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A quantitative evaluation of change in work in Germany

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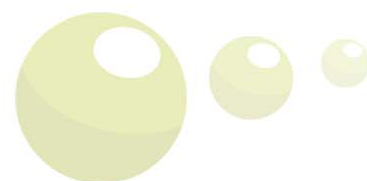
The transformation of work?

WP15 - A quantitative evaluation of changes in work in Germany

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works
CHANGES IN WORK

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Contents

1	Introduction	5
2	Changing work patterns	7
2.1	Work hours and tenure	7
2.2	Gender and work hours	8
2.3	Occupational change at the individual level	8
2.4	The IT sector	9
3	The changing nature of work	11
4	Skills	13
4.1	The returns to education and overqualification	13
4.2	Training and skills	15
5	Job satisfaction	17
6	Conclusions	19
	Bibliography	21

1 Introduction

As is well known, Germany has a long record of economic growth, high productivity, and economic stability. Pressures have mounted only in recent years, but whether this is due to now outmoded systems or, say, the major economic shock of reunification is hard to say. The latter has surely been important. Compared to the EU-15, very broadly speaking Germany in the mid-1990's was around average in terms of percentage economically active (slightly below), tertiary education (slightly above), unemployment (slightly below) and part-time work. It was well below on GDP growth, well above on general educational attainment, and well below on self-employment (Greenan *et al.*, 2007: 61). Ten years later, some relative economic decline is apparent from the fact that the index for GDP per capita was 109.8, just higher than the EU-15 average of 108.6, the employment rate was 65.4 *per cent* compared to 65.2 *per cent* in the EU-15, unemployment 9.5 *per cent* compared to 7.9 *per cent* (Eurostat, 2007).

2 Changing work patterns

2.1 Work hours and tenure

Table 2.1 derives from several tables in *Employment in Europe* (2005) and usefully summarises change over the period of most interest to WORKS time on several dimensions of employment. We clearly observe a rise in unemployment especially relative to the EU average and a major increase in part-time work with some increase also, though not more than the average, in the use of fixed-term contracts.

Table 2.1 Change in selected employment indicators for Germany relative to EU-15 average

	Germany		EU-15	
	1993	2004	1993	2004
Activity	70.6	72.6	67.1	70.6
Unemployed	7.7	9.5	10.0	8.1
Self-employed	9.7	10.9	16.2	14.9
Part-time	15.2	22.3	14.8	19.4
Fixed-term	10.3	12.4	11.0	13.6

Notes: 1 per cent total population aged 15-64, 2 per cent labour force aged 15+, 3 per cent total employment.
Source: European Commission: *Employment in Europe*, 2005

In Table 2.2 we show more detailed trends for Germany in part-time and shift work, derived from the European Community Labour Force Survey as given in their WP9 report by Birindelli and Rusticelli (2007). We observe a continuous trend increase in part-time work associated also with a substantial increase in shift work. The noticeable increase in shift work perhaps confirms the picture of a worsening work situation for some workers, whether male or female.

Table 2.2 Part-time work and shift-work, Germany, 1995-2005

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Part-time workers as percentage of total employment	16.3	16.5	17.5	18.3	19.0	19.4	20.3	20.8	21.7	22.3	24.1
Employees working on shift work as a percentage of the total of employees	10.1	11.2	11.9	-	-	-	15.0	14.8	15.5	15.2	15.8

Source: Eurostat, CLFS

If we define unusual work hours more tightly, in terms of night or weekend work, then Germany's rank is towards the poor end, entailing relatively high levels of unusual work hours. The following table is derived from HIVA's WP8 report (Ramioul & Huys, 2007) and is based on returns from employers rather than from employees.

Table 2.3 Ranking of unusual working hours in Germany (required from at least 20 *per cent* of employees) relative to EU-21

Night work	7
Saturday work	5
Sunday work	5
Index (range 3–62)	17

2.2 Gender and work hours

In Table 2.4 we repeat the trend for part-time work in Germany shown in Table 2.2, and now add the female proportion of this. As the latter rises considerably (unlike in the UK), this suggests that the general increase in part-time work is not only predominantly female but is accompanied by a major increase in female part-time relative also to women's full-time work.

Table 2.4 Part-time work and shift-work, Germany, 1995–2005

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Part-time workers as percentage of total employment	16.3	16.5	17.5	18.3	19.0	19.4	20.3	20.8	21.7	22.3	24.1
Female part-time workers as percentage of total female employment	33.8	33.6	35.1	36.4	37.2	37.9	39.3	39.5	40.8	41.6	44.3

Source: Eurostat, CLFS

This of course tells us nothing about preferences. Some very general clue to this can be derived from surveys on preferences in terms of working hours. In Germany, men appear to work 7.2 hours a week more than they would like and women 3.5 (European Foundation for the Improvement of Living and Working Conditions, 2001: 73). This is not, though, an uncommon finding in other countries.

2.3 Occupational change at the individual level

Length of tenure is a commonly used indicator of changing employment patterns (where the expectation is that this is falling), but has some problems as people might leave a job early for either positive or negative reasons. But we can also look at stability in occupations over time, rather than jobs, on the assumption that changing occupations is harder than changing jobs, and therefore less willingly undertaken. This therefore provides a

stronger measure of change. The analysis derives from ISER’s WP9 report (Brynin & Longhi, 2007). This produces some broad results that we might mostly expect, with Denmark, France, Germany and Ireland having high stability, and Belgium, Italy, the Netherlands and the UK having low stability. It also seems that negative factors such as being in fixed-term jobs drive most occupational flux, even in the countries with limited occupational turnover (for instance, Denmark and France). Multivariate analysis shows that in virtually all countries being on a fixed-term or casual contract is a strong predictor of occupational change. Although between around 5 *per cent* and 20 *per cent* of occupational moves can perhaps be characterised as linked to promotion, the reasons for changing not only job but occupation appear to be largely negative.¹

Table 2.5 shows the distribution of occupational change in Germany compared to one other country, Britain, because the figures for one country by itself make little sense. Change is shown for a period of two years (waves 1-3) and seven years (waves 1-8). The table indicates that there is a relatively low level of change in occupations in Germany, and that this is consistent across occupations at least over a short period, though less so as more time elapses. As in most other countries, stability is low in elementary grades but unusually, it is lowest in Germany at the senior manager level. One reasonable inference is that some people at this level move to more technical or professional jobs, but out of management itself.

Table 2.5 Percentages of workers remaining in same occupations wave 1-wave 3 and wave 1-wave 8, Germany and Britain

	Germany	Waves 1-3 Britain	Germany	Waves 1-8 Britain
Senior manager	89.3	84.2	44.6	63.8
Professional	93.8	86.6	79.2	63.0
Technical	92.4	77.1	73.7	52.2
Clerical	93.2	82.2	67.5	61.9
Service	93.2	85.1	63.2	60.6
Skilled	95.5	82.8	74.8	63.8
Less skilled	95.3	84.0	67.3	57.4
Elementary	89.2	76.3	54.7	37.0

2.4 The IT sector

We next look at a specific example of the knowledge sector, at IT jobs. We would expect, if knowledge is in high demand, that this sort of work would be characterised by high job turnover. However, as IT skills can be used across a range of occupations, IT work might also be subject to high occupational turnover. Table 2.6 shows the proportion of moves in and out of any IT occupation, compared also to moves in and out of some other (arbitrar-

¹ Over a period of seven years in ‘individuals’ careers, in Germany about 12 *per cent* of men appear to move upwards in terms of occupational status when they change occupations, and 7 *per cent* downwards, the rest (roughly 80 *per cent*) not changing their status. For women the upward and downward movements are very similar: 10 *per cent* and 7 *per cent* respectively.

ily chosen) professions in order to provide a baseline. The data are based on the BHPS and GSOEP, both of which form part of the ECHP but which provide more detailed occupational data in the original surveys (three rather than two digit ISCO). The table shows moves across four waves, a span selected to allow for a reasonably high probability of a move without reducing sample size excessively through attrition (the sample is inevitably very small in the first place). The figures are also based on person-waves, so that people mostly appear more than once in the sample. However, if they have not already made a change they have the same probability of moving at each point in time.

All figures show people working at both time points. Thus over four waves (*i.e.* three years) there is an astonishing degree of movement not only out of jobs, but out of one profession into another. In both countries this is high for IT specialists, but in fact much the same as for accountancy. The percentage of the current profession in the sample comprising new recruits from other professions is, however, mostly higher in the case of IT, but in fact this does not mark out this profession as all the professions exhibit a net gain with the exception of accountancy in Britain. Broadly speaking, IT and accountancy in both countries are similar in respect of the degree of change. Turnover is much lower in the case of personnel and engineering in Germany. Overall, IT does not stand out particularly but it does so more in Germany than in Britain. Although occupational turnover in IT is lower in Germany, it is high there relative to two of the other professions.

Table 2.6 Percentage of moves in and out of selected professions over 4 waves (GSOEP and BHPS)

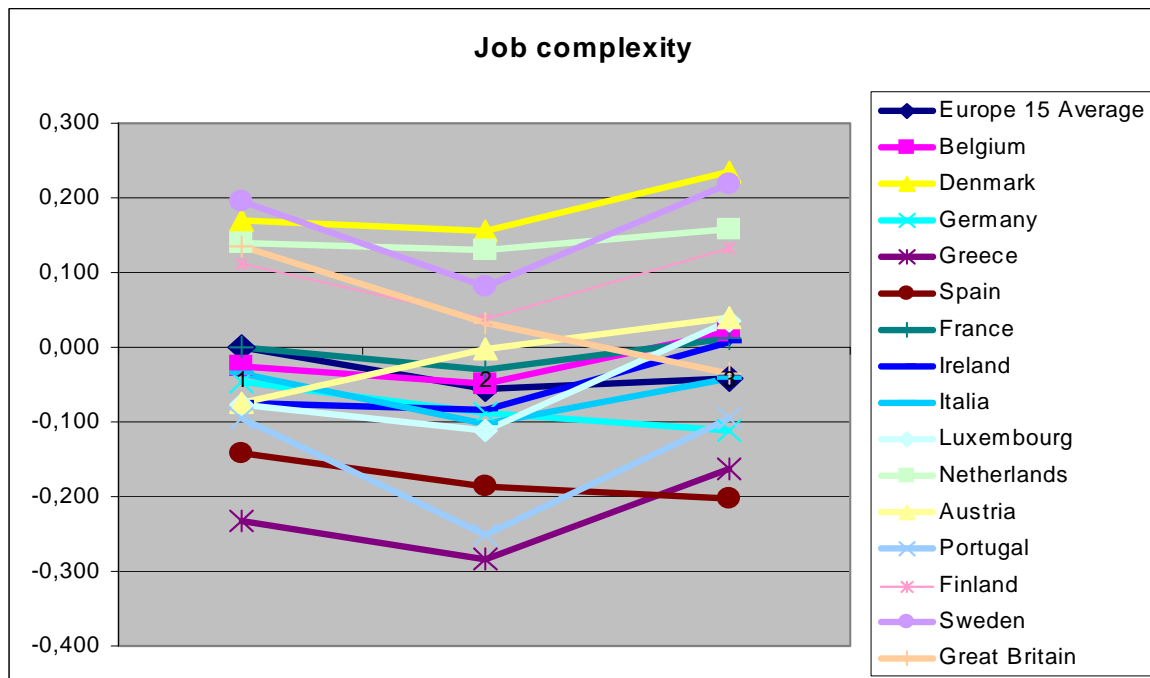
	IT	Accountancy	Personnel	Engineering
Germany				
Out of profession	41.2	41.4	27.9	25.1
New recruits	46.8	46.0	32.8	28.3
- N in profession year 1	838	476	222	4454
- N in profession year 4	926	517	238	4659
Britain				
Out of profession	47.1	45.6	52.6	43.5
New recruits	53.5	45.6	61.6	45.2
- N in profession year 1	810	1188	289	1605
- N in profession year 4	931	1187	357	1654

But as the figures for new recruits show, there is a lesser tendency in Germany to recruit from outside the profession rather than through upward mobility from lower grades. IT skills are bought 'off the peg' less often. This implies greater progression within the IT profession itself.

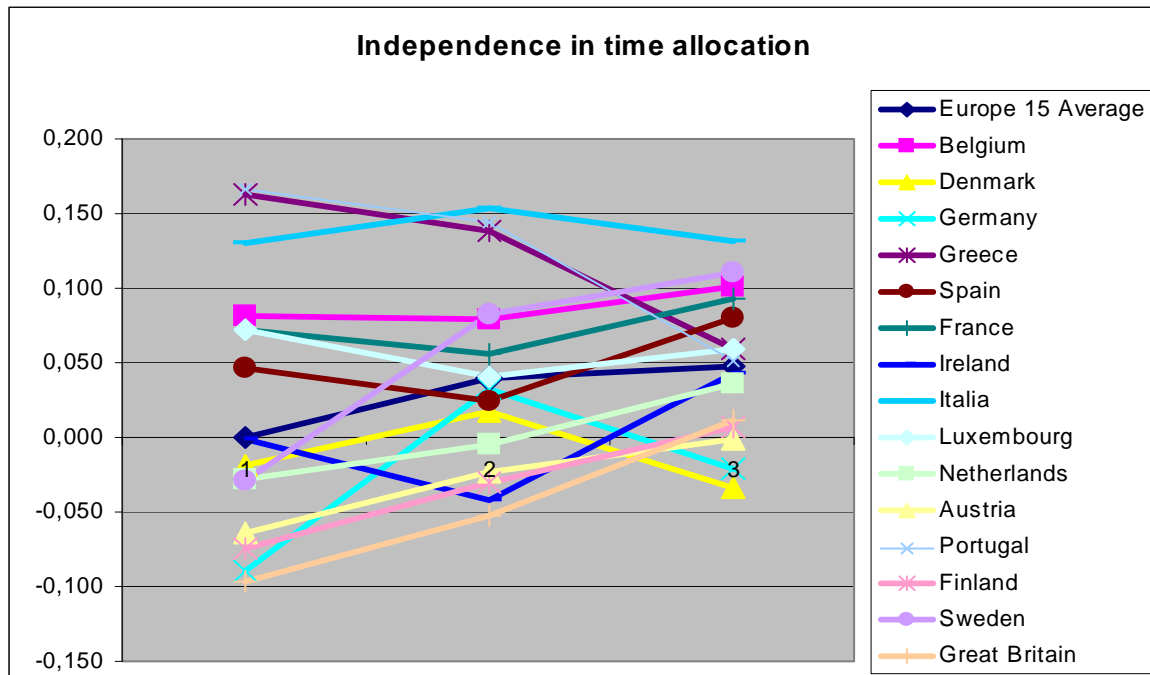
3 The changing nature of work

Although in their WP9 report on change in working conditions in Europe from 1995 to 2005 the CEE find a tendency towards poor working conditions and low job complexity in some southern and eastern European countries, overall they argue that: 'Mapping of the national distribution of a number of indicators (work complexity, independence in time allocation, work intensity and quality of working conditions) shows little consistency. This suggests that national groupings are difficult to discern' (Greenan, Kalugina & Walkowiak, 2007: 53). Below we reproduce two diagrams from their report showing changes in job complexity and in independence in time allocation. It might be expected that these would either rise or fall together. In the case of the UK we observe a fall in job complexity, unlike most other countries, but also a rise in independence.

Figure 3.1 Changes in job complexity 1995-2005



Source: Greenan, Kalugina and Walkowiak (2007)

Figure 3.2 Independence in time allocation 1995-2005

Source: Greenan, Kalugina and Walkowiak (2007)

The specific rankings of Germany relative to the other 14 countries in the EU-15 are given in Table 3.1. In all years it is possible to say that the rankings suggest an average to low position. By 2005 there appears to have been some improvement (reduction in work pressures) in respect of technical and market constraints, but balanced by a deterioration job complexity and working conditions. The figures suggest no overall change but a change in the mix of factors describing the circumstances of people's work.

Table 3.1 Rankings in quality of aspects of work in Germany relative to EU-15

	1995	2000	2005
Job complexity	9	10	13
Time independence	14	8	14
Technical constraints	9	9	3
Market constraints	6	6	5
Working conditions	5	6	10

4 Skills

In terms of levels of provision of or access to education, Müller and Wolbers (2003) group European countries into three categories. One, comprising the Scandinavian countries, Germany, the Netherlands and Austria has a large proportion of people with middle-ranking vocational qualifications and a relatively small proportion with low levels of education. The emphasis in these countries has therefore been on middle-ranking skills, while tertiary education is fairly small (except in Scandinavia). The second group – the UK, Ireland, France and Belgium – has more tertiary education but also a higher proportion of people leaving education with little or no qualifications. Vocational education also tends to be limited. In the southern countries – Greece, Italy, Portugal and Spain – significantly larger proportions of people have low levels of education, while vocational education is very limited. How helpful are these broad groupings? In an analysis of European educational convergence, Green, Wolf and Leney conclude that there is ‘a great deal of variability which can only be explained in terms of particular characteristics of national systems’ (Green *et al.*, 1999: 38-9). While Germany’s system overlaps with some others it also has highly distinctive elements such as its strong dual work-training system. Nevertheless, it is of note that in terms of early school leaving, while the average for the EU-15 was 17.2 *per cent* and the UK’s was 14.0 *per cent*, Germany was little different from the latter at 13.8 *per cent* – though many of these would then undertake some sort of training (Eurostat, 2007). Germany no longer stands out at least in this respect.

4.1 The returns to education and overqualification

Skill distributions, as well as the returns to skills, are an important part of the knowledge society. It is generally believed that the increase in inequality in the US and UK is in part a response to the ability of the markets in these countries to reward those with the necessary skills (Nickell & Bell, 1995). However, in the 1990’s Italy appears to have a slightly greater increase in wage dispersion than the UK, which was little ahead of Ireland and the Netherlands (Green, 2006: 121). Wage dispersion is much more limited in Germany. This means that the returns to education (that is, higher levels of education) are likely to be lower. If countries are more flexible in their use of skills, they should also be able to match wages to skills more efficiently than others, so that the returns to education should be higher in more ‘liberal’ countries. The compression of wages rewards the educated less in Germany than elsewhere. It does seem that this could be the case, insofar as in one analysis the more egalitarian Scandinavian countries generally have low returns to (years of) education and the UK and Ireland have amongst the highest. Germany’s is just slightly above the European average – much higher than in Scandinavia but lower than several other countries (Harmon, Walker, & Westergaard-Nielsen, 2001: 11).

There are signs that in many countries a significant proportion of the working population is overqualified for the work they do (Brynin 2002a; Brynin & Longhi, forthcoming). This should be less in Germany than elsewhere because its educational system is more closely integrated with the needs of employers than elsewhere, and indeed overqualification is less prominent in Germany than in the US (Daly, Büchel & Duncan, 2000).

There is very little comparative data on overqualification, and no commonly used European dataset contains information on this about Britain. In Table 4.1 we show the distribution of overqualification in four European countries by educational level, based on data from the Framework 6 *eLiving* survey. This includes information on the average pay associated with each educational level. Quite apparent in this table are two profiles of overqualification. Britain and Germany have a relative excess at the middle and lowest levels, the other two countries higher up. In no country is more than one third of graduates overqualified. The proportion of people with higher school-leaving certificates that is overqualified is always much higher than one third, while it is at least one third in three countries even at the lower school level. Especially taking into account absolute numbers, overqualification seems to be more predominant at the school than the degree level. However, in respect of Germany of most significance is that its overqualification is by no means the lowest, and the main contribution to this is actually amongst people with very low levels of education. While the figure is even higher in Britain, suggesting there a substantial pool of jobs where no qualifications at all are required, it is possible that even if this is not the case in Germany, its system, which forces young people into training where they wish to leave school early, possibly overtrains them relative to the work they actually do.

Table 4.1 Proportion of matched, over- and under-qualified workers and their hourly wages (euros)

	Britain		Italy		Germany		Norway	
	(1) <i>Per cent</i>	(2) Pay	(1) <i>Per cent</i>	(2) Pay	(1) <i>Per cent</i>	(2) Pay	(1) <i>Per cent</i>	(2) Pay
<i>Underqualified:</i>								
- needs degree	3.4	19.5	3.7	12.6	2.5	21.9	4.5	19.2
- needs HSL certificate	1.8	14.5	2.1	10.5	4.5	14.5	2.8	18.1
- needs LSL certificate	1.6	10.9	1.8	5.8	5.2	14.2	1.8	15.5
<i>Overqualified:</i>								
- has degree	6.2	17.3	6.5	11.9	3.4	19.3	10.4	19.8
- has HSL certificate	11.4	13.2	7.6	8.5	13.6	12.3	5.1	17.7
- has LSL certificate	15.4	11.5	5.1	6.4	10.6	11.0	6.2	16.6
<i>Matched:</i>								
- has degree	18.2	21.3	13.0	17.4	7.0	17.7	46.7	21.6
- has HSL certificate	7.5	16.1	3.5	12.2	11.8	17.0	4.1	18.5
- has LSL certificate	5.9	11.7	54.8	8.1	16.4	13.3	15.9	16.5
- low/no qualification	28.2	10.8	1.9	8.2	25.0	10.9	2.6	15.6
Total	100.0		100.0		100.0		100.0	
<i>Per cent overqualified</i>	33.0		19.2		27.6		21.7	
<i>Per cent graduates overqualified</i>	25		33		33		18	
<i>Per cent HSL overqualified</i>	53		60		49		48	
<i>Per cent LSL overqualified</i>	69		8		36		23	
Observations	1225	909	1369	611	1408	847	1700	1396

Note: HSL=higher school level, LSL=lower school level.

Source: eLiving survey

The problem at the upper end, in the graduate market, is different. The graduate market is possibly becoming overcrowded in some sectors, leading to a wage loss at least amongst men (Brynin, 2002). However, there is no comparative evidence for other countries. This suggest, though, that at least in Britain the demand for skills continues to rise, but possibly less than the social demand for education.

4.2 Training and skills

Although provision of training by German employers has traditionally been very good, on certain criteria Table 4.2 below suggest that Germany is now more average. The table is derived from the HIVA WP8 report (Ramiouls & Huys, 2007). Germany ranks quite high in terms of the number of organisations providing continuing training, but less so in the actual participation rate and even less in the number of hours on offer - a measure of training intensity (22 out of a range from 24 to 41). Its overall rank is fairly poor. This is quite surprising and suggests that current economic pressures are leading to reduced training, perhaps including greater concentration (because neither participation nor hours are very high) on the more trainable.

Table 4.2 Proportion of organisations offering continuing training, participation rates and participation hours in Britain plus rank relative to 25 EU countries

Organisations with training (per cent)	Rank	Participation rate (per cent)	Rank	Hours	Rank	Sum of ranks (range 6-58)
75	9	36	16	27	22	47

5 Job satisfaction

Job satisfaction, being highly subjective, is difficult to compare across countries, which have different work cultures. However, when we add trend information, this is more useful. Green uses ISSP data to compare a number of countries in 1989 and 1997. Below we reproduce this information for just two countries, Britain and Germany (Green, 2006: 155). This compares the percentage completely, very or fairly satisfied (coded as low satisfaction) to those with high levels (completely or very satisfied). Germans appear slightly more satisfied than Britons but in both countries there seems to have been an increase in the proportion with low job satisfaction and a decrease with high satisfaction.

Table 5.1 Job satisfaction in Britain and Germany 1989 and 1997

	1989		1997	
	Low	High	Low	High
Britain	16.5	39.6	21.2	35.6
Germany (West)	15.3	43.8	18.6	39.0

Source: International Social Survey Program

Unfortunately, data on job satisfaction are not available for Germany in the ECHP, used to undertake analysis of this theme in the WP9 report.

6 Conclusions

As is well known, the German economy has suffered problems in recent years, especially with high levels of unemployment. While its employment situation is relatively stable and balanced, there are signs of worsening conditions. We note in particular the following points:

1. Germany witnessed a big increase in especially part-time but also in fixed-term jobs 1993-2004. It has witnessed a significant rise in shift work and ranks relatively highly in the EU-21 for the use by employers of night and weekend work;
2. women's part-time work has increased over this period especially in relation to female full-time work;
3. Germany has a relatively low level of occupational turnover (that is, where people change the type of job they do, not just their job). As in other countries, this turnover is generally explained by negative aspects of work like being on a fixed-term contract but in Germany is highest amongst those in managerial grades;
4. turnover in knowledge sectors such as IT (counting those moving in and out of IT jobs) is less than in Britain but is relatively high compared to some other occupations;
5. conditions of work in Britain were average compared to other countries in respect of several dimensions such as job complexity and technical and market constraints, but poor in respect of independence in time use and also in working conditions. From 1995 to 2005 the average position was much the same but the mix of positive and negative aspects had changed;
6. returns to education are average and also not associated with relatively high wage inequality. Germany also has comparatively low levels of overqualification (excessive skills for the specific job), and this is fairly evenly balanced by stage of education, though there is a higher incidence of overqualification amongst those with low education, suggesting that the system overtrains them for their real job needs;
7. Germany has slightly higher average job satisfaction than some countries but this, in common with other countries, deteriorated in the 1990's.

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