

## Why employment relations matter

### Main tasks

- **Establish the main areas of impact of employment relations**
- **Identify the links and mechanisms involved, along with the main data sources**
- **Compare and contrast the impact of employment relations in the UK with other OECD countries**

### Summary

Employment is the main source of a society's wealth and prosperity. Levels of pay are not only major determinants of living standards, but also produce consumers who generate demand and so profitability and growth. The type of work organisation has profound implications for both health and human resource development and, along with the duration, distribution and flexibility of working time, substantial implications for work-life-family balance. This is especially so to the extent to which it enables control over demand and encourages autonomy and decision making. Similarly, the extent to which work organisation encourages information/ knowledge sharing and cooperation/team working influences productivity. The same goes for management policies and practices - especially important here are those dealing with participation and involvement. Furthermore, the greater the integration of these management policies and practices, the greater is their influence. How managers are recruited, developed and, above all, rewarded is fundamentally important not just for the way they manage 'other' employees, but also for the balance between short-term profitability and investment and so the organisation's strategic direction. Employment relations also have implications for a country's macroeconomic performance. The workplace is a major source of social capital and so contributes to a cohesive society with the capacity to innovate and change. The nature and extent of employment protection legislation and the structure of collective bargaining also impact on wages and employment.

### Introduction

For much of the 20<sup>th</sup> century employment relations were more or less equated with trade unions, collective bargaining and strikes. Asking why employment relations mattered was rather pointless. Trade unions were major political players and strikes a key concern of governments, providing the rationale for intervention not just in the area of dispute resolution procedures, but also minimum standards and support for collective bargaining. Strikes were also very newsworthy. Fueling the employment

relations-trade union-strikes equation in the UK, for example, was a cadre of specialist labour editors who enjoyed a status matched only by the political 'lobby' correspondents. Perhaps not surprisingly, a reduction in the number of strikes, along with decline in trade union membership and collective bargaining coverage, has led to the view that employment relations no longer matter.

This chapter does its best to counter this view by bringing together evidence on the interrelationships links between employment relations and a range of key public policy issues. It focuses on the main levels of activity – from individuals through the organisation to the societal level - and the following issues: living standards and inequality, health and well-being, human and social capital development, productivity and macroeconomic performance. It also explores the mechanisms involved in the links, drawing on a wide range of international as well as UK sources. Table 2.1 summarises the results.

## **Living standards and inequality**

At the height of the coronavirus epidemic in the spring of 2020, over 50 million people were put on publicly funded job retention schemes across Europe<sup>1</sup>. There could hardly be more powerful confirmation that employment is a major source of a society's wealth and prosperity as well as individual living standards.

Helping to explain why the state has to all intents and purposes become the 'guarantor of the employment relationship'<sup>2</sup> is the need to ensure that employees are able to achieve sufficient levels of purchasing power to be 'confident consumers'<sup>3</sup>. Owners of capital tend to spend less than they earn, whereas workers tend to spend more<sup>4</sup>. If there is a shift in distribution from labour to capital, which there has in most countries in recent years<sup>5</sup>, the danger is that wage earners will run down their savings and increase their debt to maintain the standard of living. In these conditions, the only way to keep the economy going is for government to support demand and banking systems to expand credit – encouraging the 'house price'<sup>6</sup> or 'privatised' 'Keynesianism' that many countries have experienced. But, if this carries on, it is

---

<sup>1</sup> T. Muller and T. Schulten. 2020. [Ensuring fair short time work - a European overview. ETUI: Brussels.](#)

<sup>2</sup> Heyes, J. and Nolan, P. 2009. 'State, Capital and Labour in Crisis', in T. Colling and M. Terry (eds) *Industrial Relations Theory and Practice*. Chichester: John Wiley & Sons. p.106.

<sup>3</sup> Crouch, C. 2009. 'British industrial relations: between security and flexibility', in T. Colling and M. Terry (eds) *Industrial Relations Theory and Practice*. Chichester: John Wiley & Sons. p.31.

<sup>4</sup> Kaletsky, A. 2010. *Capitalism 4.0. The birth of a new economy*. London: Bloomsbury. pp.119-20.

<sup>5</sup> Guscina1, A. 2006. 'Effects of Globalization on Labor's Share in National Income'. IMF Working Paper WP/ 06/294. OECD (Mathilde Pak and Cyrille Schweltnus). 2019. ['Labour share developments over the last two decades: The role of public policies'. Economic Department Working Papers 1541.](#)

<sup>6</sup> Hay, C., Riiheläinen, J.M., Smith, M.J. and Watson, M. 2008. 'Ireland: the outside inside', in Dyson, K. (ed) *The Euro at 10: Europeanisation, power and convergence*. Oxford: Oxford University Press.

<sup>7</sup> Crouch, C. 2008. 'What will follow the demise of privatized Keynesianism?'. *The Political Quarterly*, Vol 79, No 4, 476-87.

likely to lead to a financial crisis as in 2008. Chapter 10 returns to the challenge that recent developments pose.

There are several possible measures of living standards, the main ones being income/earnings, gross income including benefits, and disposable income after tax. There is also the macro-level gross domestic product (GDP) featuring later in the Chapter. The focus here is on what, arguably, is the most meaningful material measure so far as individuals are concerned, namely income from employment: for most of us such income is the only source there is.

Two dimensions of such income have to be considered. The first is the absolute level. If income from employment is absolutely low, the result is likely to be poverty, with implications not just for individuals and their families but also national social security systems: unlike physical capital, human capital is not something that employers 'own' and so there is little incentive for them to meet the so-called 'social costs of labour' (i.e. the 'minimum on-going expenditure for upkeep, repair and depreciation if the input is to be maintained'<sup>8</sup>). Not surprisingly, the avoidance of poverty figures prominently in the justification for minimum wages legislation now present in around 90 percent of countries<sup>9</sup>.

The second dimension is the relative level of income, which brings in the issue of inequality. Even people who are absolutely well paid may nonetheless experience a sense of deprivation if they find others are earning more for what they think is no good reason; the same is true if they think the size of the difference is unjustified. This is because fairness plays a key role in shaping expectations and fairness depends on comparisons<sup>10</sup>. Arguably, for example, it is so-called 'relative deprivation' that has helped to give momentum to the rapid growth of executive pay in recent years. One stimulus has been the earnings of former colleagues and acquaintances working for hedge funds and private equity groups who, because of their partnership-type organisation, have been able to reward themselves especially handsomely.

#### *Earnings from work: a very skewed distribution*

As Figure 2.1 confirms, the distribution of earnings in the UK is characterized by a right skewed or positive distribution. Rather than a humped shape figure, in other words, the great bulk of workers is concentrated at the lower end of the earnings distribution around the National Living Wage: the steadily falling share of employees earning higher wages creates the thinning right-hand tail of the distribution.

Two main measures are used to compare different countries, the OECD being the source of both. The first involves the earnings dispersion and the incidence of high and low pay. The OECD defines low pay as below two-thirds of median hourly earnings and high pay as more than 1.5 times median hourly earnings. In October

---

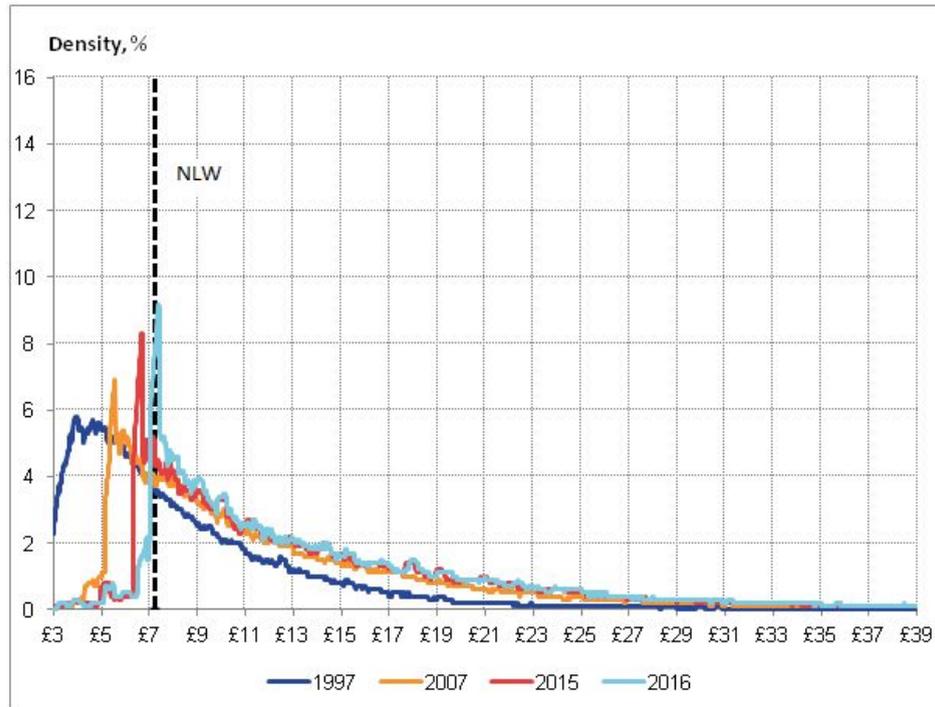
<sup>8</sup> Kaufman, B. 2009. 'Promoting labour market efficiency and fairness through a legal minimum wage: the Webbs and the social cost of labour'. *British Journal of Industrial Relations*, Vol 47, No 2, 306—26.

<sup>9</sup> ILO Office. 2006. *Minimum wages*. Geneva: International Labour Office.

<sup>10</sup> Willy Brown and Keith Sisson. 1975. 'The use of comparisons in workplace wage determination'. *British Journal of Industrial Relations*. Volume 13, Issue 1. 23-53.

2019, median hourly earnings in the UK were £13.27, low pay was £8.85 and high pay £19.91<sup>11</sup>.

Figure 2.1 Distribution of earnings in the UK, 1997-2016<sup>12</sup>



In 2018 low paid workers in the UK accounted for 21.2% of the total as opposed to the OECD average of 16.9%; in 2008 these percentages were 19.0 and 15.6. The UK also stands out when it comes to high pay. The OECD average for high pay was 21.2 in 2018 and 20.2 in 2018. High pay in the UK in 2019 accounted for 26.0%<sup>13</sup>.

The second measure used to compare countries is the 'Gini' coefficient. This is a single figure measure of income inequality which condenses the entire income distribution into a single number between zero and one: the higher the number, the greater the degree of income inequality.

On this measure, inequality in the UK rose dramatically over the 1980s, the coefficient rising from a value of around 0.25 in 1979 and reaching a peak in the early 1990s of around 0.34. In 2019 it was 0.37. Only the USA of the major economies had a higher figure<sup>14</sup>.

Looking more closely at the UK, a striking feature is the regional or spatial distribution. In April 2019, median weekly pay for full-time employees living in London was £699 followed by the south east (£636) and East (£610). At the other end

<sup>11</sup> ONS. 2019. [Employee earnings in the UK 2019. Measures of employee earnings, using data from the Annual Survey for Hours and Earnings \(ASHE\).](#)

<sup>12</sup> ONS. 2016. [Analysis of the distribution of earnings across the UK using Annual Survey of Hours and Earnings \(ASHE\) data.](#)

<sup>13</sup> OECD. 2018. [Earnings dispersion and the incidence of high and low pay.](#) ONS. 2019. [Low and high pay in the UK](#)

<sup>14</sup> OECD. 2019. [Income inequality.](#)

of the distribution, they were £531 in the North East, £540 in Yorkshire & Humber and £541 in Wales<sup>15</sup>.

A second feature is the gender pay gap. Overall, this has been closing and in April 2018 was just 3% for all employees<sup>16</sup>. But this ignores a critical distinction between full time and part-time employees. Median weekly pay for female full-time employees was £528 at April 2019, compared to £628 for male full-time employees, meaning the gap for median hourly pay was 9% for full-time employees - and that is excluding overtime. By contrast, the gap for part-time employees at -3.1% was in women's favour (i.e. women tended to be paid more than men. This is because a much higher share of women (40%) than men (13%) are employed part-time and part-time workers tend to earn less per hour than those working full-time.

Women's employment is also heavily concentrated. The most common sectors are health and social work (accounting for 21% of all jobs held by women at September 2019), the wholesale and retail trade (14%) and education (12%). 79% of jobs in the health and social work sector and 70% of jobs in education were held by women. people.

At the other end of the earnings distribution, in 2019 there are some 310,000 people in the top 1.0% of income tax payers with a taxable income of at least £160,000: £235,000 was required to be in top 0.5% and nearly £650,000 to be in the top 0.1%. Typically, these high earners were disproportionately male, middle aged and living in London<sup>17</sup>.

Regulations introduced in 2020 require all publicly listed UK companies with more than 250 employees to disclose chief executive pay ratios in their annual reports. The new figures show the relationship of the chief executive's pay relative to pay at the 75th, median and 25th percentile of the company's UK.

For the FTSE 350 companies, the CEO/median employee ratio reported in 2020 was 55:1 and the median CEO/lower quartile employee 78: 1. The FTSE 100 was higher still: the CEO/median employee ratio was 74:1 and the median CEO/lower quartile employee ratio 109:1<sup>18</sup>.

As later sections will discuss in more detail, many factors contribute to a country's pay structure. Underpinning them is the structure of employment. Although some object to the description of the UK as an 'hourglass economy'<sup>19</sup>, employment structure is nonetheless increasingly skewed towards services, which have large numbers of both high- and low-paying employees - finance is an example of the former and hospitality the latter. In the words of a European restructuring monitor report using the median hourly wage as a proxy for job quality, the UK was a hybrid case of 'polarisation' and 'upgrading' – in recent years it has experienced moderate but clear

---

<sup>15</sup> House of Commons Library (Brigid Francis-Devine). 2020. [Average earnings by age and region](#).

<sup>16</sup> House of Commons Library (Brigid Francis-Devine and Niamh Foley). 2020. [Women and the Economy](#).

<sup>17</sup> IFS (Robert Jouce Thomas Pope and Barra Roantree). 2019. [The Characteristics and incomes of the top 1%](#).

<sup>18</sup> [Re-thinking reward: interim High Pay Centre analysis of new pay ratio reports. 2020](#).

<sup>19</sup> Fitzner, G. 2006. 'How have employees fared? Recent UK trends. Employment Trends. *Employment Relations Research Series* No. 56. Employment Market Analysis and Research. London: DTI.

job growth in the second lowest earnings quintile, little growth or net job destruction in the lowest and middle quintiles and strong growth in the top two quintiles<sup>20</sup>. The report suggests this pattern is related to the destruction of manufacturing jobs (especially in low-technology industries) and the creation of middle-paying to low-paid jobs in personal and social services (many filled by women working part-time).

### *Poverty and inequality*

With the exception of Northern Ireland and Wales, median earnings over the period 2008-2019 adjusting for price inflation were lower than in 2008 across all countries and regions of the UK<sup>21</sup>. Hardly surprisingly, going with low pay in the UK has also been a considerable increase in 'in-work poverty', i.e. being in low-paid work and living in a household on a low income.

The recently established Social Metrics Commission defines poverty in terms of household income together with material circumstances such as costs of childcare and housing. Key findings from the Commission's 2019 report were that 14.3 million people were living in poverty in the UK: 8.3 million working-age adults, 4.6 million children and 1.3 million pension-age adults. A third (31%) of those in poverty, 4.5 million, were more than 50% below the poverty line - a proportion had not changed since the millennium. Just under half (49%) were in persistent poverty, meaning they had been in this state for at least two of the previous three years<sup>22</sup>.

Poverty rates amongst ethnic minority families were particularly high as they were where someone was disabled. It also made a difference where all adults worked full time (10%), compared to 58% where all adults were part time and 70% in workless families. Poverty rates also varied across the UK, reflecting the earnings distribution touched on earlier - higher in Wales (24%) and London (28%) and lower in the South East (18%), Scotland and Northern Ireland (both 20%).

The UK2070 Commission underlines the significance of the regional or spatial inequality, arguing that the UK is the 'most inter-regionally unequal large high-income country ... whilst the London region is recognised as the richest region of Europe, six of the ten poorest regions also lie within the UK<sup>23</sup>. Average household wealth fell by 12% in the North East and East Midlands between 2006 and 2018, but grew by nearly 80% in London and by over 30% in South East England.

Such inequality is not just a matter of income or occupation, but whichever measure is used - be it child poverty, health, educational attainment/standard /subjects, fuel, social mobility, wealth, access to opportunity, household income or environmental quality, and access to basic services and the internet.

Also, although over 60% of local authority districts contained at least one of the most deprived neighbourhoods, the core concentrations of deprivation remained unchanged over the last five years. These were predominantly in either northern urban

---

<sup>20</sup> European Foundation for Living and Working Conditions. 2008. *More and better jobs: Patterns of employment expansion in Europe*. Dublin: European Foundation for the Improvement of Living and Working Conditions. Available at [www.eurofound.europa.eu](http://www.eurofound.europa.eu).

<sup>21</sup> ONS. 2020. [Earnings and working hours](#).

<sup>22</sup> Social Metrics Commission. 2020. [Measuring Poverty 2019 A Report of the Social Metrics Commission](#).

<sup>23</sup> UK2070 Commission. 2019. Final Report. [Make No Little Plans – Acting At Scale For A Fairer And Stronger Future](#).

centres or smaller cities and towns in rural and coastal areas largely concentrated in the South West or Yorkshire and the Humber.

*Why inequality matters*

Poverty and inequality are analytically distinct, but closely related in practice. As well as significantly affecting life expectancy via the 'social gradient', there are especially strong links between inequality and mental health, above all in the form of anxiety disorders reflecting concerns about both the financial and status implications of 'relative deprivation'. Wilkinson and Pickett have brought together these results from the WHO's 'World Mental Health Survey Consortium', together with those of national studies in Australia, Canada and the UK to show that the more unequal a country's income distribution, the greater the tendency to mental illness<sup>24</sup>.

Both national and international evidence confirms that poverty also results in lower social mobility – the lower the social mobility, the greater the prospect of areas of high deprivation growing up from which it is difficult to escape. This is because, as the UN Human Development Report emphasised as long ago as 2005, 'The main form of ... mental illness, anxiety disorders, the main forms of inequality - income, gender, and regional - seldom exist in isolation. Rather they create 'mutually reinforcing structures of disadvantage that follow people through life cycles and are transmitted across generations'<sup>25</sup>.

The report went on to cite Amartya Sen<sup>26</sup>. People are likely to be restricted in what they can do with their freedom and their rights if they are poor, ill, denied an education or lack the capacity to influence what happens to them. To be meaningful, formal equalities have to be backed by the 'substantive freedoms' - to choose a way of life and do the things that one values. Deep inequalities in life chances and opportunities limit these substantive freedoms, rendering hollow the idea of equality before the law.

The UN's central message has been echoed by the International Monetary Fund and the OECD, both of which have highlighted the knock-on effects for society at large in terms of a sense of social injustice, inefficiency, and impediments to growth<sup>27</sup>. To paraphrase the UN's Human Development Report:

- *Inequality fuels people's sense of social injustice.* Trust, which is a critical ingredient in the social capital that business is able to call on, suffers, resulting in the corroding of institutions and weakening of political legitimacy.

---

<sup>24</sup> Wilkinson, R. and Pickett, K. 2009. *The spirit level: why more equal societies almost always do better*. London: Allen Lane p.67, Figure 5.1.

<sup>25</sup> United Nations Development Programme. 2005. *Human Development Report 2005. International Cooperation at a Crossroads: Aid, Trade and Security in an Unequal World*, ch. 2 'Inequality and Human Development'. p.53-4. United Nations, New York.

<sup>26</sup> Sen, A, 1999. *Development as Freedom*. Oxford: Oxford University Press.

<sup>27</sup> International Monetary Fund (J. D. Ostry, A. Berg and C. G. Tsangarides), 'Redistribution, Inequality, and Growth', *Staff Discussion Note*. 2014. Available at [www.imf.org](http://www.imf.org); OECD. 2014. *Focus on Inequality and Growth* available at [www.oecd.org](http://www.oecd.org).

- *Inequality is inefficient.* Society as a whole suffers where inequalities based on wealth, gender or region leave a large section of the population with insufficient assets and endowments to make a full contribution.
- *Inequality impedes growth.* This effect is especially strong for asset inequality. Limited access to productive assets and/or limited capacity to enforce legal claims can restrict poor people's ability to borrow and invest, holding back growth. By contrast, greater distributional equity can accelerate growth with no inherent trade-offs between growth and equity<sup>28</sup>.

There has been no let up in the attention inequality has received since these conclusions. Especially notable have been Piketty's contributions<sup>29</sup>. As well as mapping the nature and extent of inequality over time and for many countries, Piketty has focused on the autonomous role of ideology in inequality's pervasiveness. Along with many other commentators, he also emphasises its role in the weakening of the political legitimacy of the post-WW2 social democratic settlement. The Brexit referendum result and Donald Trump's election as US President in 2016 are just two examples cited<sup>30</sup>.

Chapter 10 returns to the relationship between employment and inequality. Even before the coronavirus pandemic broke out in early 2020, an increasing number of commentators, including international organisations such as the World Bank, were arguing there was a need for a new social contract to address the distributional tensions inequality was giving rise to. The outbreak intensified these concerns.

## **Health and well-being**

In the words of one authoritative review of the health of Britain's working population, 'There is ... compelling evidence that work has an inherently beneficial impact on an individual's state of health ... Overall, the beneficial effects of work were shown to outweigh the risks and to be much greater than the harmful effects of long term worklessness or prolonged sickness absence'<sup>31</sup>. These benefits, it is widely acknowledged, include meaning, self-esteem and 'self-actualisation'.

Even so, the 'risks' are not insubstantial. Employment exposes employees not only to the physical injuries and illnesses taking place at work and/or directly caused by employment ('occupational health'). Many illnesses and mortality are influenced by conditions at work, but may occur later in life beyond the work environment ('occupationally-related health'). These include the heart disease, strokes and diabetes that together account for more than 50 per cent of all mortality.

---

<sup>28</sup> United Nations Development Programme. 2005. *Human Development Report 2005*, p58.

<sup>29</sup> T. Piketty. 2014. *Capital in the Twenty-First Century*. T. Piketty. 2019. *Capital and Ideology*. Cambridge MA: Harvard University Press.

<sup>30</sup> Guy Standing. 2016. [Meet the precariat, the new global class fueling the rise of populism](#). World Economic Forum. Martin Sanbu. 2020. ['The everyone economy: how to make capitalism work for all'](#). *The Financial Times* 3 July.

<sup>31</sup> Black, C. 2008. *Working for a healthier tomorrow. Review of the health of Britain's working age population*. Presented to the Secretary of state for Health and the Secretary of State for Work and Pensions 17th March. London: TSO. p.21.

### *Occupational health*

In the case of occupational health, the main emphasis historically has been on injuries arising from accidents, musculoskeletal disorders reflecting the organisation of work and/or inadequate equipment, and illnesses, such as cancer, dermatitis and asthma, associated with the use of chemicals and other harmful substances. The UK has a relatively good record for safety at work. Even so, the impact of employment is considerable, as these [Great Britain Health and Safety Executive statistics for 2018/19](#) confirm:

- 1.4 million workers suffering from a work-related illness
- 2,526 mesothelioma deaths due to past asbestos exposures (2017)
- 147 workers killed at work
- 581,000 working people sustaining an injury at work according to the Labour Force Survey
- 69,208 injuries to employees reported under RIDDOR
- 28.2 million working days lost due to work-related illness and workplace injury
- £15 billion estimated cost of injuries and ill health from current working conditions (2017/18).

In recent years, there has been growing concern with the links between the work environment and mental health. The very graphic words of the Director of the Work Foundation at the time of the 2008 financial crisis sum up a widely held view:

The cause [of stress and mental health] is modernity in all its guises - family and community breakdown, the ever harder quest to find meaning in life, the cheapness of mind-wrenching drugs, the discontinuity between reality as portrayed by the media and real life and so on. But one cause gets too little exposure - the role of work. The ills of modernity have been around for decades; the construction of the contemporary 'flexible' labour market began 20 years ago and it has been hardening ever since ... No story of the rise in mental ill-health is complete without recognition of the increasingly grad-grind character of many British workplaces ...<sup>32</sup>

Different commentators emphasise different features of the 'flexible' labour market. As Chapter 1 observed, these include greater pressure on performance involving the adoption of stretching targets, along with rigorous appraisal of performance and greater surveillance; greater insecurity for permanent as well as temporary workers; and questioning of some of the benefits of the employment relationship that many employers say they can no longer afford, such as final salary pensions. More fundamentally, it is argued, people's sense of certainty about their place in the world is being undermined, threatening their individual resilience<sup>33</sup>.

---

<sup>32</sup> Hutton, W. 2005. 'Let's work to make Britain sane'. *The Observer*, 22 May.

<sup>33</sup> Coats, D. 2004. *Speaking Up! Voice, Industrial Democracy and Organisational Performance*. London: The Work Foundation.

In the CIPD's 2020 [Health and Wellness at Work Surveys](#) nearly two-thirds of both private and public sector respondents reported an increase in mental health conditions among employees in the last 12 months. Mental ill health was also the most common cause of long-term absence: 56% private and 67% public sector. It was also among the top three causes of short-term absence (27% private and 30% public).

More than a third of private sector and a half of public sector respondents reported an increase in stress-related absence over the last year. Nearly two-fifths of private sector and 70% of public sector respondents said it was among their top causes of both short-term and long-term absence.

### *Occupationally-related health*

*The impact of the 'social gradient'.* Stress figures especially prominently in discussions of 'occupationally-related health'. The basic proposition is that working in hierarchical organisations leads to stress, which can lead in later life to the heart disease, stroke and diabetes that together represent 50-75% of all mortality. This is because of the instinctive biological mechanisms involved. Stress increases the levels of the hormone cortisol; the higher the levels of cortisol, the greater risk of 'metabolic syndrome', which can have a direct impact on the risk of a person developing such diseases. Stress also affects the sympathetic nervous system that is responsible for the adrenaline rush caused in situations where the individual is faced with the option between a 'fight' or 'flight' response. This effect, which causes inflammation, is also related to metabolic syndrome.

The main strand of the argument focuses on the impact of what is known as the 'social gradient', i.e. where the individual stands in the hierarchy. Much of the work stems from the development by Karasek and his colleagues of what has come to be known as the 'demand-control model'<sup>34</sup>. Basically, Karasek defines stress on the job according to the demands of the task (how fast-paced and chaotic the workplace is) and the amount of control a worker has in deciding how to meet them. This produces four categories:

- low-demand, low-control
- low-demand, high-control
- high demand, high control
- high demand, little control

More recently, the OECD uses the term 'job strain' to describe what is involved<sup>35</sup>. 'Job strain' is where the job demands in terms of physical demands, work intensity and inflexible working hours exceed the resources available to them (ie. task discretion, training, career advancement).

A popular perception is that stress is associated with those in 'high demand' jobs such as senior managers. Yet employees in these jobs may not experience stress, if

---

<sup>34</sup> See Karasek, R. and Theorell, T. 1990. *Healthy work: Stress, productivity and the reconstruction of working life*. New York: Basic Books; Karasek, R. 1979. 'Job demands, job decision latitude and mental strain: Implications for job redesign'. *Administrative Science Quarterly*, 24, 285-306.

<sup>35</sup> OECD. 2020. [How's Life? Measuring Well Being](#).

demand is predictable and within their control. This is especially so if their status brings more support and more outlets. By contrast, it is the workers in Karasek's fourth category, most of whom are relatively low status, who are held to be at most risk. This because, 'The more extensive the hierarchy, the lower the control and autonomy that employees can exercise vis-à-vis management'<sup>36</sup>.

Pretty robust data are available to support the argument, Karasek's original findings having been replicated over the last 30 years in many countries. Perhaps the best known work in the UK is associated with Michael Marmot, who is Professor of Epidemiology and Public Health at University College. His so-called 'Whitehall studies' tracked the health of British civil servants from 1967 onwards. In 'Whitehall 1', the focus was on men and examined mortality rates over 10 years among 18,000 civil servants across the range of job grades; in 'Whitehall 11', which involved just over 10,000 civil servants, women were covered as well as men.

Whitehall 1 established that there was a 'social gradient' in mortality that ran from bottom to top of the organisation. In the words of the WHO's summary:

Men in the lowest grade (others = messengers, doorkeepers, etc.) had a three-fold higher mortality rate than men in the highest grade (administrators) ... Grade is also associated with other specific causes of death, whether or not the causes were related to smoking ... While low status was associated with obesity, smoking, less leisure time physical activity, more baseline illness, higher blood pressure, and shorter height (78), controlling for all of these risk factors accounted for no more than 40 % of the grade difference in CHD mortality ... After controlling for standard risk factors, the lowest grade still had a relative risk of 2.1 for CHD mortality compared to the highest grade ...<sup>37</sup>

As for 'Whitehall 11', the joint Civil Service Unions/Cabinet Office publication came to the following conclusion:

Whitehall II showed that the association between low control and increased risk of heart disease was independent of a range of personal characteristics of individuals. The implication was that the relationship related to the way work was Michael Marmot, Peter Goldblatt, Jessica Allen ,organised and the opportunity it gives people for control rather than to any characteristics of the individuals in those jobs ... Low control at work makes an important contribution to the social gradient in mental and physical ill health<sup>38</sup> .

In 2008, Marmot was invited by the then Secretary of State for Health to chair an independent review to propose the most effective evidence-based strategies for reducing health inequalities in England. The publication that followed, *Fair Society Healthy Lives*, re-emphasized the role of the 'social gradient' and iso strain, extending the analysis to the country as a whole. There was a 'toxic combination affecting most prevalent among deprived workers,

---

<sup>36</sup> Brenner, M. H. 2005. 'Background paper' for European Commission Conference on *Health and quality in work*, Bedford Hotel, Brussels, 25 October. For Employment, Social Affairs and Equal Opportunities Unit D1.p. 5.

<sup>37</sup> The WHO's summary is available at [www.workhealth.org](http://www.workhealth.org)

<sup>38</sup> PCU (Public and Commercial Services Union) on behalf of Council of Civil Service Unions/Cabinet Office. 2004. *Work, Stress, Health: the Whitehall 11 study*. London: CSU/Cabinet Office. p.8.

specifically those in 'precarious jobs' that are defined by lack of safety at work, by exposure to multiple stressors, including strenuous tasks which the worker has little control over, low wages and high job instability ... Having little control shows a clear social gradient and is linked to increased rates of absence due to illness, mental illness and cardio-vascular disease. This social gradient is reflected in the metabolic syndrome, which is a condition of risk factors for diabetes and heart disease<sup>39</sup>.

*The availability of 'social support'*. Another stress factor has its origins in the work of 19<sup>th</sup> century thinkers such as Durkheim and Simmel: it focuses on the availability of support to individuals and makes links with issues of social capital discussed later. The argument is that, controlling for the influence of economic growth, the availability of 'social support' helps to diminish the harshness of the effects of lack of autonomy and control in leading to stress or illness.

As the foreword to the Mental Health Foundation's 2016 [\*Relationships in the 21st Century The forgotten foundation of mental health and wellbeing\*](#) puts it,

We know that not smoking, drinking in moderation, eating healthily and exercising are good for both our physical and mental health ... But we don't hear nearly enough about the deep impact of building and maintaining good relationships and how to do that.

Relationships at work are deemed to be especially crucial. Here RELATE reminds us that those in full time work spend more time with colleagues than friends or family. Employment relationships are not only important for job satisfaction, skill development and use, workplace morale absenteeism and quality of life. Having good quality relationships with managers protects against psychological issues at work<sup>40</sup>.

In the case of support to individuals, there is a large epidemiological literature confirming that the more frequent and intense one's social relationships, the more protective an effect there is on illness and mortality, regardless of the type of disease and disability<sup>41</sup>. This is above all true of the most fundamental difference observable at cross-national level, namely that between those employed in complex organisations with social hierarchies and those involved in self-employed and family-owned businesses<sup>42</sup>.

## **Human and social capital**

The development of human capital does not just involve schools or institutions of higher education: in the words of the OECD, 'Learning and the acquisition of skills

---

<sup>39</sup> Michael Marmot, Peter Goldblatt, Jessica Allen. 2010. [\*Fair Society Healthy Lives\*](#), 72

<sup>40</sup> RELATE. 2016. [\*Labour of love or love vs labour?\*](#)

<sup>41</sup> Julianne Holt-Lunstad. 2018. 'Why social relationships are important for physical health: A systems approach'. *Annual Review of Psychology*, Vol 69, 437-58.

<sup>42</sup> Brenner, M. H. 2006. *Health and quality in work. Impact of Macroeconomic Factors on Mortality in Europe and the OECD. Executive summary & conclusions and policy implications. Final report.* European Commission Directorate-General for Employment, Social Affairs and Equal Opportunities Unit D1. Available at [www.ec.europa.eu/employment](http://www.ec.europa.eu/employment)

and knowledge takes place from birth to death'<sup>43</sup>. An overview of the literature on the impact of CVT suggests that individual workers receiving on-the-job training have 'consistently been found to earn higher wages'<sup>44</sup>. One UK study referred to found that individuals undertaking CVT were found to earn on average 5 percent more than individuals who had not<sup>45</sup>.

If the family is of overriding importance in our early years, it is employment that is important for most of our lives. In a phrase, and for better or worse, the firm is a 'learning organisation'. Moreover, the learning involved is not just a matter of technical skills, but also social ones such as perseverance and self-discipline, communications, and the capacity to make judgments, along with critical inter-personal skills such as the ability to work in teams and exercise leadership. Again, there are profound implications for individuals, organisations and society.

There are three main ways in which employment is held to contribute to personal development. The first is continuing vocational training (CVT) which may or may not involve public support. The second are the opportunities that come with day-to-day working on the job and the third the opportunities for advancement.

### *Continuing vocational training*

One of two main sources for the incidence of CVT is Eurostat's Continuing Vocational Training Survey (CVTS)<sup>46</sup>. At first sight, it suggests considerable activity. The most up-to-date survey (CVTS5) indicated that in 2015, almost three-quarters of enterprises employing 10 or more provided CVT - up on 2005 and 2010; the proportion in information and communication services and financial and insurance activities was at 85.5%. Courses were more prevalent than on-the-job training, however, and only around half of employees participated. Only three in ten employees (30%) participated in CVT courses and in relation to hours worked, hours on CVT courses accounted for less than 1%. The average number of hours spent on CVT courses per employee was 9.2 hours. Also, around a third of all hours on CVT courses were devoted to mandatory training, such as for health and safety. The two main reasons for not providing CVT were also illuminating. They were that existing skills and competences met needs (81.8%) and preferring to recruit people with the required skills (54.9%). Lack of time and CVT being too expensive were the third and fourth reasons.

---

<sup>43</sup> OECD (Cote, S and Healey, T.). 2001. *The Well Being of Nations. The Role of Human and Social Capital*. Paris: OECD. p.18.

<sup>44</sup> de la Fuente, A. and Ciccone. 2003. *Human capital in a global and knowledge-based economy*. Final Report for DGV. Available at [www.ec.europa.eu/employment\\_social/publications/2003](http://www.ec.europa.eu/employment_social/publications/2003)

<sup>45</sup> Blundell, R.L., Dearden, L., Meghir, C. and Sianesi, B. 1999. 'Human Capital Investment: The returns from Education and Training to the Individual, The Firm and the Economy', *Fiscal Studies*, Vol. 20, No.1, 1-3.

<sup>46</sup> CEDEFOP. 2019. [Continuing vocational training in enterprises in the EU Enterprises](#). A report on the UK is available at the ONS [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/652813/Continuing\\_vocational\\_training\\_survey-summary.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/652813/Continuing_vocational_training_survey-summary.pdf) the other the OECD's International Adult Literacy Survey (IALS)<sup>#</sup>.

In the case of the UK, the First Findings from the Skills and Employment Survey 2017 suggest that the growth of skills demand has slowed and even reversed in some areas since 2012. 'Literacy and numeracy skills have declined in importance ... and required workplace learning and training have continued on a downward path'. Demand-side considerations, namely a slowing intensity of technical and organisational change, appeared to be important here. Also, there had been a slow-down in technical and organisational change, with technical change becoming less skill-biased. Gender gaps in job skills had narrowed, however, and in the case of graduate-level jobs reversed<sup>47</sup>.

#### *Opportunities for on-the-job development*

CVT is just the tip of the iceberg of the development opportunities that employment offers. Also important are the opportunities that come with day-to-day working on the job. Capturing data on the nature, extent and impact of on-the-job learning, however, is even more difficult than that for CVT. The European Foundation for the Improvement of Living and Working Conditions undertakes a regular representative European Survey on Working Conditions (ESWC) across EU countries. Especially interesting is the analysis done on the results of the third, fourth and fifth surveys carried out in 2000, 2005 and 2010<sup>48</sup>. Briefly, the analysis uses a form of factor analysis that

takes into account variables such as the use of teamwork, job rotation, repetitiveness of tasks, the complexity of tasks, and the learning dynamics in work (whether the individual learns new things in work and whether the work requires problem-solving activity). On the basis of these, it develops four models of work organisation covering EU countries. Table 1.2 gives an overview of the results across countries for which data were available in the 2010 survey.

The contrast between the 'direct learning' and 'lean models' is especially relevant for on-the-job development. Two features of work organisation are critical. One is the degree of task complexity: the higher the degree of task complexity, the greater the requirement for the exercise of problem-solving skills and continuous learning. The other is the nature and extent of autonomy – the extent to which employees are allowed to make decisions. A high degree of task complexity can go hand-in-hand with considerable scope for employees to exercise their initiative. Or it can be accompanied by relatively little discretion, where there is a more formal structure of protocols (e.g. team work and job rotation practices) and/or tight quantitative targets. For example, two main types of team working have been identified that reflect these different combinations: the 'Scandinavian' or 'Volvo', where team members have

---

<sup>47</sup> Golo Henseke, Alan Felstead, Duncan Gallie, Francis Green. 2018. [Skill Trends at Work in Britain First Findings from the Skills and Employment Survey 2017](#).

<sup>48</sup> Lorenz, E. and Valeyre, A. 2004. 'Organisational Change in Europe: National Models or the Diffusion of a New 'One Best Way'?' Paper prepared for the 2004 DRUID Summer Conference, Copenhagen. Edward Lorenz. 2015. 'Work Organisation, Forms of Employee Learning and Labour Market Structure: Accounting for International Differences in Workplace Innovation Journal *of the Knowledge Economy*, vol. 6 (2), 437-466.

considerable autonomy in deciding how their jobs are done; and the ‘Toyota’, where managers have much greater control over the processes<sup>49</sup>.

Focusing on the UK, the ESWC analysis suggests that the ‘lean’ rather than the ‘learning’ model dominated in the UK. The proportion of ‘learning’ workplaces was less than the 27-country average and half that of Sweden. It also seems that the direct control of a superior is also relatively more important in determining the pace of work in the UK than it is in France, Germany, the Netherlands and Sweden. Also the UK employs more ‘senior managers’ proportionately than other EU countries - some 14% to 15% as against an EU average of under 10% and just 4% in Germany<sup>50</sup>.

The First Findings from the 2017 Skills and Employment Survey are consistent with this picture. Task discretion in the UK declined between 2012 and 2017. Yet this was the form of participation that had the strongest association with employee well-being and work motivation. Formal institutions for organisational participation such as consultative meetings and quality circles declined and the proportion of employees reporting high influence over organisational decisions that affected their work was less than one-third, albeit slightly up on previous years. Less than one quarter were involved in semi-autonomous teamwork<sup>51</sup>.

#### *Opportunities for upward mobility*

For many employees, the most extensive opportunities for development come not from the present job, but the challenges arising from promotion. It is also through these opportunities that employees are most likely to achieve the benefits that come from social mobility. In practice, the debate has centred on the role that employment relations play in reducing people’s scope for advancement and making the contribution they might be capable of. The most obvious groups affected are those who have come to be covered by equality legislation dealing with discrimination on grounds of age, disability, gender, race, religion or belief, and sexual orientation.

The attention here focuses on women, who are not only the largest group, but the one for whom the data are most extensive. In the early years of the millennium, there were two major reports in the UK bearing on these issues used in the first edition of this text: the Kingsmill committee’s (2001)<sup>52</sup> and the Women and Work Commission’s (2006)<sup>53</sup>. Internationally, the EU, ILO and OECD were also active in developing their own cross-national data bases. Broadly speaking, the data identified a common problem that was similar in its main proportions across countries. Relatively few women break through the ‘glass ceiling’, the lack of flexibility at senior levels being particularly acute. The gender gap appeared to be largest for the highest-level category of managers – directors and chief executives – with 1.4 percent of men

<sup>49</sup> Fröhlich, D. and U. Pekruhl. 1996. *Direct Participation and Organisational Change - Fashionable but Misunderstood? An analysis of recent research in Europe, Japan and the USA*. Luxembourg: Office for the Official Publications of the European Communities.

<sup>50</sup> European Foundation Living and Working Condition Survey. 2007. 6, Figure 1.

<sup>51</sup> D. Gallie, F. Green, A. Felstead and G. Henseke. 2018. [\*Participation at work in Britain First findings from the Skill and Employment Survey 2017\*](#).

<sup>52</sup> Kingsmill, D. 2001. *A Review of Women's Employment and Pay*. London: DTI (The Women and Equality Unit).

<sup>53</sup> Women in Work Commission. 2006. *Shaping a Fairer Future*. Available at [www.equalities.gov.uk](http://www.equalities.gov.uk).

holding such titles compared with only 0.4 per cent of women. Moreover, data from the EU's *Women and men in decision-making database* showed that women were almost invisible in the top 50 publicly quoted companies. On average, only 3 percent of presidents and just 10 percent of board members of these key companies were women.

To paraphrase the ILO<sup>54</sup>, in spite of the slow but steady increase being seen in the share of professional women in the workplace, the nature of women's career paths continued to block them from making progress in organisational hierarchies. Even in female-dominated sectors, a disproportionate number of men rise to the more senior positions. The rule of thumb was still: the higher up an organisation's hierarchy, the fewer the women. On recruitment, qualified women tended to be placed in jobs that had a lower value in terms of skill requirements and remuneration. They found themselves in what were considered 'non-strategic' jobs, rather than in line and management jobs leading to higher positions. Thus, they effectively become support staff for their more strategically positioned male colleagues.

Women also found it difficult to combine work and family life, facing substantial penalties, in terms of pay and progression, for taking time out of the labour market or reducing their working hours to care for children or other relatives. As noted earlier, women who worked part time earn 32 percent less than the median hourly earnings of women who work full time and 41 percent less per hour than men who work full time. Women returning to the labour market after time spent looking after children often found it difficult to get a job matching their skills. Those looking for part-time work crowded into a narrow range of lower-paying occupations due to a lack of quality part-time jobs. Often they had to change employer and occupation – and accept lower pay – to get part-time work.

There was also a measure of consensus about the three main sources of institutions stopping women from climbing career ladders, many of which were common to other disadvantaged groups. One was the workplace, where formal/informal policies and practices dealing with issues such as recruitment, access to training and the operation of payment systems posed barriers. The second was the occupation. Many discriminatory barriers were the 'property' of the occupation in as much as there were limits on access penalising particular groups<sup>55</sup>. The third was the wider society, where social norms and traditions regarding education, labour market participation, job choice, career patterns and the evaluation of male- and female-dominated occupations were influential.

These factors combined to produce a situation where jobs come to be seen as 'male' or 'female', with both sexes being streamed (or streaming themselves) into different occupations and therefore sectors. As the ILO observed in discussing the 'glass ceiling' confronting many women, this segregation can be 'horizontal' or 'vertical'<sup>56</sup>. In the first instance, sectors come to be seen as male or female. Traditionally, engineering, physics, the judiciary, law and health service

---

<sup>54</sup> International Labour Office. 2004. *Breaking through the glass ceiling. Women in management. Update*. Geneva: International Labour Office.

<sup>55</sup> Cabinet Office - the Strategy Unit. 2009. *Unleashing aspirations: the final report of the Panel on fair access to the professions*. Available at [www.cabinetoffice.gov.uk/strategy](http://www.cabinetoffice.gov.uk/strategy).

<sup>56</sup> International Labour Office. 2004. *Breaking through the glass ceiling. Women in management. Update*. Geneva: International Labour Office.

administration are considered ‘male’ jobs and library work, nursing and teaching (especially in primary education) are considered ‘female’ jobs. In the second, specific jobs within the sector come to be associated with one or other of the sexes. Thus, even in sectors where women predominate, such as teaching or personnel, men are more likely to hold the more senior and better-remunerated positions. Additionally, the wider institutional framework may help or hinder mobility. Features highlighted include age-related education and training systems, tax and benefit systems, parental leave arrangements and, perhaps most crucially, the provision of childcare facilities before and during compulsory school years.

Most of these considerations, it seems, continue to exert a powerful influence. In 2019, reports *Catalyst* (the nonprofit organisation promoting ‘workplaces that work for women’), there had been a slight increase in the proportion of women in senior management roles, but it was still only 29%. Also ‘vertical’ segregation remained in evidence: 43% of HR Directors were women, compared to 17% of Sales Directors and 16% of Chief Information Officers. The higher up the corporate ladder, the fewer were women: in 2019 women accounted for just 6.9% of CEOs of the largest listed public companies across Europe; in the USA only 5.0% of CEOs in the S&P 500 companies were women<sup>57</sup>.

### *Links with social capital*

Social capital is understood in terms of the ‘networks, norms, relationships, values and informal sanctions that shape the quantity and co-operative quality of a society’s social interactions’<sup>58</sup>. It resides in relations rather than individuals; it is mainly to be seen as a public good, although it can be dysfunctional if used by one group against another; and it comes from societal investments as well as being the product of inherited cultural and norms of behaviour.

At the core of social capital is trust - not only in friends and family, but also strangers and institutions. Trust is fundamentally important in facilitating the resolution of collective problems: individuals are more likely to cooperate when others can be relied upon to act in a similar way. The proposition is that the greater social capital, the greater the contribution to a range of beneficial economic and social outcomes. These include ‘high levels of and growth in GDP; more efficiently functioning labour markets; higher educational attainment; lower levels of crime; better health; and more effective institutions of government’<sup>59</sup>.

Along with family, schools, voluntary and civic associations, work organisations are a major source as well as beneficiary of social capital. Views about justice, for example, or participation and involvement or bullying and harassment are likely to be significantly shaped by workplace experience. Similarly, the extent to which employees feel they can trust colleagues and, perhaps above all, their employer might be expected to have a significant impact on their willingness to think in terms of collaborative and collective solutions more generally. The OECD believes that

---

<sup>57</sup> Catalyst. 2019. *Women in Management: Quick Take*.

<sup>58</sup> OECD (Cote, S and Healey, T.). 2001. *The Well Being of Nations. The Role of Human and Social Capital*. Paris: OECD. p.42; Office for National Statistics (Babb, P.) 2005.

*Measurement of social capital in the UK*. London: ONS. Available at [www.ons.gov.uk](http://www.ons.gov.uk)

<sup>59</sup>Performance and Innovation Unit (Aldridge S. and Halpern, D. with Fitzpatrick, S.). 2002. *Social capital: a discussion paper*. Performance and Innovation Unit.

'Organisations which 'learn' to socialize knowledge and skills through more effective forms of interaction, networks and norms of trust and cooperation are important sources of social capital'<sup>60</sup>. It goes on to quote studies suggesting that cooperation between management and employees is the basic reason for the competitiveness of the Japanese automotive industry<sup>61</sup>. "In the US company, each worker is eager to make his individual success, and unwilling to tell what he knows to his colleagues. But here, everybody is willing to tell what he knows as much as possible to colleagues. This is because he believes that he can make a success only as a team, not on his own'<sup>62</sup>

The OECD also suggests that 'more effective forms of interaction, networks and norms of trust and co-operation' can have an importance beyond the immediate workplace. It reminds us that another reported element in the competitive advantage of manufacturing firms in Japan, along with Germany, and parts of Italy, is reckoned to be the higher levels of trust relations between 'clusters' of local firms, enabling greater cooperation in areas such as R&D, marketing and training and development<sup>63</sup>.

The family plays a key role in developing human and social capital. In the words of the Ministerial foreword to the Cabinet Office Strategy Unit's *Families in Britain: evidence paper*, 'Families are the bedrock of our society'<sup>64</sup>. Inasmuch as it impacts on family life, the nature of employment influences the development of human and social capital indirectly as well as directly. Several links are emphasised. One already touched on is the absolute levels of pay. Relatively low levels of pay mean that many families have little choice: women have to go out to work to maintain a reasonable standard of living. Being dual income households means they may achieve this objective, but the quality of family life may also suffer.

Another long-standing issue in the UK is the impact of the long working hours of fathers. These do not just affect individual health and well-being, it is argued, but also the quality of family life<sup>65</sup>. Boys in particular suffer from a father whose long working hours keep him from the family home. Family and community interaction are also linked: many employees simply lack the time or energy, after long hours at work, for even basic forms or community participation.

With the increasing feminisation of the workforce reflecting the growth of the service sector, the duration and flexibility of working time is also seen as an issue affecting women as well as men with talk of a new 'temporality'<sup>66</sup>. In this, working

---

<sup>60</sup> OECD (Cote, S and Healey, T.). 2001. *The Well Being of Nations. The Role of Human and Social Capital*. Paris: OECD. p.48.

<sup>61</sup> OECD. (Cote, S and Healey, T.). 2001. *The Well Being of Nations. The Role of Human and Social Capital*. Paris: OECD. pp.58.

<sup>62</sup> Omori, T. 2001. 'Balancing Economic Growth with well-being: Implication of the Japanese Experience', in Halliwell, J, (ed) *The Contribution of Human and Social Capital to Sustained Economic Growth and Well-being. International Symposium Report*. Human Resources Development Canada and OECD.

<sup>63</sup> OECD (Cote, S and Healey, T.). 2001. *The Well Being of Nations. The Role of Human and Social Capital*. Paris: OECD. pp.57-8.

<sup>64</sup> Ministerial foreword to the Cabinet Office Strategy Unit's *Families in Britain: evidence paper*. 2008. Available at [www.cabinetoffice.gov.uk/strategy](http://www.cabinetoffice.gov.uk/strategy).

<sup>65</sup> Pocock, B. 2003. *The work/life collision*. Federation Press distributed by Willan Publishing.

<sup>66</sup> Rubery, J., Grimshaw, D., and Ward K. 2005. 'Working Time, Industrial Relations and the Employment Relationship', *Time & Society*, Vol.14, No 1, 89-111.

patterns are increasingly employer-led, organised by firms to suit their specific ways of working to minimise labour costs, rather than around traditional social rhythms.

Attention also focuses on the impact on family life on the growth of the service sector. One strand is concerned with the impact of working mothers on their children's educational attainment or psychological adjustment. A second links to wider debates about the breakup of the nuclear family and the implications for children's life chances and the care of elderly relatives in an increasingly ageing society<sup>67</sup>.

## Productivity

In Krugman's often-quoted words,

Productivity isn't everything, but, in the long run, it is almost everything. A country's ability to improve its standard of living over time depends almost entirely on its ability to raise its output per worker<sup>68</sup>.

Poor productivity is an issue that has dogged the UK for decades, but especially following the banking crisis of 2008. 'Enigma' and 'puzzle' are two of the words used to describe the sluggish growth of productivity in recent years<sup>69</sup>. The Economics Editor of *The Financial Times* (Chris Giles) reported on 23 December 2019,

UK productivity growth of just 0.3 per cent over the past decade has won the Royal Statistical Society's accolade as "statistic of the decade" ... A judging panel convened by the RSS noted ... that the 2010s were the worst decade for productivity growth since the early 19th century and well below the average of 2 per cent a year in the 10 years since 1997 ... If productivity had grown at the normal historic rate, output of the UK economy for every hour worked would be more than 20 per cent higher. Living standards would also have risen by roughly the same amount, through higher pay, more spending and increased tax revenues<sup>70</sup>.

He might have added that output per hour in the UK was 21 per cent below the average for the other G7 countries and more than 30 percent less than France, Germany and the USA<sup>71</sup>.

The notion that employment relations have a major impact on productivity has a long history. The main links are also very clear: fundamentally important is how managers manage employment relations. More problematic is understanding why managers seem incapable of appreciating how to improve their own performance.

### *Conflict at work*

The costs of conflict at work have always loomed large in discussion of the impact of employment relations on productivity. Initially, as the introduction pointed out, the

---

<sup>67</sup> Dex, S. 2003. *Families and Work in the 21st century*. Joseph Rowntree Foundation. p.44.

<sup>68</sup> Paul Krugman. 1994. *The Age of Diminished Expectations. US Economic policy in the 1990s*. Cambridge, MA, MIT Press.

<sup>69</sup>Haldane. 2017. '[Productivity puzzles' - speech given at LSE 20 March](#).

<sup>70</sup> C. Giles. 2019. 'Poor productivity growth is the statistics of the decade'. [The Financial Times](#). 23 December.

<sup>71</sup> [ONS. 2018. International Comparisons of productivity](#).

main concern in the UK was with organised conflict and the costs of strikes or collective action short of strikes, such as an overtime ban or ‘work to rule’. More recently, with the decline in trade union membership and collective bargaining, the focus of attention has shifted to individual disputes and, in particular, those involving an appeal to an Employment Tribunal (ET) under the various statutory provisions. As the Gibbons (2007) report on the operation of ETs establishes, both employers and employees find the tribunal process expensive and stressful<sup>72</sup>. Other expressions of conflict, such as absence and resignation, also have to be taken into account. The CIPD's 2020 [Health and Wellness at Work Surveys](#) quoted earlier suggested average per annum absence levels in the private sector were running at 4.3 days and in the public sector at 8 days.

### *Management practices*

Also long standing is recognition that, although work all organisations are to a greater or lesser extent hierarchical, management choices about policies and practices involved can and do make a fundamental difference: nothing is automatic or pre-determined. Early examples reflect what Commons<sup>73</sup> called the ‘good will’ model and start from the idea that better treatment of employees leads to increased effort, motivation and commitment and thereby improved productivity. As well as reducing the need for monitoring, it can also cut recruitment and training costs due to worker turnover. In the UK, pioneers included Robert Owen and his Lanark factory system and the Quaker firms and their introduction of superior welfare arrangements at the turn of the nineteenth and twentieth centuries. In the USA, Henry Ford's willingness to pay higher wages than competitors is also an example. More generally, there was a recognition that employers had to make investments in specific forms of CVT if they were to maximise employee's performance.

In the 1960s, especially in the UK, the emphasis shifted onto specific management practices, with major weaknesses being identified in traditional ways of working and alternative practices put forward to deal with them. One, which is especially long-standing, is a reliance on overtime working – the National Board for Prices and Incomes 1970 showed more than fifty years ago how low basic rates of pay and extensive overtime working encouraged restrictive practices, with the recipe being annual hours arrangements that introduced disincentives to extending working time beyond basic shift hours<sup>74</sup>. The other was the payment system in some manufacturing industries. Individual payment by results came to be seen as a major source of conflict as well as poor productivity, with measured day work systems promoted as a superior alternative<sup>75</sup>.

Perhaps most controversial was the recognition that the lack of opportunity for employees to make their contribution was putting employers at a serious competitive disadvantage. In this case, it took Japanese manufacturers to prove the point using

---

<sup>72</sup> Gibbons, M. 2007. *Better dispute resolution. A review of employment dispute resolution in Great Britain*. Available at [www.berr.gov.uk](http://www.berr.gov.uk).

<sup>73</sup> Commons, J. 1919. *Industrial Goodwill*. New York: McGraw-Hill.

<sup>74</sup> National Board for Prices and Incomes. 1970. *Hours of work, overtime and shiftworking*. Report No. 161. London: HMSO.

<sup>75</sup> National Board for Prices and Incomes. 1968. *Payment by results systems*. Report No. 65. London: HMSO.

techniques such as problem-solving groups and semi-autonomous team working to reduce costs and improve productivity and quality.

In the 1980s, in the light of the Japanese example, the emphasis of academics, practitioners and policy makers shifted to bundles of management practices, variously described as ‘high performance work systems’ (HPWS), ‘high-commitment management’ and ‘high involvement management’. The starting point for many was a recognition that there were substantial differences in productivity not just between countries but also businesses within sectors of the same country - in its effects management was equivalent to ‘technology’<sup>76</sup>. A string of studies in the USA<sup>77</sup> and UK<sup>78</sup> and across Europe<sup>79</sup> went on to establish clear links between improved productivity and workplace management practices. In a paper for the Obama administration in the USA, Eileen Appelbaum and her colleagues summarised the extensive evidence demonstrating the links between HPWS and productivity:

High-performance work practices have been shown to work in three different ways: (1) fostering development of *human capital*, creating a performance advantage for organizations through processes such as increased employee skill development and improved customization by employees in service industries; (2) enhancing the *motivation and commitment* of employees, creating an organizational and labor-management climate that motivates and supports employee engagement in problem solving and performance improvement; and (3) building organizational *social capital*, which facilitates knowledge sharing and the coordination of work, and thus improves performance. Research in settings ranging from public schools to airlines has demonstrated the added benefits to be realized when work practices encourage the simultaneous development of human capital and social capital among employees<sup>80</sup>.

In a chapter appropriately titled ‘Fostering worker productivity’, the OECD has more recently said much the same in a publication about jobs strategy. It adds that HPWS practices encourage a better use of skills in the workplace, explaining about a

---

<sup>76</sup> N. Bloom, Raffaella Sadun and J. Van Reenen. 2017. ‘[Management as a Technology?](#)’ *Harvard Business School Working Paper* 16-133.

<sup>77</sup> MacDuffie, J. P. 1995. ‘Human resource bundles and manufacturing performance: organizational logic and flexible production systems in the world auto industry’, *Industrial and Labor Relations Review*, 48, 2: 197-221.

<sup>78</sup> Delbridge, R., Edwards, P. Forth, J, Miskell, P. and Payne, J. 2006. *The Organisation of Productivity: Re-thinking Skills and Work Organisation*. London: Advanced Institute of Management Research. *Engage for Success Movement*.

<sup>79</sup> European Foundation for the Improvement of Living and Working Conditions. 1997. *New forms of work organisation. Can Europe realise its potential? results of a survey of direct participation in Europe*. Luxembourg: Office for the Official Publications of the European Communities; Geary, J., Edwards, P.K. and Sisson, K. 2002. ‘New forms of workplace organization in the workplace: transformative, exploitative, or limited and controlled?’, in Murray, G., Bélanger, J., Giles, A. and Lapointe, P-A. (eds) *Work and employment relations in the high-performance workplace*. London: Continuum.

<sup>80</sup> E. Appelbaum and colleagues. 2011. [High performance work practices and sustainable economic growth](#).

'fifth of the variation in the intensity with which workers use information-processing skills'<sup>81</sup>.

Despite the evidence, however, it would seem that take up of HPWS practices has been patchy. Drawing on the 1998, 2004 and 2011 Workplace Employment Relations Surveys, for example, Bryson and Forth found a mixed picture<sup>82</sup>: increases in team working, reversing an earlier decline seen between 1998 and 2004, functional flexibility and the intensity of training; but a decline in the use of problem-solving groups. Overall, there appeared to be 'no obvious change in trajectory between 1998-2004 and 2004-2011 ... The evidence for any changes in returns is also weak ...'.

The authors of the first findings from the UK's Skills and Employment Survey 2017 come to a not dissimilar conclusion<sup>83</sup>. To paraphrase their report on *Productivity in Britain: the worker's perspective*, employers have been slow to encourage participation, despite its importance for both employee well-being and work motivation. Task discretion declined between 1992 and 2017; and organisational influence increased, but only to a level that was still lower than that of 2001. The overall conclusion was that: 'Despite the growing concern about low levels of productivity in British industry, employers have failed to extend the adoption of forms of work organisation that are likely to encourage high levels of employee performance and a willingness to contribute to innovation'.

*How managers are managed: a key piece of the productivity puzzle?*

It must not be forgotten that most managers are also employees. How they are recruited, developed and, above all, rewarded is fundamentally important not just for the way they manage 'other' employees. It also helps to make the links between business strategy and employment relations.

In the USA and the UK in particular, as Chapter 1 emphasised, the past two decades have seen a substantial increase in 'financialisation'. Essentially, it will be recalled, 'financialisation' boils down to the prioritisation of financial returns over the provision of goods and services. A key feature has been an increase in the use of managerial appraisal systems and stock options, together with other share-related bonuses, designed to align the interests of managers with those of shareholders. As the then Director General of the UK's Confederation of British Industry (Richard Lambert) explained in 2010<sup>84</sup>, this did not just open up the substantial gap between the pay of managers and the managed referred to earlier, a major consequence was the prioritisation of short term financial results at the expense of longer term development of product market share or added value. As later chapters will explain, the rise of 'financialisation' has had wide ranging consequences. Immediately relevant is that they include:

---

<sup>81</sup> OECD. 2018. [Good Jobs for All in a Changing World of Work](#).

<sup>82</sup> Alex Bryson and John Forth. 2015. 'The UK's Productivity Puzzle', *CEP Occasional Papers* 45, Centre for Economic Performance, LSE.

<sup>83</sup> A. Felstead, F. Green, D. Gallie and G. Henseke. 2018 [Productivity in Britain: the worker's perspective First Findings from the Skills and Employment Survey 2017](#).

<sup>84</sup> Lambert, R. 2010. RSA/Sky Sustainable Business Lecture Series – 30 March. 'Does business have a role as a 'force for good' in creating a more sustainable economic, social and environmental future?'

- a lack of investment in people, technology and R&D
- considerable cost cutting and permanent restructuring - making it difficult to achieve high levels of trust and motivation necessary for high performance working
- increased outsourcing - reducing the opportunity and incentive to innovate.

In these circumstances, it is perhaps hardly surprising that the UK has a chronic problem of low pay, low skills and low productivity. The picture that emerges from here and earlier sections is of UK workplaces where relatively extensive (and expensive) managerial hierarchies try to get employees to work harder rather than smarter<sup>85</sup>.

### **Macro-economic performance**

The focus now shifts from individuals and workplaces to the two main external institutions involved in employment relations. These are the legal framework, in particular, of employment protection legislation (EPL), and the structure of collective bargaining. In both cases the links with macroeconomic performance have been the subject of ongoing debate, with connections established in both cases.

#### *The significance of employment protection legislation*

Employment protection legislation (EPL) has a controversial history: trade unions argue that it is necessary to guarantee a measure of security both on grounds of social justice and performance; employers complain that it restricts their flexibility to hire and fire. In 1999, the OECD produced an index of employment protection legislation, made up of regulation on temporary forms of employment, specific requirements for collective dismissal and protection of permanent workers against (individual) dismissal, which purported to show that there was a positive correlation between the extent of employment protection and the level of unemployment: the higher the levels of EPL, the higher the levels of unemployment<sup>86</sup>. The findings proved to be highly controversial, critics arguing that the OECD was wrong to consider employment protection just as an exogenous cost for employers and had failed to recognise the potential positive welfare implications.

In 2004, the OECD returned to the issue with a more balanced appraisal<sup>87</sup>. To paraphrase its overall conclusions:

- The net impact of EPL on aggregate unemployment is ambiguous and can only be resolved by empirical investigation. Employment protection regulation fulfils its stated purpose, which is to protect existing jobs. At the same time, it tends to limit firms' ability to fire and so reduce the re-employment chances of the unemployed.

---

<sup>85</sup> Keith Sisson, 2014. 'The productivity puzzle - is employment relations the missing piece?' *Acas Policy Discussion Papers*; Keith Sisson. 2016. 'Reshaping the world of work - time for a UK job strategy. *Warwick Papers in Industrial Relations*, No 105. Industrial Relations Research Unit, University of Warwick.

<sup>86</sup> OECD. 1999. 'Employment protection and labour market performance'. Chapter 2. *OECD Employment Outlook*. Paris: OECD.

<sup>87</sup> OECD. 2004. 'Employment protection and labour market performance'. Chapter 2. *OECD Employment Outlook*. Paris: OECD.

- It is possible to detect a link between EPL and employment rates for specific groups such as the young and prime-age women, while there may be positive links to the employment rates of other groups. This is because these two groups are more disproportionately affected by the effects of EPL on hiring decisions. Differences in the strictness of EPL may be an important element in explaining the rise in the incidence of temporary work for youth and the low skilled.
- EPL has benefits as well as costs and these need to be taken into account in any overall assessment. It may foster long-term employment relationships, thus promoting workers' effort, co-operation and willingness to be trained, which is positive for aggregate employment and economic efficiency. By promoting a firms' social responsibility in the face of adjustment to unfavourable economic circumstances, a reasonable degree of employment protection could also be welfare-improving, i.e. help balance concern for workers' job security with the need for labour market adjustment and dynamism.

In the years that followed, the ILO<sup>88</sup> and the World Bank<sup>89</sup> extended the coverage of the OECD indicators to embrace their wider constituencies, albeit in modified form. Associated studies suggested there was a high degree of global convergence in the formal content of laws governing different employment forms and employment protection. The overall trend was also for these laws to become more protective over time; including part-time work, fixed-term employment and agency work, become significantly more so since the late 1990s. The same is true of laws covering individual dismissal, collective consultation and codetermination rights.

It seems that there is increasing recognition that EPL is not to be seen as being 'imposed' just 'to protect workers from arbitrary or unfair treatment, but also to ensure 'efficient contracting between employers and workers'. The need for regulation is internal to the way labour markets work and is 'endogenous to the developmental growth paths of countries' as laws respond to changing circumstances<sup>90</sup>.

As for the impact on macroeconomic performance, the Centre for Business Research at Cambridge has undertaken an econometric analysis of the 117 countries in its dataset of labour laws for 1970 to 2013<sup>91</sup>. It found that increases in protection for workers employed in different forms of employment (part-time, fixed-term and temporary agency work) were correlated with rising employment and falling unemployment over the long run. There was also a small but positive association between these legal changes and labour's share of national income. Similar results were found for employment protection laws in general, although there were no clear links with productivity.

---

<sup>88</sup> ILO. 2015. [Employment Protection Legislation. Summary Indicators.](#)

<sup>89</sup> The World Bank. 2019. [Employing Workers.](#)

<sup>90</sup> Z. Adams and colleagues. 2018. [The Economic Significance of Laws Relating to Employment Protection and Different Forms of Employment: Analysis of a Panel of 117 Countries, 1990-2013](#). University of Cambridge Faculty of Law Research Paper No. 36/2018; European Corporate Governance Institute (ECGI) - Law Working Paper No. 406/2018. 22

<sup>91</sup> Ibid, 16-21.

*The structure of collective bargaining*

The second debate centres on the significance of collective bargaining - in particular, its structure and the level at which pay bargaining, and so its coverage, takes place. Throughout the late 1980s and 1990s, the level was held to play a key role in the trade off between wages, inflation, levels of unemployment and rates of economic growth. In a first phase, the emphasis was on the level where collective contracts were formally negotiated - whether it was at the economy level involving employer and trade union confederations as in some of the Scandinavian countries or at lower levels such the sector as in Germany or mostly at firm level as in the UK and USA<sup>92</sup>. In a second, the focus shifted onto the degree of coordination of bargaining reflecting the situation in countries like Germany where ostensibly sector negotiations were the norm, but a form of 'pattern bargaining' linked the outcome<sup>93</sup>.

Both highly centralised and/or highly coordinated and highly decentralised bargaining structures, it seemed, outperformed intermediate ones. Where collective bargaining was centralised/ co-ordinated, it was argued, negotiators had to take account of the wider economic consequences of their actions. Where it was fully decentralised, they had to have concern for the impact of settlements on the firm's competitiveness. Where collective bargaining was neither centralised/ co-ordinated nor fully decentralised, such as the sector-based systems common amongst continental European countries, the wider economic consequences of a decision of wage negotiators in any one sector, in terms of higher costs and unemployment, could largely be externalised to other sectors.

The OECD has returned to the issue on several occasions. In its 2004 *Employment Outlook*, in chapter on '[Wage setting institutions and outcomes](#)', it said 'high union density and bargaining coverage, and the centralisation/co-ordination of wage bargaining tend to go hand-in-hand with lower overall wage inequality'<sup>94</sup>. In 2018, drawing on a new categorisation of collective bargaining systems, the OECD described the links between collective bargaining and employment, wages and productivity like this:

Bargaining systems characterised by a high degree of wage coordination across bargaining units are associated with higher employment and lower unemployment for all workers, compared to fully decentralised systems. This is because coordination helps the social partners to account for the business-cycle situation and the macroeconomic effects of wage agreements on competitiveness. The actual level of centralisation is another crucial dimension: Organised decentralised and co-ordinated systems (i.e. systems where sector-level agreements set broad framework conditions but leave detailed provisions to firm-level negotiations and where coordination is rather strong) tend to deliver good employment performance and higher productivity. By contrast, the lack of flexibility at firm level, which characterises centralised

<sup>92</sup> Calmfors, L. and Driffill, J. 1988. 'Bargaining structure, corporatism and macroeconomic performance'. *Economic Policy* 6, 13-61.

<sup>93</sup> Soskice, D. 1990. 'Wage Determination: the Changing Role of Institutions in Advanced Industrialized Countries'. *Oxford Review of Economic Policy* 6(4), 36-61.

<sup>94</sup> OECD. 2004. *Employment Outlook*. '[Wage setting institutions and outcomes](#)'. Chapter 3, 130.

bargaining systems, may come at the expenses of lower productivity growth. At the individual level, there is a wage premium for employees who are covered by firm-level bargaining compared with those not covered or those covered only by sectoral bargaining while wage dispersion is on average smallest among workers who are covered by sector-level bargaining compared with systems based on firm-level bargaining only.

It added that forms of decentralisation that simply replace sectoral with firm-level bargaining, without coordination within and across sectors (as was largely the case in the UK), tend to be associated with poorer labour market outcomes.

In its 2019 *Employment Outlook*<sup>95</sup>, the OECD goes on to offer what can only be described as a paean to collective bargaining and social dialogue more generally, seeing them as ‘flexible tools to address some of today’s and tomorrow’s challenges’ complementing public policies. It instances facilitating an exchange between workers and their employers on all aspects of working life and not just wages; enhancing occupational health and safety, fostering HPWS and new learning; and spreading best personnel practice to small and medium-sized enterprises. It also adds that collective bargaining and social dialogue, especially at sector level, offer a ‘more flexible and pragmatic but fair manner than labour law’ for dealing with issues: they can help to adapt pay, working time and work organisation to new needs; deal with work-life balance and increased working time flexibility; and regulate the use of artificial intelligence, big data and electronic performance monitoring, as well as their implications for occupational health and safety, privacy, evaluation of work performance and hiring and firing decisions.

A UK audience might find OECD's espousal of collective bargaining surprising. It needs to be remembered that the OECD is mainly talking about sector level collective bargaining. Crucially, because they are inclusive in coverage, collective agreements at this level benefit the unorganized as well as the organized. They also offer a flexible alternative to legal regulation in setting minimum standards that it would otherwise fall to government to grapple with - arrangements can be tailored to particular circumstances. Further benefits include buffering the workplace from the distributional bargaining over pay, along with more a solid foundation for investments in training and skills necessary for high performance working. Last, but by no means least, they ensure a key intermediary role for employers' organisations as well as trade unions, which is important for links with individual businesses as well as more nuanced policy making<sup>96</sup>.

---

<sup>95</sup> OECD. 2019. *Employment Outlook*. [‘Facing the Future of work: How to make the most of collective bargaining’](#).

<sup>96</sup> K. Sisson. 2013. ‘Private Sector Employment Relations in Western Europe: Collective Bargaining under Pressure?’, in J. Arrowsmith and V. Pulignano (eds). *The Transformation of Industrial Relations in Europe: Institutions and Outcomes in the Age of Globalization*, Routledge.

**Table 2.1 Why Employment relations matter: summary of findings**

Main areas of impact	Links and mechanisms
<p><i>Living standards &amp; inequality</i></p> <ul style="list-style-type: none"> <li>■ poverty</li> <li>■ inequality</li> </ul>	<ul style="list-style-type: none"> <li>•</li> <li>• pay levels (absolute and relative) reflect inter-relationship between type of work organisation, business strategy and employment structure - the more emphasis on 'low cost' as opposed to 'high quality' operations, the greater the likelihood of low pay</li> <li>• the design and operation of pay &amp; reward systems, in particular, managerial systems, have major implications for pay structure and equality/inequality</li> <li>• the same is true of the level of collective bargaining/social dialogue - collective coordination (multi-employer) helps to achieve greater equality</li> </ul>
<p><i>Health &amp; well-being</i></p> <ul style="list-style-type: none"> <li>■ physical health</li> <li>■ mental health</li> </ul>	<ul style="list-style-type: none"> <li>• the extent to which work organisation exposes employees to health and safety hazards is critical; but nature and extent of safety policies/practices can moderate the impact - the more employees and their representatives are involved in their design and operation, the greater the moderation</li> <li>• the greater the employment insecurity, the greater the vulnerability to stress and mental illness</li> <li>• the more control the type of work organisation allows employees over work demands, the less likely they are to suffer stress leading to cardiovascular diseases and relatively premature death</li> </ul>
<p><i>Human and social capital development</i></p> <ul style="list-style-type: none"> <li>■ technical skills</li> <li>■ social skills</li> <li>■ personal development</li> </ul>	<ul style="list-style-type: none"> <li>• the workplace is a major source of human capital</li> <li>• the greater the availability of CVT opportunities, the greater the individual's career prospects and earnings potential</li> <li>• the more work organisation involves autonomy, task complexity and problem-solving, the more scope for individual learning and development work organisation and HR policies/practices are a major influence on promotion opportunities and so scope for personal growth/upward mobility</li> <li>• employees' experience of trust spills over into other spheres</li> <li>• the same is true of views about the appropriateness of behaviour, eg bullying and harassment, fairness and justice</li> <li>• duration, distribution and flexibility of working time have major implications for work-life-family balance (including ability to undertake caring responsibilities) potentially influencing birth and divorce rates</li> <li>•</li> </ul>

**Table 2.1 Why Employment relations matter: summary of findings (cont)**

Main areas of impact	Links and mechanisms
<p><i>Productivity</i></p> <ul style="list-style-type: none"> <li>■ costs</li> <li>■ profitability</li> <li>■ quality &amp; reliability</li> <li>■ innovation</li> <li>■ strategic direction</li> <li>■ investment</li> </ul>	<ul style="list-style-type: none"> <li>• the type of work organisation and the extent to which it encourages information/knowledge sharing and cooperation/team working influence performance and productivity</li> <li>• the nature and extent of HR policies/practices (especially those providing for participation and involvement) do the same</li> <li>• the greater the integration of HR policies/practices, the greater the influence</li> <li>• managerial pay &amp; reward systems influence balance between 'short' and 'long' term horizons and so strategic direction, investment decisions and profitability;</li> <li>• the nature and extent of managerial hierarchy have cost as well as control implications</li> </ul>
<p><i>Macro-economic performance</i></p> <ul style="list-style-type: none"> <li>■ levels of trust</li> <li>■ levels of /growth in GDP</li> <li>■ employment/unemployment</li> <li>■ competitiveness</li> </ul>	<ul style="list-style-type: none"> <li>• the nature and extent of employment protection legislation are linked to levels of growth and competitiveness - employees who feel more secure in their jobs are more likely to embrace change</li> <li>• the structure of collective bargaining and 'voice' arrangements are similarly linked - collective coordination (multi-employer) helps to secure workplace cooperation and flexibility as well as greater equality</li> </ul>

**Table 2.2 Models of work organisation** <sup>97</sup> .

*The 'discretionary learning' model.* The first cluster, which accounts for about 36 percent of the population, is distinctive for the way high levels of autonomy in work are combined with high levels of learning, problem-solving and task complexity. The variables measuring constraints on work pace and monotony are underrepresented. The user of team work is near to the average for the population and job rotation is somewhat underrepresented.

*The 'lean' model* accounts for 27% of the population. Compared to the first cluster, work organisation in the second cluster is characterised by lower levels of employee discretion in setting work methods. The use of job rotation and team work, on the other hand, are much higher than in the first cluster, while work effort is more constrained by quantitative production norms and by the collective nature of work organisation. The use of quality norms is the highest of the four clusters and the use of employee responsibility for quality control is considerably above the average level for the population as a whole. These features point to a more structured or bureaucratic style of organisational learning corresponding to the characteristics of the Japanese 'Lean production' model.

*The 'Taylorist' model* accounts for 18.4% of the population, corresponds in most respects to a classic characterisation of Taylorist. The work situation is in most respects the opposite of that found in the first cluster, with low discretion and low level of learning and problem-solving. The use of teams and job rotation are at about average levels, implying that the use of these practices is a highly imperfect indicator of the transition to new forms of work organisation involving high levels of learning and problem-solving.

*The 'Traditional' model* groups 18.3% of the population. All the variables are under-represented. The frequencies of the two variables measuring the use of quality norms and individual responsibility for quality control are lowest among the four types of work organisation and there are few constraints on the work pace. This class presumably groups traditional forms of work organisation where methods are for the most part informal and non-codified.

---

<sup>97</sup> Edward Lorenz. 2015. 'Work Organisation, Forms of Employee Learning and Labour Market Structure: Accounting for International Differences in Workplace Innovation'. *Journal of the Knowledge Economy*, vol. 6 (2), 437-466.