic policies and institutions in ways designed to produce a better-functioning market system. The Thatcher and Major governments sought to limit institutional interventions in the free market and to unleash the powers of entrepreneurship and untramelled competition. Many reforms focused directly on the labour market, or were expected to improve the economy by changing the labour market: industrial relations laws that weakened union power; measures to enhance self-employment; privatisation of government-run or owned businesses; reduction in the value of unemployment benefits and other social receipts relative to wages; new training initiatives; tax breaks to increase use of private pensions; lower marginal taxes on individuals; elimination of wage councils that set minimum wages.

In the price-theorists' ideal world, these changes would reduce market rigidities, increase mobility, and raise incentives. In the price-theorists' ideal world, they would create the micro-institutional base for a more effective market economy with higher productivity, lower unemployment, improved living standards, and possibly a higher permanent rate of economic growth as well.

Did the Thatcher Reforms alter the British labour market in the desired direction? From the vantage point of the 1990s were they the right medicine for the "British disease"? In what areas do the changes seem to have succeeded and in what areas do they seem to have failed?

This paper is a first assay at these questions. It is a first assay because the analysis consists largely of comparisons of reduced form labour market outcomes before and after the reforms, rather than of a set of detailed investigations of specific reforms in the context of a structural labour market model. In addition, while we analyse several data sets, we have not validated each finding on all available bodies of data nor, where the data is weak, developed our own survey to determine

the "facts". Still, if "The achievement of Mrs Thatcher is that she succeeded in changing Britain, probably permanently, by a cumulative series of half-measures or even quarter-measures" (Matthews and Minford, 1987, p 92), looking at the labour market before and after the Thatcher reforms as we do may be an appropriate research strategy. Such a broad-based analysis is more likely to capture the overall effects of the changed economic policies than a more depthful analysis of a particular reform measure.

Our primary conclusion is that the Thatcherite reforms succeeded in their goals of weakening union power; may have marginally increased employment and wage responsiveness to market conditions and may have increased self-employment. They were accompanied by a substantial improvement in the labour market position of women. But the reforms failed to improve the responsiveness of real wages to unemployment; they were associated with a slower transition from nonemployment to employment for men; a devastating loss in full-time jobs for male workers: produced substantial seemingly noncompetitive increases in wage inequality. While we cannot rule out the possibility that the reforms created the preconditions for an economic "miracle" in the mid 1990s there is little in the data to support such a sanguine reading of the British experience. Higher inequality and poverty and lower full-time employment are not normally viewed as an ideal stepping stage for economic success. We offer some speculations as to why the reforms seemingly failed to fulfill their promise.

1. Why Reform the Labour Market?

Call it British disease or what you wish, but prior to Mrs. Thatcher, there was a general perception and some evidence that the British labour market operated less efficiently than those in other countries:

o The rate of unionisation was high for a noncorporatist economy, and unions often acted irresponsibly, as in the 1978-79 Winter of Discontent and the 1983 Miners Strike. Britain had a poor strike record.

o In contrast to the U.S. where high union wages were accompanied by high productivity compared to nonunion workplaces, productivity in the U.K. was no better in union than in nonunion settings despite a 10% or so union wage effect.

o Growth of labour productivity and output was slower in the United Kingdom than in other OECD countries. Real GDP per person employed rose by 2.7%, 3.2%, and 1.3% in the U.K. over the periods 1960-68, 1968-73, 1973-79 compared to 4.6%, 4.3%, 2.4% in the EEC in total (OECD, 1991).

o British employees were relatively less skilled and educated than in other highly developed economies. The proportion of British 17 year olds in education and training fell far below that of other advanced OECD countries and of development successes like Korea.

o The country had large nominal wage increases even when unemployment rose in the 1970s. Low productivity growth and high nominal wage increases produced unit labour cost increases and inflation faster than EEC averages from 1968 to 1979.

o Compared to the U.S., Britain (like other European countries) had long durations of unemployment. In 1979 25% of British spells of unemployment exceeded 12 months compared to 4% of U.S. spells (OECD, Employment Outlook 1985, p 126);

o Still, Britain had a relatively modest rate of unemployment: in 1979 unemployment was 5.3%, below U.S. and OECD-Europe rates; and the British employment-population rate was 71%, higher than the 63% in OECD Europe. (OECD Employment Outlook 1985, p 42 and p 25). Britain's youth unemployment problem did not approach the employment crisis of youths in the United States (Layard, 1982; OECD 1978, 1981).

To obtain a more detailed picture of how economic outcomes differed between the U.K. and other OECD countries we estimated pooled time-series cross-country regression equations of the following form:

$$Y_{it} = T_t + D_{uk} \qquad (1)$$

where Y_{it} is the dependent variable for country i in year t; T_t is a vector of year dummies; and D_{uk} is a dummy variable for the U.K. We estimate (1) separately for 1950-59; 1960-69, 1970-79, and

1980-88. The coefficients on the U.K. dummy variable in each period measures the difference between outcomes in the UK and outcomes in the other OECD countries.

Columns 1 - 3 of Table 1 record the estimated coefficients on the UK dummy variable for 1950-1959, 1960-1969; and 1970-79. The estimates show that the UK did poorly in most periods relative to other OECD countries on: growth of GDP and productivity; inflation; growth of unit labour costs (in the 1970s); but did well in providing employment for the population. Poor aggregate performance in these outcomes and high employment rates does not mean that the British labour market failed to function properly. Analysts have offered diverse hypotheses that go beyond labour market troubles to explain why Britain's growth fell short of that of other capitalist countries in the post-world war II period (see Caves for one assessment). Still, most agree that the country's labour market performance was subpar and some have put great stress on the adverse economic effects of rigidities in the labour market. Minford, for example, identified: "two major distortions in the UK labour market which prevent(ed) real wages and productivity from adjusting naturally to shifts in technology, demand, and industrial structure, and relocating those freed from one sector into other sectors ... the unemployment benefit system ... (and) the power of unions to raise wages relative to non-union wages." (Minford pp 2-3). His solution was to limit union power and enact policies to enhance the rewards of work over joblessness. Others (Richard Layard 1986, for instance) favored more corporatist Swedish-style arrangements.

One does not have to buy any particular policy cure to accept as plausible the view that improving the British economy required reforms in labour market institutions and policies. The question is whether the reforms the government adopted in the 1980s succeeded in improving the labour market and curing the "disease".

2. The Reform Program

The Thatcher government enacted a wide range of laws and programs to alter labour market performance. While no single document lays out the goals of these laws and programs, most observers would agree that they were designed to: 1) weaken the power of unions; 2) enhance the rewards of work relative to unemployment and other non-work-related benefits (meeting Minford's

two criticisms given above); 3) reduce government/institutional influence on market outcomes; and 4) expand self-employment. The vision guiding the reforms was that of a more flexible labour market, where wages depended more on company performance than on the 'going rate' (Oswald, 1992) and where labour was highly mobile and firms responded rapidly to market signals -- a labour market resembling the decentralised U.S. labour market rather than the regulated and institutionally structured labour markets of EEC-Europe.

Table 2 summarizes some of the major policy changes, grouped along the four dimensions listed above. New trade union legislation was one of the most important policies to revamp the institutional structure of the labour market. Thatcher critic Ian Gilmour regards "Successful trade union reform (as) Margaret Thatcher's most important achievement (p 79). Freeman and Pelletier (1991) indicate that the new laws were the primary factor in the huge fall in British union density (see figure 1). While there is some disagreement about the role of government policy in reducing density (Disney, 1991) no one gainsays that the union movement lost power in the 1980s. The closed shop was outlawed, so that an increasing number of workplaces did not have complete union coverage; may firms chose not to recognise unions at work places; and those that did often signed single plant-single union agreements (Millward, et al 1992). Strikes per worker fell more rapidly than in other countries in the 1980s, in part because of the drop in unionisation and in part because of the rise in unemployment (McCormick). Note, however, that strikes per worker in the U.K. were already dropping toward the OECD average prior to the 1980s and that the British strike record even in the 1970s was not excessive relative to past history (Elgar and Simpson 1992; McConnell and Takla 1992; Milnar and Metcalf 1991).[1] There is no indication that the legislation reduced strikes by lowering union propensity to strike at a given unemployment rate.

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[1] The issue in judging the effect of the Thatcher Reforms in this and potentially other situations relates to the posited counter-factual: what would have happened absent the new policies. Different interpretations are possible, depending on whether one assumes that the levels of variables (absolutely or relative to those in other countries) would have remained the same or if past trends would have continued. Unless otherwise noted, we assume the former, though we will remark on how interpretations might change, assuming the latter.

Concomitant with these changes was a pattern of faster productivity growth in union than in nonunion firms, suggesting that unions reduced restrictive work practices and took a more positive attitude toward productivity. Overall, the union wage differential appears roughly constant throughout the 1980s (Blanchflower, 1991; Stewart, 1991; Lanot and Walker, 1992),[2] though in some sectors and for some sub-groups, union wages increased less than nonunion wages (Gregg and Machin 1992; Ingram 1991; our Table 7), reducing union differentials moderately. Even with a constant differential, however, the fall in density and strikes meant that British unions did not dominate the job market in the 1980s as they did in the 1970s. The industrial relations reforms thus met one of Minford's two criterion for a better functioning labour market: less union influence on outcomes.

On the welfare state front, the Thatcher government altered unemployment benefits in several ways, as described in detail in Atkinson and Micklewright (1988) and summarised in our Appendix A. The result was that a smaller proportion of the unemployed were eligible for benefits and that the value of benefits, while roughly constant in real terms, fell relative to average earnings. In 1978/79 the replacement rate of unemployment benefits relative to average male earnings was 16.3% for a single person and 26.2% for a married couple on a husband's insurance; in 1991/92, the replacement rates were 12.4% and 20.1% -- declines of roughly one quarter [3].

To see how this change affected actual income received by those with jobs and those without jobs, we turn to micro data from the General Household Survey for 1979 and 1990/91. We regressed the ln of gross weekly income from all sources on a dummy variable for unemployment status and a host of standard controls in both years. The results of our calculations, given in Table 3, show that the incentive to work versus staying unemployed increased by about .40 ln points for virtually every demographic group. The changes in unemployment benefits thus increased the advantage of working over being unemployed, which -- all else the same -- should have reduced

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[2] We re-estimated the results in Blanchflower, 1991 using data from the two more more recent British Social Attitudes Surveys of 1990 and 1991 and found no evidence of any significant change in the differential.

[3] These data are from Social Trends (HMSO) various editions.

unemployment and shortened the duration of spells of unemployment. Thus, the reforms met the second of Minford's criterion for a better functioning labour market: an increase in the rewards to work relative to unemployment.

Many of the other 1980s changes in Table 2 and others that we have not listed could also have affected labour market performance. A full evaluation of the "Thatcher Programme" in the labour market requires detailed analysis of each measure, its implementation, and its quantitative effect on market outcomes or behavior (presumably by comparing the sectors or groups most affected by a given change with other sectors or groups). Such an undertaking lies beyond the scope of this study. Instead, we examine the effects of the reforms as a package, comparing a limited set of labour market outcomes or relations "before" and "after" the reforms. We ask: Did key labour market outcomes or relations change post 1979 in ways that indicate increased market flexibility? For our counterfactual of how the 1980s might have looked absent the reforms, we use outcomes or patterns in other OECD countries in that period, or earlier British patterns.

The biggest problem our analysis faces is the poor macro-economic performance of the British economy, which could readily masque the success of the micro-economic and structural reforms in which we are interested. The adverse effects of high or rising unemployment may dominate the positive effects of micro-institutional changes on labour market outcomes. We deal with this problem in two ways: in some calculations we take the year 1990, when unemployment was relatively low (see figure 2) as our indicator of the "after" period; and we examine outcomes in the relatively low unemployment South East region as well.

3. Outcomes and Adjustment Patterns

Successful reform of the labour market ought to improve aggregate labour market outcomes such as unemployment rates, productivity growth, durations of unemployment; and ought to create more flexible disaggregate responses to market signals by individuals and enterprises.

aggregate outcomes

To evaluate the impact of the reforms on aggregate outcomes, we contrast selected outcome variables in the U.K. with those variables in other OECD countries from 1980 to 1988 relative to

the analogous differences in outcomes pre-1980, using equation (1). Our estimated coefficients that measure British relative performance in the 1980s is given in column 4 of Table 1. If the U.K. performed better in the 1980s relative to other OECD countries than in the 1970s (or earlier), the column 4 coefficients should show improvements compared to the coefficients in column 3 (or in columns 1 and 2 for earlier years).

The estimates show improvement in inflation and growth. The UK moved from doing worse to doing about the same as other countries. But on unemployment and employment-population rates, the difference between the UK and other OECD countries moved in the opposite direction. Despite numerous changes in definitions that reduced measured unemployment,[4] the rate of unemployment rose relative to unemployment in other OECD countries (see also figure 2, which contrasts the U.K. with the U.S.). The relative worsening of the UK unemployment position was especially marked for male workers.

Despite the high unemployment during the 1980s, the growth of real wages was high in the UK, indicating that the Thatcher reforms did not produce a better "Phillips Curve" adjustment pattern. OECD data show that from 1979 to 1989 real hourly earnings in manufacturing increased by 2.6% in the U.K. compared to 1.4% in OECD-Europe despite the above average rate of unemployment (9.5% in the U.K. from 1980 to 1989 vs OECD-Europe 9.1% (OECD Historical Statistics 1991)).

disaggregate adjustments: transitions

To try to detect improvements in the micro-functioning of the market, we turn to micro-data that measure worker or employer mobility or adjustments in: transitions of workers among

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[4] There were a sizeable number of changes in definition, virtually all of which were in the direction of lowering the unemployment rate. See Johnes and Taylor, 1990, p 305). According to the 1991 Labor Force Survey (see Naylor and Purdie, 1992) unemployment in Great Britain was 2.08 million in the Spring of 1991 according to the new claimant based count, compared with 2.3 million according to the ILO measure (available for work and looked for work in the preceeding 4 weeks). In addition there were 400,000 individuals on government schemes at that time who are also excluded from the unemployment count. Using the ILO definition of unemployment and counting individuals on schemes as unemployed gives an unemployment rate of 9.7% compared with an official rate of 8.0% (Employment Gazette, April 1992, Table 2.2).

employment, unemployment, and other states; adjustments of employment to changing economic conditions; and the response of earnings to differences in area unemployment and company performance.

A major goal of supply-side economic policies is to increase the rewards for work relative to non-work activity. As we saw in Table 3, the Thatcher reforms accomplished this, raising the income gap between the employed and unemployed by roughly .40 ln points. All else the same, the improved work/unemployment trade-off ought to have speeded the flow of labour from unemployment to employment. At the same time, the weakening of unions and privatisation of enterprises may have affected the flow of labour from employment to unemployment, potentially raising the rate of job loss. Formally, we examine labour market mobility in terms of a Markov matrix:

$$M = (P_{ij}) \qquad (2)$$

where P_{ij} are the probabilities of moving from state i to state j. We identify the following states in the pre-Thatcher period: unemployment (u); working (w) as self-employed or as an employee; and not-in-the-labour force (n). In the post-reform period we identify one additional state: being on a government training scheme (y). By treating not-in-the-labour force and training as separate states, we avoid arbitrarily classifying them as part of a positive employment or negative unemployment outcome. By distinguishing employment and self-employment we can examine the effect of the government's effort to increase self-employment.

A flexible labour market should have high values of P_{ue}, with corresponding short durations of unemployment. It may also have high values of P_{eu} as well due to faster relocation of labour across sectors with intermediate spells of joblessness. The U.S. job market, for instance, has high transition parameters compared to a typical European market, low durations of unemployment, moderately lower job tenure than some European countries, and substantial mobility of young workers. In 1988, for example, P_{eu} in the United States was 1.98% per month, which was roughly three times the .68% inflow from employment to unemployment in the U.K.; P_{ue} in the

United States was 45.7%, nearly five times the 9.5% flow from unemployment to employment in the U.K. (OECD, Economic Outlook 1990, p 13).

To see if transition matrices moved toward the more "mobile" U.S. pattern during the period of Thatcher reforms, we calculated transition frequencies for men and women 16-60 using retrospective Labour Force Survey question that asked respondents "about your situation twelve months ago -- that is in (month of interview, previous year)" and about their current state. For instance, we estimated the transition probability from unemployment to work (P_{uw}) as the proportion of people who said they were unemployed in the previous year but were currently working. The result are a set of recall-based transitions that relate what respondents said they were doing a year earlier to what they were doing in the survey week. Transition frequencies based on recall are, we recognise, subject to error that would not occur in a longitudinal file, but there is no reason to expect any trend in recall biases. Even perfectly estimated Markov transitions may not, moreover, be the best way to summarise transitions, as the actual hazard functions may reject the Markov assumption. Still, the transition matrices provide a way of assessing transitions before and after the labour market reforms.

We calculated transitions for the U.K. as a whole and for the "low unemployment" South East region. To minimise the effect of cyclical factors on the transitions, we chose 1990 as our "after year", though we calculated Markov matrices for every year through 1991 for which data exist. The transition probabilities and numbers used to calculate them are given in Appendix B. The steady state solutions to the Markov chains are shown in Appendix C.

Table 4 gives transition matrices for men and women in 1979 and 1991. The top panel gives transitions with employment and self-employment lumped together as "working" while the bottom panel differentiates between these two states. The Table reveals substantial changes in P_{uw} and P_{wu} (work-unemployment) in the direction of creating greater unemployment, with the (possibly desirable) increase in the P_{wu} transition from .025 to .031 accompanied by a decrease in the P_{uw} transition from .455 to .313. The steady state solution to the transition matrices for men shows a rise in male unemployment from 5% to 7% and of male not-in-the-labour force from 4% to 5%,

and a predicted fall in the employment-population rate from 91% to 86%. Data in the appendix shows that even in the southeast region that did best in the 1980s, the increase in joblessness was associated with both a sizeable fall in the transition out of unemployment and an increase in the transition into unemployment. To make sure that our results do not hinge critically on the years we picked, we also took averages of different years and obtained the same qualitative story [5]. The changes in transition probabilities for men did not move the British Markov matrix very much in the direction of the more flexible United States.

The transition probabilities for women tell a different story. The rate of flow from employment to unemployment rose but that from employment to non-employment fell, with P_{ww} rising slightly from 1979 to 1990. At the same time the transition from unemployment to employment changed just modestly; while that from not-in-the-labour force to employment rose. The result was an increase in the predicted steady state employment-population rate for women. For the female part of the population, transitions moved in a way favorable to the reform program. If the male transition matrix had changed in a similar manner to the female matrix, we would have judged the reforms (or something in the period) as a success in improving labour mobility.

On the net, however, the transition from unemployment to employment worsened in the 1980s. This can be seen in the proportion of the jobless out of work over one year in the U.K., which rose from 25% in 1979 to 36% in 1990 (OECD, Employment Outlook 1985 and 1992). OECD data on durations of unemployment for other European countries show that the U.K. did not do better than other EEC countries in altering the share of the unemployed who are long-term. The reforms that succeeded in making work more attractive relative to joblessness for men did not work in moving them into employment rapidly, though they may have done so for women.

disaggregate adjustments: employment and wages

What about employment adjustments by firms? Given that U.K. employers were probably the most flexible in Europe prior to the 1980s, we do not expect great changes in employer

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[5] Had we used the transition matrix for 1991 the situation would have looked much worse post-reforms due to the recession.

responsiveness to economic shocks. But, recognising that the reductions in union strength, privatisation of firms, and changed labour relations climate might have increased the speed of employment adjustments, we estimated employment adjustment equations for private sector establishments in the 1980 and 1990 Workplace Industrial Relations Surveys (WIRS) of the following form:

$$\ln E(t) = a + k(\text{signals to change}) + (1-k) \ln E(t-1) + \text{Controls} \qquad (3)$$

where E = employment; and the major signal to change are whether the establishment reported that sales rose or fell in the preceding 12 months: DUP, a dummy =1 if they reported a rise; DDN, a dummy= 1 if they reported a fall in sales. In a simple partial adjustment model, a large coefficient on lagged employment implies a more sluggish adjustment pattern -- employment depends more on past employment than on the signal to change. The coefficients on the sales-up or down variables also indicate firm responsiveness: if firms responded more to changes in sales post-1980 than in 1980, this would suggest more rapid short-term adjustments.

The regression results in Table 5 provide only weak evidence of greater employment responsiveness in 1990 than in 1980. The coefficient on lagged employment fell from .99 in 1980 to .98 in 1990. But because the WIRS has no "scale" variable for size of firm besides employment, the lagged employment coefficients are biased toward unity (a big firm will invariably be big the next year), making possible changes in adjustment behavior hard to detect. Thus, we put greater stress on the increase in the coefficents on sales up and (to a lesser extent) sales down dummy variables after 1980. The change in these coefficients suggest that firms adjusted employment more in 1990 than in 1980,[6] consistent with some increase in flexibility of employment, though the pattern is hardly overwhelming.

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[6] We reject the possibility that these coefficients are bigger because the changes were larger in the latter period. From 1979-80 British real GDP fell by 2.2%, but GDP rose by 2.1% in 1983-84 and by 1.0% in 1990. One might expect that establishments that had increases in sales responded to larger increases while those that had decreases faced bigger decreeases in 1979-80 than in the other two years. If this were the only thing going on, the coefficient on the sales up variable would be smaller in the first period than later while the coefficient on the sales down would be larger, which it is not.

The Thatcher reforms might also be expected to make wages more responsive to labour market conditions. To see if this was the case, we examined the link between unemployment/other indicators of market imbalance or pressure at a disaggregate region and firm level and wages. For regional disaggregation we rely on Blanchflower and Oswald (1992), which gives "Wage Curves" -- the relation between regional unemployment and ln gross earnings, with diverse other factors held fixed -- for the periods 1973-1980 and 1981-1990. Their estimated coefficients on unemployment, presented in Table 6, are consistent with the notion that reforms created greater wage responsiveness: the coefficients in the column 1 and 3 regressions are -.09 in the 1973-80 and -.17 in the 1981-90 periods; those which include regional dummies in columns 2 and 4 also show an increase in wage responsiveness to unemployment, though of a much more modest magnitude, from -.07 to -.09. There may be something in the data, but it is far from overwhelming.

To analyse wage responsiveness at the establishment level, we estimated the effects of our demand-up and demand-down dummy variables and selected other variables on the earnings of skilled workers in the WIRS surveys. Because the WIRS does not provide wages in preceding years, however, the regression focuses on differences in wage levels rather than on changes in wages, which makes interpretation of coefficients on the change in sales variables to as adjustment parameters problematic [7]. This said, the regression results in Table 7 indicate that wages were more affected by changed market conditions in 1990 than in 1980. The coefficients on the demand-up and demand-down variables are insignificant in 1980 but are positive on the demand-up dummy and negative on the demand-down dummy in 1990. In addition, the Table 7 regressions reveal two other potentially important changes in the effect of variables on earnings. First, there is a modest drop in the coefficient on union recognition, consistent with the presumed reduction in union power. Second, there is an increase in the effect of establishment size on

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[7] For these regressions to measure responsiveness, we must assume that previous wage levels are uncorrelated with indicators of market signals. Alternatively, if signals are positively correlated over time and affect past wages, we are implicitly comparing wages with those in some earlier period when the firm did not face the relevant changes.

earnings, consistent with the general widening of wage differentials over the period. If the former is interpreted as a (possibly desireable) reduction in non-competitive wage differentials, the latter should be interpreted as the opposite: an increase in non-competitive wage differentials (absent some identifable skill or supply-based cause for the change). From this perspective the greater size-of-firm effects on wages suggest that increasing the power of firms in wage-setting may have simply shifted the locus of "insider" or rent-sharing pressures in wage setting from unions to firms.

Finally, in standard theory, markets with more limited institutional interventions should produce smaller rent-related differentials in pay than markets where government or union interventions affect wages and ought to bring the unemployment rates of workers with differing skills closer together, as flexible wages respond to market imbalances and create employment for those who would in a less flexible world end up unemployed.

We examine the potential effect of the Thatcher reforms on wage relativities by multivariate regressions that link these outcomes to demographic characteristics of workers, and to region and industry dummy variables, among other factors. Table 8 summarises the wage differential results in terms of standard deviations of the estimated coefficients of region and industry on ln earnings and overall standard deviation of ln earnings (Appendix B contains our regressions for 1979 and 1990/91 and intermediate years). There are three findings. First is the massive increase in the raw standard deviation of ln earnings from .53 to .61. This growth of inequality is consistent with the evidence of a massive rise in earnings inequality shown by the decile incomes in the New Earnings Survey (figure 3). Second, the increased dispersion in the dummy variables for region and industry show that some of this rise took the form of greater regional and industrial earnings differentials for nominally similar workers. Third, however, the large increase in the standard deviation of the residual in the earnings equation tells us that in the U.K. (as in the U.S.) most of the rise in earnings inequality occurred for workers with similar measured skills, which is not what we would expect from a better functioning labour market.

How should one interpret the increased inequalities in Table 8?

Shifts in demand and supply that raise returns to skill may account for some of the rise in earnings differentials or inequality. But we find it hard to explain the massive increase in inequality in terms of the operation of an ideal competitive market. Differentials by qualification fell in the early 1980s and rose in the latter part of the decade (Schmidt, 1993; Katz et al, 1993), so that our regressions show roughly comparable education differentials in 1990/91 as in 1979 (see our appendix B Tables). This pattern makes dubious any broadsweeping explanation of the increase in inequality in terms of market-driven rises in the returns to a single skill factor. While the Table 6 regressions suggest that regional differentials may have widened in response to unemployment, the increased differential in unemployment rates among regions[8] implies that the labour market reforms did not create a sufficiently rapid adjustment process to offset the different demand shocks that affected the regions. We speculate that the pattern of rising inequality and unemployment differentials may reflect a tendency for decentralised labour markets to "de-couple" in a period of high unemployment. Our suspicion is that rent-sharing and insider pressures on wages are greater in loose than in tight labour markets: in the former low wage firms do not face market market pressures to pay "the going rate" as they do when unemployment is low. If this is correct, some of the lessening of institutional interventions meant to create a more perfect market may have perversely increased market segmentation and dispersion of earnings. For instance, if lower unemployment benefit replacement ratios increased the incentive to take a job quickly, they also would have reduced the pressure from search toward a convergence of wages among worksites. Whatever the causal factors for rising inequality, those factors evidently dominated the rent-squeezing effects of the reforms.

self-employment and employment

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[8] Consider the standard deviation in the coefficients on region in our appendix unemployment regressions. In the GHS the standard deviation in the coefficients rises from .030 to .056. By this measure regional unemployment differentials widened. But because the overall rate of unemployment rose from 4.7% to 7.8% in the period, the coefficient of variation in unemployment fell. However, the coefficient of variation in employment probabilities rose. There is a basic problem in comparing the dispersion of unemployment/employment rates, due to differing potential metrics.

The Thatcher government introduced measures to aid individuals, including the unemployed, to become self-employed business persons as part of its effort to create an enterpreneurial culture. Such policies included secured loans, advice centres, financial incentives such as the Enterprise Allowance Scheme, grants, training programs, tax deductions, higher VAT thresholds, and various regional policies to encourage firm formation (Smeaton, 1992). By the simple measure of growth of the self-employed share of the workforce these policies seem to have succeeded. The proportion of the British work force who were self-employed rose in the period (see Curran and Borrows, 1989; Daly 1991; Campbell and Daly 1992) more rapidly than in other OECD countries (OECD 1992). Employment Gazette data show an increase in the self-employed share of the labour force from 7.2% in 1979 to 10.7% in 1992. But self-employment can be an unstable and poor paying option forced onto people unable to find work as wage or salary earners: there were many self-employed men selling apples on street corners in the great depression. Was the 1980s rise in self-employment a success (see OECD (1992)) or a form of disguised unemployment?

To answer this question, we turn to the transition matrices in Table 9 that distinguish between flows into and out of self-employment. In Appendix C we use these transition data to construct Markov transition matrices. While the Markov assumption is probably less adequate for self-employment than for other states, it still offers a useful benchmark for assessing changes. Among men the transitions from unemployment and non-labour force to self-employment increased from 1979 to 1990, consistent with government policy favoring self-employment. But there was also an increase in the flow from self-employment to unemployment or non-employment. We could find no evidence of any change in the flow from employment to self-employment for men[9]: it is hard to believe claims that an 'enterprise culture' has been established without some significant increase in this flow. Moreover, our calculations show that on net there was no increase in the steady-state male self-employment rate due to changes in the transition matrices from 1979 to 1990. The steady-state proportion of men who were self-employed would

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9 There was a small increase for women but this was extremely modest particularly given its very low starting level (.0058 to .008).

have been 22% with the 1979 matrix whereas with the 1990 transition matrix it would have been 18%; the actual rate in 1990 was 14%. Both matrices thus predict increased rates of male self-employment but both also overstate that rate of self-employment in 1990. That we get a greater predicted increase in the steady state solution with the 1979 than the 1990 matrix suggests, moreover, that the increase in the P_{su} transition dominated the increase in the P_{us} transition, which casts doubt on contribution of the reforms to the rise in self-employment. For females, the 1990 transitions predict a modestly higher self-employment rate than the 1979 transitions, though here both matrices give "steady state" results comparable to the observed self-employment rates[10].

The evidence that a rise in self-employment for both sexes was "predictable" in terms of 1979 transition matrices raises the possibility that the trend in self-employment was due to factors beyond the government policies[11]; at the minimum it suggests the need for a more detailed investigation of the contribution of policy to the change than a simple "before-after" comparison. An alternative way to probe the rise of self-employment is to estimate income differences between self-employed and other workers. If self-employment was largely disguised unemployment, we would expect rising income gaps between self-employed and other workers in the 1980s. If self-employment was a more positive outcome, we would expect constant or even declining income gaps. We estimated the effect of a 0-1 dummy variable for self employment on reported gross weekly income in the General Household Surveys for 1979 and 1990. Our regression model contained the many human capital controls, and a set of region dummy variables. The estimated coefficient on self-employment in 1979 was -.77 (t = 28.6); the coefficient on self-employment in 1990 was -.60 (t = 22.6).[12] The decrease in the gap between the two groups between 1979 and

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[10] We also estimated Markov transition matrices for other years, for the South East and using the average of the labour market transitions across a number of years and the results were the same.

[11] A similar conclusion was reached by Blanchflower and Oswald (1990) using data from a variety of other sources and somewhat different methods.

[12] The equations included 15 highest qualification dummies; 4 marital status dummies; a gender dummy; a race dummy; 11 month of interview dummies; and 10 region dummies. The sample sizes were 12181 (1979) and 8194 (1990). The R-bar-squareds were .29 in 1979 and .34 in 1990.

1990 indicates that the increased flow into self-employment did not come at the expense of declines in their relative earnings.

Our bottom-line assessment is that the rise of self-employment, whether policy-induced or not, was a positive feature of the period. But the growth of self-employment must be placed in the context of extraordinary reductions in employment of full-time workers, particularly full-time men. Table 10 gives employment figures from 1978 to 1992 for four groups: full and part-time employed workers and full and part-time self-employed workers. The two things that stand out for men are the massive drop in full-time employment and the upward trend in self-employment. The latter, however, is by no means large enough to compensate for the former. Among women, by contrast, the situation looks much better, but increased self-employment is dwarfed by an increase in full-time employment. With greater employment, and improved earnings relative to men (see Appendix B), women workers appear to be a major beneficiary of the reforms.

4. Conclusion

We conclude that the Thatcher reforms succeeded in reducing union power and increasing the incentive to work -- and may have increased the responsiveness of wages and employment at the micro-level. But they did not improve the response of real wages to unemployment nor the transition for men out of unemployment, and were accompanied by rising wage inequalities that do not seem to reflect the working of an ideal market system. While there are glimmers of improved market adjustments and responsiveness that may do the British economy well in a prolonged boom, there is no strong evidence that the British labour market experienced a deep microeconomic change. Indeed, the observed outcomes raise the disheartening possibility that the reforms in fact brought the U.K. a mixture of the worst of two possible worlds: the massive wage inequality of the decentralised U.S. labour market together with high and lengthy spells of unemployment, European-style.

Why did the reforms not succeed as their proponents hoped?

One interpretation is that they have not gone far enough nor had enough time to succeed: the road to Neo-Classical Nirvana is bumpy, as marketization in East Europe or in Sweden indicate.

Just wait until the mid-1990s, and we will all be praising the labour market reforms for setting the precondition for the British economic miracle. It took Chile, after all, some 10-15 years before its market reforms produced a vibrant economy. Given that Mrs. Thatcher seemed to think that the reforms had cured the British Disease by 1988, this is a loose interpretation: with unspecified long and variable lags for successful outcomes, it is nearly impossible to reject the value of the reforms.

The other interpretation is that the reforms were premised on an incorrect understanding of how the labour market operates. In particular, the reform package failed to recognise the power of insider pressures for rent-sharing and related policies that segment decentralised labour markets in periods of less than full employment. From this perspective, reforms that "free up markets" may require exceptionally tight labour markets to succeed. The Thatcher Reforms might have done wonders in the 1950s-1960s but could not deliver their promise in the 1980s-1990s because of the high rate of unemployment. This hypothesis suggests that the success of market-enhancing policy reforms does not depend solely on the reforms themselves but also on the broader economic environment and that in a world subject to business cycle and other fluctuations, placing all of one's eggs in the decentralised labour market of competitive theory may be far from ideal.

TABLE 1: Regression Estimates for the Difference Between Outcomes in the United Kingdom and Other OECD Countries

	1950-59	1960-69	1970-79	1980-89	Δ1970-79 to 80-89
Unemployment Rate	-.022	-.006	-.000	.025	.025
	(.088)	(.006)	(.007)	(.016)	
Male Unemployment Rate	-.024	-.004	.013	.049	.036
	(.008)	(.005)	(.007)	(.017)	
Female Unemployment Rate	-.028	-.016	-.023	-.013	-.010
	(.014)	(.008)	(.010)	(.020)	
Employment-Population Rate	.040	.048	.051	.020	-.031
	(.019)	(.020)	(.022)	(.032)	
Price Inflation	.005	-.002	.034	.004	-.030
	(.011)	(.006)	(.011)	(.011)	
Growth of GDP	-.016	-.021	-.011	-.002	.009
	(.009)	(.007)	(.007)	(.005)	
Growth of Productivity	-.014	-.017	-.004	.005	.009
	(.007)	(.008)	(.007)	(.008)	
Growth of Unit Labor Costs	.010	.004	.024	.003	-.021
(ULC)	(.014)	(.010)	(.017)	(.020)	

SOURCE: Calculated from CEP-OECD Data Set, with Iceland, Portugal, and Luxembourg omitted. See London School of Economics CEP Working Paper #118, June 1991, by F.C. Bagliano, A. Brandolini and A. Dalmazzo, "The OECD-CEP Data Set (1950-1988)". Price inflation is the increase in consumer prices. Gross domestic product is in constant dollars. Productivity is GDP divided by employment. Unit labor costs are defined as manufacturing wage divided by productivity.

Standard errors in parentheses.

Table 2 -- British Reforms With Labour Market Impacts, by Goal of Reform

1) Reduce Union Power
a) Employment Act of 1980 abolishes statutory recognition procedures; extends grounds to refuse to join a union; limits picketing.
b) Employment Act of 1982 prohibits actions that force contracts with union employers; weakens closed shop; removes some union immunities
c) Employment Act of 1984 weakens union immunities, requires pre-strike ballots, strengthens employer power to get injunctions
d) Employment Act of 1988 removes furthur union immunities; extends individual rights to work against a union

2) Change Welfare State to Increase Work Incentives
a) Diverse acts that reduce replacement ratio for unemployment benefits;eliminate benefits for young people
b) Restart Program introduced in 1986 required all unemployed to be interviewed about job search every six months.
c) Many administrative changes to make it more difficult to obtain benefits.
d) Diverse acts that maintain real value of other non-work benefits but lower the value relative to wages

3) Reduce Governmental Role in Market
a) Privatise pensions
b) Abolish wages councils
c) Lower tax rates
d) Reduce government employment
e) Privatisation

4) Enhance self-employment and skills

a) Enterprise Allowance Scheme
b) New training initiatives; Youth Training Scheme; Community Programme; Employment Training Programme

Table 3 -- Estimates of the Effect of Unemployment on Income, 1979 and 1990

Coefficient on Unemployment Variable

	1979	1990/1	Change
1. All	-.80	-1.20	-.40
2. Male	-.74	-1.18	-.44
3. Female	-.93	-1.26	-.33
4. Under 26	-.74	-1.09	-.34
5. 26-49	-.83	-1.26	-.44
6. 50-60	-.94	-1.30	-.37

Base: Individuals aged 16-60 (n=12181 in 1979 & n=8620 in 1990/1)

Notes: 1) All equations include 15 highest qualification dummies, 4 age dummies, 4 marital status dummies, 10 regional dummies, 11 month of interview dummies, self-employment dummy plus gender and race dummies. In 1990/1 a dummy for being on a government scheme was also included. 2) Dependent variable is gross weekly income from all sources.

Source: General Household Surveys, 1979 & 1990

Table 4. Work Transitions, 1979-1991

1) Males 1979

	w	u	n
w	0.966	0.025	0.009
u	0.455	0.468	0.078
n	0.26	0.058	0.682

2) Males 1990

	w	u	y	n
w	0.959	0.031	0.003	0.010
u	0.318	0.568	0.084	0.113
y	0.313	0.229	0.407	0.051
n	0.219	0.087	0.050	0.693

3) Females 1979

	w	u	n
w	0.912	0.025	0.063
u	0.426	0.360	0.213
n	0.137	0.039	0.825

4) Females 1990

	w	u	y	n
w	0.926	0.048	0.002	0.027
u	0.433	0.346	0.049	0.221
y	0.319	0.169	0.380	0.132
n	0.166	0.062	0.015	0.772

Notes: constructed from Appendix Table B3.

Table 5 -- WIRS Employment Regressions

	(1) **1980**	(2) **1990**
Log E_{t-1}	.9903	.9796
	(.0044)	(.0048)
Demand Up	.0268	.0764
	(.0093)	(.0135)
Demand Down	-.0707	-.0823
	(.0257)	(.0243)
Constant	.0828	.1412
	(.0315)	(.0355)
$\bar{R}^2$	.9821	.9783
N	1258	1236

Base: *Private sector establishments* with at least 25 employees (full or part-time) at the time the sample was drawn (usually 2/3 years earlier) as well as at the date of interview

Notes: equations 1-3 include 10 region dummies, 8 industry dummies and a union recognition dummy (any group of workers, manual or non-manual) and a dummy variable where the respondent reported that they did not know what had happened to demand (always insignificant).
DUP=1 if respondent reports the change in value of sales over the preceding 12 months was rising, zero otherwise
DDN=1 if respondent reports the change in value of sales over the preceding 12 months was falling, zero otherwise

Specifications equivalent to those reported in Blanchflower, Millward and Oswald (1991)

Standard errors in parentheses

Source: Workplace Industrial Relations Surveys, 1980, 1984, 1990.

Table 6. UK Wage Responsiveness to Regional Unemployment, 1973-1990

	(1)	(2)	(3)	(4)
	1973-1980		1981-1990	
Log U_t	-.0896	-.0697	-.1619	-.0927
	(18.05)	(4.41)	(22.91)	(2.79)
Reg. dummies	No	Yes	No	Yes
Constant	1.9049	2.8946	3.4217	3.3408
	(84.72)	(90.46)	(104.70)	(51.19)
$\bar{R}^2$	.7029	.7076	.6654	.6720
F	4387.04	3240.78	2916.73	2534.60
DF	96352	96332	79108	79098
N	96405	96405	79163	79163

Source: General Household Survey Series.

Notes: Unless stated otherwise the following control variables were included 1) 10 industry dummies 2) 4 marital status dummies 3) 15 highest qualification dummies 4) 17 year dummies 5) gender dummy 6) experience and its square 7) part-time dummy 8) 11 month of interview dummies 9) race dummy 10) 11 region dummies interacted with dummy for years up to 1977.

Dependent variable is the natural log of gross earnings. U_t is the regional unemployment rate.

T-statistics in parentheses.

Source: Blanchflower and Oswald (1993)

Table 7: Standard Deviation in Ln Hourly Earnings and the Effect of Region and Industry on Ln Hourly Earnings, 1979 to 1990/91

	1979	1990/91	Change
1. SD in Ln Hourly Earnings	.526	.611	.085
2. SD in Region Coefficients	.059	.085	.026
3. SD in Industry Coefficients	.118	.142	.024
4. Residual S.E. from regression	.377	.455	.078

Note: Lines 1-4 based on regressions in Appendix B, based on GHS survey. The standard deviations in lines 2 and 3 are standard deviations of the estimated coefficients on region and industry (including a 0 for the omitted group).

Table 8. Wage Equation , 1980 and 1990 -- skilled manual workers

	(1) 1980	(2) 1990
Demand Up	-.0081	.0441
	(0.45)	(1.94)
Demand Down	-.0217	-.0316
	(1.30)	(0.77)
Union recognition	.0329	.0061
	(1.81)	(0.61)
50-99 employees	.0385	.0451
	(1.60)	(1.24)
100-199 employees	.0276	.1154
	(1.12)	(3.10)
200-499 employees	.0524	.1291
	(2.07)	(3.42)
500-999 employees	.0889	.1583
	(3.20)	(3.84)
1000-1999 employees	.1409	.2259
	(4.42)	(5.42)
2000+ employees	.1593	.2254
	(4.81)	(4.49)
Constant	4.4649	9.2001
	(109.92)	(138.14)
$\bar{R}^2$	.2866	.3445
F	14.76	14.47
DF	997	739
N	1028	770

Notes: equations also include the following controls: 1) % part-time 2) % manuals female 3) 8 industry dummies 4) 10 regional dummies 5) single establishment dummy.
Base: private sector establishments.

Specifications equivalent to those reported in Blanchflower (1984) and Blanchflower, Oswald and Garrett (1989)

T-statistics in parentheses

Sources: Workplace Industrial Relations Survey 1980 and 1990.

'Demand Up' and 'Demand Down' are dummy variables derived from the following questions a) 1980 -- "Over the past 12 months would you say that demand for the main products or services of this establishment have been 1) rising 2) falling 3) neither" b) 1990 -- As for 1980 but option 3) is now "stable'. Demand Up is set to one if 1) above zero otherwise and Demand Down set to 1 if 2) above, zero otherwise.

Dependent variable is log of gross weekly earnings. In 1980 the question asked was "Over the last month what has been the gross pay of the typical employee in each of these groups I am going to read out?". In 1990 the question was "If all employees in this group were listed individually in order of their gross earnings (including any bonuses or overtime) which of the ranges on this card would apply to the employee in the middle of such a list?". For estimation purposes midpoints were allocated.

Table 9a. Self-employment Transitions, 1979-1990 - UK

1) Males 1979

	se	e	u	n
se	0.9285	0.0528	0.0132	0.0055
e	0.02	0.9441	0.0262	0.0097
u	0.039	0.4157	0.4676	0.0776
n	0.0058	0.2544	0.0577	0.6821

2) Males 1990

	se	e	u	y	n
se	0.9018	0.0597	0.0283	0.0018	0.0084
e	0.0199	0.9348	0.0310	0.0035	0.0109
u	0.0523	0.2392	0.5205	0.0840	0.1040
y	0.0255	0.2873	0.2291	0.4073	0.0509
n	0.0085	0.1958	0.0759	0.0503	0.6694

3) Females 1979

	se	e	u	n
se	0.8688	0.0679	0.0163	0.0471
e	0.0058	0.9053	0.0252	0.0637
u	0.0063	0.4198	0.3603	0.2135
n	0.0031	0.1335	0.0386	0.8248

4) Females 1990

	se	e	u	y	n
se	0.8129	0.1243	0.0142	0.0037	0.0449
e	0.0080	0.9140	0.0276	0.0022	0.0482
u	0.0365	0.3755	0.3294	0.0488	0.2098
y	0.0064	0.3131	0.1693	0.3802	0.1310
n	0.0103	0.1493	0.0596	0.0154	0.7654

Table 9b. Self-employment Transitions, 1979-1990 - South East including London

1) Males 1979

	se	e	u	n
se	0.9243	0.0500	0.0189	0.0068
e	0.0261	0.9472	0.0178	0.0088
u	0.0797	0.5319	0.3110	0.0771
n	0.0100	0.2781	0.0389	0.6729

2) Males 1990

	se	e	u	y	n
se	0.9020	0.0579	0.0301	0.0014	0.0087
e	0.0270	0.9335	0.0275	0.0016	0.0104
u	0.0639	0.3018	0.4783	0.0512	0.1049
y	0.1000	0.3400	0.1800	0.3600	0.0200
n	0.0080	0.2728	0.0833	0.0354	0.6005

3) Females 1979

	se	e	u	n
se	0.8397	0.0801	0.0289	0.0513
e	0.0062	0.9063	0.0216	0.0659
u	0.0154	0.4962	0.2500	0.2385
n	0.0025	0.1366	0.0317	0.8292

4) Females 1990

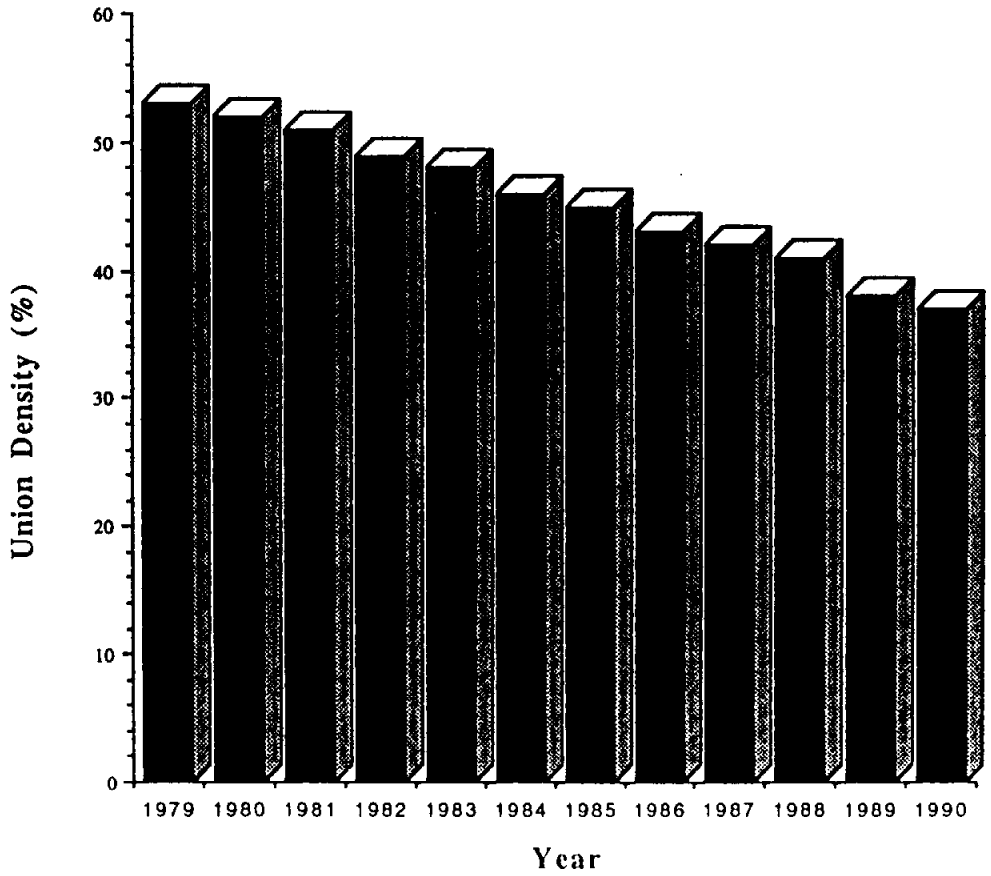
	se	e	u	y	n
se	0.8039	0.1382	0.0127	0.0042	0.0409
e	0.0104	0.9156	0.0260	0.0010	0.0471
u	0.0425	0.4286	0.2664	0.0193	0.2432
y	0.0256	0.3077	0.2051	0.4103	0.0513
n	0.0145	0.1742	0.0586	0.0088	0.7330

Table 10. Full Time and Part-time Work; Great Britain 1978-1992 -- Seasonally Adjusted(000's).

	Employees		Self-employed		All	
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time
1) All						
1978	17854	4392	1602	240	19456	4632
1981 (Sept.)	16726	4499	1724	347	18450	4846
1983	16030	4527	1767	393	17797	4920
1985	16141	4769	2050	500	18191	5269
1987	16049	5031	2229	571	18278	5602
1989	16750	5393	2673	509	19423	5902
1991	16018	5705	2499	567	18517	6272
1992	15450	5768	n/a	n/a	n/a	n/a
2) Male						
1978	12390	704	1385	93	13775	797
1981 (Sept.)	11439	718	1543	99	12982	817
1983	10908	766	1526	126	12434	892
1985	10827	810	1753	170	12580	980
1987	10559	878	1895	204	12454	1082
1989	10814	911	2258	170	13072	1081
1991	10265	1077	2118	215	12383	1292
1992	9868	1134	n/a	n/a	n/a	n/a
3) Female						
1978	5499	3653	217	147	5716	3800
1981 (Sept.)	5262	3806	181	248	5443	4054
1983	5122	3761	241	267	5363	4028
1985	5314	3958	297	331	5611	4289
1987	5490	4153	334	367	5824	4520
1989	5936	4481	415	339	6351	4820
1991	5753	4628	381	352	6134	4980
1992	5582	4634	n/a	n/a	n/a	n/a

Source: Employment Gazette Historical Supplement No. 3, June 1992 and Employment Gazette, January 1993.
Note: except where noted all estimates are for June.

Figure 1A. Union Densities in the UK, 1979-1990



Notes: union membership expressed as a percentage of the civilian workforce in employment. Source: Beatson and Butcher (1993)

Figure 2. UK and US Unemployment 1975-1992

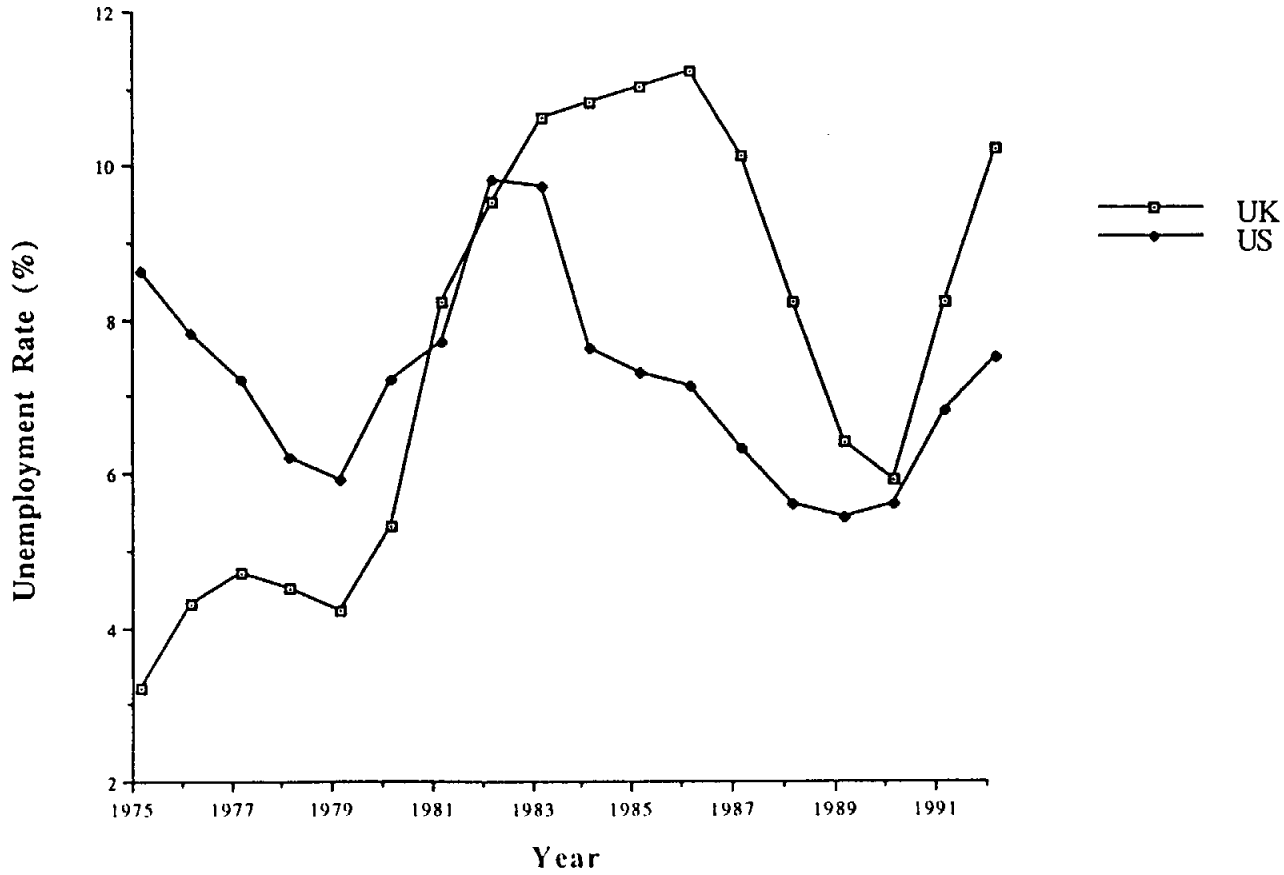


Figure 3a. 90/10 Log Earnings Ratios - Males
Source: NES

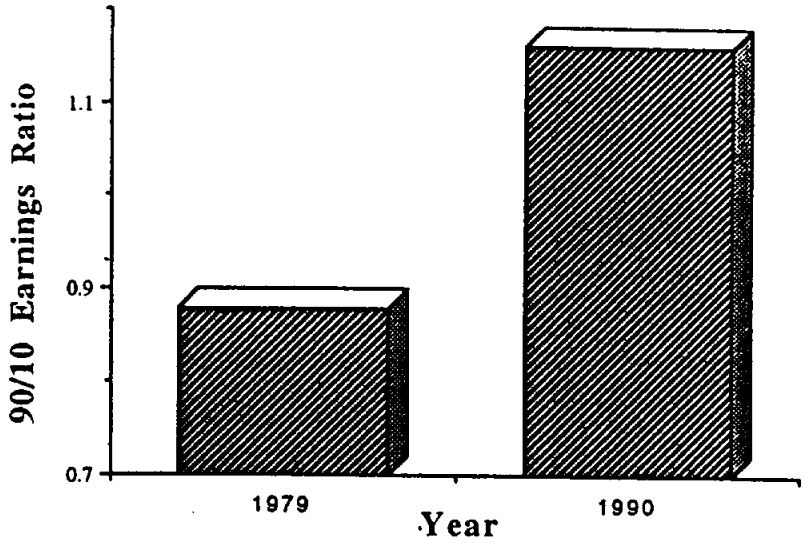
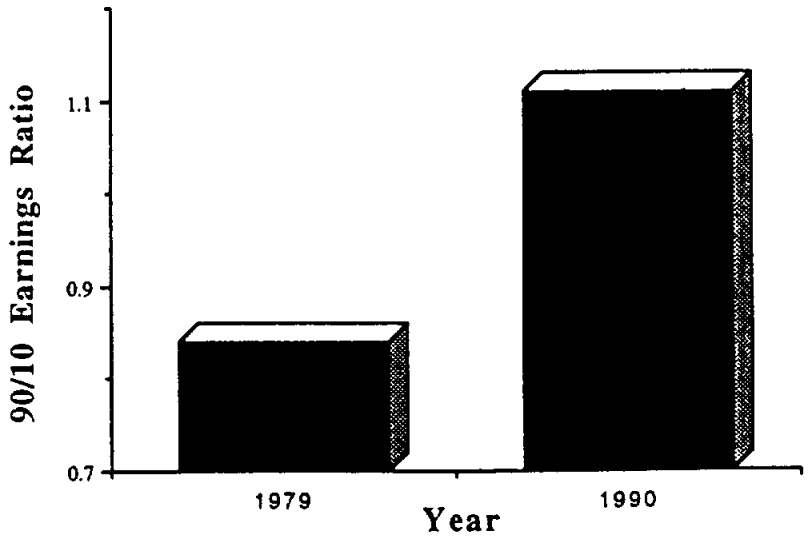


Figure 3b. 90/10 Log Earnings Ratios - Females
Source: NES



Appendix A. Major Reductions in Benefits for the Unemployed, 1979-1988. Source: Atkinson and Micklewright (1989)

1. Ending of Earnings Related Supplement (ERS)
The Social Security Act (No.2) Act 1980 abolished ERS. The 15% rate of ERS was reduced to 10% in January 1981 and from January 1982 no new claims could be made for ERS. As a result no ERS was payable after June 1982. Britain is thus the only member of the EEC with no element of unemployment benefits linked to past earnings.

2. Taxation of Unemployment Benefit
The income tax treatment of the unemployed was changed in two respects: tax refunds are no longer paid until after the resumption of work, or the end of the tax year if that is sooner and Unemployment Benefit and Supplementary Benefit both became taxable. Both of these measures were implemented in 1982.

3. Suspension of statutory indexation
The Social Security Act (No.2) Act 1980 suspended the direct indexation of NI short-term benefits for 3 years, giving powers to increase them by up to 5 percentage points below inflation. Between 1980 and 1983 there was a 5% withholding of unemployment benefit. The Social Security Act of 1986 provides for the government to vary the amount of any increase in benefits more or less at will.

4. More stringent administration
The operation of Unemployment Review Officers (UROs), responsible for finding out what the claimant is doing to find a job, traditionally based on the supplementary benefit side, were extended to cover those receiving NI Unemployment Benefit supplemented by SB in 1980. The number of UROs was increased from 300 in 1978 to 880 in 1981. In 1983 the Department of Employment set up Regional Benefit Investigation teams. The total number of staff in the Department of Health and Social Security allocate to fraud work increased from 2044 in 1980-1 to 3674 in 1986/7.

In 1984 a major drive was started in 59 areas to identify social security abuse. UROs questioned 18-25 year olds about why they left jobs: the Social Security Policy Inspectorate interviewed young people not joining a Government scheme. The Restart program was introduced in 1986 with a benefit monitoring function. A more stringent availability-to-work test was introduced in 1986 involving a new questionnaire for new claimants. A revised questionnaire for new claimants and those called for Restart interviews was introduced in 1988. All unemployed people were to be called to restart interviews every six months and all new claims were to be handled by more senior staff than before. In 1989 anyone who refused a 'reasonable' job offer would have benefit removed, even if this meant accepting lower pay than in the person's previous job.

5. Disqualification period increased
The Social Security Act of 1986 extended the maximum period of benefit disqualification from 6 to 13 weeks. This applies where there is quitting without cause, or loss of job through industrial misconduct, or refusal to take suitable work or training offers. From April 1988 there was a further increase to 26 weeks. The Act also allows that days of disqualification count towards the entitlement to a total of 312 days of benefit.

6. Contribution Conditions
The Social Security Act of 1988 tightened the contribution condition for NI benefit. The entitlement was altered to depend upon a contribution record for the two preceeding tax years rather than one. Class 1 contributions on earnings of at least 50 times the lower weekly earnings limit must have been paid or credited in both years.

7. Student entitlements removed
From 1986 regulations were made to remove the entitlement by full-time students to UB and SB benefits during the 'grant-aided period', effectively ending entitlements for most students in the short vacations.

8. Mortgage interest deductions reduced
As from 1987 owner-occupiers aged under 60 were allowed to receive only 50% of the mortgage interest eligible for SB during the first 16 weeks on benefit. Claimants then have to make an appropriate application within 4 weeks of the end of the period or else start a new claim again.

9. 16 & 17 year olds entitlements removed.
The Social Security Act, 1988 and the Employment Act 1988 made major changes in the income support for school-leavers aged under 18. The former removes the general entitlements to benefits, allowing Income Support (IS) -- which replaced SB in 1988 -- to be given only on a discretionary basis where 'severe hardship' might occur (this might include those with disablities and single parents). The Act also allows parents to continue to receive child benefits for a period after their child leaves school. The Employment Act extends the circumstances in which benefit may be withdrawn or reduced for unemployed people leaving or refusing places on job training schemes. This has had the effect of removing all 16-17 year olds from the official unemployment figures which is a count of unemployed claimants.

10. School leavers entitlements reduced
Prior to 1980 school-leavers could claim benefit as soon as they left school. In 1980 the concept of a 'terminal date' was introduced, under which benefit could not be claimed until approximately the first Monday of the following term. Easter leavers entered for a summer examination were deemed to be ineligible for benefit until September.

11. Payment of rates and poll tax.
The Social Security Act of 1986 introduced a common basis of assessment for Housing Benefit (HB) and IS. Where a person's income was below the IS level, then HB was paid in full, where this was 100% of rents and 80% of rates. Where the income was above IS level the rate rebate was reduced by 20% of the excess, and the rent rebate is reduced by 65% of the excess. Claimants had thus to meet a minimum of 20% of the rates. Subsequently claimants would have to pay a portion, and subsequently all, of their poll/council tax.

12. Social Fund
In April 1988 the Social Fund replaced supplementary benefit single payments. This old system allowed one-off payments to be made for claimants facing exceptional needs, Major household items such as furniture and general maintenance could be financed in this way. Payments are at the discretion of Social Fund Officers: there is no legal right to appeal if help is refused. The payments are in most cases loans, not grants, the only exception, apart from maternity and funeral payments, being grants for certain community cares. To repay loans a claimant's weekly benefit is reduced, normally by 15%, for a maximum period of 18 months. The loans are not available to families with savings in excess of £500.

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Table B1. Unemployment Level Equations, 1973-1991 (GHS) - Ages 16-60.

	1973-1979		1980-1986		1987-1991(Q1)		1979		1990-1991(Q1)	
Variable	Coeff	t-stat	Coeff	t-stat	Coeff	t-stat	Coeff	t-stat	Coeff	t-stat
Male	.0071	4.88	.0340	16.00	.0374	13.33	.0107	2.67	.0384	7.88
Black	.0224	5.54	.0680	12.81	.0546	8.00	.0390	3.71	.0557	4.71
Separated	.0229	3.82	.0542	6.34	.0526	4.71	.0155	0.98	.0295	1.53
Divorced	.0346	6.84	.0415	6.87	.0437	5.74	.0316	2.50	.0151	1.17
Widowed	-.0093	1.82	-.0299	3.55	-.0226	1.86	-.0039	0.27	-.0436	2.05
Married	-.0242	11.38	-.0369	11.99	-.0559	14.00	-.0357	6.06	-.0598	8.58
Age 20-24	-.0182	5.76	-.0817	18.70	-.1119	18.78	-.0244	2.86	-.0964	8.99
Age 25-34	-.0360	11.20	-.1230	26.71	-.1367	22.65	-.0389	4.36	-.1182	11.15
Age 35-44	-.0505	15.04	-.1542	31.68	-.1622	25.21	-.0564	6.02	-.1395	12.33
Age 45-54	-.0577	17.33	-.1666	33.18	-.1702	25.59	-.0616	6.49	-.1548	13.21
Age 55-60	-.0567	15.39	-.1580	28.78	-.1534	20.52	-.0610	5.94	-.1316	9.94
Qualifications										
Higher degree	-.0420	4.41	-.0827	7.64	-.0834	6.91	-.0394	1.81	-.0709	3.32
Degree	-.0311	8.90	-.0801	18.98	-.0771	14.98	-.0432	5.02	-.0786	8.84
Teaching qual	-.0350	7.07	-.0598	8.47	-.0627	6.57	-.0549	3.79	-.0625	3.73
HNC/HND	-.0411	10.86	-.1011	21.93	-.0920	16.42	-.0545	5.70	-.0892	9.07
Nurse	-.0166	2.88	-.0743	10.01	-.0695	7.69	-.0214	1.43	-.0496	3.21
A-levels	-.0427	14.42	-.1002	26.01	-.0836	17.76	-.0511	6.49	-.0810	9.94
≥ 5 O-levels	-.0385	15.93	-.0871	24.90	-.0732	16.03	-.0535	7.96	-.0627	8.01
1-4 'O' + cler	-.0237	4.13	-.0726	10.90	-.0546	7.11	-.0530	3.36	-.0515	3.89
1-4 O-levels	-.0378	12.03	-.0683	16.66	-.0548	10.82	-.0496	5.95	-.0387	4.39
Clerical/comm	-.0165	4.43	-.0352	6.64	-.0331	4.60	-.0150	1.45	-.0330	2.51
CSE	-.0255	5.05	-.0236	4.40	-.0282	4.20	-.0314	2.72	-.0114	0.97
Apprenticeship	-.0209	7.12	-.0462	10.15	-.0419	5.74	-.0235	2.91	-.0459	3.29
Foreign	-.0107	1.69	-.0338	3.48	-.0293	2.34	-.0270	1.67	-.0258	1.21
Other	-.0141	3.38	-.0252	3.48	-.0352	3.37	-.0110	0.89	-.0278	1.49
Regional dummies										
North	.0263	8.56	.0564	12.32	.0879	14.20	.0292	3.35	.0627	5.87
Yorks/Humber	.0058	2.17	.0301	7.65	.0462	8.85	.0143	1.92	.0499	5.45
NW	.0245	9.94	.0500	13.97	.0517	10.98	.0329	4.81	.0492	5.97
E. Midlands	-.0007	0.25	.0087	2.05	.0305	5.57	.0114	1.40	.0339	3.56
W. Midlands	.0092	3.56	.0414	10.79	.0324	6.48	.0195	2.71	.0251	2.82
East Anglia	-.0020	0.53	-.0052	0.93	.0098	1.34	-.0024	0.22	-.0006	0.05
London	.0006	0.26	-.0017	0.48	.0185	3.80	.0010	0.14	.0181	2.10
SW	.0060	2.04	.0113	2.69	.0253	4.71	.0129	1.57	.0420	4.49
Wales	.0202	5.93	.0408	8.12	.0496	7.55	.0253	2.62	.0482	4.42
Scotland	.0290	10.61	.0481	12.65	.0740	14.17	.0361	4.90	.0471	5.08
Constant	.0904	22.11	.2344	39.35	.2327	29.54	.1160	11.07	.2263	14.42
F	44.41		138.95		75.24		9.85		22.42	
$\bar{R}^2$	.0242		.0824		.0774		.0305		.0699	
DF	90873		79816		44205		12897		13347	
N	90926		79869		44256		12944		13395	

Notes: all equations also include year dummies and 11 month dummies. Estimation by OLS. Dummy variable set to one if unemployed or on a government scheme, zero employed. Excluded categories: December, no qualifications, single, age 16-20, South East. Source: General Household Surveys, 1973-1990

TABLE B2. Unemployment Level Equations (LFS) - UK Total, 1979, 1990 & 1991

	1979		1990		1991	
Variable	Coeff	t-stat	Coeff	t-stat	Coeff	t-stat
Male	.0077	4.87	.0138	6.30	.0254	10.83
Separated	.0645	7.40	.0334	3.56	.0365	3.71
Divorced	.0514	10.05	.0443	7.18	.0520	8.00
Widowed	.0163	2.71	-.0178	1.71	-.0171	1.48
Married	-.0103	4.55	-.0438	13.76	-.0492	14.37
Age 20-24	-.0140	4.12	-.1116	23.02	-.0970	18.06
Age 25-34	-.0308	8.69	-.1238	25.59	-.1273	23.86
Age 35-44	-.0523	14.09	-.1514	29.48	-.1573	27.90
Age 45-54	-.0597	15.90	-.1608	30.18	-.1717	29.34
Age 55-60	-.0565	13.77	-.1505	24.85	-.1707	25.87
Race Dummies						
Polish	.0040	0.32	n/a		n/a	
Italian	.0037	0.35	n/a		n/a	
Other European	.0136	2.01	n/a		n/a	
West Indian	.0474	6.20	.0578	4.91	.0719	5.77
Indian	.0254	3.65	.0442	4.77	.0432	4.43
Pakistani	.0657	5.29	.1118	7.55	.1748	11.73
Bangladeshi	.0202	0.63	.1336	3.57	.1130	3.43
Chinese	-.0415	2.18	.0452	2.08	.0256	1.02
African	.0743	4.99	.1240	5.36	.1884	7.79
Arab	.0566	1.79	.1083	2.58	.1731	4.33
Mixed origin	n/a		.0313	1.99	.0470	2.80
Other origin	.0238	2.37	.0502	2.96	.0470	2.62
Qualifications						
Higher degree	n/a		-.0827	9.53	-.1001	11.38
Degree	-.0417	8.52	-.0908	19.92	-.0932	19.09
Other degree	-.0497	8.31	-.0817	9.10	-.0942	9.65
HNC/HND	-.0457	6.69	-.0960	14.62	-.0939	13.79
Teaching qual - FE	n/a		-.0954	4.55	-.0901	4.51
Teaching qual - secondary	-.0437	6.30	-.0634	4.64	-.0676	4.27
Teaching qual - primary	-.0361	6.72	-.0517	4.30	-.0703	4.98
Nurse	-.0356	15.06	-.0767	10.42	-.0903	11.23
Apprenticeship completed	-.0725	11.41	n/a		n/a	
Apprenticeship incomplete	-.0523	6.63	n/a		n/a	
ONC/OND	-.0361	7.87	-.0859	14.00	-.0988	14.75
City & Guilds	-.0385	10.69	-.0703	18.26	-.0581	13.70
A-levels	-.0417	17.46	-.0791	17.24	-.0877	17.82
O-levels	-.0248	6.33	-.0663	21.24	-.0678	20.45
CSE	-.0100	2.68	-.0305	5.78	-.0326	5.61
YTS Certificate	n/a		.0676	2.87	.1222	4.32
Other prof/voc	.0031	0.02	-.0366	9.13	-.0304	6.92
Regional dummies						
North	.0454	13.47	.0785	15.79	.0391	6.60

Yorks/Humber	.0145	5.05	.0336	7.99	-.0006	0.11
NW	.0235	8.82	.0391	9.96	.0148	3.43
E. Midlands	.0075	2.30	.0263	5.95	-.0067	1.26
W. Midlands	.0058	2.09	.0221	5.36	.0101	2.00
East Anglia	.0020	0.46	.0033	0.57	-.0221	3.30
London	-.0028	1.02	.0123	3.10	-.0174	4.04
SW	.0091	2.95	.0072	1.70	-.0040	0.75
Wales	.0297	8.18	.0470	8.93	.0184	2.97
Scotland	.0388	13.37	.0556	13.70	.0175	3.43
Constant	.0996	20.23	.2567	50.96	.2967	49.01
F	45.29		95.25		97.77	
$\bar{R}^2$	.0226		.0614		.0613	
DF	91886		69079		68140	
N	91935		69128		68187	

Notes: all equations also include month dummies. Estimation by OLS. Dependent variable variable set to one if respondent was unemployed or on a government scheme in the survey week, zero if employed. Excluded categories: March, no qualifications, single, age 16-20, South East. In 1979 degree and higher degree included as a single category. In 1979 "Other Origin" includes "Mixed Origin"

Source: Labour Force Surveys 1979, 1990& 1991.

TABLE B3. Labour Market Transitions, 1975-1991 (LFS)

A) UK

1) 1975

		en	eu	ue	un	nu	ne	ee	uu	nn	nl	ln
16-25	P	0.049	0.048	0.51	0.071	0.041	0.273	0.902	0.419	0.686	0.314	0.05
	F	918	899	231	32	520	3446	16814	190	8652	3966	950
Male	P	0.017	0.026	0.426	0.062	0.037	0.243	0.957	0.512	0.72	0.28	0.018
	F	1084	1688	536	78	288	1898	61221	643	5624	2186	1162
Female	P	0.074	0.025	0.416	0.134	0.028	0.124	0.901	0.45	0.848	0.152	0.075
	F	2870	952	230	74	1001	4418	34924	249	30121	5419	2944

2) 1979

		en	eu	ue	un	nu	ne	ee	uu	nn	nl	ln
16-25	P	0.048	0.043	0.512	0.13	0.05	0.261	0.908	0.357	0.689	0.311	0.054
	F	899	805	660	168	575	3002	16853	460	7914	3577	1067
Male	P	0.009	0.025	0.455	0.078	0.058	0.26	0.966	0.468	0.682	0.318	0.012
	F	514	1390	990	169	370	1668	53412	1018	4372	2038	683
Female	P	0.063	0.025	0.426	0.213	0.039	0.137	0.912	0.36	0.825	0.175	0.068
	F	2310	912	537	269	1077	3810	33333	454	23013	4887	2579

3) 1981

		en	eu	ue	un	nu	ne	ee	uu	nn	nl	ln
16-25	P	0.044	0.089	0.296	0.102	0.13	0.254	0.867	0.602	0.615	0.385	0.049
	F	864	1728	544	187	1727	3365	16920	1106	8148	5092	1051
Male	P	0.011	0.059	0.257	0.082	0.133	0.239	0.93	0.661	0.629	0.371	0.015
	F	641	3328	811	257	982	1766	52848	2085	4652	2748	898
Female	P	0.068	0.04	0.329	0.138	0.057	0.131	0.892	0.533	0.812	0.188	0.071
	F	2619	1534	478	201	1622	3715	34124	776	23121	5337	2820

4) 1983

		en	eu	ue	un	nu	ne	ee	uu	nn	nl	ln
16-25	P	0.063	0.069	0.274	0.165	0.092	0.182	0.868	0.561	0.726	0.274	0.081
	F	840	912	740	447	935	1843	11492	1515	7368	2778	1287

Male	P	0.022	0.044	0.263	0.134	0.098	0.173	0.934	0.603	0.729	0.271	0.034
	F	869	1734	1222	623	585	1035	37017	2797	4364	1620	1492
Female	P	0.068	0.033	0.315	0.21	0.055	0.113	0.899	0.475	0.833	0.167	0.077
	F	1866	923	650	433	1163	2401	24827	981	17739	3564	2299

5) 1987

		en	eu	ue	un	nu	ne	ee	uu	nn	nl	ln	ey	uy	ny	yy	ye	yu
16-25	P	0.035	0.065	0.364	0.128	0.104	0.276	0.9	0.508	0.62	0.423	0.049	0.015	0.107	0.069	0.222	0.465	0.267
	F	439	821	789	277	795	2104	11290	1102	4724	3463	738	186	261	564	103	216	124
Male	P	0.015	0.04	0.265	0.14	0.1	0.204	0.946	0.595	0.696	0.342	0.029	0.005	0.065	0.055	0.193	0.419	0.337
	F	516	1422	1201	635	516	1052	33634	2702	3587	1866	1169	166	314	298	68	148	119
Female	P	0.05	0.034	0.359	0.215	0.069	0.148	0.916	0.426	0.783	0.229	0.063	0.003	0.051	0.016	0.197	0.502	0.227
	F	1380	923	814	487	1225	2649	25052	965	13991	4166	1882	80	121	292	40	102	46

6) 1990

		en	eu	ue	un	nu	ne	ee	uu	nn	nl	ln	ey	uy	ny	yy	ye	yu
16-25	P	0.036	0.053	0.428	0.125	0.08	0.308	0.911	0.447	0.612	0.426	0.042	0.01	0.105	0.061	0.484	0.3	0.159
	F	452	672	441	129	543	2092	11521	460	4148	3077	618	122	121	442	310	192	102
Male	P	0.01	0.031	0.318	0.113	0.087	0.219	0.959	0.568	0.693	0.342	0.017	0.003	0.084	0.05	0.407	0.313	0.229
	F	388	1130	802	286	438	1099	35453	1432	3475	1803	702	118	231	266	224	172	126
Female	P	0.027	0.048	0.433	0.221	0.062	0.166	0.926	0.346	0.772	0.239	0.035	0.002	0.049	0.015	0.38	0.319	0.169
	F	786	1410	599	305	993	2652	27324	479	12365	3890	1756	69	71	245	119	100	53

6) 1991

		en	eu	ue	un	nu	ne	ee	uu	nn	nl	ln	ey	uy	ny	yy	ye	yu
16-25	P	0.042	0.074	0.35	0.12	0.085	0.282	0.885	0.53	0.633	0.406	0.048	0.008	0.089	0.056	0.516	0.246	0.174
	F	500	887	360	124	546	1812	10633	546	4073	2780	660	95	101	383	291	139	98
Male	P	0.013	0.05	0.267	0.12	0.086	0.193	0.937	0.613	0.721	0.31	0.02	0.003	0.075	0.044	0.447	0.264	0.252
	F	472	1829	653	295	407	914	34329	1502	3419	1537	786	96	198	216	222	131	125
Female	P	0.05	0.032	0.401	0.209	0.061	0.146	0.918	0.39	0.793	0.219	0.057	0.002	0.051	0.015	0.411	0.311	0.157
	F	1473	952	540	281	912	2184	27043	526	11861	3318	1790	69	72	222	123	93	47

Note: P=probability F=frequency
Source: Labour Force Surveys (various)

B) South East

1) 1979

		en	eu	ue	un	nu	ne	ee	uu	nn	nl	ln
16-25	P	0.042	0.026	0.72	0.104	0.072	0.534	0.933	0.176	0.394	0.885	0.044
	F	124	76	90	13	66	488	2769	22	360	2780	660
Male	P	0.008	0.015	0.685	0.056	0.047	0.283	0.978	0.258	0.671	0.517	0.009
	F	76	140	146	12	44	266	9414	55	631	675	88
Female	P	0.068	0.021	0.539	0.227	0.036	0.139	0.911	0.234	0.825	0.175	0.071
	F	425	134	76	32	168	652	5719	33	3874	820	457

2) 1990

		en	eu	ue	un	nu	ne	ee	uu	nn	nl	ln	ey	uy	ny	yy	ye	yu
16-25	P	0.031	0.044	0.62	0.07	0.081	0.373	0.925	0.31	0.546	0.479	0.032	0.003	0.053	0.046	0.395	0.447	0.158
	F	73	105	44	5	83	381	2183	22	557	513	78	6	4	49	15	17	6
Male	P	0.008	0.024	0.393	0.121	0.073	0.299	0.968	0.486	0.628	0.401	0.01	0.002	0.039	0.046	0.387	0.484	0.129
	F	55	173	68	21	46	187	6957	84	393	263	76	12	7	30	12	15	4
Female	P	0.045	0.024	0.536	0.224	0.055	0.206	0.931	0.24	0.739	0.269	0.049	0.001	0.038	0.01	0.333	0.381	0.238
	F	254	133	67	28	134	503	5235	30	1800	661	283	7	5	24	7	8	5

2) 1991

		en	eu	ue	un	nu	ne	ee	uu	nn	nl	ln	ey	uy	ny	yy	ye	yu
16-25	P	0.04	0.063	0.36	0.137	0.069	0.361	0.898	0.503	0.571	0.455	0.044	0.006	0.03	0.045	0.525	0.283	0.111
	F	125	197	58	22	96	503	2821	81	796	665	155	19	5	66	52	28	11
Male	P	0.013	0.041	0.359	0.114	0.058	0.275	0.946	0.527	0.667	0.358	0.016	0.002	0.032	0.038	0.482	0.271	0.188
	F	126	410	120	38	53	252	9441	176	611	341	169	21	11	36	41	23	16
Female	P	0.053	0.025	0.461	0.224	0.05	0.179	0.922	0.315	0.771	0.238	0.059	0.002	0.023	0.012	0.432	0.318	0.114
	F	420	195	117	57	170	603	7272	80	2604	813	483	18	6	40	19	14	5

TABLE B4. Hourly Earnings Equation, 1973-1991 (GHS)

	1973-1979		1980-1986		1987-1991(Q1)		1979		1990-1991(Q1)	
Variable	Coeff	t-stat	Coeff	t-stat	Coeff	t-stat	Coeff	t-stat	Coeff	t-stat
Personal controls										
Male	.3655	105.02	.3120	74.81	.2968	47.93	.3240	34.18	.2805	24.61
Black	-.0743	8.96	-.1055	11.15	-.1242	8.73	-.0629	2.91	-.1216	4.61
Separated	.0599	4.92	.0750	5.05	.0338	1.53	.0551	1.73	.0237	0.60
Divorced	.0748	7.15	.0552	5.37	.0377	2.51	.0778	2.99	.0432	1.63
Widowed	.0649	6.32	.0385	2.82	.0411	1.75	.1073	3.75	.0833	1.98
Married	.1026	23.59	.1044	19.93	.0829	10.67	.0977	8.18	.0884	6.17
Age 20-24	.3668	57.74	.3119	41.25	.2913	24.31	.3203	18.81	.3248	14.26
Age 25-34	.5169	79.26	.4707	58.99	.4791	39.40	.4750	26.59	.4976	21.97
Age 35-44	.5665	83.05	.5470	68.24	.5712	44.33	.5277	27.97	.5733	23.89
Age 45-54	.5545	80.93	.5446	62.48	.5803	43.37	.5177	27.03	.6048	24.23
Age 55-60	.5158	68.78	.5101	53.51	.5593	37.07	.4516	21.80	.5887	20.75
Part-time	-.1085	26.33	-.1732	36.37	-.1580	22.43	-.1685	15.08	-.1729	13.39
Qualifications										
Higher degree	.7261	38.32	.7015	40.90	.6603	29.62	.6665	15.63	.6840	16.53
Degree	.6309	85.43	.5982	82.19	.6099	59.80	.6130	34.40	.6735	36.04
Teaching qual.	.7777	78.58	.7584	66.36	.6260	35.09	.7648	27.25	.6539	20.07
HNC/HND	.4041	52.84	.4109	53.25	.4010	36.86	.3721	19.38	.4268	21.00
Nurse	.2965	25.95	.4407	36.90	.4963	29.73	.3314	11.39	.5335	17.72
A-levels	.2690	44.70	.2813	43.16	.2982	31.81	.2296	14.38	.3284	19.10
≥ 5 O-levels	.2327	46.89	.2239	37.62	.2395	26.36	.2081	15.23	.2824	16.99
1-4 'O' + cler	.2359	20.46	.2108	19.43	.2155	15.07	.2277	7.33	.2462	9.59
1-4 O-levels	.1463	23.09	.1725	24.69	.1930	19.37	.1817	10.88	.2000	10.90
Clerical/comm	.1410	19.04	.0962	11.01	.0923	6.83	.0899	4.37	.1269	4.92
CSE	.0681	6.74	.1132	12.16	.1010	7.65	.0980	4.27	.1032	4.23
Apprenticeship	.0996	16.35	.0900	11.16	.1081	7.05	.0959	5.79	.1246	4.11
Foreign	.1819	13.66	.2235	13.03	.2430	9.22	.2108	6.43	.2640	5.67
Other	.1351	15.95	.1158	9.35	.1281	6.22	.1490	6.06	.1627	4.21
Regional dummies										
North	-.0776	12.53	-.0810	10.54	-.1584	13.05	-.0911	5.24	-.1796	8.25
Yorks/Humber	-.0973	17.83	-.0950	14.31	-.1400	13.94	-.1078	7.19	-.1267	6.83
NW	-.0653	13.05	-.0796	13.20	-.1406	15.49	-.0632	4.59	-.1355	8.10
E. Midlands	-.0934	15.66	-.1034	14.62	-.1380	13.10	-.0685	4.19	-.1378	7.07
W. Midlands	-.0717	13.68	-.0978	15.06	-.1523	13.89	-.0782	5.38	-.1503	8.26
East Anglia	-.0900	11.65	-.0809	8.77	-.1078	7.63	-.0809	3.88	-.0987	3.76
London	.0850	17.00	.1129	18.42	.1307	13.71	.0982	7.14	.1236	6.96
SW	-.1043	17.51	-.1157	16.27	-.1559	14.90	-.1140	7.06	-.1409	7.32
Wales	-.0968	13.85	-.1064	12.45	-.1795	13.93	-.1106	5.57	-.1697	7.56
Scotland	-.0401	7.27	-.0669	10.45	-.1241	12.17	-.0546	3.72	-.1240	6.53
Month of interview										
January	-.1437	21.78	-.1059	13.20	-.0799	6.23	-.1638	9.12	-.0857	3.65
February	-.1267	18.74	-.1021	12.40	-.0915	7.05	-.1453	8.11	-.1022	4.31
March	-.1062	16.23	-.0899	11.13	-.0923	6.97	-.1378	7.65	-.0861	3.58

April	-.0824	12.17	-.0680	8.42	-.0627	5.04	-.1354	5.98	-.0464	1.80
May	-.0805	12.17	-.0728	8.81	-.0592	4.72	-.0768	4.27	-.0585	2.24
June	-.0790	11.92	-.0552	6.89	-.0522	4.08	-.1021	5.62	-.0126	0.47
July	-.0492	7.43	-.0500	6.19	-.0239	1.93	-.0525	2.92	-.0331	1.30
August	-.0545	8.25	-.0477	5.85	-.0428	3.43	-.0445	2.52	-.0334	1.30
September	-.0333	5.03	-.0402	4.98	-.0422	3.32	-.0455	2.52	-.0406	1.51
October	-.0315	4.70	-.0380	4.71	-.0119	0.96	-.0518	2.95	-.0204	0.78
November	-.0116	1.76	-.0238	2.93	.0039	0.31	-.0218	1.21	-.0208	0.81
Industry dummies										
Agriculture, forestry & fishing	-.2264	18.94	-.2493	17.08	-.3497	13.85	-.1767	5.27	-.2787	5.71
Energy & water	.1333	13.09	.2490	25.14	.2634	15.71	.1961	6.76	.2670	8.60
Extraction	.1636	25.10	.1355	14.85	.1218	8.45	.2331	12.79	.1143	4.21
Metal manufacture	.0957	21.45	.0515	8.76	.0744	7.00	.0997	8.18	.0911	5.33
Other manufacturing	.0708	15.49	.0303	5.02	.0257	2.67	.1027	8.06	.0141	0.78
Construction	.0460	7.52	.0015	0.19	-.0085	0.68	.0542	3.12	-.0138	0.59
Distribution	-.0677	14.61	-.1188	23.12	-.1404	18.17	-.0613	4.95	-.1331	9.22
Transport & Communications	.0928	16.60	.1059	14.12	.0734	6.35	.1084	6.72	.0496	2.35
Financial services	.1670	25.25	.1183	17.41	.1509	16.64	.1729	9.77	.1278	7.77
Constant	-1.2290	140.99	.0462	4.29	.5852	35.17	-.1396	6.23	.5318	17.18
F	2258.26		1088.85		469.85		181.12		140.83	
$\bar{R}^2$	.6507		.5229		.4597		.4864		.4460	
DF	75077		61470		33004		10597		9844	
N	75140		61533		33065		10654		9902	

Notes: all equations also include year dummies. Estimation by OLS. Excluded categories: December, no qualifications, single, age 16-20, South East and SIC Order 9
Sample is wage and salary workers.
Source: General Household Surveys, 1973-1990.

TABLE B5. Hourly Earnings Equation, 1973-1991 (GHS) - South East (Including London)

	1973-1979		1980-1986		1987-1991		1979		1990-1991(Q1)	
Variable	Coeff	t-stat	Coeff	t-stat	Coeff	t-stat	Coeff	t-stat	Coeff	t-stat
Personal controls										
Male	.3528	52.58	.3037	39.50	.2897	26.06	.2961	17.46	.2868	14.19
Black	-.1010	8.12	-.1147	8.56	-.1047	5.35	-.1118	3.84	-.1046	2.99
Separated	.0517	2.27	.1013	3.82	-.0003	0.01	.0025	0.05	.0126	0.17
Divorced	.0708	3.63	.0368	1.94	.0156	0.56	.0995	2.18	-.0039	0.08
Widowed	.0299	1.40	-.0025	0.09	.0568	1.31	.0552	1.08	-.0039	0.08
Married	.0965	11.71	.0984	10.27	.0781	5.71	.0737	3.50	.0382	1.54
Age 20-24	.3426	27.42	.3453	24.42	.2542	11.60	.2656	8.62	.3282	7.93
Age 25-34	.5181	40.80	.5244	35.68	.4750	21.51	.4431	13.84	.5172	12.61
Age 35-44	.5883	43.84	.6030	38.66	.5751	24.66	.5250	15.18	.6143	14.16
Age 45-54	.5930	43.88	.6236	38.46	.5668	23.31	.5631	16.10	.6258	13.76
Age 55-60	.5628	38.16	.5864	32.89	.5527	20.25	.4825	12.97	.5878	11.41
Part-time	-.1312	16.35	-.1974	21.81	-.1745	13.15	-.1775	8.51	-.1800	7.43
Qualifications										
Higher degree	.6997	23.05	.6830	24.90	.6408	17.40	.6466	11.20	.6863	10.10
Degree	.6112	49.73	.5955	47.52	.6047	34.86	.6244	21.79	.6304	19.70
Teaching qual.	.7446	38.83	.7052	31.56	.5451	15.48	.6651	12.85	.6213	9.81
HNC/HND	.4409	32.05	.4338	30.09	.4237	20.85	.4171	12.43	.4474	12.21
Nurse	.2774	12.67	.4025	17.82	.4979	15.00	.2840	5.42	.5866	10.63
A-levels	.2859	24.73	.3215	26.22	.3268	18.80	.2758	9.42	.3238	10.48
≥ 5 O-levels	.2754	29.73	.2528	22.56	.2824	16.55	.2390	9.66	.3532	11.11
1-4 'O' + cler	.2773	13.57	.2393	12.04	.2551	10.12	.2985	5.19	.2511	5.43
1-4 O-levels	.1818	15.10	.1953	14.97	.2146	11.50	.1962	6.66	.2391	7.03
Clerical/commercial	.1577	11.21	.1153	7.05	.1153	4.80	.1088	2.82	.1571	3.43
CSE	.0952	5.05	.1261	7.28	.1325	5.34	.1373	3.40	.1630	3.75
Apprenticeship	.1057	7.35	.0827	4.47	.1118	3.39	.0975	2.40	.1419	2.37
Foreign	.2029	10.63	.2437	10.56	.2537	7.49	.2316	5.76	.2804	4.63
Other	.1205	6.92	.1130	4.69	.1621	4.29	.0782	1.64	.1759	2.36
Month of interview										
January	-.1559	11.93	-.1309	8.58	-.0686	2.99	-.2172	6.64	-.0702	1.70
February	-.1606	12.10	-.1223	7.74	-.0961	4.08	-.2502	7.63	-.0883	2.11
March	-.1199	9.29	-.1120	7.26	-.1344	5.70	-.1932	5.87	-.1291	3.07
April	-.0930	6.97	-.0984	6.37	-.0757	3.37	-.1689	3.69	-.1015	2.14
May	-.0967	7.31	-.0936	5.84	-.0572	2.53	-.1740	5.20	-.1005	2.19
June	-.0793	6.04	-.0783	5.07	-.0502	2.20	-.1811	5.31	-.0089	0.19
July	-.0728	5.59	-.0714	4.61	-.0148	0.67	-.0806	2.43	-.0747	1.68
August	-.0575	4.43	-.0820	5.32	-.0418	1.92	-.0775	2.41	-.0526	1.18
September	-.0662	5.05	-.0371	2.43	-.0055	0.24	-.0934	2.79	-.0569	1.17
October	-.0479	3.63	-.0606	3.93	.0093	0.42	-.1396	4.40	-.0451	0.98
November	-.0308	2.38	-.0431	2.77	-.0291	1.32	-.0811	2.48	-.0434	0.96
Industry dummies										
Agriculture, forestry & fishing	-.2906	10.37	-.3093	9.37	-.2188	3.90	-.2511	3.13	-.2057	1.72
Energy & water	.1030	5.17	.2436	10.68	.2291	6.16	.1416	2.71	.2177	3.54

Extraction	.1238	7.24	.1091	4.96	.1249	3.89	.1461	3.25	.1664	2.89
Metal manufacture	.0595	6.71	.0339	2.99	.0731	4.22	.0450	2.00	.0944	3.00
Other manufacturing	.0602	6.26	.0528	4.28	.1082	5.40	.0873	3.44	.1153	3.14
Construction	.0290	2.45	-.0154	1.00	.0368	1.55	.0860	2.72	.0013	0.03
Distribution	-.0645	7.24	-.0913	9.48	-.1159	8.18	-.0870	3.90	-.1409	5.35
Transport & Communications	.1105	10.69	.1326	10.23	.1097	5.65	.1107	6.66	.0994	2.78
Financial services	.1949	18.48	.1647	15.01	.2366	16.27	.1823	6.89	.2034	7.70
Constant	-1.2078	73.62	-.0074	0.38	.5568	19.21	-.0377	0.97	..8798	14.34
F	679.18		376.31		159.18		63.37		48.84	
$\bar{R}^2$	.6071		.5067		.4349		.4712		.4287	
DF	23208		19311		10431		3243		3013	
N	23262		19365		10483		3291		3062	

Notes: all equations also include year dummies and a London dummy. Estimation by OLS. Excluded categories: December, no qualifications, single, age 16-20, South East and SIC Order 9
Sample is wage and salary workers.
Source: General Household Surveys, 1973-1990.

APPENDIX C - Steady State Solutions to Transitional Matrices

	Male		Female	
	1979	1990	1979	1990
Working (w)	.91	.86	.66	.76
Unemployed (u)	.05	.07	.04	.07
Not in labor force (n)	.04	.05	.29	.15
Government Training Schemes (y)	---	.02	---	.01
	Male		Female	
Self Employed (se)	.22	.18	.04	.05
Employed (e)	.70	.69	.63	.69
Unemployed (u)	.04	.03	.04	.05
Not in labor force (n)	.04	.06	.29	.20
Government Training Schemes (y)	---	.05	---	.01

SOURCE: Calculated from Transitional Matrices in Appendix A