Can Good Work Solve the Productivity Puzzle?

Collected essays

Carnegie UK Trust
CHANGING MINDS • CHANGING LIVES

RSA future work centre

RSA

Fulfilling Work

Policy

Quality of Work and Productivity

2020

Edited by Gail Irvine, Carnegie UK Trust

Carnegie UK Trust

The Carnegie UK Trust works to improve the lives of people throughout the UK and Ireland, by changing minds through influencing policy, and by changing lives through innovative practice and partnership work. The Carnegie UK Trust was established by Scots–American philanthropist Andrew Carnegie in 1913.

RSA Future Work Centre

The RSA Future Work Centre aims to prepare today's workforce for tomorrow's workplace. The centre explores how radical technologies could alter the world of work – both in terms of availability of jobs and their quantity and quality. Using a combination of scenario planning exercises, hands-on sector labs and research into policy and practice reform, our ambition is to equip policymakers, employers and educators with the insights they need to help workers capitalise on the opportunities of technology while mitigating its risks.

Acknowledgements

The Carnegie UK Trust would like to express gratitude to all the contributors who have written for this collection. Particular thanks are due to the members of the Expert Group on Quality of Work and Productivity which has worked with Carnegie UK Trust and the RSA over the last eight months of this project providing invaluable insights and support, and to the energy and leadership of the Group's Chair, Matthew Taylor. Finally, thank you to Andy Haldane for his interest and encouragement of the themes we have explored in this work.

Gail Irvine, Senior Policy and Development Officer at Carnegie UK Trust was the lead editor for the collection, with oversight provided by Douglas White, Head of Advocacy.

This report is printed on paper that is FSC certified.

Contents

Foreword by Andy Haldane, Chief Economist at Bank of England and Chair of the Industrial Strategy Council

The UK's "productivity crisis" – the flat-lining of economy-wide productivity since the global financial crisis – is the single most pressing issue facing the UK economy. The cost of this crisis are already multiples of even the worst-case Brexit scenario. Understanding the roots of this productivity problem, and replanting them in more fertile soil, is the signature challenge facing UK economic policymakers today.

When it comes to the link between productivity and one key aspect of work – pay – this relationship has been extensively studied. The two are strongly positively correlated. In part, that reflects a causative chain running from low productivity through to low pay: at a level of a company, it is productivity gains that, over time, "pay" for real pay rises. It should come as no surprise, then, that the "lost decade" for UK productivity has coincided with a lost decade for real pay too.

But the link between pay and productivity also runs in the reverse direction: a higher rate of pay can spur worker satisfaction and motivation, thus leading to higher levels of productivity. This is called "efficiency wage" theory. It suggests higher pay can itself hold the key to higher levels of productivity. The recent experience of the UK, and a number of other countries who have introduced minimum wage legislation, suggests this theory has support in real-world experience.

Far-less explored, until relatively recently, has been the link between productivity and the other (than pay) aspects of work, in particular measures of work quality. Structural changes in the world of work, including the rise of the "gig" economy, have given greater recent prominence to this issue. This culminated in Matthew Taylor's excellent review of Good Work published in 2017 and earlier foundational research by the Carnegie Trust and the RSA developing metrics of work quality.

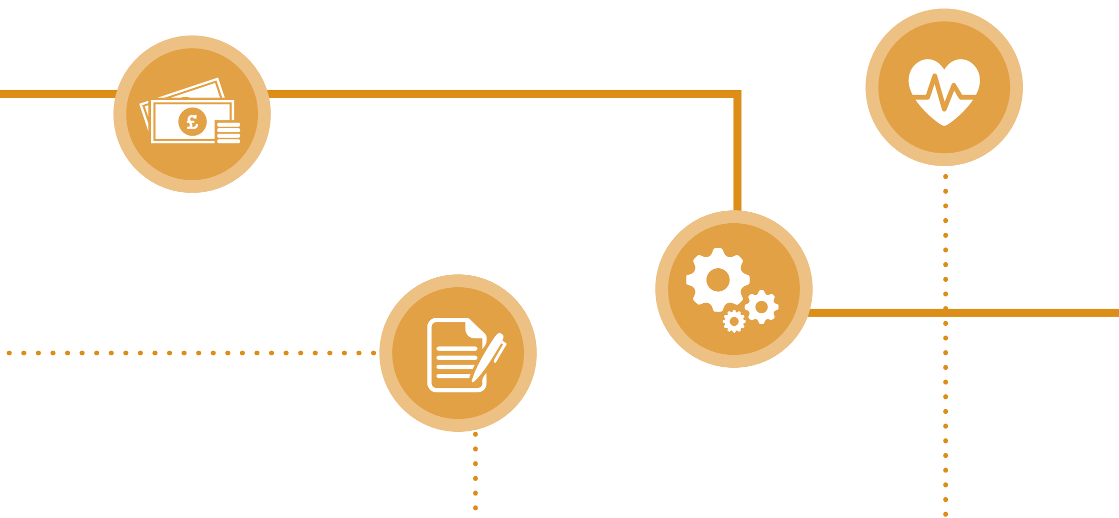
This volume brings together a collection of insightful essays exploring, in greater depth than perhaps ever previously, the relationship between productivity and work quality. As with pay, this relationship is a two-way street. More productive, higher-performing firms are more likely to invest in enhanced worker security, opportunity, training and engagement. In that sense, productivity "pays" for rises in work quality.

But it also seems plausible that causality runs in the reverse direction: higher quality work, like higher pay, can serve as a spur to greater work satisfaction and motivation, thus leading to higher levels of workplace productivity. You might call this the "efficiency work" hypothesis. The public policy implications of this hypothesis are potentially very significant. For example, it suggests there are natural limits to the benefits of a "flexible" labour market in boosting an economy's efficiency.

This volume provides a comprehensive assessment of the efficiency work hypothesis, drawing on a rich and diverse array of evidence and experience and an impressive list of contributors. Let me draw out a few of the key themes. Interestingly, these chime – and help make sense – of some long-standing structural features of the UK economy, including the "long tail" of low productivity companies and their slow rates of technological diffusion and weak management skills.

First, while the correlation between most metrics of job quality and productivity is strong and positive, it appears to be strongest at the lower end of the work quality distribution. In other words, the greatest benefits to productivity may come from increasing the quality of work among the "long tail" of companies currently with the poorest offering. Indeed, this evidence suggests some of the lengthening of the UK's long productivity tail over the past decade could be explained by the lengthening tail of low quality work. This is a concrete example of a cost of the wrong type of job market flexibility.

Second, the key to using and diffusing technology is known not to lie in technology itself, but in the people using it. One of the reasons technological advances may not have shown up in higher levels of productivity is because UK workers have lacked the training and encouragement to make best use of this technology. That might explain the causative link from work quality to



productivity. And it might also explain why rates of technological diffusion have been falling across the UK.

Third, one of the roles of management is to provide the security, opportunity, training and engagement to enable workers to progress in pay and productivity terms. Perhaps it should come as no surprise, then, that the UK's long tail of poorly-performing companies and poorly-paid workers has as its counterpart a long tail of poorly-skilled managers. Managers' batteries, like those of workers, need to be fully charged if the full fruits of technology for productivity are to be harvested.

The evidence here is not the last word on good work and productivity. Indeed, I hope this volume can serve as the springboard for further research on this important topic and for policy action.

Good work is already reshaping the contours of the public policy debate on productivity. For example, the Industrial Strategy Council (ISC) is using measures of work quality as one of its "success metrics" when judging the progress of the Government's efforts to tackle the productivity crisis.

More needs to be done. Words like "productivity crisis" and "industrial strategy" leave most people dazed and confused. When I am asked what these words mean for the average person I say "good work at a good wage, everywhere". This works much better as a description of what is at stake and the prize on offer. As the essays here make only too clear, "working better" should be our watchword, for therein lies the key to understanding and solving the UK's productivity crisis.

1. Overview

By Matthew Taylor, RSA

Work quality and productivity are both issues that have moved fast up the agenda in recent years. My review of modern employment, commissioned by the then Prime Minister Theresa May and published in 2017, was called *Good Work*[1]. Since then there has been a welcome increase in research, commentary, advocacy and the sharing of good practice around the theme of work quality. This includes an earlier Carnegie UK Trust–RSA collaboration, which produced the report *Measuring Good Work*.[2] This explored good work metrics and sought to enable the government to deliver on its only partially fulfilled commitment to measure and be accountable for work quality across the UK economy.

The May Government identified better jobs as an element of its industrial strategy and, as a member of the Industrial Strategy Council (ISC), I have been keen to emphasise this link. For the ISC the UK's pronounced productivity problem is clearly a major concern. Our performance lags most of our competitors and we have seen only a minimal increase in productivity in the 12 years since the global financial crisis. Whether our goal is simply a higher gross domestic product (GDP) per head for the contribution this can bring to living standards, or a wider objective of inclusive and sustainable growth, our long-term prospects rest on increasing the underlying growth path of productivity. The rationale for exploring the relationship between work quality and productivity is self-evident.

The team at the Carnegie UK Trust are to be commended for drawing together such an impressive list of contributors with so many interesting things to say. There is no question that this collection can help move the debate forward. Although I would strongly encourage anyone interested in this topic to read all the essays, in this introduction I will explore some of the key themes.

The first big question is, of course, are good work and productivity linked? The answer it appears is 'yes' but with some unknowns and qualifications. The new analysis undertaken by **Chris Warhurst** and **Derek Bosworth** reveals a correlation but one that is not uniform across the seven dimensions of good work identified in the aforementioned Carnegie UK Trust–RSA report. The implication is that some interventions, focusing on different dimensions of good work, may deliver more substantial productivity gains than others. It also appears that the correlation is overall much stronger at the bottom end of the labour market (intriguingly at the highest end the relationship reverses, suggesting that trying to make work 'perfect' could distract from overall organisational performance). This reinforces a view that the focus for both good work and productivity initiatives should be on lifting more poor-quality work closer, at the very least, to the average level. Thus, the economic imperative of high productivity aligns powerfully with the social justice goal of making work better for those who are currently least well served by the labour market.

Chris and Derek's analysis is primarily quantitative, and so it is useful to be able to read their research alongside more qualitative analysis. As the RSA's **Fabian Wallace-Stephens** and **Sarah Darrall** discovered, the introduction of new technologies in the workplace could be conducive both to good work and productivity, but when technology malfunctions, new dependencies and productivity challenges are created. The engagement of employees and line managers as technology is implemented is important to getting job design right and to maximising the benefits for work quality and efficiency.

In a fast-changing world people often fail to learn the lessons of the past and it is intriguing to read **Zayn Meghji's** (also of the RSA) account describing an earlier debate about good work and productivity. The socio-technical perspective that emerged in the post-WWII decades from the Tavistock Institute was innovative, radical and in many ways world leading. Yet for a number of reasons – including the conflicting interests of managers and worker representatives – it failed to deliver on its early promise. There are lessons here for all of us trying to link better work to organisational success.

If the existing case for seeing good work as a path to productivity is strong, various factors may come to make it stronger still. Applying the extensive research insights of McKinsey, **Tera Allas** shows that without a commitment to better work many of today's labour market inequalities are likely to be exacerbated by the unfolding fourth industrial revolution. **Mary O'Mahony** from King's College London makes a similar point about the multi-faceted impacts of digitalisation in the workplace. In a similar vein, the Confederation of British Industry's (CBI) **Josh Hardie** argues there is no question that the way technology might change people's jobs needs to be considered and planned for, but worrying about robots threatening the future of good work risks looking through the telescope from the wrong end. Josh argues that adopting productivity-enhancing technology is *dependent* on having good work conditions in place. If businesses do not engage their people properly, technology often fails to be used to its full potential. Josh explores some of the ways in which employers sometimes fail to grasp the nettle in good work, technology and productivity, and highlights steps to make more of this virtuous link.

What comes clearly through the essays is that pressures in different sectors and those related to business size need to be addressed if we are to support business practices that prioritise good work *and* productivity. Provided these different pressures are understood and engaged with, this is not a barrier to progress: businesses do not need to have leading-edge practice to design jobs that deliver good work and reap productivity gains. **Tony Danker's** contribution showcases how Be the Business supports practical interventions in small and medium-sized enterprises (SMEs) to improve their productivity through making the most of their people, and he provides concrete examples of those who have risen to the challenge. Investors in People is a longer established initiative focusing on employee engagement and its links to organisational performance. The Investors in People process has had a significant and benign impact in many organisations but, as its CEO **Paul Devoy** argues in his essay, if we want to get the message through more widely, we would do well to learn from the public health movement in developing strong, simple messages.

The research of **Alan Felstead** and **colleagues working on the Employment and Skills Survey** provides strong evidence for the links between employee engagement and innovation at work. This good news is tempered by findings that suggest levels of engagement which could encourage employee voice and innovation have fallen in recent years. It is to be hoped that the very substantial lowering of the threshold for workers to have rights to representation, information and consultation – being introduced in April 2020 as one of the recommendations of my 2017 review – will reverse that fall.

Work is already changing in many ways and it is important for research and practice to keep up. Gig work tends to be viewed negatively in the public and policy debate (although some research suggests gig workers have higher than average job satisfaction). Taking up one of the strongest themes in this collection, **Gill Dix** from Acas (Advisory, Conciliation and Arbitration Service) argues that strengthening worker voice and collective action is vital if gig work is to be good work. Technology is facilitating more flexible forms of work and it is important that this flexibility is ‘two-way’: offering benefits to workers as well as employers. As **Emma Stewart** from Timewise points out, once we have more models of flexible working in place, across a wider range of different sectors and role types, we will be in a far better position to understand the link between flexible working and productivity.

It is encouraging to see much common ground between those advising employers and those advocating for workers. **Kate Bell** from the Trades Union Congress (TUC) argues that the implementation of the coming wave of technological change should remedy the failure of previous technological shifts to put workers first. The inequality, social discontent and political upheaval that many western countries now face at least in part reflects the failure to manage past industrial transitions. **Louise Woodruff** from the Joseph Rowntree Foundation (JRF) argues that designing business practice and policy solutions to addressing good work and productivity must connect with the everyday lives and concerns of people working on low or unpredictable incomes.

Inequality is clearly an important aspect of the good work picture but it is worth noting the evidence presented by **Matthew Whittaker** from the Resolution Foundation. First, the labour share of GDP has fallen much less in the UK than in many other developed economies while, second, recent rises in the value of minimum wage have meant that those at the bottom of the wage distribution have actually done relatively better in wage growth than the group immediately above them. Ultimately, he cogently argues, it is only by raising productivity that we can improve pay (an important aspect of good work), and this requires us, amongst other issues, to understand why people have become more resistant to moving to organisations or places offering better jobs. This analysis also provides a window into some of the wider complexities of the good work debate, in that interventions that support improvements in one aspect of good work, such as pay, may not necessarily lead to, and in some cases may present challenges to, other aspects, such as progression.

This collection is intended to influence policy and practice across the UK and it is heartening to read the positive preface to this collection by **Andy Haldane**, chief economist at the Bank of England and chair of the ISC. Those of us focused on Westminster and Whitehall can also learn from and be inspired by the commitment of the devolved administration of Scotland and Wales. **Patricia Findlay** of the Scottish Fair Work Convention and the University of Strathclyde writes eloquently of the role the convention has played in bringing together a broad coalition of stakeholders committed to good work. **Alan Felstead** from Cardiff University describes how the Fair Work Commission set up by the Welsh First Minister is a concerted response to the combined problems of poor productivity, low skills and poor pay in the Welsh economy.

A number of local authorities, particularly in our major cities and city regions, have also taken up the mantle of work quality by creating their own coalitions and charters to encourage good practice. As **Anna Round** from the Institute for Public Policy Research (IPPR) North argues, this can enable a general commitment to good work to be enhanced by a focus on key local priorities, for example in the North East on tackling poor workplace health as a means of improving individual wellbeing and productivity.

Overall, I believe this collection of essays confirms the Carnegie UK Trust–RSA hypothesis that putting the concepts of good work and productivity together could be fruitful. The juxtaposition has been a useful provocation for several of our authors, but beyond this I sense a broader complementarity. On the ISC we have often reflected on the limited traction of the concept of ‘productivity’. Amongst the public it is not well understood and even amongst those who do recognise the idea there is a tendency to see it as one used by managers to justify intensifying work or cutting jobs. Yet, without raising productivity and investing in the means to do so, our national economic prospects look bleak. Historically, raising productivity has been key to improving wages and living standards. In contrast, the concept of ‘good work’ is one that is more intuitively understood and strongly supported across society. Its weakness may be a sense that it is an aspirational goal rather than an achievable reality for everyone, especially for those at the bottom end of the labour market, and there remains much to do if the full range of levers that help to deliver good work are to be effectively deployed.

By putting these ideas together, we can render productivity a more understandable concept, one that can support our aspirations for good work and a good society, while linking, through practice and evidence, good work to the urgent and practical task of moving our economy onto higher trajectory. Perhaps the most important contribution of this collection is to start to build a strong bridge between the two concepts. It is important now that we continue to strengthen that bridge so that the story of economic dynamism can go hand-in-hand with our aspiration for an economy in which, to borrow the words I used in my 2017 report to government, 'all work is fair and decent, with realistic scope for development and fulfilment.'

2. Does good work have a positive effect on productivity? Developing the evidence base

By Derek Bosworth and Chris Warhurst,
Warwick Institute for Employment Research

Introduction

The *Taylor Review of Modern Working Practices*[1] in 2017 argued that good work for all should be a national priority. The review also outlined that most businesses understand that providing 'good work' is not only a good thing to do in and of itself but that good work can also deliver business benefits. For example, that good work might help deliver productivity gains. Analysis by Frank Siebern-Thomas using European data from 1995–2000 suggests that countries with higher job quality have higher levels of labour productivity and vice versa[2]. Given that the UK has what Bank of England Chief Economist Andy Haldane calls a 'productivity problem' – with the level of productivity flat-lining since the global financial crisis while, post-recovery, key competitor countries have surged ahead – good work might offer a new solution to this problem. Recognising this possibility, the UK Government's Industrial Strategy includes good jobs as one of the foundations of boosting productivity.

Understanding if good work can deliver on this promise is important. Although many businesses may see a value in providing good work – both as part of their responsibilities as an employer and as a means of motivating better performance from staff – others may not. Gathering and engaging the policy and business community in the evidence base on the productivity impacts of good work is a first step. This essay reports the outcomes of our literature review and sectoral analysis that undertake this task[3].

Examining the relationship between good work and productivity is not easy, and for two reasons. First, there is no ready-made dataset that can be used for the UK to analyse the two sets of variables together. Second, consistency within analyses is hampered by the inconsistencies in defining job quality and the wide variety of measures for productivity.

The good news is that the findings from our investigation into the link between good work and productivity are generally positive. We first undertook a literature review of the grey and academic literature examining seven dimensions of 'good work' and productivity measures. Second, we undertook new statistical sectoral analysis to identify how aspects of good work were affecting the productivity of workers. Our evidence base, summarised below, can contribute to helping the UK Government advance the case set out in its Industrial Strategy linking the pursuit of good work to the delivery of productivity gains.

Key findings

- Good work and productivity seem, on the whole, to be positively correlated. A positive correlation was found in four of the five dimensions of good work for which evidence exists in existing literature. Evidence for a fifth is mixed; some research found positive correlations, others not. For the remaining two dimensions there is simply a lack of evidence either way. In our sectoral analysis, with which we were able to examine all seven dimensions, there were positive results for five of the seven dimensions.
- With this sectoral analysis of the 17 sub-indictors across the seven dimensions, seven showed higher productivity with the better the quality of work. Only one sub-indicator showed lower productivity and eight showed an inverse-U shape (i.e. productivity is lowest for the two extreme ends of work quality – very good and very bad).
- The correlation is stronger for bad work and poor productivity. This should be a major concern and potential point for intervention.
- The pattern of correlation is not uniform: the strengths of the correlations vary amongst the seven dimensions. This suggests interventions that focus on different dimensions of good work may deliver more substantial productivity gains than others.
- In some cases the existence of 'decent work' rather than 'excellent work' seems to the optimal point for generating productivity gains.

Below we explain our process and findings in more detail. We conclude by setting out the implications for the policy and business communities.

Measuring good work

As mentioned, part of the challenge of measuring the impacts of good work on productivity is that there are differing definitions and metrics used for job quality. Following the UK Government's acceptance of the *Taylor Review's* recommendation that the UK needed a standard measure of job quality, the Measuring Job Quality Working Group (2018) was constituted and tasked with developing an agreed set of job quality measures[4]. Drawing on the work of the Chartered Institute of Personnel and Development (CIPD) with its new *UK Working Lives Survey*, the Working Group recommends seven broad dimensions by which to measure good work. The seven dimensions are terms of employment; pay and benefits; job design and the nature of work; social support and cohesion; health, safety and psychosocial wellbeing; work-life

Table 1: Prevalence of evidence for different aspects of job quality in relation to productivity in existing research.

Pay and benefits	Strong
Health, safety and psychosocial wellbeing	Moderate
Job design and nature of work	Moderate
Voice and representation	Moderate
Work-life balance	Weak
Terms of employment	Missing
Social support and cohesion	Missing

balance; and voice and representation. Each dimension has sub-indicators.

Measuring productivity

Productivity is an economic measure of the efficiency with which inputs into production are converted into outputs of goods and services. Although researchers use a variety of measures and indicators for productivity, there is at least an official measure. The UK Government's Office for National Statistics (ONS) generally uses labour productivity as its standard measure of productivity – the level of GDP per person or per person hour of labour input. However, productivity can be hard to capture in some sectors. The most obvious are health care and the public sector generally, where quantifying output can be difficult.

Literature review findings

Using the key terms within the good work dimensions and the official and other measures of productivity, the first task of our investigation was a literature review (see Table 1)[5]. Around 450 UK and international articles and papers were identified, of which around 40 were then selected as indicative for full review. We found that some dimensions of good work have been more often examined than others. Where evidence has been found, the relationship between good work and productivity tends to be examined through indicators within a dimension, rather than demonstrating a link between the dimension as a whole and productivity (limiting our ability to say with confidence, for example, that voice and representation mechanisms improve productivity).

Examining the five areas that are researched in the extant literature, there are grounds for optimism. For the four of the five dimensions of good work for which evidence exists – pay and benefits; health, safety and psychosocial wellbeing; job design and the nature of work; and work-life balance – a positive impact on productivity is found. For the fifth dimension, depending on the mechanism of voice and representation within businesses, the existing evidence appears mixed but not discouraging.

Can we examine job quality and productivity 'in the round'?

A small number of studies have used multidimensional indexes of job quality to examine its relationship with productivity and any causality. These analyses find that productivity appears to positively impact job quality, although the impact of job quality on productivity is mixed and is dependent on the type of sector. It needs to be said, however, that few studies have tried to establish a causal link, despite emerging opinion that there might be a virtuous circle, with a mutually beneficial, even reinforcing, relationship between good work and productivity. No analyses to date that we have identified cover all seven dimensions of good work.

New sectoral analysis of the relationship between good work and productivity

Following our literature review, we undertook a sectoral analysis to produce new insights into job quality and productivity. The dataset we generated to explore the relationship between good work and productivity performance merges sectoral productivity data with the good work data from the UK-based Skills and Employment Survey[6]. It enables the first examination of the relationship between good work and productivity using all seven dimensions. It is based on every worker within a given sector having the same level of productivity but retaining their individual good work responses[7]. In this way labour productivity (output per person hour) is the variable to be explained; sector employment and capital (e.g. machinery and equipment) are the controls[8]; and the individual responses to the good work variables are able to influence the sector outcome for workers in that sector.

The UK's general poor productivity performance is confirmed by the dataset, although there are considerable differences across sectors. In terms of the relationship between productivity and good work, the descriptive statistics calculate output per person hour for sub-indictors across the seven dimensions. The sub-indicators and dimensions are set out in Table 2.

Table 2 summarises the nature of the relationship between labour productivity and each of the sub-dimensions of good work cross-sector. Of the 17 sub-indicators, seven showed higher productivity the better the work quality (see the example in Figure 1a). Only one sub-indicator showed lower productivity and eight showed an inverse-U shape (see the example in Figure 1b). The poorest good work category had the lowest productivity in 11 of the 17 sub-indicators. The highest quality work had the lowest productivity outcome in five cases. However, in the 14 cases where it was possible to move from the poorest quality work up to the second poorest, 13 were associated with an increase in productivity. The combination of a positive relationship between good work and productivity and, more particularly, the inverse-U shape relationship, implies that there is good reason for future policy and practice to focus on the poorest quality work end of the spectrum.

Table 2 Patterns in the good work sub-indicators

Sub-indicator	Dimension	Productivity with respect to good work				Lowest productivity outcome	
		Increasing	Falling	Inverse U	Other	Poorest good work	Highest good work
Is your job permanent?	Terms of employment	✓				✓	
Chance of losing job in next 12 months	Terms of employment		✓				✓
Satisfied with pay aspect of your job	Pay and benefits	✓				✓	
After I leave my work I keep worrying about job problems	Health, safety and psycho-social wellbeing			✓			✓
I find it difficult to unwind at the end of a work day	Health, safety and psycho-social wellbeing			✓			✓
I feel used up at the end of a work day	Health, safety and psycho-social wellbeing			✓		✓	
In my current job I have enough opportunity to use my knowledge and skills	Job design and nature of work	✓				✓	
How much choice do you have over way do your job	Job design and nature of work				✓		
This organisation really inspires the very best in me	Job design and nature of work			✓			✓
My job requires that I help my colleagues to learn new things	Social support and cohesion			✓		✓	
Importance of working with a team	Social support and cohesion			✓		✓	
Importance of cooperating with colleagues	Social support and cohesion	✓				✓	
Whether management arrange meetings where employees can express views	Voice and representation	✓				✓	
Do you think that you personally would have any say in the decision about the change or not?	Voice and representation	✓				✓	
Whether there are unions or staff associations at workplace	Voice and representation	✓				✓	
I often have to work extra time, over and above the formal hours of my job	Work-life balance			✓			✓
How often come home from work exhausted	Work-life balance			✓		✓	

Figure 1: Common relationships between productivity and good work. (Note: number of responses shown in the columns.)

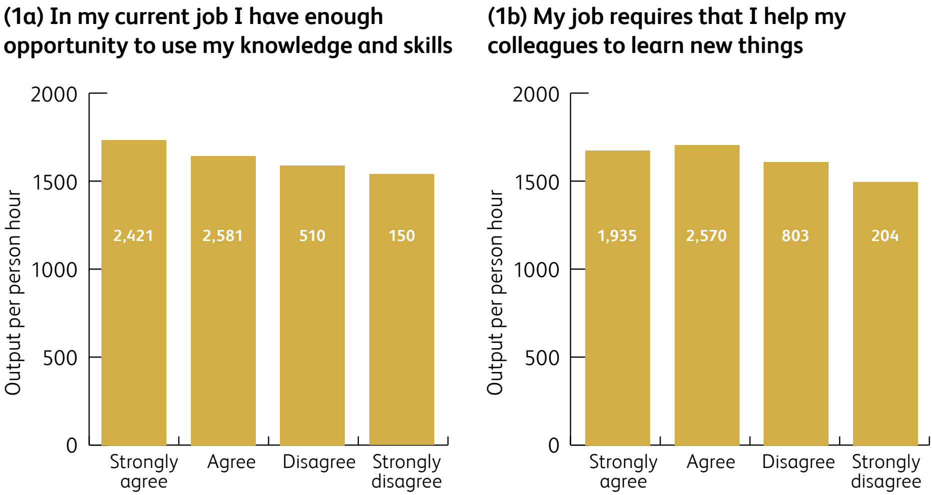


Figure 1 shows two examples from the 17 sub-indicators of good work explored in the analysis. These examples show the two most important patterns in the data (see Table 2). Overall, the relationship is generally either positive (good work is associated with higher productivity, Figure 1a) or inverse-U shaped (productivity is lower for the two extreme ends of good work, Figure 1b).

Using the new database, we also sought to explain productivity using the two control variables – employment and capital stock – and the seven dimensions of good work (aggregated from the 17 sub-indicators). Only the effects of the good work variables are shown (see Table 3).

Five of the seven dimensions have a positive relationship with productivity. Work-life balance is positive but not statistically significant. However, two of the dimensions are negative (we return to this finding later). The value associated with each good work variable in Table 3 represents the difference in productivity between the poorest and the best work categories (e.g. very satisfied and very dissatisfied).

The results suggest that there is 8% higher productivity in those workers most satisfied with pay vis-à-vis those least satisfied (there are no sub-dimensions of pay). The same outcomes are found for job design and social support, and there is 14% higher productivity for the best voice and representation than in the poorest. Of the sub-indicators, we highlight just a few examples. The opportunity to use knowledge (part of job design and nature of work) and teamwork (part of social support and cohesion) are both strongly positively related to productivity. In addition, both voice and representation are separately positively related to productivity.

Table 3: Individual level regression with good work indices.

Variables	Change in productivity (%)
Terms of employment	**–7**
Pay and benefits	**8**
Health, safety and psychosocial wellbeing	**–9**
Job design and nature of work	**8**
Social support and cohesion	**8**
Voice and representation	**14**
Work-life balance	**2**

The negative value for terms of employment is caused by the considerably greater productivity performance amongst those who think they might lose their job in the next 12 months compared with those who do not think so. This finding is interesting and needs to be explored further because it is also the case that job insecurity is considered to be detrimental for wellbeing. Although the short-run effect of job insecurity might be to produce higher work effort and thereby, higher productivity, the long-term effects may be negative.

In the case of health, safety and psychosocial wellbeing, its three sub-indicators (outlined in Table 2) are all negatively related to productivity, although inclusion of more sub-indicators for this dimension will be explored in future analysis[9]. However, one of the sub-dimensions further illustrates the need to be careful in the interpretation of the finding, as the response of "never" to the statement "After I leave work I keep worrying about job problems" is significantly negatively related to productivity, while the response of "occasionally", which seems an acceptable job characteristic, is associated with the highest productivity outcome and significantly higher than the "never" outcome.

We also disaggregated the analysis by nine broad sectors (see Table 4). The analysis is the same as in Table 3, with the exception of the addition of variables that attempt to identify within-sector effects on productivity over and above the all-sector effects shown in the final row of Table 4. As the within-sector effects of good work account for some of the explanation of productivity, it produces a difference in the all-sector results between Tables 3 and 4.

The results suggest that there are some important differences between sectors in the effects of good work on productivity. The overall results (final column), when the sector effects are included are almost the same as those reported in Table 3, although one or two percentage effects

Table 4: Individual level regression with good work indices for nine broad sectors (change in productivity, %).[10]

Variables	Primary	Construction	Low-tech manufacturing	High-tech manufacturing	Less knowledge-intensive Private Businesses	Knowledge-intensive private Businesses	Public administration	Education	Health	Overall
Terms of employment	–33	+	–	–	–7	–	–	+	7	–7
Pay and benefits	–	+	–	–	+	23	+	+	+	8
Health, safety and psychosocial wellbeing	–	+	+	–	–	–11		+	+	–8
Job design and nature of work	–	+	–	–	13	14		+	–42	10
Social support and cohesion	+	+	–15	+	–	22	+	14		+
Voice and representation	60	+	–13	+	–	17	+	+	–	14
Work-life balance	55	–	3	13	–	10	+	+	30	+

Note: only statistically significant coefficients are shown. Where values are insignificant, only the possible direction of the impact on productivity is shown.

are marginally smaller. Even bearing in mind the earlier discussion that the estimates reflect the difference between the poorest quality work and the best (e.g. very dissatisfied and very satisfied), some of the sector estimates seem large. The primary sector and the health sector stand out in this regard, although we have already noted the problem of defining productivity in the public sector. On the other hand, the knowledge-intensive sector suggests considerable support for the link between good work and productivity, with the exception of health, safety and psychosocial wellbeing.

Implications for research and policy

These initial findings are positive and encouraging. They suggest that good work can be encouraged as a route to improved productivity. Poorer quality work strongly correlates with poor productivity. Therefore, if the UK's long tail of poor productivity businesses is to be addressed, one point of focus for government policy should be those sectors with high incidences of poor-quality work or work that is poor quality by several measures. Moreover, our findings suggest that businesses do not always need to have best or leading-edge practice when it comes to good work in order to reap productivity gains. Action from government to encourage businesses to introduce changes across some of the seven dimensions that most strongly correlate to productivity could be valuable.

We have said that there are gaps in the evidence base on good work and productivity. In the literature review we could not find evidence for all the dimensions. We would like to see new research on two in particular: terms of employment and social support and cohesion. We also identified limitations in the surveys available for the analysis. We recommend that UK Government and other survey funders should explore the potential support that might be given to investigating good work and productivity through existing high-quality surveys, such as the Skills and Employment Survey and the CIPD's UK Working Lives Survey. We understand that the existence of evidence will not necessarily lead, in all cases, directly to changes in practice. Activities to support these findings to be translated into workplace practice will be important if the UK is to address its productivity performance. However, we would still encourage further research be undertaken to fill some of the evidence gaps.

The review of extant literature confirmed that there are inconsistencies in how both job quality and productivity are measured, and some measures are simply proxies. Standard approaches are needed for both. We would suggest that the ONS's measure of labour productivity be encouraged for use in research – not least for research that is directly government funded. Second, that the good work measures of job quality be adopted by the UK Government and similarly encouraged. We suspect that the UK Government adopting the seven dimensions will drive its use amongst researchers and help businesses identify where improvements in job quality need to be made to help improve productivity.

3. From trade-offs to win-wins: how we can unlock productivity and good jobs

By Tera Allas CBE, McKinsey & Co

Introduction

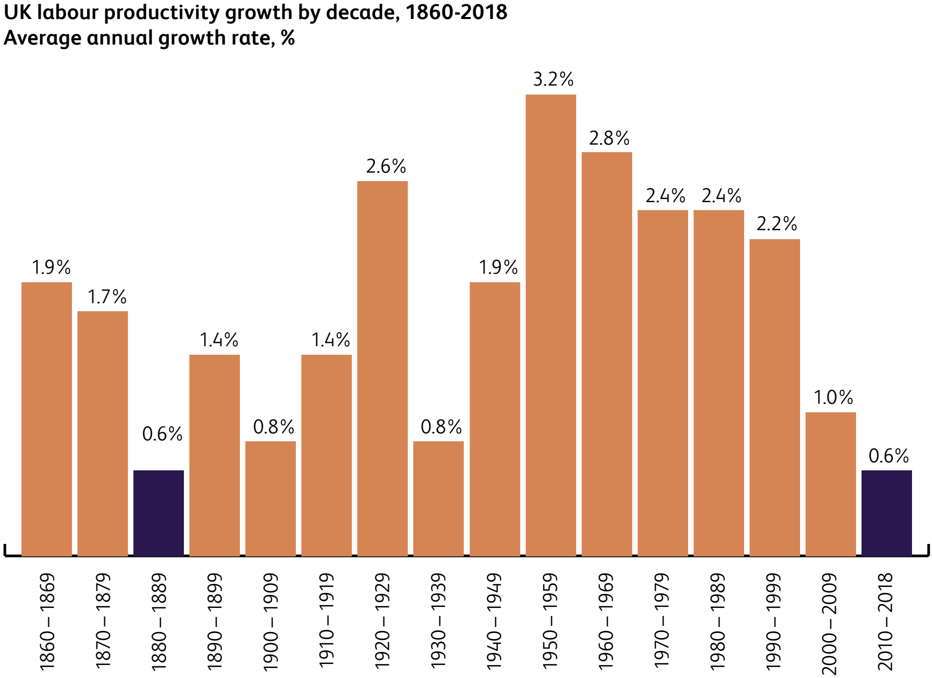
The UK's Industrial Strategy, *Building a Britain fit for the future*, is clear on its objectives: to increase productivity and ensure good work for all[1]. These are eminently sensible aims. Although employment has been trending towards record highs, workers' productivity has been flat-lining for the last decade, as have real wages. The last time the UK's productivity growth was this slow was in the 1880s (Figure 2).

Yet, the one thing that could provide a rapid productivity boost – widespread adoption of technology – is a weakness in UK organisations[2]. Moreover, those workers that already have lower wages and lower levels of education, skills and employment opportunities are likely to face the most pressure from automation.

So what are the prospects for enhancing both productivity *and* good work? Where are the trade-offs and the win-wins? How can we advance both?

The last time the UK's productivity growth was this low was in the 1880s.

Figure 2: UK labour productivity growth by decade, 1860–2018.



Source: Bank of England; ONS; McKinsey analysis

Lots of good work, but with serious caveats

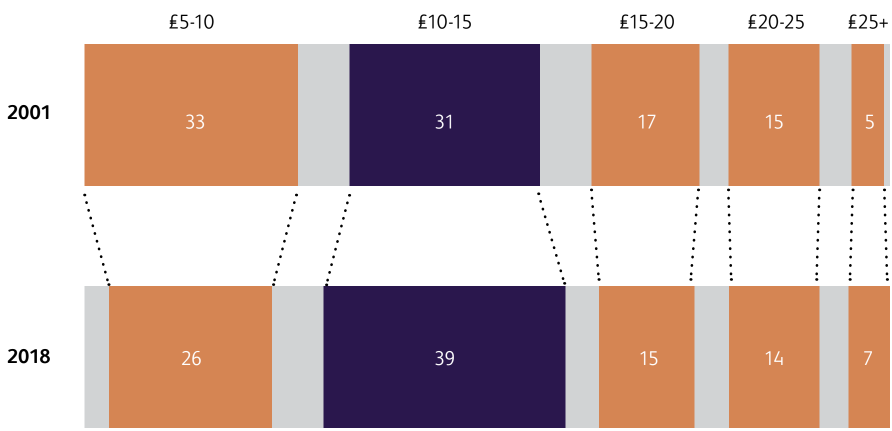
The flipside of the UK's 'productivity puzzle' has been an 'employment miracle'. Employment rates, the total number of people in employment and the total number of hours worked are at an all-time high[3]. This is true for both women and men, all regions of the UK and nearly all sectors and age groups[4]. This really matters: not being unemployed is a critical factor for individuals' health and happiness[5].

But do these jobs represent good work? The broad picture is surprisingly positive: people's average life satisfaction is on a slight upward trend[6], job satisfaction has remained stable over the years[7] and statistics on health and safety have improved[8]. (Note that although overall work-related ill-health and injuries have been on a declining trajectory, self-reported work-related stress, anxiety and depression has shown signs of increasing in recent years[9].)

In terms of inequality, the UK's wage distribution has become slightly less polarised[10]. The biggest increase in net new jobs since 2001 has been in the medium–low band of £10–15 per hour (Figure 3) and, despite statements

The largest growth in employment in the UK has come from occupations paying £10-15 per hour

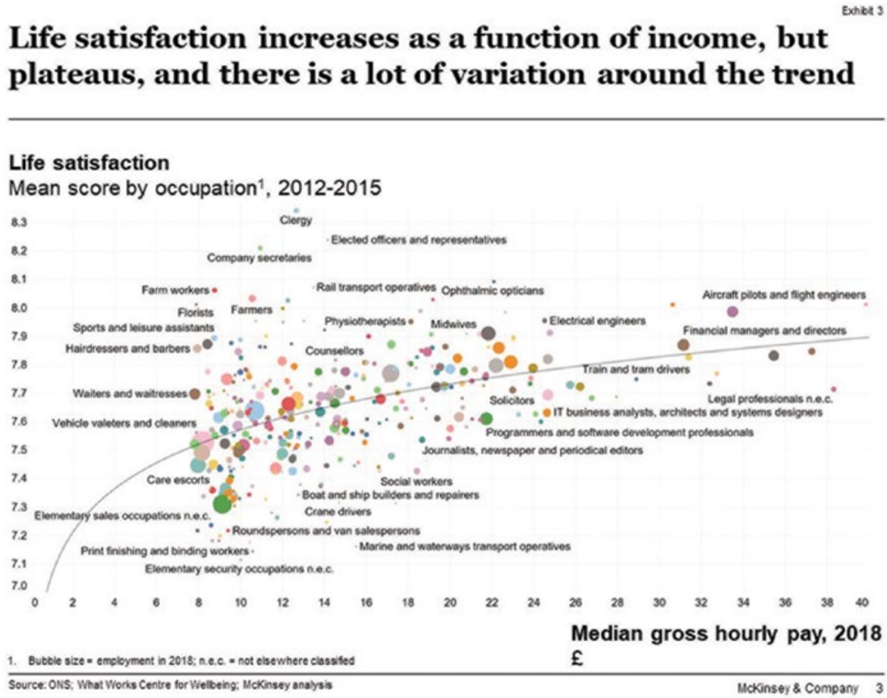
Figure 3: Share of UK employment in different wage bands, 2001 and 2008.



* 2018 prices; distribution based on 4-digit SOC occupations; median gross hourly pay for all persons employed (including part-time and self-employed).

Source: ONS; McKinsey analysis

Figure 4: Life satisfaction by occupation 2012–2015.



to the contrary, the labour share of income stopped shrinking in the late 1980s[11]. (Note that there are a lot of misconceptions about the labour and capital shares of income. Although there are genuine measurement issues, much of the confusion has arisen because a large proportion of the initial academic literature and commentary emanates from the US, where the capital share, as well as income inequality, have indeed risen sharply.)

Even the lack of real wage growth should not necessarily lead us to conclude that the quality of jobs has deteriorated overall. A significant body of literature suggests that incomes are only one and, at least in the UK, typically not the most important, component in people's wellbeing[12]. People in many occupations, let alone individual teams, exhibit significantly higher (and lower) levels of life satisfaction than can be explained by their wages (Figure 4).

The single most important reason for unhappiness at work? People's relationship with their boss[13]. Hence the importance of leadership and management (see below). The 'boss factor' also helps explain why the UK's growing levels of self-employment are primarily a positive trend: more than 80% of the self-employed say that they have higher job satisfaction than when employed[14].

But let me be clear: despite all the positives, there is still much unnecessary suffering. There are too many issues –from job insecurity to long commutes to discrimination to toxic workplace cultures – to cover in this short essay. They may only impact some, sometimes small, segments of the population, but remember: the Industrial Strategy's stated goal is 'good jobs and greater earning power *for all*'.

The promise and perils of technology adoption

That goal contains a contradiction: greater earning power requires higher productivity, but higher productivity could result in a reduction in good jobs. Although the aggregate economic effects of industrial revolutions in the past have been positive, the impact on individual people, firms, towns and sectors has often been negative[15].

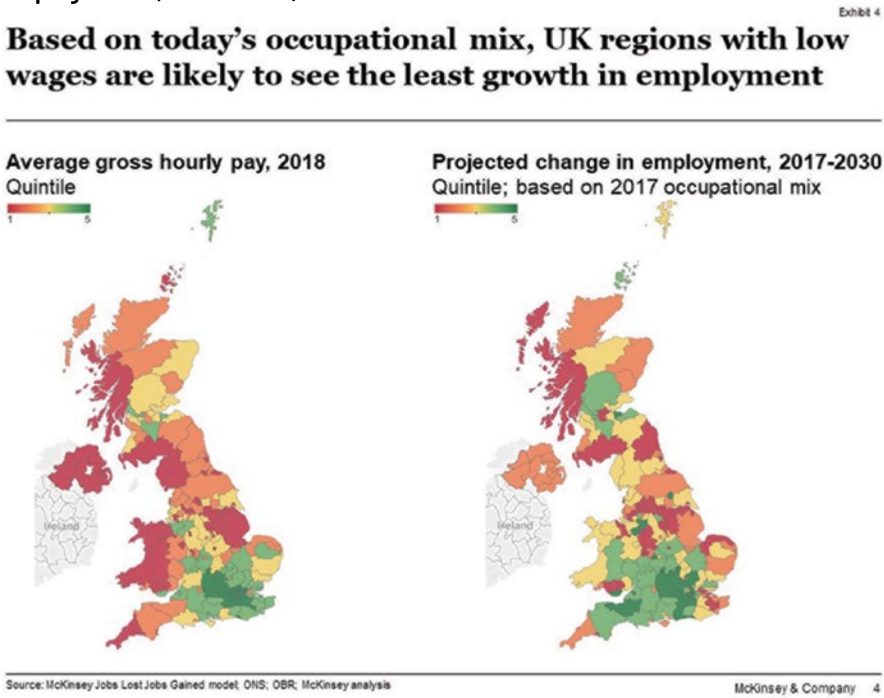
McKinsey's modelling of the future of work in the UK suggests that the impact of automation on aggregate employment is likely to be modestly positive, adding another 1–2 million net new jobs by 2030. However, around 7 million jobs (23% of 2017 employment) might be displaced, requiring workers to move to new occupations[16].

The people that are likely to be most affected are those that are already disadvantaged. Employment in occupations with the lowest qualifications is likely to grow 10 percentage points less to 2030 than those with the highest. Demand for occupations with the youngest (aged 16–24) and oldest (aged 55+) workers is likely to grow 30% slower than for other age groups. Occupations with currently high unemployment rates, and low vacancy rates, are likely to face the least employment growth to 2030[17]. Finally, places like Bristol and London – with currently higher pay – will probably see continued robust jobs growth, while Bradford or Leicester might not (Figure 5).

In other words, many of today's disparities are likely to be exacerbated by the fourth industrial revolution.

Yet, the UK cannot afford to turn its back on technology. McKinsey Global Institute estimates that by adopting automation and artificial intelligence (AI) the UK could raise its annual productivity growth by 1–2% between now and 2030 – a much needed step-up compared to the zero or negative growth experienced in the last four quarters[18]. Moreover, with digitalisation enabling global trade in an ever-increasing range of economic activities[19], falling behind could seriously hurt the UK's competitiveness.

Figure 5: Average gross hourly pay (2018) and projected change in employment (2017–2030).



From trade-offs and zero-sum games to increasing returns and win-wins

Descartes, Malthus, Ricardo, Marx, Pareto. These, and many other philosophers, have shaped the mindsets of generations of economists, policymakers, business leaders and trade unionists. Their key concepts are premised on trade-offs: mind versus body, growth versus sustainability, wine versus cloth, capital versus labour, buyer versus seller. (This is clearly a huge – and unfair – simplification, but made here for story-telling purposes.) Yet, the modern economy is full of positive, virtuous cycles and increasing, rather than diminishing, returns[20]. Just think of dynamic urban centres, successful technology clusters and winner-take-all companies.

Perhaps counterintuitively, then, the way to address the trade-offs between productivity and good jobs is to move from a zero-sum mindset to identifying win-wins. There are many.

It is a well-established fact that companies with happier and more engaged workers also perform better (Figure 6)[21]. It is also well known that high-quality management and leadership results in higher productivity, better returns from information and communication technologies (ICT) investment, and higher workplace motivation[22]. Better managers invest in supporting, training and coaching their staff[23]. Workers whose skills better match their job requirements are more productive and motivated[24]. In such a positive workplace, technology is most likely to augment, not substitute, by overtaking routine, mundane and simple tasks while leaving more creative, complex, social and emotional work to humans.

Shifting mindsets to unlock productivity and good jobs

So, if the win-wins are so obvious, why are they not being implemented to a greater degree?

The best answer I can offer is that our prevailing narratives about the economy perpetuate too simplistic a mental model; one that I, too, instinctively revert to. The model has remained dominant for good reasons and it is often enormously powerful in explaining observed phenomena. But it lacks the

Figure 6: Employee satisfaction.

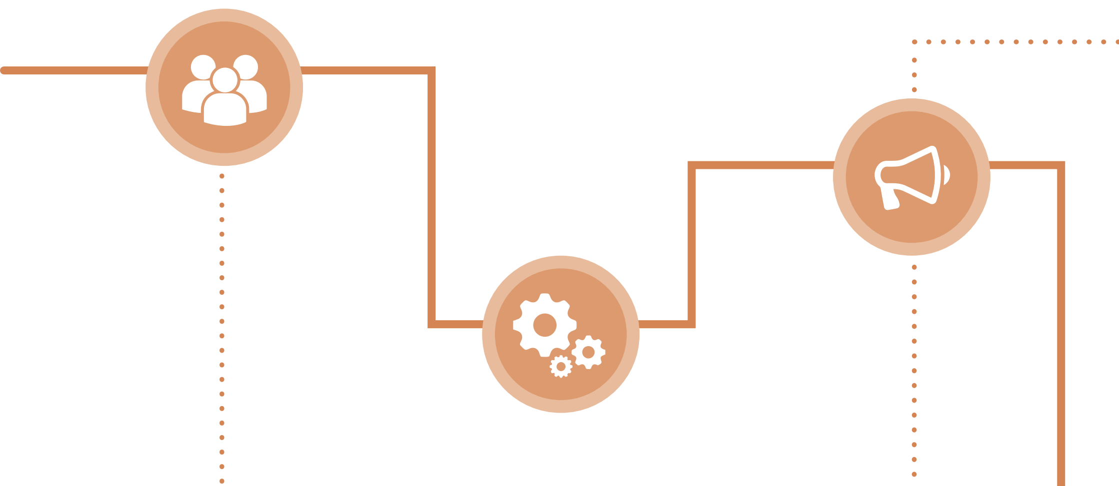
nuance and grit that is now required to shift the needle on productivity and good work.

Too many leaders act as if people were machines that unfailingly respond to commands or extrinsic incentives from above. And too many policymakers fail to recognise that businesses are made up of people, not 'homines economici', or utility maximising robots with an infinite capability to make rational decisions. Relaxing those assumptions puts us face-to-face with the messy reality of everyday life. But it is this messy reality that we must understand and embrace if we want to make progress.

In this environment, leadership has never been more important. Leadership to take on the challenging task of changing established mindsets. From trade-offs to increasing returns. From linear and additive to exponential and multiplicative. From zero-sum games to win-wins. From perfect rationality to cognitive biases. From equilibria to complex adaptive systems. From GDP to life satisfaction, wellbeing and happiness. From top-down policy levers to human-centric policy delivery.

The good news is that we do know 'what works' for changing mindsets[25]. There are four key ingredients: a compelling change story ('tell me why I should change'), role-modelling ('show me that it is a priority'), skills and resources ('give me the knowledge and tools I need in order to think and behave in this new way') and reinforcing systems ('make it worth my attention and effort').

So let's use this approach to make change happen in the three win-win areas that will lead to better productivity and better quality of work: deploying good leadership and management practices[26]; investing in human capital through life-long learning[27]; and using technology to augment humans and to mitigate some of the risks it creates[28]. These are the meta-policies for delivering a better future for the UK.



4. What do we know about digitalisation, productivity and changing work?

By Mary O'Mahony, King's College London

Introduction

Digitalisation has dominated discussions about the economy in recent years. Depending on your point of view, digitalisation may be seen as a panacea for slow growth; a minor change that will have little impact compared to previous technologies; a threat to jobs; or a phenomenon that offers opportunities to transform work. This essay reviews the arguments concerning the impact of digital technologies on both productivity and jobs, from the lens of both consumers and workers. Before doing so, it is worthwhile first to define what is meant by digitalisation.

What is digitalisation?

In technical jargon digital technologies convert information into a digital form using binary codes that can be understood by computers. The economic debate, however, takes a much broader definition and includes anything that enables, generates, stores or processes data. Therefore, digitalisation is seen as encompassing broadband and high-speed internet and mobile internet technologies; big data and machine-learning techniques to analyse these data; cloud services that store and process data; new ways of doing things that include the internet of things (IoT), AI, robotics and augmented reality technologies; tools that enhance production such as enterprise resource planning, customer relationship management, and supply chain management; and new ways of communicating such as social media. The digital technologies can be focused on producers, consumers or both. Those who emphasise the transformative nature of these technologies are keen to distinguish them from the earlier wave of ICTs, which included communications and computer hardware and software. The present digital revolution affects all sectors of the economy, from those that have seen many productivity-enhancing changes, such as manufacturing, to those less subject to technological transformations in the past, such as adult social care.

Digital technologies and productivity

Given the broad nature of this definition, it is surprising that, to date, there is not strong evidence that these technologies have delivered discernible additions to productivity growth. We can identify four areas that help explain this: measurement of output, adoption lags, market structure and measurement of consumer welfare. Before considering each in turn, it is worth quoting some numbers that illustrate the issue.

It is now well known that there has been a pronounced productivity slowdown that is widespread across developed economies and also that the slowdown started in the mid-2000s before the financial crisis. In the US, labour productivity growth slowed from nearly 2% per annum in the period 1980–2005 to just 1% since then. In the same periods, growth slowed from 2.0% to

0.7% per annum in the EU15 and from 2.1% to 1% per annum in the EU28. This is partially explained by weaker rates of capital investment, but the data also show a pronounced slowdown in underlying total factor productivity, after allowing for changes in measured capital input.

A section of the literature considers these trends to be unbelievable given the size and scope of digital technologies. Some have suggested that we are just not measuring output correctly and have highlighted four main areas where there is cause for concern: not fully capturing investments in intangible assets; the quality of goods and services; free goods; and home production. Research carried out by academics, statistical offices and international organisations, such as the Organisation for Economic Co-operation and Development (OECD), have tried to put some numbers on these possible sources of biases. The conclusions point to the importance of quality change and intangible investments as areas where official data may be missing some crucial activity, but cannot explain the productivity slowdown. Free goods are not really free – they are paid for by advertising and the data they generate and so are included in official statistics. Home production of digital goods and services – for example consumers booking holidays at home rather than through travel agents – goes beyond the boundaries of national accounts and so is not included in the productivity statistics. But neither are activities such as cleaning and child care, which are likely to swamp any new activities arising from digital technologies. The incorrect measurement of real output is not unimportant, but the more we delve into this the less convinced we are that it explains the productivity downturn.

A more optimistic argument is that the productivity gains are not yet visible due to adjustment costs, but are just around the corner. This relies on the idea that benefitting from digital technologies requires reorganisation of production and retraining of workers, often involving firms spending large amounts on intangible investments. Once this transition period is worked through, we should witness increased productivity growth. A related argument is that although there are frontier firms who have gone through a digital transformation, there is also a long tail of laggard firms who either lack the knowledge, leadership, workforce skills or finance to adopt the new technologies. This in turn suggests a need for policies to support these firms. A more pessimistic scenario is based on the observation that digital technologies have concentrated production in the hands of a few 'superstar' firms, often internet-based giants whose monopoly power deters entry of new firms.

Finally, there is another measurement argument that is gaining ground. This is the idea that many of these technologies produced at near-zero marginal cost actually benefit consumers, and that we need a new measure of economic performance that directly measures consumer welfare;

one that takes account, for example, of the satisfaction consumers derive from the use of social media platforms. Productivity change in the volume of output of goods and services may have slowed, but connected consumers are, nevertheless, much better off in many ways than they were before the advent of digitalisation. Although there is obviously something in this argument, we are some way from consensus on how to measure consumer welfare. Even more important is that these measures do not directly link to jobs or job quality. A production focus is thus also needed to gauge the impact of digital technologies on jobs.

Digital technologies, tasks and jobs

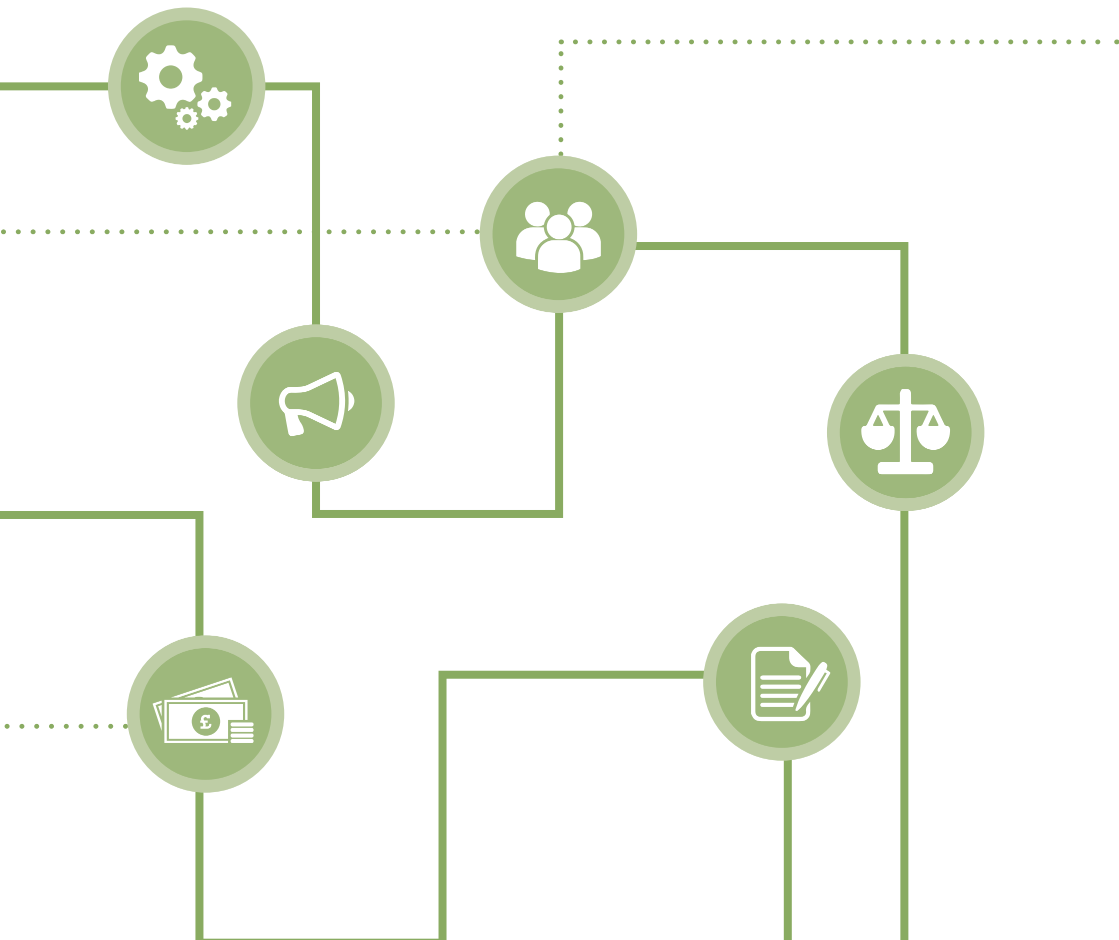
Since the widespread introduction of ICT there has been disquiet about its impact on workers. The earlier wave of technologies appeared to be skill-biased, raising the employment and wage shares of the highly skilled relative to those with low or medium skills. The literature developed from a concentration on employment and returns of individuals with different characteristics to focusing on the tasks they carry out in the workplace. Automation was seen as being detrimental to routine tasks but not to those whose functions are not easily replicated by machines – mostly those in the middle range of workplace skills.

Digital technologies are widely seen as reinforcing these previous trends, but their broader applications threaten not just those with low or medium skills but all workers. These sentiments are strongest when talking about the consequences of AI, given its potential to replicate many aspects of human work, from workers locating goods in warehouses to doctors treating patients. The extreme position is that in a relatively short space of time almost all jobs will disappear, although more measured responses point to many areas of work that will still need human versatility and ability to innovate.

A more sanguine approach is one that makes use of the distinction between jobs and tasks. It is tasks, not necessarily jobs, that disappear and many tasks that are automated are mundane and repetitive. People who carried out these tasks in the past have time freed to devote to other, more rewarding activities. If AI manages to diagnose illnesses, then doctors can devote more time to explaining options to patients and enhancing overall medical care. These arguments suggest that digitalisation can lead to a transformation of work, rather than a replacement of workers.

It is still too early to say if the digital revolution will ultimately lead to significantly less jobs or to better jobs. There will undoubtedly be some job losses, as there have been for all technological changes, but implementing the new technologies to gain the most benefit from them will probably also lead to new tasks and more jobs. There are likely to be high personal costs for those individuals caught up in this transition, and past experience suggests dealing with this is very difficult. Recent work by the OECD suggests that the cost of retraining workers to move from jobs at risk of automation to 'safe haven' jobs is very large.

In summary, digitalisation has the potential to enhance people's wellbeing through consuming higher quality goods and services, more rewarding work and more enjoyable use of leisure time. Nevertheless, there are also likely downsides, with some individuals losing jobs and a potential concentration of resources in the hands of a small minority, leading to greater inequality. Any consideration of how we can support more 'good work' and higher productivity must therefore take account of the uneven impacts of digitalisation and develop policy responses to support those most at risk by the pace of change.



5. Technology, productivity and good work: views from the ground

By Fabian Wallace-Stephens and Sarah Darrall, RSA

Introduction

Paul Krugman, the Nobel Prize-winning economist, famously said, ‘productivity isn’t everything, but in the long-run it is almost everything’. He was talking about the economy as a whole – the more productive the utilisation of labour and capital, the more prosperous an economy – but the same principle is also largely true of firms. Putting to one side rent-seeking, profits can only be grown by the more effective use of people or investment. A firm not improving its productivity is a firm that is, at best, stagnating.

This presents something of a logical dilemma for this enquiry. On the one hand, the RSA Future Work Centre and Carnegie UK Trust have established a comprehensive strategy for measuring ‘good work’, grounded in seven dimensions of job quality: terms of employment; pay and benefits; health, safety and psychological wellbeing; job design and nature of work; social support and cohesion; worker voice and representation; and work-life balance[1]. Furthermore, as this essay collection demonstrates, this conceptualisation of good work has a positive relationship with productivity.

Yet, this is where the quandary emerges because if productivity is ‘everything’ to firms and good work can clearly help organisational leaders raise it, then we should probably expect to see many more examples of good work being used to boost productivity in the contemporary British economy than we do. This is important because any steps policymakers take to encourage higher productivity through good work must clearly take account of how organisational leaders take day-to-day decisions about work. A theoretical perspective alone might miss barriers to best practice that would seem obvious at firm-level.

To complement the data-led findings of other contributions to this collection, this essay attempts to provide fresh insights into the lived experience of the modern workplace. Working with Carnegie UK Trust, we convened a large workshop with employers from a range of different sectors of the UK economy. We also conducted two in-depth site visits to a franchised restaurant chain and an NHS hospital where we spoke directly with workers, managers and HR representatives to learn first-hand how technology is transforming their organisations and the working lives of their employees. Our conclusions are qualitative, but we hope the granularity provided can add a richness to the ongoing debates about good work, technology and productivity.

Units through the door: how employers think about productivity

The two organisations we visited as part of our enquiry – a franchised restaurant chain and an NHS hospital – are clearly very different. They have a fundamentally different approach to demand: the NHS hospital is only concerned with managing demand, whilst the restaurant is clearly looking to grow demand. Despite this, we found both organisations thought about productivity in similar ways and attempted to raise it largely by measuring points of delivery efficiency within the organisation.

When we asked the owner of the restaurant directly, 'what does it mean to have a productive day at work here, and how is it communicated to staff?' he explains that 'it is all about speed of service' and 'units through the door'. The restaurant has deployed a range of sensor-based technologies to measure this, including a dashboard that measures how long it takes for food to be ready from the point of making an order at the drive-through to the point of collection. Even when pressed directly about whether this measurement can capture notions of quality – for example, whether the food is tasty or hot enough – he defaulted to the notion that speed of service can also capture this aspect of productivity. In part, this reflects the high degree of standardisation (some of which is automated – see later) present in the production line: there are few things other than speed that appear variable when everything is working as it should. However, it also reflects an operational ethos that elides productivity with efficiency, with measurement entirely focused on the latter. The dashboard does not even measure how many units go through the door, or output per hour, but rather the average time it takes the team to serve a customer.

We find a similar ethos in the hospital. One representative, when asked the same questions, gave a similar answer: 'how quickly people get out of hospital'. But our discussion here highlighted more tensions. For example, we were told how this approach, driven primarily by centrally directed targets, often creates stress for staff and that 'there is a delicate balancing act' as patient outcomes also matter. For example, Patient Reported Outcomes Measures are used to evaluate the quality of care delivered by Clinical Commissioning Groups for patients who have undergone hip replacement surgery. Nevertheless, targets sometimes seem to have an operational priority over care. As one interviewee put it, although health professionals will get 'told off by managers for not meeting time outcomes' they are not held to account in the same way for health outcomes.

The myth of automation: how employers are deploying new technologies

At both our site visits and our employers' workshop, we found the deployment of new technology to be central to how leaders seek to boost productivity; yet, this does not typically appear to be driven by a desire to improve work quality, or at least that is a second order consideration. Across all our research, conversations about how technology is transforming management practices, such as performance management or shift scheduling, were much more common than those about automation substituting human work.

Perhaps the largest technology project we observed was the deployment of self-service kiosks at the fast-food restaurant. This has reduced the number of staff working on tills but the overall headcount has stayed the same, with more people now working in the kitchen. These kiosks are therefore not a cost saving in terms of staff time, but have proven to be revenue generating – customers spend an average of £1 more per order. There are also good work benefits: in the kitchen automated drinks machines free up workers as they are now only needed to place lids on cups, while 'intelligent grills' use sensors to automatically detect how long to cook different sized burgers. This has allowed the restaurant to serve a wider range of products. The data dashboard, collected by a variety of sensors at the kiosks themselves, is used to provide intelligence to management: 'after a bad shift, we can pinpoint things, use the data as a conversation starter with workers to understand why there was a problem'.

At the hospital a handful of robots have been deployed in the cancer ward. However, in contrast to some discussions we had elsewhere in the hospital, their deployment has been driven by patient outcomes rather than efficiency. As one representative puts it: 'in the old days, you had to have your prostate removed through open surgery. Now we can operate with much greater precision'. In fact, by some measures this might actually reduce the number of operations conducted: 'patients spend less time in hospital beds and have better outcomes, but physicians are less productive as the procedure takes longer, and the equipment is also more expensive'.

At our workshop, we also heard how NHS Trusts are developing 'digital control centres' that use real-time data to make more accurate predictions about patient demand to optimise the allocation of staff across multiple sites. Clearly, the more efficient utilisation of labour in this way would, by definition, have significant productivity-boosting potential, but ensuring it is rolled out in a way consistent with good work will be a significant policy challenge. The key is to ensure that the risks and benefits of flexibility are shared by both employer *and* employee, thus avoiding what the *Taylor Review of Modern Working Practices* defined as 'one-sided flexibility'[2].

Risk or reward: how technology affects good work

In the fast-food restaurant, new technology was primarily introduced to improve efficiency and generate higher consumer demand. However, we also uncovered good work benefits.

One worker suggested that she enjoyed her job more since these new systems (automation in the kitchen and the self-service kiosks) had been introduced because they 'made things easier'; others noted how the kitchen was now a quieter and even safer working environment. Indeed, the most common complaint about technology was that it would occasionally malfunction, which would then make their jobs much harder. Clearly, technology introduces new dependencies into the business, but most were keen to stress how, relatively speaking, it was beneficial. Nevertheless, the emergence of these dependencies does emphasise the point that technology can potentially affect skill levels and worker autonomy through lowering the task demands or standardising job requirements. The experience of this standardisation came out in some interviews. One worker shared her experience of working so quickly during a night shift that she 'felt like a robot'.

At our hospital site visit we were also warned about how technology can place excessive strain on workers. One representative spoke about the introduction of electronic health records and how 'this will change everything'. The concern was that the technology was having the inverse effect to that intended and meant doctors were spending *more* time doing paperwork, leading to fears of physician burnout.

Where the restaurant encountered problems with the roll-out of technology, training was viewed by management as something of a panacea for all performance or productivity problems. Although workers agreed training was important, they shared with us several additional insights about what they felt was necessary to work productively, most of which referred to good management. Good managers were described as those who were 'good at communicating' and who 'know who is best suited to different tasks and how to make the best of a bad situation'. Workers also felt it was important to have adequate worker voice channels. By this they meant a line manager who would 'let them give their point of view and listen to their opinion'.

One method we saw used by managers to motivate workers at the restaurant might best be described as the 'gamification' of work – competitions, with prizes available, for producing good performance. Some workers welcomed this, suggesting it made their role more enjoyable. The dashboard therefore effectively tapped into one of the more subjective aspects of good work: pride. 'I feel very proud to be in one of the top performing restaurants in the country,' as one worker put it. In theory, there could be a darker edge to this – where poor data is used for punitive performance management. However, the management told us the data was only ever used for supportive conversations, and the workers we interviewed did not seem unduly concerned by the possibility of workplace monitoring being used in this way.

The robots used in cancer surgery provided a good example of where technology is having more positive effects on health care professionals. Long-term occupational health across the NHS was identified as a major issue by the NHS representatives we spoke to. Robots are seen as a technology that could enable people to 'work much longer from an early age'; for instance by reducing risk of back injury because surgeons 'could be operating on someone while sitting in another room'.

We also saw an example of how, when workers have autonomy over the technology they are operating, it can lead to unexpected but productive outcomes. In the hospital, iPads were initially introduced for physicians to update notes with, but it transpired that they were actually more useful for taking photos and examining the progression of injuries. Similarly, at our employers' workshop, representatives from the transport sector told us about how workers were using their initiative and communicating delays on the London underground via Twitter. This goes against working procedure but delivers a more effective service. It is clear here that when autonomy interacts with technology, it can generate greater productivity. Not only this, it could allow workers to feel in control, which encourages greater acceptance of innovation. Autonomy is not for everyone, however. Workers we spoke with at the restaurant valued flexibility over autonomy, pointing to the freedom to choose how to fit their work patterns around their home life as one of the key benefits of working there.

Central to the impact of technology on workers is whether it interrupts their core or periphery work; that is, whether it impacts on the elements they identify with and care most about, or on those that they feel do not contribute to their success or happiness. If it is the latter, then workers tend to be largely happy with implementation and do not require in-depth consultation. If it is the former, however, disruption is felt much more profoundly. In the restaurant, many of the tasks did not intrinsically pertain to the core category, and instead workers cited progression and flexibility as their key drivers, and hence were more accepting of technological changes. In contrast, much of the work in the NHS hospital hinged on core tasks, and there we found technology adoption to be slower and more pained. Similar results were found in ethnographic research by Google: office workers perceived it to be acceptable for AI to substitute peripheral work but resisted its use for core work.

Who controls the future: worker agency in an age of radical technology

Lacking across both sites was a sense that workers had any agency over the implementation of new technologies. As one fast-food restaurant worker told us: 'I don't know what's coming – it should be a balance between people and technology'. But decisions to introduce new technologies appeared to be much more driven by a desire to improve customer experience, although this can take time: 'when we first introduced it [the self-service kiosk] customers did not like it, then later when they visited our other stores, they asked why we did not have them there!' Meanwhile, in the hospital we were told that there are hopes that innovation in the NHS will be driven by patients, but that this can slow down the pace of change because 'apart from "expert patients", most people don't know what they would change about using health services, that's why they suggest things like the food'.

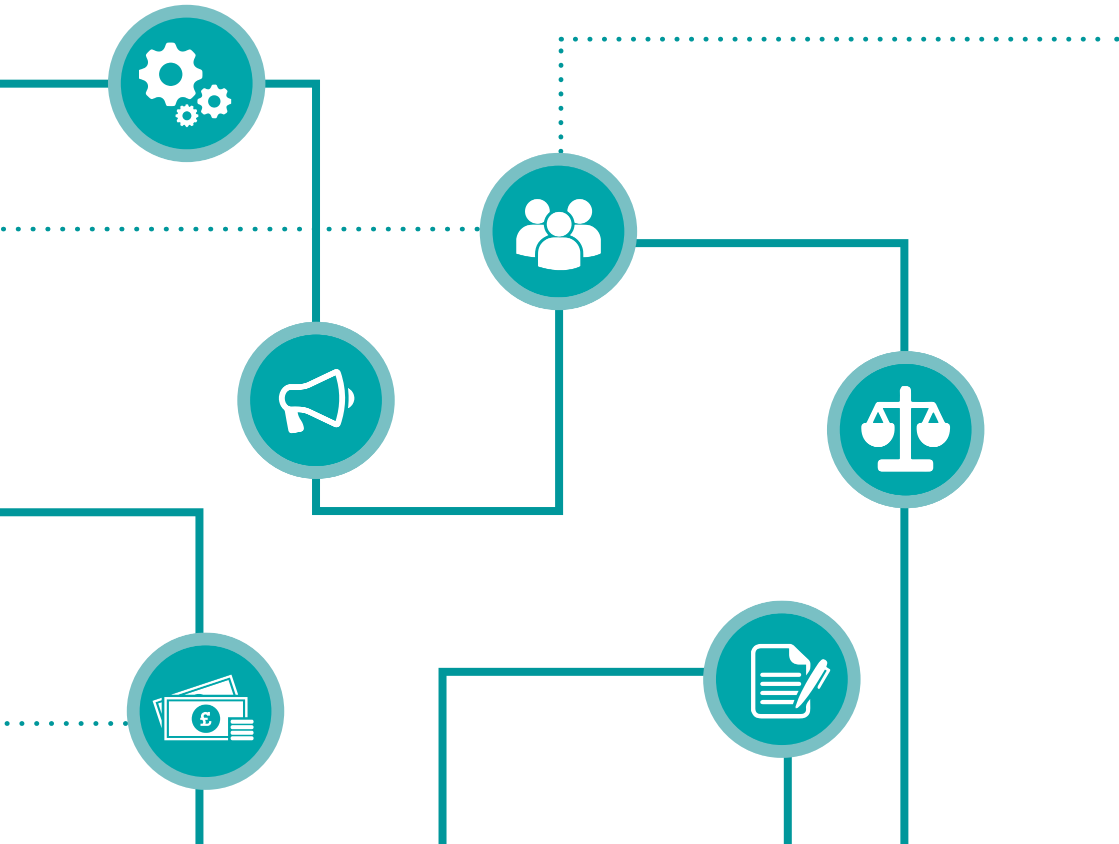
A common theme across our enquiry was that both managers and workers are broadly optimistic about new technologies but desire a more worker-centred approach to adoption. Many employers we spoke to as part of our enquiry highlighted the importance of job design in ensuring that technology changes will promote both productivity and good work. To borrow the words of one workshop participant: 'the extent to which automation will change the way tasks are allocated is essentially an ethical decision on one level, as well as a management decision'.

At our workshop one employer told us how they had used data to make decisions about technology that improve job design: 'we used to have high turnover in a particular admin role. Based on this data we decided to automate the role and people now spend more time in client-facing roles'. Some of the restaurant workers also spoke about this point. In reference to individualised data, one said, 'I wouldn't mind it at all if it helped with my progression, then it's useful'. They could see the benefits on a personal level, recognising that it could highlight how they could improve their performance and the subsequent potential for promotion. We found similar insights at the hospital, where workplace shortages have seen health professionals other than physicians step up to take on more clinical responsibilities. One representative tells us how 'in Endoscopy, we did not have enough doctors, nurses are now clinicians, everyone else has moved up a layer'. However, he adds that not everyone wants to be a 'quasi doctor' and so 'it is important to release some people's time to get on with patient care'. And they have 'got to make sure people are paid right too' if given additional responsibilities.

Worker voice is seen by employers as crucial to alleviating these concerns. As one workshop participant argued, 'if you're not happy with the tasks you are doing you need to be able to speak to your manager and communicate this; you need to have some control over job design'. Employers were equally eager to push for change surrounding voice and representation when radically labour-shaping technology is rolled out: 'we're going to need to find practical answers to the questions of how you involve workers in those conversations around the changing workplace'.

Conclusion: job design for good work

This last insight emphasises perhaps the central message of our research. Across both sites we found support for the argument that technology tends to change tasks, rather than whole occupations. Therefore, if technology is to be a driver for good work and productivity, it will require a stronger focus by employers on job design. As the role of worker voice in alleviating concerns about technology shows, employers' approach to job design needs to be both holistic (too often job design strategies focus exclusively on tasks, with less thought about how those tasks ultimately relate to jobs or an organisation's wider systems) and mediated through a process where workers have some agency over the outcome. Yet if firms can approach technology roll-out in this manner, our findings suggest it can have a key role to play in the future of both good work and higher productivity.



6. Can gig work be good work?

By Gill Dix, Acas

Introduction

The gig economy seems to have captured the public and the policy imagination. The former stems from a fascination with the notion of a fast-moving, but often invisible business model that is driven purely by technology. The policy focus is rooted in a deeper unease about all forms of so-called 'atypical' work, with their strong associations with insecurity, call-on call-off labour supply and low pay.

In broad terms, the gig economy refers to short-term employment contracts or freelance work, as opposed to traditional, permanent jobs. But it often refers more specifically to the use of online platforms for sourcing such 'gig work'[1]. Although food delivery cyclists may be one of the most visible signs of the gig economy, in reality the type of work undertaken ranges from unskilled physical work to skilled, creative and professional work.

The business model on which gig work thrives seems to offer the best of both worlds, with the ability to tightly schedule and activate workers to meet customer demand. The result? The potential for maximising productivity and flexibility. But if we are interested in allying productivity and good work within this growing economy, we need to address concerns about the vulnerability of such workers and employment practices that can amount to 'bad work'.

Although estimates of the number of gig workers vary, the often-heard claim is that there are almost as many gig workers in Great Britain as there are people working in the NHS (1.2 million)[2]. Research from the TUC found that numbers are growing fast, with nearly 1 in 10 (9.6%) working-age adults surveyed working via gig economy platforms at least once a week in 2019, compared to around 1 in 20 (4.7%) in 2016[3]. No matter the size, the atypical corner of the economy is complex and multi-faceted and it is rightly demanding an urgent review of whether and how it can be considered good work.

Balancing flexibility and job security for good work

Gig work, along with other forms of atypical contracts, are at the heart of an ongoing debate about how we achieve the right balance between business flexibility and individual job security. Depending on your point of view, gig workers may symbolise 'the vulnerable human underbelly' of the UK's labour market[4] or 'the springboard for entrepreneurial success'[5].

While clarity around employment status and subsequent entitlement to rights may be on the horizon with forthcoming legislation, gig workers themselves seem divided on how to get this balance. In a report from the CIPD[6], 63% of gig workers agree that the government should 'regulate the gig economy so that all those working in it are entitled to receive a basic level of rights and benefits'. Yet, at the same time, half (50%) say that people working in the gig economy decide to sacrifice job security and workers' benefits in exchange for greater flexibility.

The Low Pay Commission[7] is concerned that one-sided flexibility is a problematic feature of the modern economy, because 'some employers misuse flexible working arrangements to create unpredictability, insecurity of income and a reluctance amongst some workers to assert basic employment rights'. The government has issued a response with a focus on securing hours of work and notification of cancelled hours. Other non-legislative initiatives are also emerging to redress the balance. For instance, the Labour xchange app[8], supported by Community, stops employers from hiring the same person more than three times, and instead suggests they offer them a permanent post. Elsewhere, we are seeing an increasing number of 'WorkerTech' solutions aimed at improving access to protections and rights for gig workers.

Thriving while being out of sight

Wellbeing – physical and mental – is increasingly part of the debate about how we live and work. But when it comes to gig work, out of sight could easily mean out of mind, eclipsing the importance of protecting health and wellbeing. This is also a problem for remote workers in more traditional workplace settings, but in the gig economy, there are the added challenges of effective awareness-raising and access to support.

Again the picture is paradoxical. Some studies, including those by INSEAD[9] and Oxford Martin School[10] suggest that the flexible nature of gig work and the autonomy it can bring may lead to greater life satisfaction and a 'boost' in mental health, although the driving factor would seem to be worker preference when it comes to following this line of work[11]. A report from Gallup[12] found that 'compared with traditional workers, independent gig workers enjoy much higher levels of flexibility, creativity, autonomy and even feedback'. But again much would seem to rest with choice – with those working as 'free agents' in this economy reporting greater satisfaction than those there 'out of necessity'.

The limitations and opportunities for social cohesion and voice

An aspect of good work proposed by the Carnegie UK Trust and RSA[13] is intended to measure the nature of the relationships we have at work. In the case of gig working, we know it can involve not just the absence of peers, but also the absence of identifiable line managers. Gallup[14] found that because gig workers 'are not true employees, it is difficult to directly manage and motivate' them 'using a typical approach to performance management'.

Performance drivers may also be narrow. Wood[15] found that algorithmic rating-based control is central to the operation of remote gig platforms and 'workers with the best scores and the most experience tend to receive more work due to the platforms' algorithmic ranking of workers within search results'. This leads workers to work long hours to please the rating system and to compete with other workers potentially based anywhere in the world.

Similarly, the dispersion of gig workers presents problems in terms of how organisations can properly engage and communicate with them. And even if they are seen, can they be heard? There are encouraging signs that worker voice is beginning to reinvent itself with the help of campaigning platforms such as Coworker.org and Organise. Further, the creation of self-organised digital communities, as outlined in research by Oxford University, has placed some of the negotiating power back in the hands of workers who can 'warn each other of bad clients, recommend good clients and attempt to influence pay'.

Conclusion

Gig work is at the front line of an ongoing transformation of the social contract. With increasing business globalisation, the prevalence of long supply chains and complex webs of contractual arrangements, there may be less of a distinction than we think between the alternative platform economy and what constitutes 'standard' work. The World Bank has argued[16] that facets of the labour markets in developed and developing countries are already converging.

If the future of work is to be based upon core values that can be applied across all parts of the economy, then there are three issues that need our urgent attention:

- ✓ **Find the right contractual status** in law to protect rights and promote job security, while also recognising the importance of worker preference and self-identification. The point here is not just about legal entitlement; it is also about shifting the culture of uncertainty and rebalancing the give and take of the workplace relationship.

- ✓ **Use the right voice channels** in order to amplify worker voice and representation. This is an issue that goes back well beyond any current preoccupation with the gig economy, but is exacerbated by the remoteness of relationships and low expectations of working life.

- ✓ **Build new forms of workplace relations** to fit the economy. There is the need for a new, realistic narrative on what good working relations can look like – a model that drives productivity but also worker engagement and wellbeing in the absence of regular, personal interaction.

7. Enabling fair work, productivity and inclusive growth: lessons from Scotland

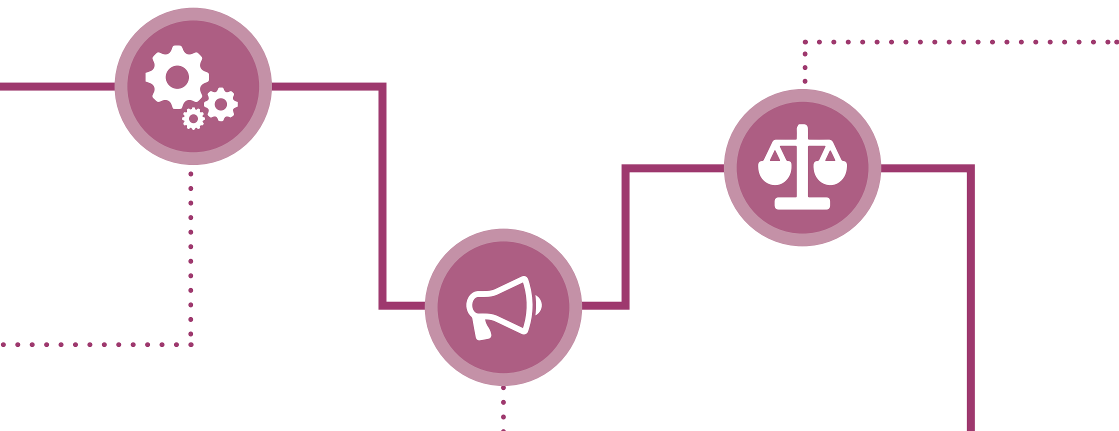
By Patricia Findlay, the Fair Work Convention and the University of Strathclyde

Introduction

Fair work – that offers opportunity, security, fulfilment, respect and effective voice, and that centres on reciprocity and mutual benefit – lies at the heart of policy priorities in Scotland aimed at driving productivity, growth and inclusion[1]. Fair work is explicitly embedded in the activities, strategies, policies, practices and performance indicators of the Scottish Government and its public agencies. Crucially, fair work is increasingly recognised as important by employers, employers' organisations, trade unions, campaigning and civil society organisations, fuelling a constructive and challenging debate across civic Scotland.

This hasn't happened overnight. The fair work agenda in Scotland builds upon multiple stakeholder networks (researchers, unions, employers, policymakers and campaigning organisations) that acknowledge the centrality of work and workplaces to economic, social and civic life, and the need to engage holistically with distinct stakeholder interests and objectives in addressing complex problems that require innovative solutions. These 'wicked' problems span low relative productivity and innovation; low pay, unequal pay and in-work poverty; under-employment and skills under-utilisation; work intensification; income inequality and limited social mobility[2]. Addressing the potential benefits of fair work for productivity involves focusing on the need for supportive management practices that harness the productive potential of labour.

This essay makes four key arguments about the crucial need for, and role of, fair work. The first is that fair work is necessary to deliver inclusive growth. The second is that a commitment to fair work drives a better approach to value creation and capture and is a choice (within constraints) that employers can make. The third is that employers are the primary actors in delivering fair work: as key decision makers, their choices of business models, technology adoption, and management and HR practices *really* matter. The fourth is that constructive engagement between key workplace stakeholders supports employers in delivering fair work.



Fair work is key to delivering inclusive growth

As inclusive growth has gained traction in policy debates, definitions[3] have focused heavily on two components: improving opportunities to participate in economic life and the need to benefit from this participation. These are, of course, linked because participation without sharing in benefits makes growth unjust, while benefitting without participating in economic life represents a welfare approach rather than an approach to growth[4]. Implicit in discussions of inclusion is a growth effect that is hoped to arise from more people engaging in economic activity and from the positive wider economic benefits thereof.

However, what is missing is what comes between participating in economic life and sharing in its rewards – that is, the process of creating value. Fair work spans all three key elements of inclusive growth: by ensuring that workers have first, opportunities to participate on equal terms in work, second, that they have a constructive role in the value creation that participation entails, and third that they are able to derive benefits from the distribution of that value[5]. The workplace is, therefore, the crucial domain in bridging inclusion and growth.

The cost to individuals of not having fair work is often plain to see. But businesses also miss out on the benefits that fair work brings: more engaged, committed and adaptable workers who identify challenges, solve problems, offer insights and ideas for business improvement and who create more value. Governments and society miss out on tax revenues, and on returns from education and skills investment.

Employers are the key actors in fair work

Employers are at the heart of how fair work might better create value and drive productivity. It is employers who make the decisions that govern the character of work and workplaces, largely unconstrained by policy beyond statutory minimum standards. This is not to underestimate the potential power of regulation, but to recognise its inevitable 'bluntness' as a driver of change within widely heterogeneous businesses. It is also to recognise widely differing appetites in the UK for regulating the labour market and workplaces, and that employment law and corporate governance powers are reserved to Westminster.

Whether or not individuals can access fair work isn't down to the luck, nor is it simply a reflection of their individual talents, skills, qualifications and effort. Employers' decisions shape the kind of work that is available. Those decisions are constrained but crucially, the constraining factors do not determine the fairness or otherwise of work. Businesses even in the same sectors can – and do – make quite different decisions that shape the nature of work. Of course, some employers choose business models that are in character inimical to fair work. Where this is the case, more effective regulation and enforcement may be needed to make a difference, as these employers are unlikely to be responsive to persuasion and soft influence.

Fair work is a choice employers can make

Employers as key decision makers can choose to achieve their aims through committing to fair work. Fair work can drive a distinctive – and better – approach to creating value and sharing it. Recent work by Findlay *et al.*[6] highlights employers' choice of business models that 'design in' practices to reduce in-work poverty that enhance employee performance and business outcomes.

Positive choices are available to employers across all five fair work dimensions – opportunity, security, fulfilment, respect and effective voice – that can enhance business performance and productivity directly and indirectly. Employers who support fair opportunity to enter, develop and progress in work can benefit from better reputation, recruitment and retention, and from having a more diverse workforce with a richness of talent and ideas. Management and HR practices that promote security and stability of employment, income and working hours can reduce turnover; increase returns from investment in training; generate trust and commitment; increase willingness to learn, adapt and change; and the discretionary behaviours that support productivity improvement. By providing fulfilling work that underpins self-belief and self-worth, employers can support improved task participation, and where work is designed to harness skills and talents, this helps unleash creativity and innovation. Ensuring respect at work and ensuring dignified treatment enhances health, safety and wellbeing, with positive implications for productivity. Respectful relationships at work improve communication and social exchange, encourage idea generation and learning and can support workplace cohesion, all of which can improve performance and productivity. Crucially, where employers seek out and listen to employee voice and support staff participation in decision-making at work, staff are more likely to resolve problems and conflicts, and to contribute creatively to performance.

The role of collaboration, challenge and constructive engagement by stakeholders

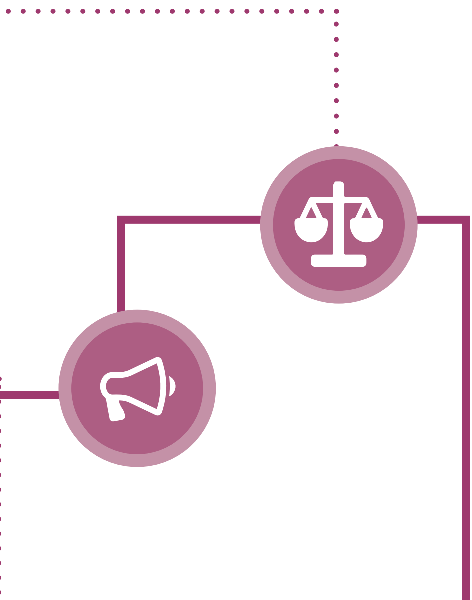
Notwithstanding employers' central role, a complex ecosystem of actors and institutions can support and challenge employers to deliver fair work. The establishment of the Fair Work Convention (FWC) in 2015 and the launch of its Fair Work Framework in 2016 were defining moments for fair work in Scotland. The FWC's role is to advise Scottish Government and to advocate for fair work. The advice focuses on how Scottish Government might use any policy levers at its disposal to support fair work and how it might influence the UK Government. The advocacy connects the FWC to employers and their representatives, unions, employees, public agencies and bodies, regulatory and professional bodies, campaigning groups and civil society organisations.

A number of actions clearly signal the degree of government, and First Ministerial, commitment to making fair work a reality. These include the Scottish Government's acceptance of the FWC's Framework; its attention to fair work across a range of its policies and priorities; the requirement to help deliver fair work placed on public agencies; the development of a wide-ranging Fair Work Action Plan within government; and, notably, the incorporation of fair work measures within government performance indicators. 'Quality jobs and fair work for all' is enshrined in as one of 11 national outcomes in Scotland's National Performance Framework, which sets out a vision of national wellbeing and charts progress towards this through a range of social, environmental and economic indicators.

The approach of the FWC has been voluntarist and social partnership-oriented – winning over employers to fair work by presenting its positive impacts on business; adducing and assessing evidence to identify what works best; sharing best (and worst) practice; engaging in continuing dialogue on areas of agreement and disagreement; and having a voice that engages with different groups of workers, different sectors and sizes of business, and with the many different challenges that employers currently face. These activities entail practice, policy and research challenges, but also highlight the opportunities and potential of fair work to address real issues relating to labour supply, economic uncertainty, automation, demographic change and environmental sustainability.

Improving and enhancing what happens in work and workplaces is, or should be, a key focus of public policy. The delivery of fair work can be shaped through business support, economic development and skills provision; the creative use of procurement approaches and grant funding (Fair Work First[7]); and by nudging employers towards fair work as an important component of social legitimacy and business responsibility. Policymakers can also use their influence to deter business approaches where there is little reciprocity, where workers carry the burden of risk or where negative outcomes require remedial action by the state.

A crucial part of the fair work agenda is to establish common cause with trade unions, consumers, campaigning organisations, civil society organisations and communities, and to increasing their engagement with businesses and other employers. The Working Together Review[8] that advocated the establishment of the FWC made a clear statement about the contemporary relevance of trade unions who are acknowledged as legitimate actors and important resources in the pursuit of fair work. Unions have engaged constructively with the fair work agenda, recognising their own members' priorities but also employer and sector pressures, as the FWC's recent Inquiry into social care[9] illustrated.



Conclusion

Fair work in Scotland is an aspirational agenda steeped in workplace practice and experience. At its heart is an explicit recognition of the need to balance the rights and responsibilities of all workplace stakeholders and to build mutual benefit for workers, employers and society. All five dimensions of fair work support enhanced value creation and are inextricably linked to wellbeing.

Although considerable progress has been made, there is a long way to go to achieve Scotland's ambition to be a world leading fair work nation[10], and delivering fair work remains challenging, requiring patience and perseverance. Capturing impact is complex, but measuring progress remains important to delivering on this ambition. The fair work agenda affords an enormous opportunity, but it also brings a significant responsibility for stakeholders to be creative, develop new thinking, identify new solutions and develop their own internal capability. The emerging debate on fair work in Wales, and good work at UK level, offer important opportunities for learning from similarities and differences of approach. Crucial to the progress of fair work is embedding it in the architecture of government and in the narratives of employers, workers, unions and citizens.

8. Fair work, low pay and productivity in Wales

By Alan Felstead, Cardiff University

Introduction

Productivity matters because it is the main determinant of living standards and so it affects us all. Higher productivity makes employers more competitive, provides the foundation for wage increases and increases the government's tax revenues. Everyone stands to benefit. The reverse is also true with low productivity likened by Frances O'Grady, general secretary of the TUC to a 'self-inflicted wound' with everyone losing out. This short essay demonstrates how this dire warning has played out in Wales where both productivity and pay are relatively low.

The negative consequences of low productivity are recognised by the Welsh Government. In its current economic strategy, *Prosperity for All: Economic Action Plan*[1], for example, it is mentioned 19 times. Figure 7 shows the scale of the productivity gap in the UK. According to the latest available evidence[2], Wales is second from bottom in the labour productivity league table, falling short of the UK average by 16%. Only Northern Ireland does worse.

Figure 7: Labour productivity by region/country, 2017[3].

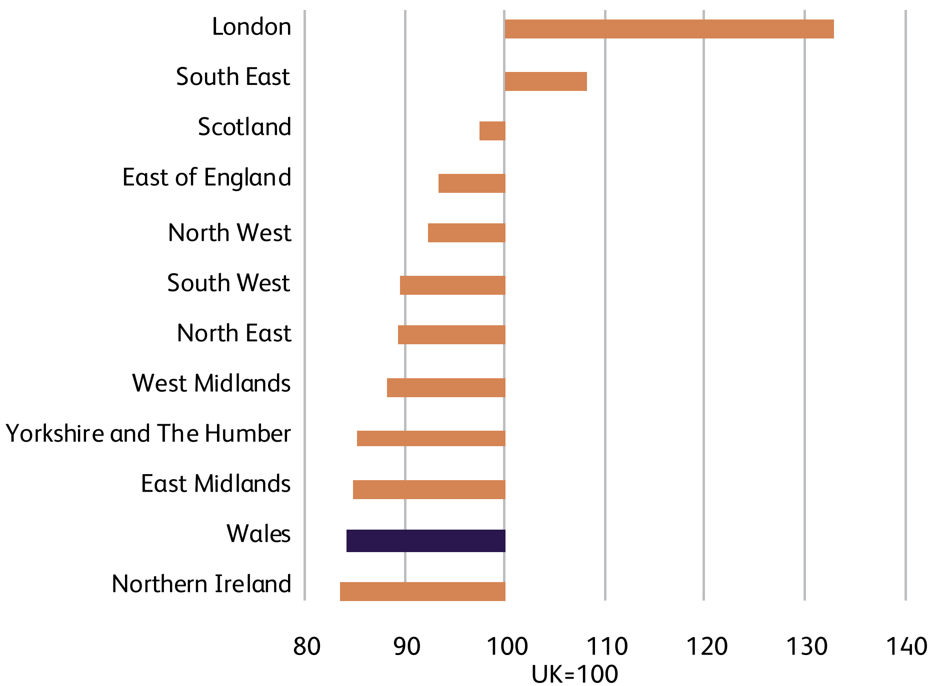
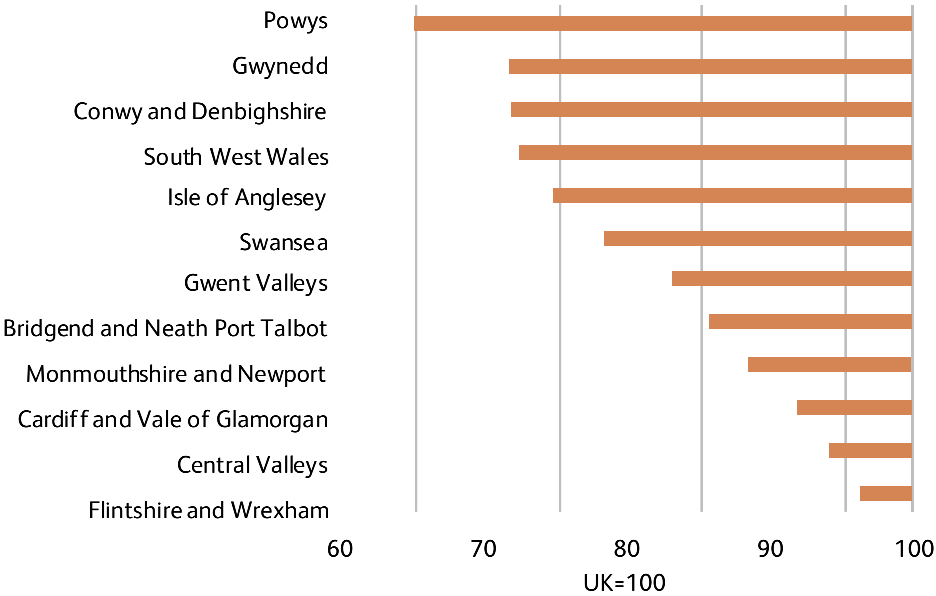


Figure 8: Labour productivity in Wales by sub-region, 2017[4].



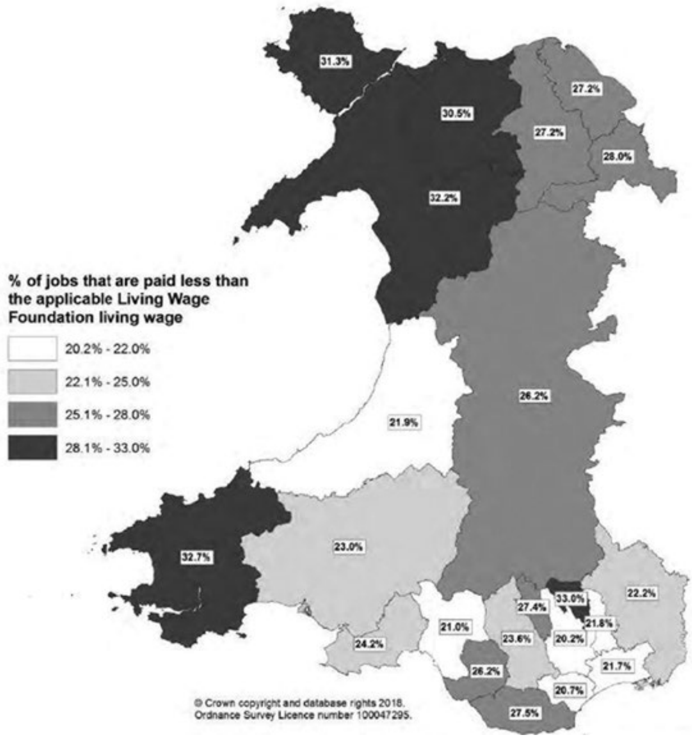
The picture gets no better when patterns are examined within Wales. Figure 8 shows that productivity is below average for the UK in all of parts of Wales. In 2017 the sub-region with the highest level of labour productivity was Flintshire and Wrexham in North Wales, but even here productivity lagged the UK average by 3%. The lowest labour productivity performance was in the rural sub-region of Powys, with productivity 35% below the UK average; this was the lowest productivity level across all the sub-regions in the UK.

This is both reflected in, and reinforced by, relatively low pay in Wales. Workers in Wales are lower paid and the prevalence of low pay is higher than in the UK. The most recent data for 2018 suggest that the average pay level in Wales was 90% of that in the UK as a whole and 71% of the average pay level of those living in London. This is a pattern that is reflected in the relatively poor productivity performance of Wales versus other parts of the UK. Median gross weekly earnings for full-time adults working in Wales were £509 in April 2018, while in the UK they were £569. Median gross weekly earnings in Wales were the second lowest amongst the 12 UK countries and English regions[5].

Over a quarter (26%) of employees in Wales in 2018 earned less than the Real Living Wage. Rather than falling, this share has been rising. The proportion of employees paid less than the Real Living Wage was 2 percentage points lower in 2012[6]. Furthermore, in 2017 Wales had the second joint highest proportion of jobs that paid below the Real Living Wage and was one of only two areas that saw the proportion of such jobs increase in prevalence[7].

There is also considerable variation within Wales (see Figure 9). In five Welsh local authorities – Blaenau Gwent, Pembrokeshire, Gwynedd, Anglesey and Conwy – more than three out of ten workers were paid less than the Real Living Wage in 2017 – while in Caerphilly, Cardiff and Neath Port Talbot around a fifth of workers were low paid according to this definition. This patterning of results corresponds to the patterning of productivity performance with, for example, Gwynedd and Anglesey having relatively low productivity alongside a higher prevalence of low pay, and Cardiff and Neath Port Talbot having relatively high productivity but a lower prevalence of low pay.

Figure 9: Distribution of low pay across Wales, 2017[8].



In response, the Labour-controlled Welsh Government has set about making a number of changes designed, first and foremost, to make Wales a fair work nation, but also to boost productivity and close the gap with the rest of the UK. With this in mind, the former First Minister set up the Fair Work Commission to make recommendations about how to promote, strengthen and measure progress to making Wales a fair nation. The report was published in May 2019 and all 48 of its recommendations were accepted two months later[9]. A key feature of these recommendations was that the Welsh Government uses its influence and commissioning powers to promote payment of the Real Living Wage, known in Wales as the Welsh Living Wage. The primary aim of this recommendation is to reduce in-work poverty, which is higher in Wales than elsewhere, but also to protect good employers from unfair competition by unscrupulous employers keen to 'race to the bottom'. It is also designed to shock employers into making more effective and productive use of available labour and, as a by-product, raise productivity.

Strengthening employee voice, both collectively and individually, is also a key aspect of the Fair Work Commission's recommendations. Plans are now in place for a Social Partnership Act to be enacted by the Welsh Assembly. This will give social partnership a statutory footing so that the collective voice of workers is heard within the Welsh Government and other public bodies. The Welsh Government has also committed to promoting collective bargaining and trade union membership. Although these moves are primarily focused on making Wales a fair work nation, they may, as a by-product, raise productivity by creating a work environment where workers are willing and able to come up with new and innovative ideas[10].

However, there are limits to what the Welsh Government can do legislatively within the current devolution settlement and the time horizon to act is short, with the next Welsh Assembly elections due in May 2021. We can therefore expect to see concerted efforts made by the current First Minister and his team in the coming months to do whatever they can to make Wales a fair work, and hopefully more productive, nation.

9. The challenge is urgent but not new: good work, productivity and lessons from Tavistock

By Zayn Meghji, RSA

Introduction

The Good Work agenda is gathering speed. In a context of rapid technological change and the UK's productivity puzzle, the focus on how job quality and productivity can be allied is certainly urgent, but it is not new. In fact, in the post-WWII period the UK attempted to answer a number of questions that we are still asking today.

The Tavistock Institute archives chronicle over 30 years of engagement with what might be termed the 'quality of working life'. This engagement led to the development of their socio-technical approach, which considered workplaces as having social and technical systems that require balancing. Exploring this archive, there is an inescapable sense of the past repeating itself — technological upheaval and economic and political uncertainty – raising the question of how past perspectives might challenge and enrich current ambitions around Good Work. What challenges did the movement face, and how did it adapt? What did they leave behind, and what should be taken forward?

The socio-technical approach

The Tavistock's landmark National Coal Board project illustrates some of the key innovations of the movement, as well as the key tensions. This was the Tavistock's second industrial project beginning in 1950. Despite promising new technologies, productivity and morale in Britain's mines had slumped — labour disputes were commonplace and workers were often absent. These problems are notably familiar: the trading of productivity against job quality and the stunted relationship between technological innovation and productivity.

The Tavistock suggested that the technical system of the mines had been prioritised above the social system, an insight that forms that basis of the socio-technical approach. Labour had been inflexibly divided to suit machinery, damaging interpersonal, workplace relations and undermining the groups that had developed to cope with the acute stress of working underground. Having seen that groups that worked with autonomy were more productive, the researchers identified the disjuncture between the social and technical system as the driving factor behind the failed promise of mechanisation. The solution proposed was to form small, secure coalface working groups, skilled in multiple tasks and organised around tasks that they were able to fully complete.

For the Tavistock, the socio-technical approach appeared to offer a positive alternative to the oppressive focus on efficiency that stemmed from the work of F.W. Taylor, whose 1911 monograph *Principles of Scientific Management* focused on standardising time and workflows. The hope of a positive alternative that mutually reinforces productivity alongside quality work survives in today's Good Work agenda. However, the history of the Tavistock movement speaks to the difficulty of balancing these two ambitions.

Quality and productivity: at odds or against the odds?

The Tavistock's idea of giving employees more autonomy in how they approached the coalface was not well received. A significant factor in this reluctance was growing pressure on the British coal industry from a rapidly expanding oil industry, which provided a strong imperative for automation, negotiated through painstaking agreement with the union. This agreement traded the equality and trust of working groups for better pay for the operators of new machinery, ultimately short-circuiting the reforms.

The fragility of innovation is a common and troubling theme that underlines the dependence of success on capricious forces. External circumstances that are beyond control played a large role in the fate of the socio-technical approach, with the oil crisis of the 70s, in combination with Margaret Thatcher's harsh productivity agenda, enough to dampen the appetite for experimentation in workplaces. The difficulty of successful innovation and the importance of the external environment undoubtedly pose a challenge to the Good Work agenda, which is itself framed against a turbulent present-day backdrop. However, the post-war movement faced difficulties well before its eventual decline in the UK.

Some Quality of Working Life (QWL) projects had follow-up studies that help to provide insight into the long-term success of their work. Revisiting one colliery, it transpired that that the working groups had broken down after one year when management decided to move some members to a new coalface. In weaving sheds in Ahmedabad, India, where similar reforms had been introduced, there was found to be little remaining understanding of the thinking behind the working groups and, as a result, earlier patterns of management had reasserted themselves. Both projects speak further to the frailty of innovation, but in particularly to the difficulty of maintaining success past initial experimental conditions.

This observation is not just the benefit of hindsight. The Tavistock Institute was quick to realise it too, turning to ideas that put the participatory element of their action research approach at their core. This conclusion influenced the development of dozens of industrial democracy experiments in Norway. Although industrial democracy – as introduced by the 1977 Bullock Inquiry – was met with resistance from both employers and unions in the UK, ironically in other parts of the world, industrial democracy is still associated with the UK.

Key challenges for the Good Work agenda

1. **Innovation often fails through no fault of its own.** The QWL experiments took place within turbulent technological and socio-political contexts. Context can often have a material effect: new technology can fragment an existing social system and the threat of an emerging resource can derail an experiment. Brexit and the threat of automation are just two destabilising forces that could undercut the Good Work agenda. Although it's true that disruption and innovation are often reciprocal, research suggests that innovation capacity relies to some extent on job quality.

2. **The importance of quality work must be articulated on its own terms.** In practice and under pressure, job quality consistently comes into tension with the bottom line. The Tavistock experiments were most often motivated by concerns over productivity and fraught industrial relations. Once the incentive for change was removed, the experiments often withered. The aspiration of Good Work needs a broad-based consensus that establishes itself as an ambition in and of itself.

3. **Clarity is as important as ambition.** The Tavistock experiments were often ambiguous: were the researchers on the side of improving the lot of workers, or on improving managerial efficiency and control? Of course, it is never quite so clear-cut, but ambiguity is not a good strategy for change. Good Work can be subjective, but it is important to be able to demonstrate progress against clear measures, particularly if it is to speak to the public.

4. **Awareness of legacy.** Of 32 of the Norwegian industrial democracy experiments, only five were maintained over a significant time period. With worker voice an important aspect of the Good Work agenda, it is important to be mindful of the long and complicated legacy of experiments in this space. These experiments made progress beyond worker representation on company boards but encountered challenges from which we can learn – for example, only four of the 32 experiments were started on the initiative of unions. Good Work builds on, and is legitimised by, a history of trial and error. It is important that the movement is aware of that.

What has changed?

As our understanding of emergent technologies such as automation and algorithms has developed, so too has the importance of understanding what these mean for the ambition of Good Work. Despite the prevalence of narratives around losing jobs to automation, it's much more likely that the *nature* of work will change – it is estimated that three in ten jobs will require different skills as a result of automation, compared to one in ten that might be lost.

Those more inclined to pessimism might see that this raises looming questions about how to maintain job quality in future workplaces. Some of the usual touchstones of job quality – ownership of the whole task, multi-skilled work, creativity – do not fit naturally with workplaces dominated by the technical system. There is already a trend towards the monitoring of workplaces, for example to collect data to assist with shift scheduling. In opposition to the obvious concerns associated with such practices, however, RSA's work with retail experts suggests that monitoring could present an opportunity, with data allowing more informed job design and empowering individuals by offering bespoke opportunities for career progression.

In the retail sector there is a sense that jobs may actually become *more* fulfilling as customer experience becomes a key differentiator for brick and mortar shops, and as technologically advanced shop floors necessitate technological fluency. RSA's work on economic insecurity has shown that there is wider societal anxiety over an expected deterioration of the quality of work, despite employment rates rising. There is, therefore, a clear role for Good Work, and job design in particular, to ensure that the opportunities of technology are realised and the associated expectation of drudgery is not. The socio-technical approach, which prioritises the balancing of technical and social systems in the workplace, is highly relevant – but is there any reason that it should be more successful now than in the past?

Today the dynamics of the workplace have changed, there are less antagonistic industrial relations, a different management agenda, as well as rising expectations from employees of a greater quality of working life. The confluence of these changes may provide fertile ground for the reorganisation of work around the principles that drove the work of the Tavistock Institute. Principles such as employees participating in the design of the jobs they perform; the autonomy of workers to decide how a task is performed; opportunities for progression and a sense of purpose; and work designed for continued learning. Principles that speak to the Good Work agenda.

The search for Good Work must be open to ideas from around the world, but should equally remember the history of the UK, not just to pay lip service to a rich heritage, but to ensure that we are fully conscious of the challenges of an extremely worthy ambition: *fair and decent work for all.*

10. Is it time to turn the future of work on its head?

By Josh Hardie, CBI

with support from Jennifer Beckwith and Felicity Burch, CBI

Why adopting productivity-boosting tech depends on good work, rather than being a threat to jobs

Innovation and the uptake of proven technologies are much talked about in the productivity debate. So are management practices and the quality of people's jobs. But too often these themes are presented as an 'either/or' – not a week goes by without another headline debating whether robots are lined up to take our jobs or whether a life of increased leisure awaits. Technology is presented as an existential challenge to current employment models.

There is no question that the way technology affects and changes people's jobs needs to be considered and planned for. But worrying about robots threating the future of good work risks looking through the telescope from the wrong end. Good work is a prerequisite for good technology adoption, not inevitably threatened by it. Whether it's game-changing or tried-and-tested digital, engaged employees who are recognised by their managers and have opportunities to develop are the foundations for innovation.

The only way we adopt productivity-boosting technology in the first place is by providing good jobs

Experts can tie themselves in knots when debating how to improve the UK's productivity. But all can agree that technology adoption is one area where we really need to raise our game. When it comes to investing in a whole range of technologies, even straightforward things like accountancy software or websites, the UK is, on average, average[1].

The trouble is it's easy to implement technology badly, and poor technology implementation leads to poor outcomes

Show me a person who hasn't had an experience of an IT implementation gone wrong. We all have a story to tell of when our employer invested in some new kit and it was harder to use, added complications to our day and felt downright frustrating. Negative experiences of technology implementation make companies less likely to invest again, discourage employees from engaging and, crucially, won't lead to the productivity improvements promised.

That's where employee engagement, skills development and effective leadership comes in

Good jobs are mission critical for technology adoption. While opinions differ about exactly what makes a job good, there's broad agreement that delivering them comes down to three things: effective leadership, employee engagement and a commitment to develop people's skills. Even small improvements are associated with sizeable productivity uplifts – if a business performing at the lowest levels of management can improve to just the UK average, they can see a massive 19% productivity boost[2]. Here are three key steps all firms can take:

First, leaders need to articulate why they're adopting new technologies and role model new processes. With any strategy that requires behaviour change, engagement starts when people understand the 'why'. Effective leaders articulate why technology adoption, and bringing people along on the journey, should be an organisational priority. Leaders build on this when they practice what they preach: organisational transformations are over four times more likely to stick when leaders role model the change the business wants to see[3].

Second, to keep the business accountable, leaders should set, and be responsible for, targets towards technology investment and the people aspects that make it possible. That means keeping track of people's satisfaction, progression and development, and also of recruitment and retention as a baseline marker of how motivated and engaged people are at work.

Third, tapping into external networks is vital for leaders to bring good technology and people strategies into their business. Cumbria Crystal – the last UK producer of lead luxury crystal with a 23-strong team – doubled its turnover and trebled its margin after several technology and people change projects. Its CEO largely attributes their success to Productivity through People, a 12-month leadership programme run by Be the Business in partnership with BAE Systems, EDF Energy, Leonardo, Babcock International, GSK, John Lewis, Rolls Royce and Siemens. This programme enabled the CEO to learn from a varied network of business leaders who could challenge every aspect of the business strategy and operations. As a result, Cumbria Crystal invested in a new ecommerce platform to widen its customer base alongside greater development opportunities for the team. Thirty-five per cent have been trained in new processes and ways of working, whilst the organisation's Retail Manager has since participated in Productivity through People to help ensure that customers and the team are getting the best out of its ecommerce investment[4].

Technology adoption lives or dies by the extent to which a business engages its people.

Genuine employee engagement – ensuring that people are listened to and their views acted upon – is a game changer for technology adoption. In part it explains why businesses with the highest levels of employee engagement can see profits 22% higher than those with the lowest[5]. Successful technology adoption can only happen when people understand how their role contributes to the organisation's goals, why their engagement matters; and have a voice on how new processes can be done better.

When Integrity Print moved away from printed products as they were increasingly being replaced by digital alternatives, their workforce had to make a cultural shift. This required training and development, and a change in working practices. Integrity actively engaged employees in the change through workplace education and industry site visits to learn best practice. Developing digital print production has given the business the confidence to engage with a wider customer audience. A new digital, data-driven service has contributed to sales of £6m per annum that will grow to a minimum of 20% of Integrity's turnover in the next two years[6].

Businesses that can access the digital skills of the future will develop their own people.

People want opportunities to grow – 30% of UK workers say they're unhappy at work because they lack career progression[7]. Businesses need to provide such opportunities too – firms that develop the skills and strengths of their people are able to reduce staff turnover by, in some cases, as much as 72%[8]. When it comes to developing and implementing new technology, companies need to ensure they can access the technical skills they need.

As many companies seek to transform, these skills are in short supply. Two-thirds of businesses already have unfilled digital skills vacancies and 95% expect their digital skills needs to grow[9]. While some firms are cautiously optimistic that they will be able to hire the right skills, it's a pressing challenge that most are predominantly fishing in the same pool by seeking to hire externally to address skills needs.

This will sometimes be the best approach, but you could be missing a trick. Businesses should look to their own workforces to find 'hidden skills' (think about the millennial who codes in their spare time); identify opportunities to retrain people whose transferable skills could be used in new roles (question whether your telesales team could move to digital sales); or work with partners to develop complementary skills.

Sellafield did just that, introducing a Digital Innovation Suite that enables people across the business to collaborate on digital projects and upskill. There's an off-network interactive room where a wide range of employees can consider challenges such as manual reporting; trial new approaches; and develop their skills in automated reporting or Robotic Process Automation. Digital solution suppliers provide the knowledge, experience and skills training to deliver the initiative in conjunction with Sellafield. This approach has enabled an agile, fail-fast, sprint-based cultural change at Sellafield, providing faster route to further technology adoption[10].

It's clear: good work is critical to tech adoption, but what's stopping progress?

Delivering effective leadership, employee engagement and development day-in, day-out, is easier said than done. It requires a relentless focus from leaders and managers to ensure that HR policies are put into practice, progress is measured, benchmarked and accounted for, and to ensure that objectives on people are put on a par with short-term commercial targets at the top and throughout the line.

Some UK firms have succeeded, but overall the UK's effectiveness lags competitors – if UK businesses matched their performance on people management to their US peers, the productivity of the UK workforce would jump by a massive 12%[11].

The hard truth is that businesses tend to overestimate how well they lead, engage and develop their people.

CEOs are far more likely than other managers to believe that their company has adopted effective ways to lead, engage and develop their people, often because the business cannot effectively measure and benchmark their performance.

There's often no shared view of the nature of the problem or what can be done to solve it amongst leadership teams.

Communication between the CEO, Executives and HR Managers is vital to ensure that different views about how the business is performing on people and what's holding back progress are discussed. Without it, firms face inertia as different parts of the business cannot pull towards shared objectives.

Leaders often underestimate how important their words and actions are in making good work a reality.

CEOs are overwhelmingly likely to want to improve how their business leads, develops and engages its people. But too often the rest of the business does not see it. Just like adopting new technology, leaders need to be front and centre in communicating and role-modelling why people's management, engagement and development is mission critical.

Irrespective of size or sector, all UK firms need to do the groundwork to unlock the benefits of technology investment and their people. While there is no one-size fits all, firms must start somewhere.

To up your game on technology, first look at how you're leading, engaging and developing your people. Here's where you could start:

1. **Set and be accountable for targets on people and regularly communicate progress**
   Ensure that responsibility for people's management, engagement and development is taken at board-level and shared across the businesses, not just in HR. What gets measured gets done, and regularly communicating progress helps people know the leadership team cares.

2. **Put people management on a par with commercial targets**
   Managers make good work a reality day-to-day. They should be incentivised and rewarded for the time they spend engaging and developing their team, with key performance indicators on people management given equal weight to their commercial objectives and linked to their reward.

3. **Assess how your business is performing on people**
   Keep track of how different parts of the organisation perform against your people targets. Using external benchmarks to see how you compare to competitors can help identify how to improve.

Adopting technology and delivering good work isn't an 'either/or' for business. Implementing new technology *depends* on leaders and managers articulating a vision for change, engaging people in the process and developing the skills of their team. To get this right, UK businesses needs to learn from each other on technology investment and effective leadership and management. **Done well, good jobs enhanced by new technology have the potential to reshape the future of work and turbocharge UK productivity.**

11. Productivity through people – supporting best practice in SMEs

By Tony Danker, Be the Business

Productivity – the cumulative output of UK workers per hour – is the critical indicator of how competitive we are as a nation and the surest way of delivering sustained wage growth. In the decade after the financial crisis, the UK's labour productivity has remained stubbornly flat whilst competing economies have seen theirs return to growth.

The challenge to improve the UK's competitiveness is not new; however, the methods of most effectively addressing the problem have changed. Twenty years ago competition policy, planning and market regulation were seen as the key levers to pull to grow UK productivity. Two decades on, technology is reshaping the traditional structures of the economy; however, the leadership of firms remains the main arbiter of success and failure. Strong leaders are confident and ambitious even in an economic climate of uncertainty.

Management practices

A robust evidence base demonstrates the link between management practices and UK productivity. Researchers have estimated that about a quarter of the UK's productivity gap with the US could be down to poor management. Deficiencies in UK management skills have also been shown to be a key driver of inter-firm productivity gaps. Further, McKinsey & Co. conducted a macroeconomic analysis of from where future economic growth will come and found that although 45% of growth will come from leading firms pushing the frontier, the majority of growth will be from firms adopting existing best practices.

Britain has the potential to build the capabilities of modern economic success by embracing and leading the shift to managerial excellence and high-quality jobs – unlocking the potential of the exceptional human talent we have here. However, for a number of reasons, this is not happening. In spite of a growing body of evidence that better management practices drive firm-level productivity gains and that implementation costs are relatively low, UK firms still spend insufficient time and resources investing in human capital and leadership. UK SMEs are not maximising their opportunities to grow. Indeed, it has proven a source of frustration amongst some policymakers that their efforts in developing interventions to support SMEs do not appear to hit the mark and the take up amongst SMEs remains stubbornly low.

SMEs

A number of reasons are often cited as to why this is the case: the firms that fall under the banner of 'SME' are so diverse as to make it difficult, if not impossible, to design programmes that are relevant to any more than a small subset of their number. The interventions themselves can often be viewed by SMEs as being overly bureaucratic or too slow in delivering benefits. There is often a general sense that policymakers do not fully understand SMEs or the realities of running a business.

Failure to connect with a SME target audience is a phenomenon not limited to the public sector. The business-to-business market for SME services and interventions has its own particular failings in this regard. This is primarily around asymmetry of information and an inability for SME owners and managers to identify from the multitude of providers which services will actually prove to be of most benefit for their companies. High-quality service providers can often be obscured by the flood of offerings in the marketplace. The nature of this market is that there is a very real downside for a company that receives poor-quality service, and so a business owner will often prefer not to procure any service rather than risk a negative business impact.

As a result, on the supply side, the largest professional services companies and many business schools prefer to focus on blue chip companies that are easier to reach and retain as a client base, thereby reducing the availability of best in class services to smaller businesses. On the demand side, where firm-level returns to training investment are either unknown, uncertain or are outweighed by downside risk, some ingenuity is required to inspire demand amongst SMEs. In this scenario, government intervention is needed to ensure a well-functioning marketplace. A well-structured intervention from government would provide incentives, information and investment to stimulate the right type of demand amongst SMEs and incentivise an increase in the supply of quality management development providers.

Be the Business

The inception of Be the Business, a government-supported and industry-led initiative, can be viewed at least in part as a means of addressing these market failures. Be the Business, as part of its remit to improve UK productivity, is working to design and deliver focused interventions that enhance leadership capacity and productivity within UK SMEs. We believe this will serve a number of purposes. By taking a test and learn approach, we can identify which interventions are the most effective in driving firm productivity, and by communicating these benefits to SMEs we will increase demand. By identifying what constitutes best practice in the design and delivery of management development programmes, and disseminating this information to the marketplace, we also hope to indirectly raise standards amongst suppliers.

Our focus on the building of leadership capacity amongst SMEs and our evaluation processes have helped to surface a number of interesting examples of where the Good Work agenda and productivity increases go hand-in-hand. One of our programmes, Productivity through People, is a unique SME education programme that focuses on enhancing management capabilities within firms. The 12-month programme, run in partnership with the universities of Aston, Bath, Lancaster and Strathclyde, blends practical learning from peers and industry leaders with classroom sessions. Participants engage in academic-led masterclasses; attend site visits to some of the UK's most productive businesses; and receive mutual support and advice from a close-knit group of peers. Interestingly, a core focus of the curriculum is around how leaders can engage their teams to deliver productivity boosts to their business.

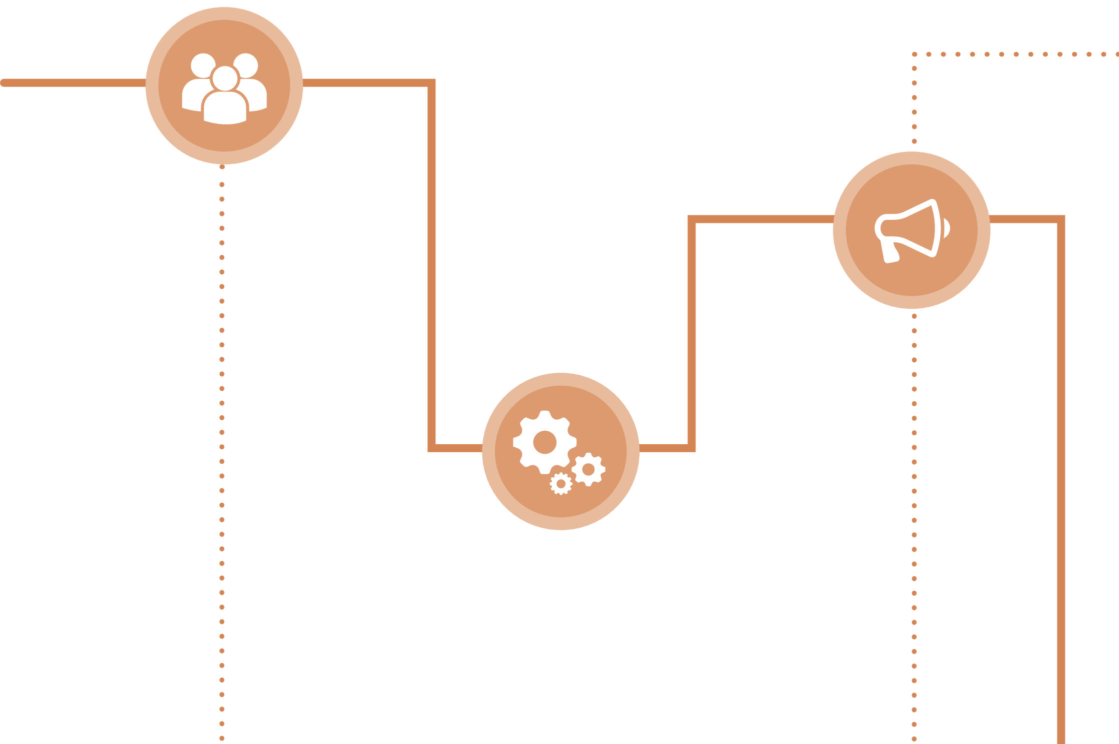
This is not about reinventing the wheel, but about having impact. Managers that have made improvements to their company productivity through participating in this programme often cite the introduction of, in some regards, fairly standard aspects of management and leadership practice – such as regular performance reviews and target setting – as having a transformative effect on their business. Opening a process of consultation or dialogue with employees to get their views on how productivity could be improved has proved to be a win-win. Employees feel more involved and valued, and managers do not feel that they are solely responsible for improving company productivity. The bottom line benefits have also been significant.

Case studies

In one case, Chris Blade, managing director at Cumbria Crystal, which is the last producer of completely hand-blown and hand-cut crystal in the UK, challenged his employees to deliver a 1% performance improvement to each area of the business each month. This challenge spurred a series of innovative ideas from employees in suggesting operational efficiencies. The success led to his business making savings of £30,000 per annum and winning contracts with global brands. A real-world productivity success story – and one that the employees were an integral part of.

Damini 'Dee' Sharma is managing director of the OM Group, a family-run construction consultancy based in Coventry. OM Group was one of a number of SMEs impacted by the collapse of Carillion Group and swift action was needed to help the company recover. Dee decided to prioritise productivity and took part in the Productivity through People programme facilitated by Be the Business and Aston Business School. Dee invested in the development plans of her employees and upgraded her operations to use cloud technology when completing site evaluations. This reduced journey time for employees and allowed them to focus on the engaging value-added components of their role rather than the paperwork. From a productivity perspective it enabled employees to make 100% more client visits each week – a huge gain. The buy in and support from her employees in the adoption of digital technology was vital for the successful execution of her business strategy.

The evidence coming back from the Productivity through People programmes being run with SMEs is that positively engaging with employees and making them part of the businesses' productivity journey not only enhances employees' experience at work and job satisfaction. It also enables strong productivity growth and bottom line gains. The case studies referenced are typical in their delivery of performance boosts by engaging employees. We are conducting robust evaluations of the Productivity through People programmes which we expect to confirm our hypothesis that engaging employees leads to better quality work and better productivity outcomes and that good work and productivity gains can be mutually reinforcing. We expect to see emerging findings on management practice improvements at the level of the individual manager in early 2020, with company productivity increases and other firm-level outcomes expected in the middle of 2021. We look forward to bringing these findings to the debate about good work and productivity.



12. Dead-end relationship? Exploring the link between productivity and workers' living standards

By Matt Whittaker, Resolution Foundation

Introduction

Across a number of advanced economies, there is evidence of a 'decoupling' of productivity growth and median pay growth, raising questions about how the gains from economic growth are shared. However, although there is some evidence of decoupling in the UK since the 1990s, productivity growth does still flow through to pay growth in this country. The bad news is that the former has been in very short supply over the last decade.

Median weekly pay in the UK stood at £439 in 2018, still 1.8% lower than the £447 that had been recorded in 2004 (after adjusting for inflation). The depth and duration of the pay squeeze endured in this period is unprecedented in modern times, and stands in direct contrast to growth of 20.9% over the preceding 14 years. Of course, it owes much to the financial crisis of 2008, with the UK enduring a very sharp drop in wages in the immediate aftermath. But the subsequent pay recovery has been sluggish too and, relative to historical norms, pay growth was already slowing *before* the crisis hit.

One oft-cited possibility is the presence of a 'decoupling' between productivity growth and median pay growth that is affecting all advanced economies. That is, the notion that the gains from economic growth no longer flow smoothly through to the pockets of employees in the middle of the pay distribution in the way they did over the post-WWII decades. At first glance, the decoupling story is a neat one: directly linking the slowdown in median pay growth recorded across a range of advanced economies over recent decades to the various points at which the gains from growth can escape the grasp of the typical employee. That phenomenon is said to derive from the rise of globalisation, technological progress and diminished worker power – forces that have been at play across advanced economies.

This story appears to be a good account of trends in the US, for example, where a clear decoupling of productivity and pay emerges in the 1970s. But the story in the UK is less clear. There is a decoupling, but it starts later (in the 1990s) and is of a much smaller scale. And there are different drivers than elsewhere. For example, a falling labour share is a big part of the story in some countries, but not here. The rest of this article explores the factors that have driven the decoupling story in the UK, with different factors at work in different periods.

Understanding the labour share

While the labour share *did* fall in the UK over the course of the 1980s it subsequently rebounded, marking the UK out as something of an international outlier. Overall, a modest 2.6% reduction in the UK's labour share between 1980 and 2018 compares with falls of 7.6% in the US, 11.5% in Germany, 12.1% in France, 16.9% in Australia and 20.5% in Japan. We can draw the conclusion that UK decoupling has not been the product of workers securing a shrinking share of the pie.

This exceptionalism is worth digging into. It does not appear to be the product of any shift in the UK's industrial mix or of outlier performance in any one sector, but rather the presence of economy-wide factors. A tightening labour market – with the 16-64 age employment rate rising from 69.9% in 1996 to 72.7% in 2002 – is likely to have played a key role, by strengthening the bargaining power of workers in this period. The introduction and development of the National Minimum Wage probably also played a part, directing an increasing share of the income pie to workers.

It is worth noting that the share of overall labour compensation distributed as pay, relative to the share accounted by employer National Insurance Contributions and the share taken up by employer pension contributions, *has* declined over time – in particular, in the period between 1990 and 2008, accounting for one-third of the 24 percentage point decoupling of median pay from productivity. As such, although the UK's labour share of income has bucked the international trend, the *wage* share of income trend has more closely matched the norm.

Devaluation effects

The divergence we have seen between the consumer and producer deflator has also been a contributing factor. The producer deflator is used to inflation-adjust national output (capturing the change in prices of all domestically-produced goods, including those that are sold and consumed abroad); while the consumer deflator is used to inflation-adjust pay (capturing the change in prices paid by households when doing their weekly shop, including those goods and services that are imported from elsewhere).

The large sterling devaluation that followed the financial crisis (associated with the UK's financial sector reliance), and the more modest one that followed the EU referendum, served to lift the consumer deflator significantly above the producer deflator. This produced a terms of trade drag for workers in the

UK that has contributed to the widening of the wedge between productivity and pay. Indeed, that's really the *only* source of decoupling in the last decade. It is worth noting that over the longer term this deflator effect has pulled in different directions, actually pushing against decoupling when we take the 1980-2018 period as a whole. It is not a structural inevitability.

The complex story of wage inequality

By far the biggest driver of *longer term* UK decoupling has instead been the change in the distribution of pay observed over the period. The difference observed in mean and median pay trends accounts for 95% of the overall 24-percentage point wedge recorded between 1980 and 2018. But this is not a story of ever-widening wage inequality. Growth across the earnings distribution over this period has actually been U-shaped: pay has increased the most at the top, but minimum wage policies have also supported solid growth at the bottom – it is wages in the second quartile that have grown the least.

Restarting the productivity growth engine

What can we draw from all of this? It is hard to look at the UK experience and conclude that the feed through from productivity growth to pay growth is fundamentally 'broken'. There is good reason for being concerned about the link between median pay growth and productivity growth in the UK – just not necessarily for the reasons often assumed. It is the collapse of productivity growth rather than any breakdown in the relationship between wages and productivity that explains the pay squeeze of the last decade.

Therefore, productivity growth remains centrally important to pay prospects in the UK. The terms of trade drag associated with the divergence of producer and consumer deflators has certainly played a key role in holding back real-terms wage growth since the financial crisis, but the impact is slight relative to the role played by the slowdown in productivity growth itself.

Of course, disentangling productivity and decoupling is complex. The post-crisis sterling devaluation was itself a reflection of lower long-run productivity growth expectations in the UK. This caused pay growth to more quickly adjust to the new reality than output growth did (resulting in the observed decoupling). Were productivity growth to have been stronger than it was in the post-crisis decade then we might not have recorded the same remarkable growth in employment (indeed, we might well argue that the post-crisis pay moderation associated with sterling depreciation directly fed through into higher employment and lower productivity growth). There is no guarantee that a faster-growing economy would result in the same balance between labour and capital and between wages and non-wage compensation for example.

That said, the conclusion is clear: namely that restarting wage growth and supporting household living standards rests above all else on restoring productivity growth to its former levels (or vice versa, potentially). All boats *can* still be lifted, but for this to happen it's imperative that the tide starts rising again.

In part that means reversing the business investment picture, with recent weakness explaining around two-fifths of the overall under-performance of productivity growth in the post-crisis decade. Moving beyond today's uncertain political and economic backdrop would certainly help (business investment has fallen in five of the last six quarters, with firms understandably delaying decisions until such time as the Brexit outlook clears). However, the need to improve the way in which firms adopt innovative technologies and working practices is probably more structural in nature. On that front, it's important that any focus on boosting productivity recognises the extent to which the world of work is changing.

The robots have not arrived to take our jobs yet – indeed, our economy could do with a few more of them – but new technologies *will* alter the way we work over the coming years. That will bring disruption that, in the short term at least, will disadvantage some workers more than others. And it will require us to place a growing emphasis on worker mobility (in terms of jobs and in terms of location), skills (with a growing need for retraining options over the life course), confidence (supporting risk taking and opportunism) and power (harnessing new technology to bring workers together in innovative new ways). That won't happen by accident, but it has the potential to bring significant reward.

Given the good news about the relative ongoing strength of the relationship between productivity growth and pay in the UK, the hope must be that the prioritisation of a restoration of improvements in output per hour – via a strategy that places workers at its heart – has the power to deliver direct and obvious benefits to all in society.

Adapted from an essay published by the Resolution Foundation, January 2020. For the full essay, including all data tables and sources, please visit www.resolutionfoundation.org

13. Can improving productivity help our in-work poverty problem?

By Louise Woodruff, Joseph Rowntree Foundation

It's not right that many workers in the UK find themselves locked in poverty. Business practices are part of the problem, but they can also be part of the solution to in-work poverty and loosening its grip so that workers can build decent lives for themselves and their families.

The UK's in-work poverty problem

Sue[1] is a care assistant providing domiciliary care to older people in her area in a coastal town in the South of England. She works for an agency on the National Living Wage, receives her shift patterns week to week and often works unpaid to spend more time with her vulnerable clients. She is a single mum of two primary school children and often struggles to pay her rent on time.

John works on a zero-hours contract, driving all over the North West delivering parcels for a major retailer – he's often tired and has an unpredictable income, which makes it difficult to budget and to keep on top of his claims for Universal Credit. He had to use a foodbank in the past and feels ashamed that he could not feed his family in those weeks.

Sonia lives in social housing in London. She is a cleaner with two pre-school children. She often works split shifts to manage childcare with her partner and regularly falls asleep on the bus on the way home to her outer London borough.

This week, Sue, Sonia and John are amongst the 4 million people heading out to work in the UK's private sector firms and in public sector roles whilst caught in the grip of poverty. The proportion of working families that are in poverty has risen over the last 20 years – an unacceptable situation, and a trend that now sees the majority of people of working age experiencing poverty coming from a working household. Seventy per cent of children[2] pulled into poverty come from households where at least one adult works. Foodbank use in the Trussell Trust Network has risen by 73% over five years[3] and around one in six foodbank users are in work[4].

It's not right that so many working families are locked in poverty. Problems[5] with jobs, housing and social security benefits mean many UK workers are struggling on incomes that just do not cover their living costs, and severely restrict their options and opportunities. Reducing housing costs and increasing support via social security benefits play a key role in addressing in-work poverty at a household level but we should not let the labour market off the hook: the UK needs more better paid jobs with good conditions, progression, genuine flexibility and more hours to help loosen poverty's grip.

The characteristics of low-wage work

Although there are employees in poverty in all sectors, these households are concentrated in the large low-wage sectors. How these sectors of the so-called everyday economy behave – their business models, sustainability and productivity levels – really matters for the millions of workers on low pay and in poverty. Retail and hospitality are especially important[6]. They are large employment sectors with a high incidence of low pay. A little under half of workers in retail (46%) and just short of three-fifths (59%) of workers in hospitality are on low pay. Around a third of workers in poverty work in these two sectors alone[7]. Social care and the facilities management sector also face similar challenges.

Despite the introduction and rising value of the minimum wage, low-income families have seen slower growth in earnings than the average family for much of the last 20 years[8]. At least some of this has happened because people can't find jobs that provide them with as many hours of work as they would like. A fifth of low-paid men and women say they would like to work more hours than they can find, around three times the rate for non-low-paid workers[9].

UK firms invest less[10] in their lower paid staff than those in higher-paid roles and this training can often focus on basic induction tasks rather than being continuous and linked to pay progression. Some workers in low-paid sectors complain about having to do the same basic training again and again every time they change employer and I wonder how productive that can be: each day across the UK employers are spending money on training employees in skills they already have but happened to gain at another employer. What if that money was invested more wisely in developing new skills or retraining for a digital working environment; or if we made skills recognition much more portable between employers[11]? It is also well documented that many low-paid employees remain stuck on low pay and flatter structures in many firms make pay progression challenging[12]. For many employees, lack of genuine flexibility in better paid roles just makes juggling caring and work too difficult; a problem that particularly affects the large number of low-paid mothers in the workforce[13].

The government has acknowledged the problem of one-side flexibility[14] where risk is shifted to the employee who can have shifts cancelled or changed at their own expense. These working practices are particularly damaging to families on low incomes: making it very difficult to plan ahead and being left out of pocket for childcare and transport costs. Businesses still operating these business models are clearly out of step with public opinion. Recent JRF polling[15] of low-income voters has shown that 79% voters supported policies to guarantee hours at work each week, 62% supported more time flexibility for workers and 49% supported more advance notice of hours.

There are of course, many great employers in the traditionally low-wage sectors, such as the employers who pay the higher voluntary Living Wage[16] or sign up for Living Hours[17]; who invest heavily in training and manage their businesses well to give good notice on shifts and hours; or who are developing better progression routes for part-time employees. Business in the Community has developed a toolkit – Good Work for All – and has some great case studies[18]. The work of the Good Jobs Institute[19] in the US shows how businesses in low-margin sectors can operate in a way that can still deliver good jobs. So what needs to happen for more employers to adopt these business practices?

Will raising productivity help?

Low-wage sectors are a concern not just for poverty but also for our economy. German, French and Dutch workers in these sectors produce more in four days than British workers do in five. The UK's productivity gap with its competitors in low-wage sectors is not due to a lack of capital investment or workers' formal skills but how well firms use workers in these sectors. But raising productivity in low-wage sectors and in low-productivity firms is not guaranteed to drive up pay in these sectors and firms. During the post-2008 recovery a 10% increase in firm productivity is estimated to have increased wages by just 0.05%[20]. Recent research on pay setting shows that firms are more concerned by sector norms; attracting and retaining labour and the National Living Wage rather than linking pay to driving or responding to productivity gains[21].

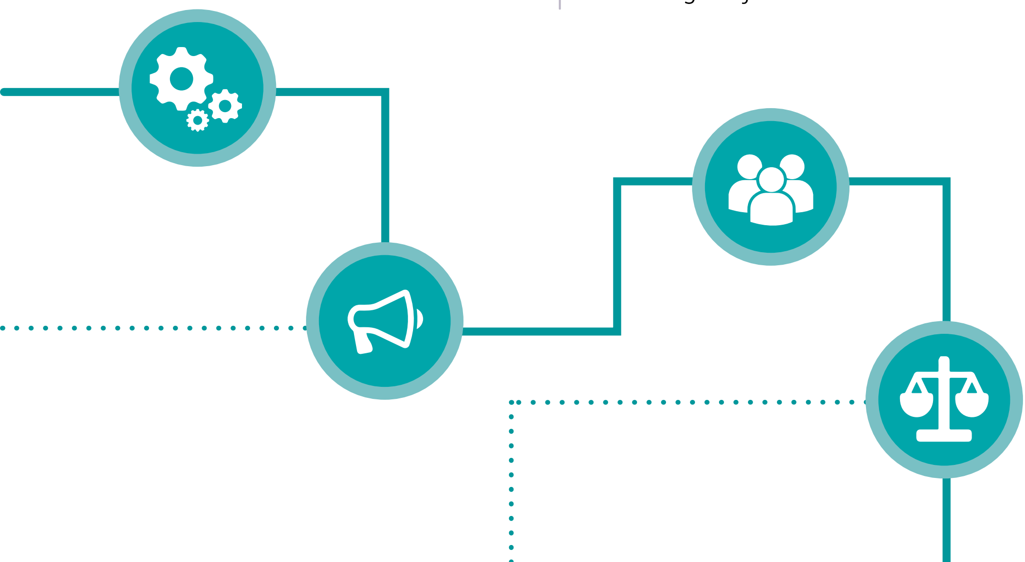
The discussion on improving productivity and job quality sometimes feels disconnected from the real lives of people on low incomes. Being treated well at work, paid a Real Living Wage, given opportunities to progress and to work the right number of hours should be fundamental aspects of decency at work and should not be seen as a special prize for delivering productivity gains. However, even if our primary focus is raising productivity then we still need to focus on raising job quality. We need to make sure that interventions we design to push up productivity will help create an economy that works for everyone, including low-income households. To raise productivity and drive up pay, productivity strategies for low-wage sectors such as retail and hospitality should focus on increasing the proportion of workers in on-the-job training; improving management practices; increasing the percentage of workers using ICT; and reducing the share of temporary workers[22].

Can a business or sector really make those productivity gains without thinking about the lives of their employees – who are, after all, key stakeholders? Poverty is estimated to cost the public purse around £78 billion[23] a year and all businesses, like other taxpayers, have to pay part of this cost. Businesses should also be concerned about the impact that poverty has on individual employee performance[24]. How can you give the best customer service or make key performance indicators or support vulnerable clients brilliantly if you are worrying about money or whether you will eat just toast that night to make sure your children get a decent meal? Employers need to start close to home for solutions – helping to address the issues of poverty and unfulfilled potential in their workforce and/or in their supply chain.

Recent research[25] from Strathclyde Business School for JRF has explored the ways that businesses interact with the issue of in-work poverty. These findings, together with concurrent work from the Social Market Foundation[26] on pay progression and the role of corporate decision-making, mean we have a much better understanding of the key levers for influencing employer behaviour change. Good work strategies should be built into business advice services and help start-ups 'design in' good work practice from their inception. We can also harness investor pressure to encourage transparency of company reporting on pay progression and training.

Arguably, the public debate on low pay and working conditions might have by-passed the economic case-making on productivity somewhat. Politicians across different UK parties are responding directly to the needs of low-income working households, particularly on the minimum wage and on other aspects of good work. The level of the National Living Wage became an electoral issue with both the two main political parties proposing considerable increases[27].

Ultimately though, designing business practice and policy solutions to addressing good work and productivity must connect with the everyday lives of people working on a low income and what matters to them most. That's why at JRF we are also working alongside people with experience of in-work[28] poverty to co-design solutions to improving work for low-income employees. The UK urgently needs to solve the problems of lagging productivity and in-work poverty. There is a real opportunity to drive improvements in both if good jobs become the norm.



14. Can prioritising worker health help close the North's productivity gap?

By Anna Round, Institute for Public Policy Research North

The idea that healthy workers are more productive holds an intuitive appeal for anyone who has struggled through a day's work, paid or unpaid, with a heavy cold or a headache. Large-scale studies confirm that:

> ***… the determinants of a country's economic performance include the health status of its population. That is, there is a two-way relationship between health status and socioeconomic factors. People in good health are more productive …***[1]

Yet in the proliferating policy discussion of how to address the UK's 'productivity problem', the health of workers is a relatively recent theme. Developments such as the 2018 *Good Work Plan*[2] signal a new and welcome policy approach, recognising the role of health as a dimension of work quality.

The idea that we should *evaluate* economies in terms of their human impacts is increasingly popular. Conventional production indicators, notably GDP, provide an important but narrow picture, failing to capture how an economy is *experienced* by the people who live in it[3]. Proposals for alternatives that define success by increases in wellbeing and sustainability as well as growth are gaining traction[4], for example in 2019 New Zealand's first *Wellbeing Budget* was published[5].

Will this approach to economic outputs be accompanied by a greater focus on the social *inputs* to prosperity, including health? The link between economic deprivation and poor health is well-established[6], but interest is growing in the 'vicious circle' by which poor health in turn makes it harder to create wealth in a place. A recent study[7] found rates of productivity below the UK average in the North of England are due in part to poorer levels of health. Unemployment and limited employment prospects associated with ill-health and long-term conditions explain around 30% of the productivity gap between the North and the rest of England. Investment to reduce this disparity could generate over £13 billion in gross value added[8].

This is especially important for areas such as the North East, where poor outcomes on a range of health indicators are closely related to historically high levels of deprivation and the impacts of economic restructuring[9]. Life expectancy at birth for both sexes is below the English average. But crucially, average *healthy* life expectancy at birth is the poorest in the UK – at around 60.4 for women and 59.5 for men[10], and several years lower than the State Pension Age[11]. As well as contributing to economic inactivity[12], this trend almost certainly means that some people who stay in work, for economic or personal reasons, will perform less effectively because of poor health.

The argument for investment in health as an economic asset as well as a social one is clear:

… we need to reposition health as one of the primary assets of our nation, contributing to both the economy and happiness[13].

However, the nature of that investment – who should make it, where it should be targeted and how its benefits can be measured – is complex. In the first place, economic gains are only one of a host of reasons for investing in health services and the public health measures – the 'compelling case' for intervention also includes the intrinsic value of health, the role of health in social justice and potential savings in health service costs[14].

In addition, the productivity impacts of health vary by condition, severity and context, as well as by type of job and sector. And while absenteeism and withdrawal from the labour market are fairly straightforward categories, it is much harder to identify the effect on productivity of 'presenteeism' or working whilst unwell – although this may be substantial[15]. Better evidence on these issues is important, but they need to be treated with care. Recent years have seen great gains in *enabling* work for people with long-term health conditions and in ending the stigma associated with certain illnesses. In stressing the importance of worker health *in general* for productivity, we must make sure that individual employees with health issues are not seen as a potential cost to employers.

The way we talk about health is often at odds with expert knowledge of what works to improve, create and maintain it[16]. Informal understandings tend to assume that health is shaped primarily by the individual exercise of responsibility, discipline and will, with genetic factors also playing a major role[17]. Experts argue, however, that health creation is complex, arising through multiple interactions with places, experiences and opportunities – including work itself. Individual actions and choices to improve health take place in social and economic contexts, and are enabled or inhibited by these.

Many of those contexts can be influenced profoundly by government policy. State investment that improves the health and wellbeing of populations will also improve their opportunities for economic participation (subject, inevitably, to the structures of the local economy and labour market). A second key context is the workplace itself; after all, this is where working adults spend a large proportion of their time. Black[18] identified a strong relationship between firm-level health interventions and workplace practices, and economic outcomes including productivity. Yet employer approaches to investment in the health of their workers varies considerably. Multiple examples of good practice[19] exist alongside uncertainty about how to create, prioritise and measure employee wellbeing[20].

The changing nature of work, with new patterns of employment and relationships between employers and employees, may have consequences for health at work and for the effectiveness of employer investment. While more employers recognise the value, social and economic, of comprehensive changes, work insecurity is an increasing concern. Not only could precarious work make engagement with workplace health more challenging, it may itself have negative impacts for health[21] and, in turn, for productivity.

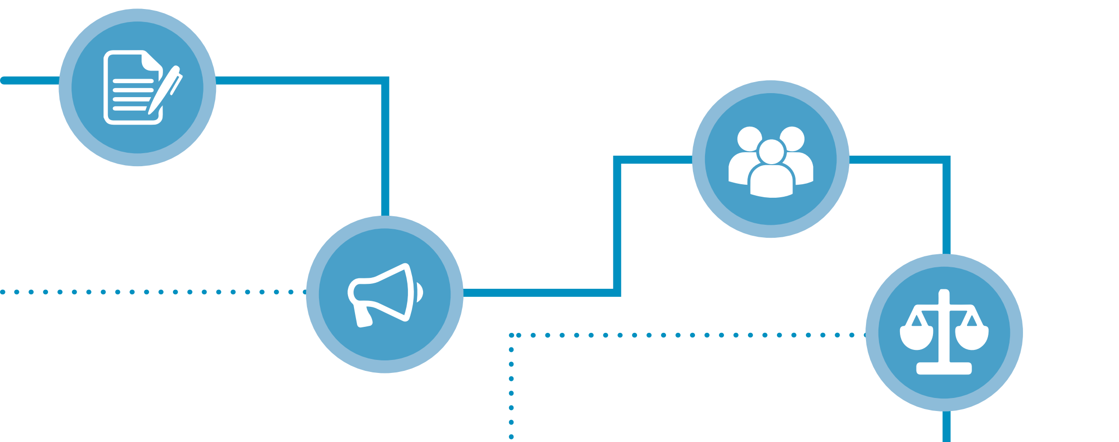
This could be a particular issue for certain 'low-wage' sectors, as well as for areas and industries that have seen a relatively large increase in insecure work. The proportion of workers on a 'zero-hours contract' fell in the North East between the second quarter of 2017 and the same period in 2018[22] but there is evidence that this region has seen increases above the UK average in other forms of non-permanent work, including temporary jobs, agency work and self-employment[23].

As well as supporting wider calls for investment in health creation and prevention of illness, policy responses to improving health for productivity should focus on improving information and resources for key stakeholders who hold the powers to spearhead change.

Central and local government are themselves major employers and have the 'hard and soft' powers to manage the integration needed to embed health in different contexts, including the workplace. National examples of good practice, particularly in relation to mental health, already exist[24].

Many Local and Combined Authorities have embraced the Good Work agenda using existing powers and the opportunities of devolution to improve work quality and bring together partners who can both drive this agenda and benefit from it[25]. In the North East, the Good Work Pledge by the new North of Tyne Combined Authority includes a recognition that good quality work supports both productivity and health[26].

Once embedded, evaluated and widely discussed, such initiatives can help to make the case for the 'robust model for measuring and reporting on the benefits of employer investments in health and wellbeing' envisaged by Black[27]. In time they will help to reframe health at work as a project of co-creation by employers, employees and government.



15. What we know – and what we don't – about flexible working and productivity

By Emma Stewart, Timewise

Introduction

In the 15 years since the Timewise team began focusing on flexible working, there's been a huge evolution in both its perceived value and the attention it has received. Once a hushed-up perk for a small number of maternity returners, with few champions, flexible working is now a core ingredient of workplace strategy. Indeed, it was a central pillar of the recommendations of Matthew Taylor's landmark review of modern working practices[1].

The review spearheaded a growing understanding into the social and economic value of Good Work; that is, work that benefits individuals and society as much as businesses. Taylor was clear about the role that flexible working has to play in making work good:

> *'The Review believes that **genuine flexibility**, whereby individuals and employers are able to agree terms and conditions that suit them both … is both **the key strength of the UK labour market**, and also a **core component of fair and decent work.** As a society, we should be **bolder in designing flexible jobs** that allow people to remain and progress in the labour market as their circumstances change.'*

Today, flexible working is a strategic goal for forward-looking organisations and a legitimate aspiration for employees (and not just those with children). When you look at the business case[2] and the impact of working flexibly on employee wellbeing and engagement[3], it's easy to see why.

The positive impact of two-way flexibility

Genuine, two-way flexible working, which delivers for employers and employees alike, has been shown to boost talent attraction[4] and retention[5]. It helps drive inclusion and diversity[6], and supports the progression to senior level of key groups, including women. Having less people in the office at the same time can also lead to savings on office space and other business overheads.

Flexible working also delivers better work-life balance[7], with the knock-on effect of supporting mental and physical health and improving wellbeing. Government figures[8] have shown that in 2017–2018, 57% of all sick days were due to work-related stress, anxiety or depression; tackling these through better flexible working is clearly good for everyone involved.

The link between flexible working and productivity

So what about productivity? Does the ability to work flexibly make you more productive?

There are some figures to suggest that this is the case. A 2014 survey by BT[9] found that the productivity of flexible workers increased by 30%. Similarly, a YouGov[10] survey from 2015 suggested that 30% of office workers felt their productivity increased when they worked remotely, and in a study of flexible workers undertaken by Cranfield University[11], over 90% of managers said the quantity and quality of work improved or stayed the same.

Additionally, it is simple common sense to assume that if you're working fewer days a week, you are likely to be more engaged on those days; that if your job fits well with your life, you're likely to bring more energy to it; that working from home, with fewer interruptions, can increase your output; and that if you hang on to experienced team members, who know what they're doing, your team as a whole will deliver more, better and more efficiently.

Rising interest in the four-day working week

These assumptions have certainly contributed to increased interest in the concept of the four-day working week. In the last year there has been a swathe of articles about companies who have switched their employees onto this pattern, without any dip in productivity or loss of pay. A key early example of this, Perpetual Guardian in New Zealand[12], ran a pilot that they say revealed a 20% increase in productivity. A number of companies in the UK have also followed suit[13].

Why this solution is more complex than it seems

Does this mean we can all just move to a four-day week for the same money and watch our productivity soar? If only it were that easy.

As I've explained in detail elsewhere[14], introducing a four-day working week isn't just a schedule tweak. Most of the examples we're hearing about are coming from one end of the employment market – office-based roles within knowledge and creative industries, such as PR. In frontline and shift-based sectors it is far more complicated to introduce – or only possible to do so at a prohibitively high cost to the business. And when talent isn't seen as a high commodity the business case for investment is hard to make.

Furthermore, in a shift-based environment, the concept of a four-day working week does not really fly, as employees are not working a standard five-day week. What most of them really want is more control and predictability over when and how much they work, to achieve what we at Timewise term 'shift-life balance'. With over five million people working in permanent shift-based roles, it is imperative that we explore how we can achieve this for the benefit of workers and the economy.

Indeed, as Lord Skidelsky noted in his Labour Party-commissioned report[15] exploring the feasibility of legislation to limit hours of work 'Capping working hours nationwide … is not realistic or even desirable, because any cap needs to be adapted to the needs of different sectors'.

So if the four-day week isn't the answer to increasing productivity on a large scale, what is? I would argue that there are two big steps we need to take to tackle this issue in a robust, sustainable way:

1. **More investment into designing jobs that deliver two-way flexibility**

   If we agree in principle that two-way flexibility supports productivity, we need to make it more widespread. That involves understanding what kinds of flexibility are most appropriate for each role or sector, changing workplace cultures to support different working patterns and increasing management capability to deliver them.

   As with the four-day working week, this is more straightforward in office-based knowledge and creative sectors than it is in shift or service-based ones in sectors such as health and social care, retail, hospitality, construction and teaching. These are industries that face complex operational as well as cultural constraints to making two-way flexibility work. But they are industries that employ millions of frontline workers who service our economy. Some of whom need more control and security over their working patterns, and others more opportunities to progress into better paid part-time work to fit with caring or health reasons.

   We need to test and catalyse new approaches to designing two-way flexibility in these sectors, particularly as many are struggling with skills shortages. But we face both a capability and a capacity gap in understanding how to redesign work, rather than invest in another skills training programme as a way to maximise performance. To drive change we will need government-level investment. We invest in technical innovation to support economic growth in this country; it's time we invested in job design innovation too.

2. Proper research into the impact of flexible working on productivity

Once we have more models of flexible working in place, across a wider range of different sectors and role types, we will be in a far better position to research the link between flexible working and productivity. The figures I quoted earlier are not sufficiently up-to-date or wide-ranging; we need to do more to prove the link, particularly at a sectoral level.

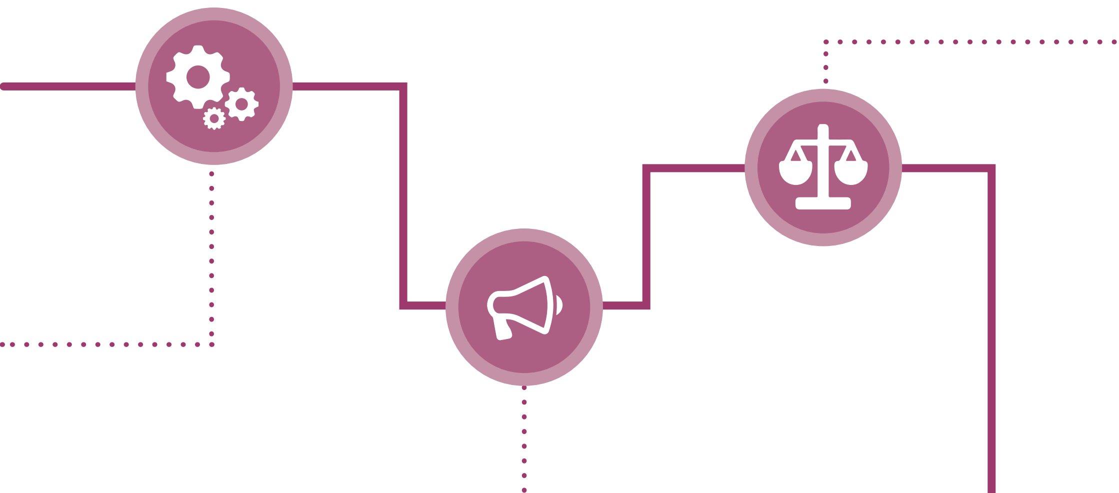
By doing so, we'll create a virtuous circle in which more organisations are prepared to move to a more flexible approach, which will boost their productivity, which will in turn encourage others to follow their lead.

We're tackling flexible working R&D – but we need more support

At Timewise, we're already on this journey. We have led a number of research projects exploring innovative flexible options in complex sectors such as social care[16], nursing[17], teaching[18] and retail[19]. Right now, we're piloting flexible working in the construction industry and investigating the role that flexibility can play in supporting older workers, through the work of our Innovation Unit.

But we are just one organisation; and although we are supported in this work by a number of like-minded partners, there's a limit to what we can achieve. To really drive change at scale, we need more social partnerships between business sector bodies and agents for change, backed by government and industry investment.

If we really want to take productivity to the next level, whilst delivering a happier, healthier workforce, that's the first step – and we need to start now.



16. Finding our edge: engaging employers in the movement to make work better

By Paul Devoy, Investors in People

Introduction

When you're faced with a puzzle, it is good to have a clear strategy. Something feasible and practical. Like finding the edge pieces, creating a clear structure, and then filling in the gaps to build up a bigger picture.

Improving productivity is a puzzle that's been around for quite some time in the UK. In this respect, we've lost our edge. We're lagging behind other large economies and, if our current rates of improvement continue, we'll be around 30% less productive as individuals than people in the US and Germany by 2025.

The backdrop

Investors in People has been around for quite some time. We've seen many UK initiatives come and go, well-meaning interventions that have had varying degrees of success in terms of boosting working conditions and productivity. We've also learned and seen first-hand what genuinely makes a difference.

Look at employee engagement scores by way of a classic example – organisations in the highest scoring quartile have been shown to be 22% more profitable on average than those in the bottom quartile *and* have 21% higher productivity[1].

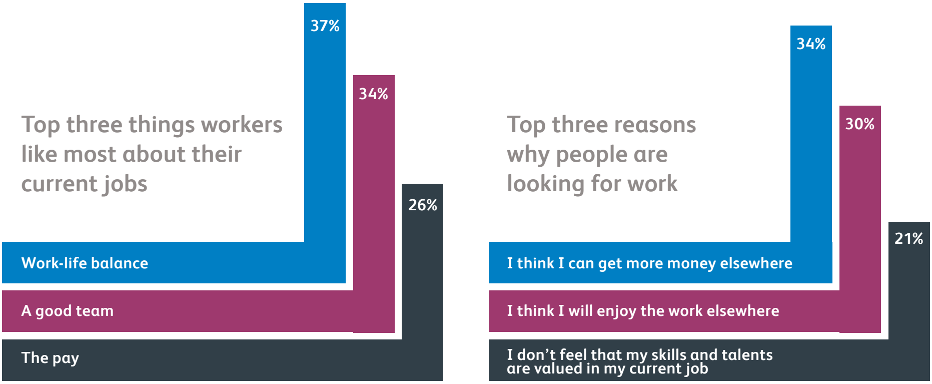
There are many factors at play, and so it is not always possible to isolate precisely the impact of good work on organisational performance. More analysis will help to build the evidence base, yet in the meantime, there is a huge body of research and data that confirms the evident link between the two.

Intuitively, we know and agree that when we treat people well, they respond in kind. Conversely, when we treat them badly, they won't go the extra mile. Few, if any would dispute that. Yet in an age of job uncertainty, growing competition and rising workplace stress and anxiety, one in three workers report being unhappy at work. Some 45% of people were looking to move jobs in 2019, and of the top three reasons given for moving on, not feeling valued and work-related stress each scored 16%. Better pay was also an issue, yet interestingly a 'good work-life balance' and a 'good team' scored higher than pay as things that people liked most about their work (see Figure 10)[2].

As well as being the right thing to do, providing good work is an issue for the bottom line as well. The average cost of replacing a skilled worker is typically 150% of their salary, and firms with engaged employees enjoy around 40% less turnover of staff – another dimension of the productivity puzzle.

So we should be bold and push the agenda forward, making a powerful case for good, fair work – because as businesses and individuals, and as a country, we cannot afford not to.

Figure 10: Investors in People job exodus trends[3].



The campaign to create a mindset

There is a heads and hearts argument to be made now. We need an engaging campaign that is supported by the evidence we already have and that presents a straightforward call-to-action, with a message communicated in such a way that people can engage with it easily and readily.

If you say 'five-a-day' to someone, there is every chance they will know you're talking about fruit and veg. Over time, that campaign has sunk into our subconsciousness and embedded itself as a simple carrot (if you'll excuse the pun) for healthier eating.

Of course, there were the critics who wanted to pick over the finer points and the scientific evidence behind it, but this campaign, with its clear call-to-action, continues to do its job well.

We need a sustained campaign, with a compelling central message. We want people to respond on an emotional level, not just statistical. We want a movement for change.

We know that sustained campaigns are effective. There has been significant progress on diversity in the workplace, for example, and most organisations are much more aware of their environmental impact and how that plays out with consumers. Behaviours are changing as a result.

Now we need a five-a-day style campaign for getting through to employers *and* employees. This isn't solely about creating a mindset amongst employers, but creating a nationwide movement that demands good work, for good reasons.

Tools for sustainable improvement

To create sustainable change and improve productivity, we need to offer the right tools to all employers, not just the larger ones. These tools will help them to act on the campaign in a way that adds value to their business or organisation. These tools should be proven, useful and easy to access.

This is about building a sustainable model with practical tools and services that add value and are viable and affordable.

What they should not be is dependent on government funding. We have seen too many stop/start initiatives over the years and it is vital that we move to an independent, sustainable model.

We already have some great tools at our disposal and we should broaden that offering as part of a fresh and focused agenda. The high-value products, which businesses are willing to pay for because of the value they add, should be used to subsidise a range of more-affordable and free-to-use services for smaller organisations with less resources. If we can encourage the latter to get started on their journey, we will all benefit.

Let's do it, let's make work better

Do you remember the Milk Marketing Board? Run by producers, it oversaw milk production and distribution for more than 60 years, supporting product development and promoting milk on behalf of the entire dairy industry. At its peak, it was a marketing tour-de-force. If your age means you're not familiar with their TV ads, just google the classic Accrington Stanley ad – a simpler, more compelling message you'd be hard pushed to find.

There are plenty of organisations and Community Interest Companies like ours that understand the challenges of the productivity puzzle, along with numerous high-performing and visionary employers of all shapes and sizes.

We have to come together as a group – our own version of the Milk Marketing Board perhaps. A group that can kick-start a concerted campaign with a powerful message that signposts employers and their people to the tools available.

We know that engagement strategies definitely work – we've plenty of evidence that it really is good to talk – but let us create a sustainable approach for sustainable results.

Sustainable improvement in practice

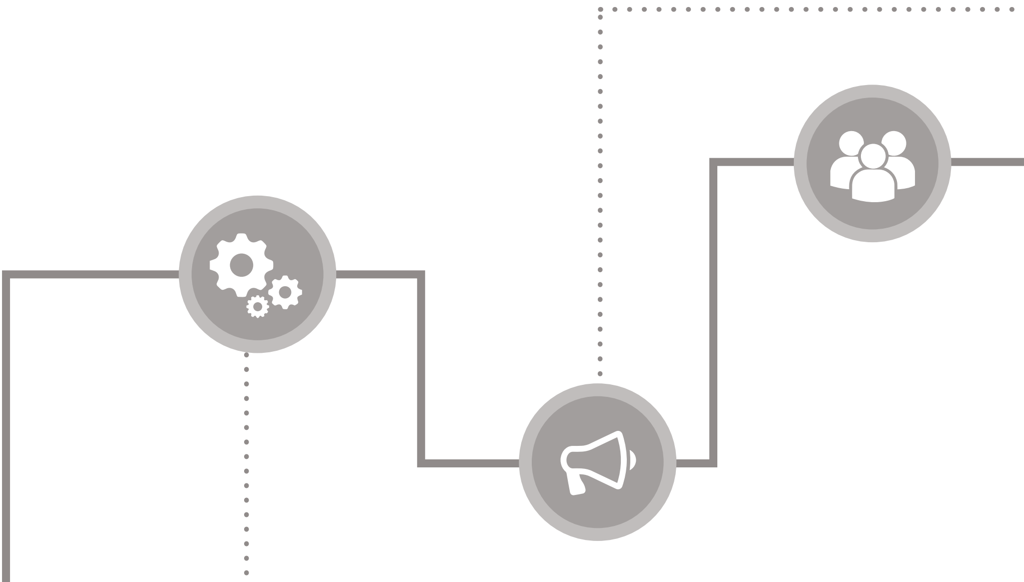
If you want to see sustainable improvement in practice, take a close look at Sevenoaks District Council – a public sector organisation that has shown a genius for staff engagement and is reaping the benefits. They are in one of the hardest sectors to recruit for, with very limited resources, and yet they consistently deliver the goods, achieving high levels of customer and staff satisfaction alike.

Figure 11 Sevenoaks Council

Data compiled from discussions with Sevenoaks leadership team and Investors in People

When they first partnered with Investors in People over 10 years ago, Sevenoaks were looking for the right tool to help drive forward the way they managed people and the opportunities they wanted to create for them. Today, they maintain Platinum-level accreditation, inspiring others in our business community and beyond. This incredible ‘family business’ is very proud of its people and invests significantly in their happiness. The positive outcomes for the organisation and its customers are clear and measurable.

And to those who ask, ‘Is it worth it, won’t I be wasting money developing people for them just to get another job elsewhere?’, the leaders at Sevenoaks are adamant: training and developing people are still the right things to do. Some people will always want to move on, and that’s OK, it’s just the reality of work. But they may never have joined in the first place were it not for the culture and behaviours that are nurtured here.



17. Unlocking potential: ways of tapping into employees' ideas to enhance productivity

By Alan Felstead, Cardiff University; Duncan Gallie, University of Oxford; and Francis Green and Golo Henseke, University College London

Few studies of productivity give the employees' perspective; instead, most are either based on macro-level compilations of different time series data or employer data taken from plant-level management interviews and surveys, sometimes linked to indicators of official productivity. However, the Skills and Employment Survey 2017[1] collected evidence on the role that employees play in improving how they work and what they produce, and the factors that encourage or discourage them from coming up with these ideas. The decision to collect such data was made on the grounds that those who do the job are likely to have a good insight about how to improve the way they work and potentially increase the productivity of themselves and others. The results suggest that greater employee involvement is key to unlocking the potential that employees have to improve the work processes they use, the products they produce and/or the services they deliver. However, the research also shows that this is where management practices have taken a backward step in recent times, with employee involvement on the decline.

The research reported in this essay makes two distinctive contributions[2]. The first contribution provides new data on the ways in which employees increase productivity through offering ideas and suggestions about improving work processes, products or services. These new insights come from eight questions asked of 2,882 employees who took part in the survey. These questions were designed to capture the willingness and ability of employees to come up with innovative ideas, and hence contribute to increased productivity. They included:

- ✓ Three questions on the extent to which innovation is built into jobs such as 'developing new or improved work processes, products or services';
- ✓ Two questions on the extent to which personal suggestions and initiatives taken on an individual or group basis have led to 'increases in the efficiency with which work is carried out'; and
- ✓ Three questions on the extent to which suggestions given by individuals, problem-solving groups and management consultation meetings have 'contributed to improvements being made to work processes, products or services'.

For analytical purposes, these questions are summarised in a productivity-enhancing index that correlates positively and significantly with industry variations in ONS productivity data. This provides external validity for our claim that these employee measures provide a new, hitherto unexplored, perspective on productivity.

In line with the predictions of employee-driven innovation theorists, very few respondents reported that they were not required to contribute to making improvements. At the other end of the spectrum around half (47%) of employees reported that it was 'essential' for them to keep up-to-date and apply new knowledge to their job and around a quarter (24%) reported that developing plans to put new ideas into practice were 'essential'. Seven out of ten employees (71%) reported taking the initiative more than once in the last year to improve how the work was carried out and/or the products or services produced. However, nearly two-thirds (62%) of employees were not able to make meaningful suggestions via problem-solving groups either because such groups did not exist or else employees' views were estimated by respondents to have had no impact. It is also noteworthy that employees were relatively reticent about claiming to have made 'a great deal' of difference.

Changes

Looking beyond current arrangements, the Skills and Employment Survey 2017 also asked employees 'what changes, if any, would make you personally more productive in your current job?' This was an open-ended question to which over half (58%) responded in the affirmative. The suggestions given were recorded verbatim. A third of these suggestions related to the way in which they were managed, such as the suggestion from a machine operator working for a chemicals company of 'being allowed to put more ideas forward rather than being told what to do by people who can't do it'. A document control manager working in central government complained about the lack of employee involvement in decision-making and suggested that 'if management would listen to me, we could improve antiquated processes and procedures'. In a similar vein, a speech and language therapist working in the NHS yearned for a 'return to strategic clinical management and a balanced approach to clinical governance as opposed to a target driven culture' and suggested that 'greater professional autonomy is needed'.

Around half of respondents who offered suggestions about ways of improving productivity mentioned improvements in the resources needed to do the job, such as increased training, more staff and better tools and equipment. There were also many organisationally specific suggestions, such as increasing the frequency of window dressing in fashion outlets; factoring in local knowledge when planning lorry routes in haulage businesses; cutting out unnecessary data entry in back-office administration; better inter-departmental working in architectural practices; and more frequent and timely stock delivery in supermarket retailing.

Employee involvement

The second contribution of the research is that it examines the most effective ways of tapping into employees' ideas about increasing productivity. We find that employee involvement exercised individually and/or collectively is positively and significantly associated with employees' capacity and willingness to offer productivity-enhancing ideas. This finding is in line with theorists who emphasise the positive role of collective voice[3] as well as those who highlight the positive role that individual voice can play[4]. Furthermore, these features of work explain a quarter (24.5%) of the variation in the productivity-enhancing index.

However, despite the benefits of employee involvement, the time series data suggest that involvement has fallen in Britain over the last decade – task discretion has declined, involvement in organisational decision-making has fallen and trade union influence over work organisation has weakened. There has been, for example, a downward movement in all aspects of task discretion with an eight percentage point fall between 2006 and 2017 in the proportion that reported having a great deal of influence over how hard they work. This proportion of employees reporting a great deal of say in decisions that affect the way they carry out their work has fallen from 14% in 2006 to 12% in 2017. There has also been a two-percentage point fall in the proportion of employees who report that trade unions at their workplace have a fair or great deal of influence over the way work is organised.

In addition, the UK Government has failed to take a lead in reversing these trends, with its initial willingness to contemplate requiring listed companies to have employee representatives on company boards giving way to a softer recommendation that companies consider ways of taking the workers' views into account when making board-level decisions[5]. Evidence suggests that none of the UK's top 100 listed companies have followed the government's recommendation by appointing workers to the Board of Directors; yet, this runs counter to the types of change that our evidence has shown are needed to enhance employee-driven innovation and its potential to enhance productivity.

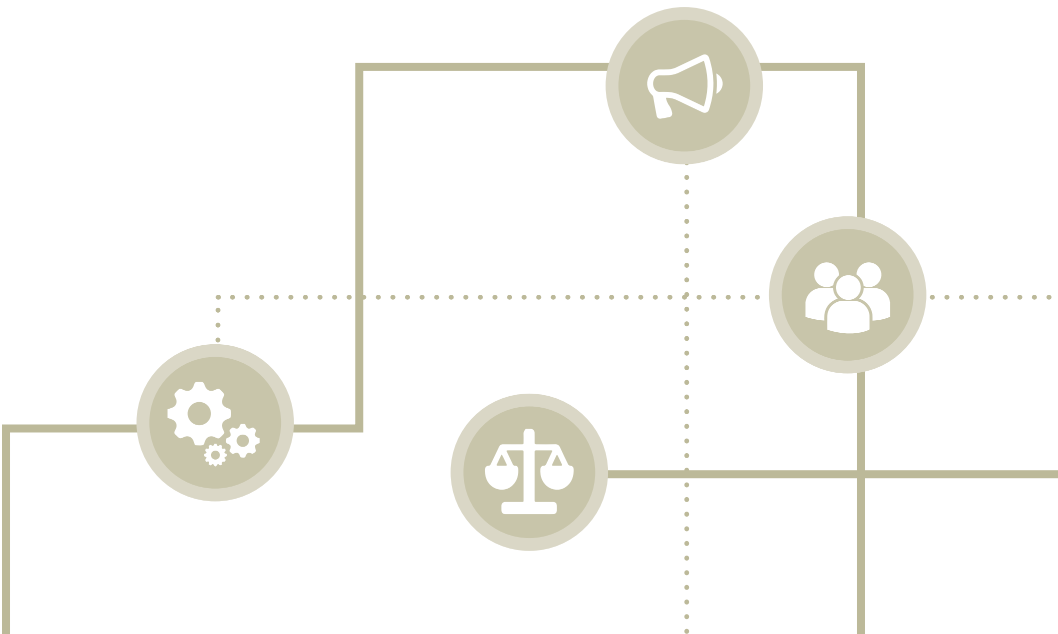
Training and learning

Our evidence also suggests that training and learning, which encourages creative thinking, has a strong link to innovation (and hence productivity) as does the presence of target setting and appraisals linked to pay and/or training opportunities. These findings corroborate previous studies on the links that training and performance monitoring have with productivity. Our research suggests that support and development accounts for well over a quarter (28%) of the variation in the productivity-enhancing index. Performance monitoring explains just under a fifth (19%) of the variation, and all of the factors considered here explain in excess of half (55%).

However, since we only have one cross-sectional data point, the inferences we make are based on associational not causal analysis. Another limitation to our approach is that unlike other studies we do not have a direct measure of productivity. Furthermore, the research findings do not offer a policy panacea because there are macro- and micro-level drivers of productivity on which we do not have employee-level data. These drivers include investment in physical and intangible capital, the level of spare capacity, patterns of wage growth and interest rates.

Policy responses

Nevertheless, our evidence suggests that supporting a handful of innovative and already productive sectors in the economy in order to raise the UK's productivity will be insufficient to the challenge. Although targeted government investment, in particular high-profile sectors through, for example, sector deals, might raise productivity in these sectors, it is unlikely to trigger a general levelling up of productivity across the economy. On this basis, the House of Commons recently concluded that, 'The government's Industrial Strategy isn't doing enough for the "everyday economy", in sectors such as retail and hospitality where millions of Brits are employed'[6] and where – according to our data – around a third of 'low productivity enhancing jobs' are located. To really drive productivity upwards, the current 'picking sectors' approach needs to be complemented by a more general-purpose policy response of tapping into employees' knowledge of the most effective ways of boosting productivity so that improvements come from all sectors and occupational levels. Based on evidence presented in this essay a more widespread campaign is therefore needed to raise productivity, with increasing individual and collective employee voice at its core.



18. How can we ensure more workers drive and benefit from productivity gains?

By Kate Bell, Trades Union Congress

Introduction

The world of work is changing, with new technologies offering opportunities for productivity growth that should lead to greater wealth, more fairly shared with workers.

This change means that productivity will increasingly rely on human ingenuity, with a rise in the value of intangible goods such as intellectual property.

But too much debate about how to realise these gains has assumed that workers will be left behind. Robots will take our jobs, and the little work that's left will be organised into a series of 'gigs' that offer little security, predictability or job satisfaction.

We argue that there is nothing inevitable about this extractive model of productivity; instead, productivity and good work can go hand-in-hand if workers are given a voice in shaping the nature and pace of change. Social dialogue through collective bargaining is the best way to achieve this.

The changing nature of production

Understanding the links between good work and productivity requires us to understand what is being produced and how. Changing models of production, from the Industrial Revolution onwards, have shaped both the nature of the work and the struggles to ensure it is decent.

The drive for greater productivity through a sweated workforce during the Industrial Revolution led to the formation of the trade union movement and the demand for an eight-hour day, and eventually a five-day week. The rise of technologies allowing for faster management of transactions in the 1980s contributed to a model whereby labour was outsourced in increasingly complex supply chains, both within the UK and across the world, with an emphasis on reducing labour costs. The implications of that are still playing out today – whether in the collapse of outsourcing companies like Carillion with the loss of many jobs in the UK or the continued abuse of the rights of workers predominantly based in the global south. Research by the International Trade Union Confederation in 2016 estimated that the 50 largest global companies directly employ just 6% of the workforce they rely on[1].

Today, scheduling technology is increasingly used to bring 'just-in-time' production techniques to the contracting of workers themselves. The rise of zero-hours contracts (now affecting 900,000 workers in the UK) reflects a model where employers are pushing the costs of a slow period on the shop floor onto workers, rather than absorbing these as part of their business. Thousands of workers regularly see their shifts cancelled at the last minute, or are expected to come into work at the drop of a hat or face not being offered further work[2].

The coming wave of technological change should be one that offers the chance to reflect on the failures of previous technological shifts to put workers first. The inequality, social discontent and political upheaval that many western countries now face at least in part reflects the failure to manage past industrial transitions. Perhaps most importantly, the nature of the current wave of technological change is one that increasingly emphasises the importance of workers themselves. Away from the slightly hyperbolic debates about whether and when the robots will take over, economists and others are increasingly talking about how to measure the increasing contribution that ideas, innovation and trust make to economic value.

To take one example, the economists Diane Coyle and Benjamin Mitra-Kahn have suggested that the rise of these 'intangible' assets (alongside the increasing need to measure natural resources) requires a new framework for measuring GDP that considers both 'human capital, accumulated adaptable skills and physical and mental health' and 'social and institutional capital, the degree of trust affecting the transactions costs of economic exchange and the viable provision of public goods[3]'. A measure of production that incorporated these factors would surely see the contribution of good work to raising productivity increases still further.

But a change to a model of production that delivers better quality work won't happen without significant policy intervention. As the International Labour Organization's[4] global commission on the future of work put it earlier this year:

> ***'Forging this new path requires committed action on the part of governments as well as employers' and workers' organizations. They need to reinvigorate the social contract that gives working people a just share of economic progress, respect for their rights and protection against risk in return for their continuing contribution to the economy.'***

At present, too often we see so-called productivity improvements being used to reduce labour costs, rather than to achieve genuine innovation. It is not only just-in-time scheduling. 'Workforce analytics' is expected to be a billion-dollar industry in the next decade, devoted to a range of tools for more closely tracking what workers spend their time doing[5]. The TUC's own research[6] found that half of all workers already experience surveillance in the workplace, and two-thirds think it could be used in ways that increase discrimination. Too many so-called 'innovative' gig economy companies have sought to gain a competitive advantage by reducing labour costs – taking people on as self-employed to avoid a responsibility to pay the minimum wage, sick or holiday pay, despite clear findings from the courts that these workers should be entitled to these basic rights[7]. Taking an approach that measured our national output differently, these activities would clearly be seen as extractive rather than productive.

Workers voice – the key to better productivity

Luckily, there's nothing inevitable about a trend to ever more extractive forms of production. As an increasing range of evidence shows, enabling workers to shape the way that technology and innovation are used can deliver both higher productivity and a higher quality of work. As the OECD's[8] recent report on the future of work concluded:

> *'Collective bargaining and social dialogue can help addressing the challenges posed by a changing world of work. As demographic and technological changes unfold, collective bargaining can allow companies to adjust wages, working time, work organisation and tasks to new needs in a flexible and pragmatic manner. It can help shaping new rights, adapting existing ones, regulating the use of new technologies, providing active support to workers transitioning to new jobs and anticipating skills needs.'*

We already know that businesses that embrace workers' voice see improvements in key areas linked with productivity. Research (summarised by Alex Bryson and John Forth in a literature review for the TUC[9]) shows that unionised workplaces benefit from:

- ✓ *Lower staff turnover*: unionised workplaces with an on-site representative have lower rates of staff turnover (measured by looking at the number of people who voluntarily leave an employer).
- ✓ *More effective management of change*: job-related anxiety accompanying organisational change at work is significantly reduced when unions are involved in discussions on the introduction of the changes.
- ✓ *Greater innovation*: workplaces with collective bargaining are more innovative, with higher rates of product innovation.
- ✓ *More use of 'high performance' work techniques*: unionised workplaces are more likely to employ 'high performance' methods of work organisation, such as team-working and problem-solving groups, than non-union workplaces[10].

It is notable that these are all features likely to be important in an economy more reliant on 'intangible' goods such as innovation. But at present, too few British workplaces are realising these potential benefits. Not only has collective bargaining coverage declined, from a high of over 70% in 1979 to just 26% in 2018, but there appears to be little effort by employers to embrace any form of workplace voice. Research in

2011 found that less than half (47%) of employees thought that managers were good at responding to suggestions from employees and just over one in three (35%) said that managers were good at allowing employees to influence decisions[11]. A 2016 survey of nearly 7,500 workers found that although 87% agreed with the statement 'I am keen to embrace technology and maximise its benefits', and 73% agreed that technology would improve productivity, less than one in four (24%) said that their employer gave them a say in how technology affects their work[12]. This is a relative, as well as absolute, weakness: in a league table of workforce participation across Europe, the UK comes sixth from bottom, with only Cyprus, Lithuania, Latvia, Bulgaria and Estonia performing worse[13].

A stronger voice for workers

Workplace dialogue through collective bargaining delivers better results for employers and better quality work for workers, but employers have proved reluctant to realise these benefits, too often choosing to rely on methods to improve productivity that reduce workers' quality of life.

The rapid pace of technological change makes it increasingly important that we change approach. That is why the TUC is calling for new rights to embed a stronger voice for workers into everyday working life. We've set out a detailed plan for reform[14], but the headline measures include:

- ✓ Giving the right to access to workplaces to tell workers about the benefits of union membership and collective bargaining (following the system in place in New Zealand).
- ✓ New rights to make it easier for working people to negotiate collectively with their employer, including simplifying the process that workers must follow to have their union recognised by their employer for collective bargaining, and enabling unions to expand their reach in large organisations.
- ✓ Broadening the scope of collective bargaining rights to include all pay and conditions (including pay and pensions, working time and holidays); equality issues (including maternity and paternity rights); health and safety; grievance and disciplinary processes; training and development; work organisation (including the introduction of new technologies) and the nature and level of staffing.
- ✓ The establishment of new bodies for unions and employers to negotiate across entire sectors, starting with hospitality and social care.

Previous industrial revolutions have too often left workers behind. This one offers a chance to do things differently.

19. Afterword

By Sarah Davidson, CEO, Carnegie UK Trust

For over 100 years, the Carnegie UK Trust has sought to advance the wellbeing of people across the UK and Ireland. Paid work has a fundamental role in supporting our personal, community and societal wellbeing, enabling us to provide for ourselves and our families; buy the goods and services we need; build connections in our communities; and establish our individual and collective sense of purpose and identity. Our wellbeing is affected not only by having access to work, but by how we experience it. As the What Works Centre for Wellbeing puts it, when it comes to wellbeing, *'having a job is good and having a good quality job is miles better'.*[1]

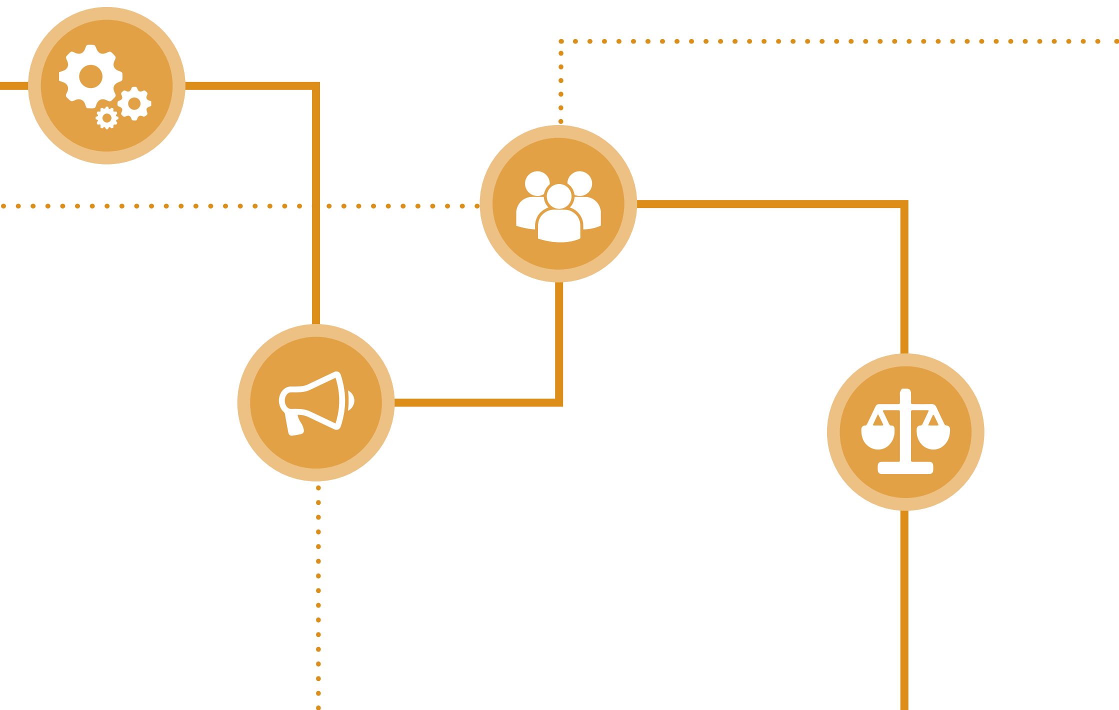
It is well understood that the current levels of record employment in the UK can mask huge differences in the quality of work experienced by workers in different industrial sectors, in different regions, and in different demographic groups. Specifically, we know that workers' experience of key aspects of work, such as terms and conditions; pay and benefits; physical and mental strain; job design; support structures; voice and representation, and work-life balance, can vary enormously across the UK labour market. While good work has enjoyed a much needed increase in policy attention in recent years there remains much to do: we need to continue to explore and advance the range of different levers that might be deployed to extend the availability of work that improves wellbeing for all.

Better understanding and promoting of the role that good work can play in helping to solve the UK's productivity puzzle is a crucial piece of this jigsaw. There is of course some debate about the concept and measures of productivity, but the historical evidence of the relationship between productivity growth, higher wages and improvements in living standards is clear. If solving the UK's productivity crisis is the most fundamental challenge facing UK policy makers today, as Andy Haldane outlines in his Foreword to this essay collection, then we need to understand and demonstrate how good work can play a central role in meeting this challenge.

That was the task that we embarked upon in bringing together this essay collection and we are extremely grateful for the wealth of rich and thoughtful perspectives expressed by the authors. No single set of stakeholders can address alone the challenges we face in supporting the creation of more good and productive jobs. The solutions to such complex, multi-layered challenges will only be found by bringing people together from different backgrounds and experiences. For that reason, we are delighted that the collection gives voice to perspectives from policy; business; academia; and trade unions, as well as contributions ranging from a UK-wide angle to a specific focus on how this agenda is being taken forward in Scotland, Wales and in North-East England.

We were open-minded about what our writers would tell us: we did not expect to find a silver bullet for poor quality work and low productivity. What the authors in this collection have provided are some clear priority actions for how we can rise to the challenge, with a particular focus on tackling 'bad work' among the UK's long tail of poor productivity performing firms, and focusing on empowering workers to use technology in a way that makes work more fulfilling and productive. Meanwhile, innovative new thinking continues to emerge on how manifold aspects of work quality - like fair pay, genuine two-way flexibility, and effective training – can lever important productivity benefits.

These issues are ripe for further exploration. We look forward to working over the coming year with all those with a stake in this agenda, including governments, to understand how the ideas set out in these essays can be implemented to deliver more fulfilling work for many more people.



About the Authors

Tera Allas CBE, Director of Research and Economics, McKinsey & Company

Tera is Director of Research and Economics at McKinsey's United Kingdom and Ireland Office, working closely with the McKinsey Global Institute. She leads McKinsey's research on government and business productivity, technology adoption, and future of work, bringing together deep expertise and more than two decades of experience in economics, public policy, innovation, and leadership, as well as ten years of experience as a management consultant focusing on corporate and business-unit strategy.

Tera is a frequent author, panellist, and speaker on topics ranging from economic and innovation policy and industrial strategy to artificial intelligence to government performance measurement. She is Fellow of the Academy of Social Sciences and serves as a trustee of the United Kingdom's Productivity Leadership Group, the National Institute of Economic and Social Research, and the Royal Economic Society. She was previously on the board of Innovate UK, the United Kingdom's national innovation agency, and a member of the States of Jersey fiscal policy panel. In 2018, Tera was appointed Commander of the Order of the British Empire (CBE) for services to economic policy.

Jennifer Beckwith, Principal Policy Advisor, Employment Law & Employee Relations, CBI

Jennifer is Principal Policy Advisor in employment issues at the CBI. She currently manages the CBI's campaign to boost UK productivity by improving how businesses lead, develop and engage their people. She also represents UK employers at the UN's International Labour Organisation. Jennifer has previously led the CBI's policy-making on diversity & inclusion, gender pay gap reporting, modern slavery and labour market enforcement. Prior to the CBI, Jennifer was a policy researcher at London charity Community Links on public service reform and provided editorial assistance to the International Institute of Social History, Amsterdam. She has a Masters in Social and Economic History from Utrecht University, Netherlands.

Kate Bell, Head of Rights, International, Social and Economics, TUC

Kate Bell is the Head of the Rights, International, Social and Economics department at the TUC.

The Department leads the TUC's work on boosting employment rights, promoting social and economic policies that benefit working people, and building international solidarity.

Before joining the TUC, Kate worked as Head of Policy and Public Affairs for a local authority, for the Labour Party, and for the charities Child Poverty Action Group and Gingerbread. Kate is also a member of the Low Pay Commission, representing workers.

Derek Bosworth, Honorary Professorial Fellow, Warwick Institute for Employment Research

Derek has worked with the Warwick Institute for Employment Research (a leading international research centre focusing on the labour market and its relationships with the wider economy) for over thirty years. Until recently Derek was an Honorary Professor at Wuhan University of Technology, a Senior Research Associate at St. Peter's College, Oxford and a Visiting Professor at the UK Commission for Employment and Skills. He has continued to take an interest in issues relating to skills and employment throughout his career. He has worked extensively on both theoretical and empirical labour supply and demand models, as well as analysing their implications for skill shortages, education and training.

Felicity Burch, Director of Innovation and Digital, CBI

Felicity leads the organisation's policy work to create the conditions that enable businesses to come up with new ideas, invest in research and development (R&D) and adopt new technologies.

Prior to taking her current role, she spent two years as the Head of Innovation and Digital, where she led the CBI's successful campaign for the government to commit to a target for R&D expenditure, as well as agenda-setting work on technology adoption. Felicity's first role at the CBI was as the Principal Policy Adviser on labour markets, where she was responsible for the CBI's agenda on pay and the future of work.

Felicity's background is in Economic Policy, focused on business growth. Before the CBI, she was Senior Economist at EEF, the manufacturers' organisation. In this role she led the development of their innovation policy and industrial strategy work and delivered a breadth of economic and industrial trends research. She has also worked on Experian's Economic Policy team, with a focus on regional growth.

Tony Danker, Chief Executive, Be the Business

Tony Danker is Chief Executive of the Be the Business, the campaign for UK productivity and competitiveness. Be the Business was founded and is chaired by Sir Charlie Mayfield (Chairman of the John Lewis Partnership) and supported by the some of the country's leading businesses and UK Government.

Tony was previously the Chief Strategy Officer at Guardian News & Media (GNM), where he had responsibility for the Guardian's strategy, business development and analytics functions. Prior to this role he was International Director, responsible for GNM's international expansion.

Before joining GNM, Tony spent two years in public policy and was a Special Adviser in HM Treasury. He previously spent 10 years at McKinsey & Company, with expertise in government and organisational consulting.

Sarah Darrall, Research Assistant, RSA

Sarah is an Assistant Researcher in the Economy, Enterprise and Manufacturing team at the RSA, and also provides research assistance to the CEO, Matthew Taylor. She has recently completed a Bachelor of Science in Economics at the University of Bristol.

Paul Devoy, CEO, Investors in People

Paul Devoy has been heading up Investors in People since 2011. Paul led the buyout of the organisation from UK Government ownership into it becoming a Community Interest Company in 2017.

Moving away from Government has allowed Investors in People to significantly redevelop and expand their products, and now they offer various accreditations that make work better as well as a free platform that supports organisations to Jumpstart their people strategy.

In a previous life Paul was Head of Organisational Development at the Scottish Prison Service. During his time there all prisons in Scotland were awarded Investors in People accreditation.

Gill Dix, Head of Workplace Policy, Acas

Gil Dix is Head of Workplace Policy at Acas, Britain's Advisory, Conciliation and Arbitration Service. Acas provides free and impartial information, advice and training to employers and employees on all aspects of workplace relations and employment law, supporting positive relationships between employers and employees and providing conciliation services to resolve workplace disputes. Acas also provides research and commentary on the world of work. Gill has been with Acas since 1994, and was Head of the Acas research team before leading a programme of work on public policy.

Alan Felstead, Research Professor, Cardiff University

Alan is Research Professor in the School of Social Sciences at Cardiff University. He is project lead on the Skills and Employment Survey 2017 and in 2018-2019 he sat on the Welsh Government's Fair Work Commission as the Independent Expert Advisor. He has previously held positions at Nuffield College, University of Oxford and the University of Leicester and has been Visiting Professor at the ESRC Centre for Learning and Life Chances in Knowledge Economies and Societies (LLAKES), UCL Institute of Education since 2009. His research focuses on: the quality of work; training, skills and learning; non-standard employment; and the spaces and places of work. He has completed has completed numerous funded research projects (including 15 funded by the ESRC), produced seven books, and written over 200 journal articles, book chapters, research reports and discussion papers. He is currently helping to enact some of the Fair Work Commission's recommendations through a part-time secondment to Welsh Government. However, he writes here in a personal capacity.

Patricia Findlay, Professor of Work and Employment Relations, University of Strathclyde and Co-Chair, Fair Work Convention

Patricia is the co-chair of the Fair Work Convention in Scotland and the Director of the Scottish Centre for Employment Research. Patricia is also Professor of Work and Employment Relations at the Department of Human Resource Managed at the University of Strathclyde Business School, where she also leads the 'Innovating Works' programme and the Fair, Innovative and Transformative work (FITwork) programme. Her research and teaching expertise is in the study of work and the management of the employment relationship.

Duncan Gallie, Emeritus Fellow, Nuffield College, University of Oxford

Duncan is Emeritus Fellow at Nuffield College, University of Oxford. He joined Nuffield College as an Official Fellow in 1985 and became Professor of Sociology in 1996. He has been Vice-President Social Sciences of the British Academy (2004 -2006) and Foreign Secretary of the British Academy (2006-2011). His research is in economic sociology, in particular the quality of work and the social consequences of unemployment. He is currently working on two main projects. The first is a European comparative study on the effects of employee involvement on work engagement and skill development. The second is a research programme examining changes in skills and employment conditions in Britain from 1986 to 2017.

Francis Green, Professor of Work and Education Economics, University College London

Francis is Professor of Work and Education Economics, at the Institute of Education at University College London. After graduating in Physics at Oxford, Francis switched to economics with an MSc at the London School of Economics, before writing his PhD thesis on the theory of saving at Birkbeck College. He began his career at the age of 22 at Kingston Polytechnic. After spells at the Universities of Massachusetts, Leicester, Leeds and Kent, in 2010 he moved to the Institute of Education (now a faculty of UCL), where he now works in the LLAKES research centre and in the Centre for Global Higher Education. His research focuses on education, skills, the graduate labour market and the quality of work. His latest book, co-authored with David Kynaston is *Engines of Privilege. Britain's Private School Problem*, published by Bloomsbury Press. The author of ten earlier books, and more than 150 papers, he also works as an occasional expert advisor on skills and job quality for the UK government, the OECD and the European Union.

Josh Hardie, Deputy Director-General, CBI

Josh is CBI Deputy Director-General. An experienced corporate affairs specialist, Josh joined the CBI in 2016 and leads the CBI's overall policy development, media and campaigning work. From Brexit and global trade to Industrial Strategy, regional growth and the CBI's new campaign, Everyone's business, all Josh's focus is aimed at helping business to tackle inequality and raise living standards.

Josh joined from Tesco, where he was Group Director for Corporate Responsibility. He has previously held Exec-level roles at EdComs Ltd creating behaviour change strategies and campaigns for businesses, government departments and the voluntary sector, and an educational charity, Education Extra, campaigning with schools and working with the Government on educational issues.

Golo Henseke, Senior Research Associate, University College London

Golo is a Senior Research Associate at the Centre for Global Higher Education (CGHE) and the Centre for Learning and Life Chances (LLAKES) at the UCL Institute of Education. Golo's research focus on inequalities in education and degree outcomes, their relationship and antecedents, skills development and skills utilisation in the labour market. His work was recognised in recent reviews of the British higher education system, consultations for the Teaching Excellence Framework, and in the revision of the British Occupational Classification.

Mary O'Mahony, Professor of Applied Economics, King's College London

Mary O'Mahony is Professor of Applied Economics. Her research interests include measuring and explaining international differences in productivity, technology and growth; human capital formation and its impacts on productivity and measuring performance in public services, including health and education. She joined King's in May 2013 and was previously Professor at Birmingham Business School, University of Birmingham. She is currently a visiting fellow at the National Institute of Economic and Social Research, London and a research associate at the German Institute for Economic Research, ZEW, Mannheim. Her research has been funded by numerous framework grants from the European Commission and she is currently a participant and a member of the management team of the Economic Statistics Centre of Excellence, funded by ONS.

Zayn Meghji, Programme Manager, RSA

Zayn is a programme manager at the RSA, supporting the organisation's internal change project. Prior to joining the RSA, he completed an MSc in Environment, Culture and Society, held various roles in the charity sector, and worked as a research analyst for a human resource consultancy.

Anna Round, Senior Research Fellow, IPPR North

Anna is a Senior Research Fellow at the Institute for Public Policy Research (IPPR) North. Anna works on education, skills and social policy across the north of England. In addition, she has published several reports focusing on the economy of the North East of England. Before joining IPPR, Anna worked as a researcher at several northern universities, and as an analyst in government. Previously she lectured in theoretical linguistics at London University.

Emma Stewart, CEO, Timewise

Emma is CEO and Co-Founder of Timewise and Women Like Us, responsible for the strategic direction of both the organisation's business consultancy and its social foundation. Her leadership role sees her working with businesses, thought leaders, policy makers and social reformers to test and scale innovative solutions which deliver successful, sustainable, two-way flexibility. As a result of her expertise in the flexible working sphere, Emma has developed a high profile as a key opinion former, advisor and speaker. She has contributed to numerous government task-forces, reports and initiatives, focusing on how to encourage more people who need to work flexibly into the workplace, shape the labour markets of the future and raise family living standards. Prior to co-founding Timewise, Emma worked in a range of development roles across the private, civic society and social enterprise sectors and within documentary television.

Matthew Taylor, Chief Executive, RSA

Matthew Taylor has been Chief Executive of the RSA since November 2006. In July 2017 Matthew published the report 'Good Work'; an independent review into modern employment, commissioned by the UK Prime Minister. In 2019 he also became interim Director of the Government's Office Labour Market Enforcement. Prior to the RSA, Matthew was Chief Adviser on Political Strategy to the Prime Minister and director of the Institute for Public Policy Research. Matthew is a panellist on the programme Moral Maze and series editor of the Thames and Hudson 'Big Ideas' books.

Fabian Wallace-Stephens, Senior Researcher, RSA

Fabian is a Senior Researcher in the RSA's Economy, Enterprise and Manufacturing team. He is particularly interested in self-employment, the gig-economy and the impacts of technology on jobs and has co-authored several recent RSA reports on these topics. He currently leads the Future Work Awards – a search for innovations from around the world that are emerging to address the challenges workers face in finding, creating and sustaining good work. Fabian has an MSc in Philosophy and Public Policy from the LSE. Prior to joining the RSA he worked at a social enterprise for responsible business.

Chris Warhurst, Director, Warwick Institute for Employment Research

As Director of IER, Chris Warhurst is motivated by wanting to see better scientific and policy-maker understanding of work and employment. He is an Associate Research Fellow of SKOPE at the University of Oxford, a Fellow of the Royal Society of the Arts and a Trustee of the Tavistock Institute in London. He was previously Professor of Work and Organisational Studies at the Sydney University Business School and Founding Director of the Scottish Centre for Employment Research at Strathclyde University Business School. He is currently Chair of the Management Committee for the journal Human Relations, co-editor of Palgrave's Critical Perspectives on Work and Employment book series and an Editorial Advisory Board Member for Research in the Sociology of Work. Chris' research expertise centres on job quality, skills and aesthetic labour. Chis has been an expert advisor to the UK, Australian and Scottish Governments as well as the OECD, Oxfam Scotland and the Scottish Living Wage Campaign, and has published 16 books, over 50 journal articles, over 60 book chapters and nearly 50 reports for government and practitioners.

Matthew Whittaker, Director, Pro-Bono Economics

Matt joined Pro-bono Economics in November 2019, having spent the previous 11 years at the Resolution Foundation think tank. He joined Resolution Foundation as Senior Economist shortly after its creation, and was instrumental in developing its research output and defining the low-to-middle income group that is the focus of the organisation's work. He went on to grow its research team considerably, becoming Chief Economist and, from 2015, Deputy Chief Executive. He is a leading expert on the subject of income inequality, and has worked across a number of areas related to UK living standards. Prior to joining Resolution Foundation, he worked for five years in the House of Commons Library, where he provided economic and statistical advice to individual MPs and to a number of select committees.

Louise Woodruff, Policy and Partnerships Manager (Work), Joseph Rowntree Foundation

Louise is a Policy and Partnerships Manager (Work) at the Joseph Rowntree Foundation (JRF). Louise leads JRF's Good Jobs Strategy aiming to influence employers so that more people move out of poverty through work. Louise has expertise includes developing solutions to in-work poverty in the UK. Louise led JRF's work on forced labour in the UK and also worked on JRF's 2016 strategy to *Solve UK Poverty*. Louise holds a B.A. from St. John's College, Oxford and a PGCE from the University of Bath. Her background is in education having previously worked on developing widening participation activity at the University of Oxford after starting her career as a science teacher in a comprehensive school.

Endnotes

1. Overview

1 Taylor, M., 2017. *Good work: Taylor review of modern working practices*. London: HM Government. Available from: https://www.gov.uk/government/publications/good-work-the-taylor-review-of-modern-workingpractices. [Accessed October 2019]

2 Irvine, G., White, D. and Diffley, M., 2018. *Measuring good work*. Dunfermline: Carnegie UK Trust.

2. Does good work have a positive effect on productivity? Developing the evidence base

1 Taylor, M., 2017. *Good work: Taylor review of modern working practices*. London: HM Government. Available from: https://www.gov.uk/government/publications/good-work-the-taylor-review-of-modern-workingpractices. [Accessed October 2019]

2 Siebern-Thomas, F., 2005. Job quality in European labour markets. *In:* S. Brazen, C. Lucifora and W. Salverda, eds. *Job quality and employer behaviour*. New York, NY: Palgrave Macmillan, 31–66.

3 Our colleagues from the Warwick Institute for Employment Research Wil Hunt and Sudipa Sarkar were part of the project team.

4 Irvine, G., White, D. and Diffley, M., 2018. *Measuring good work*. Dunfermline: Carnegie UK Trust.

5 Warhurst, C., *et al.*, forthcoming for the Carnegie UK Trust.

6 We would like to thank Alan Felstead of Cardiff University and Duncan Gallie of Oxford University for facilitating our early access to the latest Skills and Employment Survey data for theses analytical purposes.

7 There are 60 sectors and each worker is allocated one of the 60 productivity measures.

8 For details, see Bosworth, D., *et al.*, forthcoming for the Carnegie UK Trust.

9 It should be emphasised that these findings emerge from initial analysis. Further, more comprehensive, analysis using the dataset is forthcoming, published by the Warwick Institute for Employment Research and Carnegie UK Trust.

10 Details of this sectoral classification can be found in Bosworth, D. et al (op cit.). Indicatively, the Primary sector includes agriculture, mining and forestry; Low-Tech Manufacturing covers food, paper and water treatment and supply; Knowledge Intensive covers film & television, telecommunications and computer programming; Less Knowledge Intensive cover accommodation, food & beverage and travel.

3. From trade-offs to win-wins: how we can unlock productivity and good jobs

1 HM Government, 2017. *Industrial Strategy: building a Britain fit for the future*. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/664563/industrial-strategy-white-paper-web-ready-version.pdf [Accessed October 2019].

2 Confederation of British Industry (CBI), 2017. *From ostrich to magpie: increasing business take-up of proven ideas and technologies*. Available from: https://www.cbi.org.uk/media/1165/cbi-from-ostrich-to-magpie.pdf [Accessed October 2019].

3 See, for example, Office for National Statistics (ONS), 2019. *Productivity jobs, productivity hours, market sector workers, market sector hours*. Available from: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/labourproductivity/datasets/productivityjobsproductivityhoursmarketsectorworkersmarketsectorhours [Accessed October 2019]; ONS, 2019. *Employment in the UK: September 2019*. Available from: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/employmentintheuk/september2019 [Accessed October 2019]; ONS, 2019. *Number of people in employment (aged 16 and over, seasonally adjusted)*. Available from: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/timeseries/mgrz/lms [Accessed October 2019].

4 See, for example, ONS, 2019. *Labour market statistics time series*, 2019. Available from: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/datasets/labourmarketstatistics [Accessed October 2019]; ONS, 2019. *EMP13: Employment by industry*. Available from: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/datasets/employmentbyindustryemp13 [Accessed October 2019]; ONS, 2019. *A05 SA: employment, unemployment and economic inactivity by age group (seasonally adjusted)*. Available from: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/datasets/employmentunemploymentandeconomicinactivitybyagegroupseasonallyadjusteda05sa [Accessed October 2019].

5 ONS, 2019. *Personal and economic well-being: what matters most to our life satisfaction?* Available from: https://webarchive.nationalarchives.gov.uk/20160106043118/http://

www.ons.gov.uk/ons/rel/wellbeing/measuring-national-well-being/what-matters-most-to-personal-well-being-in-the-uk-/index.html [Accessed October 2019].

6 ONS, 2019. *Personal and economic well-being*.

7 ONS, 2019. *Measures of national well-being dashboard*. Available from: https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/articles/measuresofnationalwellbeingdashboard/2018-09-26 [Accessed October 2019]; Wheatley, D. and Gifford, J., 2019. *UK working lives 2019 survey: full report*. London: Chartered Institute of Professional Development. Available from: https://www.cipd.co.uk/Images/uk-working-lives-2019-v1_tcm18-58585.pdf

8 Health and Safety Executive, 2019. *Working days lost in Great Britain*. Available from: http://www.hse.gov.uk/statistics/dayslost.htm [Accessed October 2019].

9 Health and Safety Executive, 2019. *Work-related stress, anxiety or depression statistics in Great Britain*. Available from: http://www.hse.gov.uk/statistics/causdis/stress.pdf [Accessed November 2019].

10 Jenkins, S., 2019. The income distribution in the UK: a picture of advantage and disadvantage. *In:* H. Dean and L. Platt, eds. *Social advantage and disadvantage*. Oxford: Oxford University Press, 135–160.

11 See ONS, 2018. *Estimating the impact of the self-employed in the labour share*. Available from: https://www.ons.gov.uk/economy/economicoutputandproductivity/productivitymeasures/methodologies/estimatingtheimpactoftheselfemployedinthelabourshare [Accessed October 2019];

Gutiérrez, G., 2019. *Revisiting the global decline of the (non-housing) labor share*. Staff Working Paper No. 811, Bank of England.

12 See, for example, Layard, R., 2016. *Measuring wellbeing and cost-effectiveness analysis: using subjective wellbeing*. London: What Works Wellbeing. Available from: https://whatworkswellbeing.org/product/measuring-wellbeing-and-cost-effectiveness-analysis-using-subjective-wellbeing/ Accessed October 2019]

Bangham, G., 2019. *Happy now? Lessons for economic policymakers from a focus on subjective well-being*. London: Resolution Foundation. Available from: https://www.resolutionfoundation.org/app/uploads/2019/02/Happy-now-report.pdf Accessed October 2019]

13 See, for example, McKinsey & Co., 2019. *Happiness and work: an interview with Lord Richard Layard*. Available from: https://www.mckinsey.com/featured-insights/

leadership/happiness-and-work-an-interview-with-lord-richard-layard [Accessed October 2019];

CBI, 2019. *Great job: solving the productivity puzzle through the power of people*. Available from: https://www.cbi.org.uk/media/2717/2019-05_great-job-full-report.pdf [Accessed October 2019].

14 Deane, J., 2016. *Self-employment review: an independent report*. London: Department for Business, Energy and Industrial Strategy. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/529702/ind-16-2-self-employment-review.pdf Accessed October 2019]

15 Autor, D. and Salomons, A., 2018. Is automation labor-displacing? Productivity growth, employment, and the labor share. *Brookings Papers on Economic Activity*, Washington, DC: The Brookings Institution.

16 Hunt, V., *et al*., 2019. *The future of women at work in the United Kingdom*. New York, NY: McKinsey Global Institute. Available from: https://www.mckinsey.com/featured-insights/future-of-work/the-future-of-women-at-work-in-the-united-kingdom Accessed October 2019]

17 Allas, T., *et al*., 2019. *The future of work: rethinking skills to tackle the UK's looming talent shortage*. London: McKinsey & Co. Available from: https://www.mckinsey.com/featured-insights/future-of-work/the-future-of-work-rethinking-skills-to-tackle-the-uks-looming-talent-shortage Accessed October 2019]

18 ONS, 2019. *UK productivity flash estimate: April to June 2019*. Available from: https://www.ons.gov.ukeconomy/economicoutputandproductivity/productivitymeasures/articles/gdpandthelabourmarket/apriltojune2019 [Accessed October 2019].

19 Allas, T., *et al*., 2019. *Brexit: the bigger picture – revitalizing UK exports in the new world of trade*. London: McKinsey & Co. Available from: https://www.mckinsey.com/featured-insights/europe/brexit-the-bigger-picture-revitalizing-uk-exports-in-the-new-world-of-trade Accessed October 2019]

20 Arthur, B., 1996. Increasing returns and the new world of business. *Harvard Business Review*. Available from: https://hbr.org/1996/07/increasing-returns-and-the-new-world-of-business Accessed October 2019]

21 Edmans, A., Li, L. and Chendi, Z., 2019. *Employee satisfaction, labor market flexibility, and stock returns around the world*. Finance Working Paper No. 433/2014, European Corporate Governance Institute.

22 See, for example, ONS, 2018. *Management practices and productivity in British production and services industries – initial*

results from the management and expectations survey: 2016. Available from: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/labourproductivity/articles/experimentaldataonthemanagementpracticesofmanufacturingbusinessesingreatbritain/2018-04-06 [Accessed October 2019]; Van Reenen, J., *et al*., 2010. *The economic impact of ICT*. London: LSE Centre for Economic Performance. Available from: https://warwick.ac.uk/fac/soc/economics/staff/mdraca/cstudytheeconomicimpactofictlondonschoolofeconomics.pdf; Johnson, R., *et al*., 2017. Regulatory focus trickle-down: how leader regulatory focus and behavior shape follower regulatory focus. *Organizational Behavior and Human Decision Processes*, 140, 29–45.

23 Winterbotham, M., *et al*., 2018. *Employer skills survey 2017*. London: Department for Education. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/746493/ESS_2017_UK_Report_Controlled_v06.00.pdf [Accessed October 2019]

24 See, for example, Russo, G., 2017. *Skill utilization at work: opportunity and motivation*. Bonn: IZA World of Labour. Available from: https://pdfs.semanticscholar.org/1fc7/e7f5a690c89ed7df3c6c1a6e0d1feefbda45.pdf; Harvard Business Review, 2010. What motivates us? *Harvard Business Review*, February 2010 (online). Available from: https://hbr.org/2010/02/what-motivates-us [Accessed October 2019].

25 Basford, T. and Schaninger, B., 2016. *The four building blocks of change*. London: McKinsey Quarterly. Available from: https://www.mckinsey.com/business-functions/organization/our-insights/the-four-building-blocks--of-change Accessed October 2019]

26 Bughin, J., *et al*., 2018. *Solving the United Kingdom's productivity puzzle in a digital age*. New York, NY: McKinsey Global Institute. Available from: https://www.mckinsey.com/featured-insights/regions-in-focus/solving-the-united-kingdoms-productivity-puzzle-in-a-digital-age [Accessed October 2019]]=

27 Allas, T., 2019. Productivity and job creation. *In:* C. Berry, ed. *What we really mean when we talk about industrial strategy*. Manchester: Future Economies, chapter 2.

28 Bughin, J., *et al*., 2019. *'Tech for good': using technology to smooth disruption and improve well-being*. New York, NY: McKinsey Global Institute. Available from: https://www.mckinsey.com/featured-insights/future-of-work/tech-for-good-using-technology-to-smooth-disruption-and-improve-well-being

5. Technology, productivity and good work: views from the ground

1 Irvine, G., White, D. and Diffley, M., 2018. *Measuring good work*. Dunfermline: Carnegie UK Trust.

2 Taylor, M., 2017. *Good work: Taylor review of modern working practices*. London: HM Government. Available from: https://www.gov.uk/government/publications/good-work-the-taylor-review-of-modern-workingpractices [Accessed October 2019]

6. Can gig work be good work?

1 Taylor, D., 2017. *Ain't that typical? Everyday challenges for an atypical workforce*. Acas Policy Discussion Paper, July.

2 Balarem, B., 2017. What is the gig economy? RSA Blog. Available from: https://www.thersa.org/discover/publications-and-articles/rsa-blogs/2017/07/what-is-the-gig-economy Accessed October 2019]

3 Cited in: https://www.tuc.org.uk/news/uk%E2%80%99s-gig-economy-workforce-has-doubled-2016-tuc-and-feps-backed-research-shows Accessed October 2019]

4 Field, F. and Forsey, A., 2016. Self-employment in Britain's gig economy. *Wild West Workplace*. Available from: http://www.frankfield.co.uk/upload/docs/Wild%20West%20Workplace.pdf Accessed October 2019]

5 Hart, M., *et al*., 2018. *Global Entrepreneurship Monitor: United Kingdom 2018 Monitoring Report*. Global Entrepreneurship Monitor. Available from: https://cdn14.contentlive.co.uk/cb0e2f810c054c4394359fd28fcb4c14:static/pdf/8237_nw_gem_2019_report.pdf?versionId=c0KmoX0axRPTKDpvakOSfFgyV9.tDN.3 [Accessed October 2019]

6 Chartered Institute of Professional Development, 2017. *To gig or not to gig? Stories from the modern economy*. London: Chartered Institute of Professional Development. Available from: https://www.cipd.co.uk/Images/to-gig-or-not-to-gig_2017-stories-from-the-modern-economy_tcm18-18955.pdf [Accessed October 2019].

7 Low Pay Commission Report, 2018. *A response to Government on 'One-sided flexibility'*. Low Pay Commission. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/765193/LPC_Response_to_the_Government_on_one-sided_flexibility.pdf Accessed October 2019] (See also government consultation closing October 2019. Available from: https://www.gov.uk/government/consultations/good-work-plan-one-sided-flexibility-

addressing-unfair-flexible-working-practices) Accessed October 2019]

8 Cited in: https://www.labourxchange.uk/ [Accessed October 2019]

9 Stabile, M. and Apouey, B., 2019. *The effects of self and temporary employment on mental health: the role of the gig economy in the UK*. INSEAD Report, June. Available from: https://www.insead.edu/newsroom/2019-new-study-gig-economy-boosts-mental-health-for-self-employed [Accessed October 2019]

10 Berger, T., *et al.*, 2018. *Uber happy? Work and well-being in the 'gig economy'*. Oxford: University of Oxford. Available from: https://www.oxfordmartin.ox.ac.uk/downloads/academic/201809_Frey_Berger_UBER.pdf [Accessed October 2019]

11 McKinsey Global Institute, 2016. *Independent work: choice, necessity and the gig economy*. New York, NY: McKinsey Global Institute. Available from: https://www.mckinsey.com/~/media/McKinsey/Featured%20Insights/Employment%20and%20Growth/Independent%20work%20Choice%20necessity%20and%20the%20gig%20economy/Independent-Work-Choice-necessity-and-the-gig-economy-Full-report.ashx [Accessed October 2019]

12 Gallup Poll, 2018. *The gig economy and alternative work arrangements*. Gallup. Available from: https://docplayer.net/100656201-Gallup-s-perspective-on-the-gig-economy-and-alternative-work-arrangements.html [Accessed October 2019]

13 Irvine, G., White, D. and Diffley, M., 2018. *Measuring good work*. Dunfermline: Carnegie UK Trust.

14 Wood, A., *et al.*, 2019. Good gig, bad gig: autonomy and algorithmic control in the global gig economy. *Work, Employment and Society*, 33 (1), 56–75.

15 Wood, A., *et al.*, 2019. Good gig, bad gig.

16 World Bank. 2019. World Development Report 2019: The Changing Nature of Work. Washington, DC: World Bank.

7. Enabling fair work, productivity and inclusive growth: lessons from Scotland

1 Fair Work Convention, 2016. *Fair work framework*. Edinburgh: Scottish Government. Available from: https://www.fairworkconvention.scot/the-fair-work-framework/ [Accessed March 2016].

2 Findlay, P., *et al.*, 2016. *Harnessing knowledge, research and networks to drive fair, innovative and transformative work (FITwork) in Scotland*. Glasgow: University of Strathclyde. Available from: https://

innovatingworks.org.uk/dist/assets/SCER_FITwork_Year_1_Report_Final.pdf [Accessed Jul 2016].

3 Organisation for Economic Co-operation and Development (OECD), 2014. *Report on the OECD Framework for Inclusive Growth*. Paris: OECD. Available from: https://www.oecd.org/mcm/IG_MCM_ENG.pdf [Accessed June 2014];

Scottish Government (n.d.) *Growing the economy*. Edinburgh: Scottish Government. Available from: https://www.gov.scot/policies/economic-growth/inclusive-growth/ [Accessed September 2017].

4 Ranieri, R. and Ramos, R., 2013. *After all, what is inclusive growth?.* No. 188, Brasilia: International Policy Centre for Inclusive Growth. Available from: https://ipcig.org/pub/IPCOnePager188.pdf [Accessed September 2017].

5 Findlay, P., *et al*., 2018. *Creating and capturing value at work: who benefits?* London: Chartered Institute of Professional Development. Available from: https://www.cipd.co.uk/knowledge/work/job-quality-value-creation/value-work-report [Accessed January 2018].

6 Findlay, P., *et al*., 2019. *Influencing employers so more people break free from poverty through work.* York: Joseph Rowntree Foundation. Available from:https://www.jrf.org.uk/report/influencing-employers-so-more-people-break-free-poverty-through-work [Accessed October 2019].

7 Scottish Government, 2019. *Fair work action plan.* Edinburgh: Scottish Government. Available from: https://economicactionplan.mygov.scot/fair-work/ [Accessed February 2019].

8 Working Together Review Group, 2014. *Progressive workplace policies in Scotland.* Edinburgh: Scottish Government. Available from: https://www.webarchive.org.uk/wayback/archive/20170112004258/http://www.gov.scot/Publications/2014/08/4647/0 [Accessed August 2014].

9 Fair Work Convention, 2019. *Fair work in Scotland's social care sector 2019*. Edinburgh: Scottish Government. Available from: https://www.fairworkconvention.scot/wp-content/uploads/2018/11/Fair-Work-in-Scotland%E2%80%99s-Social-Care-Sector-2019.pdf [Accessed February 2019].

10 Fair Work Convention, 2016. op. cit.

8. Fair work, low pay and productivity in Wales

1 Welsh Government, 2017. *Prosperity for all: economic action plan.* Cardiff: Welsh Government.

2 Prothero, R., Verma, S. and Farouk, S., 2019. *Regional and sub-regional productivity in the UK: February*

2019. Newport: Office for National Statistics.

3 Prothero, R. *et al.*, 2019. *Regional and sub-regional productivity in the UK*.

4 Prothero, R. *et al.*, 2019. *Regional and sub-regional productivity in the UK*; figure 12.

5 Smith, R., 2018. *Employee earnings in the UK: statistical bulletin*. Newport: Office for National Statistics.

6 Welsh Government, 2019. *Well-being of Wales, 2018–19*, Cardiff: Welsh Government.

7 IHS Markit, 2018. *Living wage research for KMPG*. Henley-on-Thames: IHS Markit.

8 National Assembly for Wales, 2018. *Making the economy work for people on low incomes, equality*. Cardiff: Local Government and Communities Committee, National Assembly for Wales.

9 Fair Work Commission, 2019. *Fair Work Wales: report of the Fair Work Commission*. Cardiff: Welsh Government.

10 Felstead, A., *et al.*, 2019. Unlocking potential: ways of tapping into employees' ideas to enhance productivity. Submitted for forthcoming publication in the British Journal of Industrial Relations; shared privately with the editor in June 2019.

10. Is it time to turn the future of work on its head?

1 Confederation of British Industry (CBI), 2017. *From ostrich to magpie: increasing business take-up of proven ideas and technologies*. Available from: https://www.cbi.org.uk/media/1165/cbi-from-ostrich-to-magpie.pdf [Accessed October 2019].

2 CBI, 2019. *Great job: solving the productivity puzzle through the power of people*. Available from: https://www.cbi.org.uk/media/2717/2019-05_great-job-full-report.pdf [Accessed October 2019].

3 CBI, 2019. *Great job*.

4 CBI, 2019. *Great job*.

5 CBI, 2019. *Great job*.

6 CBI, 2017. *From ostrich to magpie*.

7 CBI, 2019. *Great job*.

8 CBI, 2019. *Great job*.

9 CBI, 2019. *Delivering skills for a new economy: understanding the digital skills needs of the UK*. Available from: https://www.cbi.org.uk/articles/delivering-skills-for-the-new-economy/ [Accessed November 2019]

10 CBI, 2019. *Delivering skills for a new economy*.

11 CBI, 2019. *Great job*.

13. Can improving productivity help our in-work poverty problem?

1 Sue, John and Sonia are all pen portraits based on a wide range of evidence sources, including https://www.jrf.org.uk/report/what-do-low-paid-workers-think-would-improve-their-working-lives; https://www.jrf.org.uk/blog/why-working-parents-are-struggling-repel-rising-tide-poverty; https://www.tuc.org.uk/research-analysis/reports/insecure-work; https://www.equalityhumanrights.com/sites/default/files/the_invisible_workforce_full_report_08-08-14.pdf; https://www.jrf.org.uk/blog/universal-credit-needs-reform-unlock-families-work-poverty; and https://www.jrf.org.uk/case-study/sean-mcallisters-a-northern-soul?gclid=EAIaIQobChMIy-Tp8fqZ5gIViaztCh0ongf3EAAYASAAEgKEiPD_BwE [Accessed November 2019]

2 Child Poverty Action Group, 2019. *Child poverty facts and figures*. Available from: https://cpag.org.uk/child-poverty/child-poverty-facts-and-figures [Accessed December 2019].

3 https://www.trusselltrust.org/news-and-blog/latest-stats/end-year-stats/ [Accessed October 2019].

4 https://www.bbc.co.uk/news/education-48037122 [Accessed October 2019].

5 Goulden, C., 2019. *It's wrong that so many working families are trapped in poverty – it's time for action.* Blog: Joseph Rowntree Foundation. Available from: https://www.jrf.org.uk/blog/its-wrong-so-many-working-families-are-trapped-poverty [Accessed October 2019].

6 Innes, D., 2020. *What has driven the rise in in-work poverty?* York: Joseph Rowntree Foundation, forthcoming.

7 Sissons, P., Green, A. E., and Lee, N., 2017. *Linking the sectoral employment structure and household poverty in the United Kingdom*. Available from: https://journals.sagepub.com/doi/10.1177/0950017017722939 [Accessed October 2019].

8 Innes, D., 2020. *What has driven the rise in in-work poverty?*

9 Sissons, P., *et al.*, 2017. *Linking the sectoral employment structure.*

10 Innes, D., 2018. *The links between low productivity, low pay and in-work poverty*. York: Joseph Rowntree Foundation. Available from: https://www.jrf.org.uk/report/links-between-low-productivity-low-pay-and-work-poverty [Accessed October 2019].

11 Taylor, M., 2017. *Good work: Taylor review of modern working practices*. London: HM Government. Available from: https://www.gov.uk/government/publications/good-work-the-taylor-review-of-modern-workingpractices [Accessed October 2019]

12 D'Arcy, C., 2018. *Low Pay Britain 2018*. London: Resolution Foundation. Available from: https://www.resolutionfoundation.org/app/uploads/2018/05/Low-Pay-Britain-2018.pdf [Accessed October 2019].

13 https://timewise.co.uk/social-impact/tackling-social-inequality/ [Accessed October 2019].

14 Department of Business, Energy and Industrial Strategy. 2019. *Good work plan: consultation on measures to address one sided flexibility*. OGL. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/818674/Good_Work_Plan_one_sided_flexibility-consultation_.pdf [Accessed October 2019].

15 Ainsley, C. and Sodeen, F., 2019. *Every voter counts: winning over low income voters*. York: Joseph Rowntree Foundation. Available from: file://jrfdata/home/louise.woodruff/Downloads/every_voter_counts_-_winning_over_low-income_voters%20(2).pdf [Accessed October 2019].

16 https://www.livingwage.org.uk/accredited-living-wage-employers [Accessed October 2019].

17 https://www.livingwage.org.uk/living-hours [Accessed October 2019].

18 https://www.bitc.org.uk/employment/ [Accessed October 2019].

19 https://goodjobsinstitute.org/ [Accessed October 2019].

20 Innes, D., 2018. *The links between low productivity, low pay and in-work poverty.*

21 Green, A., *et al., 2018*. *Raising productivity in low-wage sectors and reducing poverty*. York: Joseph Rowntree Foundation. Available from: https://www.jrf.org.uk/report/raising-productivity-low-wage-sectors-and-reducing-poverty [Accessed October 2019].

22 Innes, D., 2018. *The links between low productivity, low pay and in-work poverty.*

23 Bramley, G., *et al.*, 2016. *Counting the cost of UK poverty*. York: Joseph Rowntree Foundation. Available from: https://www.jrf.org.uk/report/counting-cost-uk-poverty [Accessed October 2019].

24 https://www.cipd.co.uk/Images/financial-well-being-practical-guidance-report_tcm18-17440.pdf [Accessed October 2019]

25 Findlay, P., *et al.*, 2019. *Influencing employers so more people break through poverty through work*. York: Joseph Rowntree Foundation. Available from: https://www.jrf.org.uk/report/influencing-employers-so-more-people-break-free-poverty-through-work [Accessed October 2019].

26 Corfe, S. and Gicheva, N., 2019. *Pay progression for low paid workers – paper 2*. London: Social Market Foundation. Available from: http://www.smf.co.uk/publications/pay-progression-low-paid-workers-2/ [Accessed October 2019].

27 Cribb, J., *et al.* 2019. *The future path of minimum wages*. London: Institute for Fiscal Studies. Available from: https://www.ifs.org.uk/election/2019/article/the-future-path-of-minimum-wages [Accessed November 2019].

28 https://www.jrf.org.uk/blog/how-people-experiences-poverty-can-help-unlock-solutions [Accessed October 2019].

14. Can prioritising worker health help close the North's productivity gap?

1 James, C., Devaux, M. and Sassi, F., 2017. *Inclusive growth and health*. OECD Working Papers No. 103. Paris: OECD. Available from: http://dx.doi.org/10.1787/93d52bcd-en [Accessed October 2019]

2 HM Government, 2018. *Good work plan*. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/766167/good-work-plan-command-paper.pdf [Accessed October 2019]

3 Colebrook, C., 2018. *Measuring what matters: improving the indicators of economic performance*. London: Institute for Public Policy Research. Available from: http://www.ippr.org/research/publications/measuring-what-matters [Accessed October 2019]

4 Stiglitz, J., Sen, A. and Fitoussi, J., 2008. *Report by the Commission on the Measurement of Economic Performance and Social Progress*. Paris: Commission on the Measurement of Economic Performance and Social Progress. Available from: http://ec.europa.eu/eurostat/documents/118025/118123/Fitoussi+Commission+report [Accessed October 2019]

5 New Zealand Government, 2019. *The wellbeing budget*. Available from: https://treasury.govt.nz/sites/default/files/2019-05/b19-wellbeing-budget.pdf [Accessed October 2019]

6 Marmot, M., 2015. *The health gap: The challenge of an unequal world*. London: Bloomsbury.

7 Bambra, C., *et al.*, 2018. *Health for wealth: building a healthier Northern Powerhouse for UK Productivity*. Manchester: Northern Health Sciences Alliance. Available from: http://www,thenhsa,co,uk/app/uploads/2018/11/NHSA-REPORT-FINAL.pdf [Accessed October 2019]

8 Bambra, C., *et al.*, 2018. *Health for wealth.*

9 Jagger, C., 2014. *Future health trends in the North East and how they might be supported or disrupted by policy changes*. London: Government Office for Science. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/444167/future-health-trends-north-east.pdf [Accessed October 2019]

10 Office for National Statistics (ONS), 2018. *Health state life expectancy*, Dataset. London: Office for National Statistics. Available from: https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandlifeexpectancies/datasets/healthstatelifeexpectancyallagesuk [Accessed October 2019]

11 Round, A., 2017. *Extending working lives: a devolved, lifecourse approach to enabling work beyond State Pension Age*. London: Institute for Public Policy Research. Available from: https://www.ippr.org/files/publications/pdf/extending-working-lives_May2017.pdf [Accessed October 2019] and Raikes, L., Millward, L. and Longlands, S., 2018. *State of the North 2018: reprioritising the northern powerhouse*. London: Institute for Public Policy Research. Available from: https://www.ippr.org/research/publications/state-of-the-north-2018 [Accessed October 2019]

12 Barr, J., Magrini, E. and Meghnagi, M., 2019. *Trends in economic inactivity across the OECD: the importance of the local dimension and a spotlight on the United Kingdom*. Paris: OECD. Available from: https://www.oecd-ilibrary.org/docserver/cd51acab-en.pdf?expires=1571983006&id=id&accname=guest&checksum=080A5497C835DCA9FC384441AE197335 [Accessed October 2019]

13 Chief Medical Officer, 2018. *Health 2040: better health within reach.* London: Department of Health & Social Care. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/767549/Annual_report_of_the_Chief_Medical_Officer_2018_-_health_2040_-_better_health_within_reach.pdf [Accessed October 2019]

14 Hochlaf, D., Quilter-Pinner, H. and Kibasi, T., 2019. *Ending the blame game: the case for a new approach to public health and prevention.* London: Institute for Public Policy Research. Available from: https://www.ippr.org/files/2019-06/public-health-and-prevention-june19.pdf [Accessed October 2019]

15 See Lang, J., *et al.*, 2012. Psychosocial work stressors as antecedents of musculoskeletal problems: a systematic review and meta-analysis of stability-adjusted longitudinal studies, *Social Science & Medicine*, 75 (7), 1163–1174;

Dall, T., *et al.*, 2013. Modeling the indirect economic implications of musculoskeletal disorders and treatment, *Cost Effectiveness and Resource Allocation*, 11 article 5; and De Vol, R. and Bedroussian, A., 2007. *An unhealthy America: the economic burden of chronic disease. Charting a new course to save lives and increase productivity and economic growth*. Santa Monica, CA: Milken Institute. Available from: https://assets1b.milkeninstitute.org/assets/Publication/ResearchReport/PDF/chronic_disease_report.pdf [Accessed October 2019]

16 L'Hôte, E., Fond, M. and Volmert, A., 2018. *Seeing upstream: mapping the gaps between expert and public understandings of health in the United Kingdom.* A FrameWorks Map the Gaps Report commissioned by the Health Foundation. Washington, DC: FrameWorks Institute.

17 L'Hôte, E. *et al.*, 2018. *Seeing upstream*.

18 Black, C., 2008. *Working for a healthier tomorrow: Dame Carol Black's review of the health of Britain's working-age population*. Report presented to the Secretary of State for Health and the Secretary of State for Work and Pensions, 17 March 2008. London: The Stationery Office.

19 HM Government, 2018. *Good work plan*.

20 Black, C., 2019. Dame Carol Black: solving the wellbeing puzzle. Blog: *PoliticsHome*, 16 February. Available from: Available from: https://www.politicshome.com/news/uk/social-affairs/opinion/british-safety-council/101886/dame-carol-black-solving-wellbeing [Accessed October 2019]

21 Benach. J., *et al.*, 2013. *Employment, work and health inequalities: a global perspective*. Barcelona: Icaria Editorial.

22 ONS, 2018. *Contracts that do not guarantee a minimum number of hours: April 2018*, Data release. Available from: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/articles/contractsthatdonotguaranteeaminimumnumberofhours/april2018#how-many-no-guaranteed-hours-contracts-nghcs-are-there [Accessed October 2019]

23 Open Data Institute Leeds, 2019. *Employment data explorer: regional variations in self-employment and zero hours contracts.* Available from: https://odileeds.org/projects/employment-explorer/?options=true&category=selfEmployment&dataset=total&area=nuts1 [Accessed 23 October 2019].

24 HM Government, 2018. *Good work plan*.

25 Johns, M., Raikes, L. and Hunter, J., 2019. *Decent work: harnessing the power of local government*. London: Institute for Public Policy Research. Available from: https://www.ippr.org/files/2019-05/decent-work-may19.pdf [Accessed December 2019]

26 North of Tyne Combined Authority, 2019. *Proposal for a North of Tyne 'good work' business pledge*. Available from: https://www.northoftyne-ca.gov.uk/s/Background-Paper-on-Good-Work-Business-Pledge-Final-July-2019.pdf [Accessed November 2019]

27 Black, C., 2008. *Working for a healthier tomorrow: Dame Carol Black's review of the health of Britain's working-age population*. Report presented to the Secretary of State for Health and the Secretary of State for Work and Pensions, 17 March 2008. London: The Stationery Office.

15. What we know – and what we don't – about flexible working and productivity

1 Taylor, M., 2017. *Good work: The Taylor review of modern working practices*. Available from: https://www.gov.uk/government/publications/good-work-the-taylor-review-of-modern-working-practices [Accessed November 2019].

2 Timewise, 2019. *The business case for flexible working*. Available from: https://timewise.co.uk/article/the-business-case-for-flexible-working [Accessed November 2019].

3 Chartered Institute of Professional Development, 2019. *Health and well-being at work*. Available from: https://www.cipd.co.uk/Images/health-and-well-being-at-work-2019.v1_tcm18-55881.pdf [Accessed November 2019].

4 Timewise, 2017. *Flexible working: a talent imperative*. Available from: https://timewise.co.uk/wp-content/uploads/2019/06/Flexible_working_Talent_Imperative.pdf [Accessed November 2019].

5 Chartered Institute of Professional Development, 2012. *Flexible working provision and uptake*. Available from: http://www.ask4flex.org/UK-_Flexible_Working_Survey_Report--CIPD.pdf [Accessed November 2019].

6 UK Commission for Employment and Skills, 2015. *Employer Skills Survey 2015: UK Results*. Available from: https://www.gov.uk/government/publications/ukces-employer-skills-survey-2015-uk-report [Accessed November 2019].

7 Chartered Institute of Professional Development, 2019. *Health and well-being at work*.

8 Health and Safety Executive, 2019. *Work-related stress, anxiety or depression statistics in Great Britain, 2019*. Available from: https://www.hse.gov.uk/statistics/causdis/stress.pdf [Accessed November 2019].

9 Unison, 2014. *Flexible working: making it work*. Available from: https://www.unison.org.uk/content/uploads/2014/09/On-line-Catalogue225422.pdf [Accessed November 2019].

10 YouGov, 2015. *30% of UK office workers are more productive when working remotely*. Available from: https://yougov.co.uk/topics/politics/articles-reports/2015/10/20/30-uk-office-workers-are-more-productive-when-work [Accessed November 2019].

11 Cranfield University/Working Families, 2008. *Flexible working and performance*. Available from: https://www.workingfamilies.org.uk/wp-content/uploads/2014/09/Flexible-Working-Performance-2008.pdf

12 4 Day Week, 2019. *White paper: The four-day week*. Available from: https://4dayweek.com/four-day-week-trial [Accessed November 2019].

13 The Guardian, 2019. String of British firms switch over to four-day working week. *The Guardian*, 12 March (online). Available from: https://www.theguardian.com/world/2019/mar/12/string-of-british-firms-switch-over-to-four-day-working-week [Accessed November 2019].

14 Stewart, E., 2019. *Can the four day working week work for everyone?* Blog: Timewise. Available from: https://timewise.co.uk/article/the-four-day-working-week/ [Accessed November 2019].

15 Skidelsky, R., 2019. *How to achieve shorter working hours*. Available from: https://progressiveeconomyforum.com/wp-content/uploads/2019/08/PEF_Skidelsky_How_to_achieve_shorter_working_hours.pdf [Accessed November 2019].

16 Timewise, 2017. *Caring by design*. Available from: https://timewise.co.uk/wp-content/uploads/2018/02/1957-Timewise-Caring-by-Design-report-11.pdf [Accessed November 2019].

17 Timewise, 2019. *Improving nurses' work-life balance: insights from a team-based rostering pilot*. Available from: https://timewise.co.uk/wp-content/uploads/2019/09/Timewise-Nursing-Report-2019-1.pdf [Accessed November 2019].

18 Timewise, 2019. *Building flexibility into secondary schools: how to create part-time and flexible roles that work for teachers and schools*. Available from: https://timewise.co.uk/wp-content/uploads/2019/07/Timewise-Now-Teach-Report_2019.pdf [Accessed November 2019].

19 Timewise, 2016. *Modern retail: a nation of part-time shop-keepers?*. Available from: https://timewise.co.uk/article/modern-retail-nation-of-part-time-shopkeepers/ [Accessed November 2019].

16. Finding our edge: engaging employers in the movement to make work better

1 In 2012 Gallup analysed 263 research studies across 192 organisations in 49 industries and 34 countries. See Harter, J. K. *et al., 2013. Gallup: the relationship between engagement at work and organizational outcomes*. Available from: https://employeeengagement.com/wp-content/uploads/2013/04/2012-Q12-Meta-Analysis-Research-Paper.pdf [Accessed October 2020].

2 Investors in People, 2019. *Job Exodus Trends: 2019 employee sentiment research*. Available from: http://www.investorsinpeople.com/wp-content/uploads/2019/06/Job-Exodus-2019-InvestorsInPeople.pdf [Accessed October 2019].

3 Investors in People, 2019. *Job Exodus Trends*. Available from: http://www.investorsinpeople.com/wp-content/uploads/2019/06/Job-Exodus-2019-InvestorsInPeople.pdf [Accessed October 2019].

17. Unlocking potential: ways of tapping into employees' ideas to enhance productivity

1 The survey is seventh in a series of nationally representative sample surveys of individuals in employment aged 20–60 years old (although the 2006, 2012 and 2017 surveys also sampled those aged 61–65). In 2017, 3,306 workers (employees and self-employed) were interviewed for around 60 minutes in their own homes (www.cardiff.ac.uk/ses2017).

2 See Felstead, A., *et al.*, 2018. *Productivity in Britain: the workers' perspective – first findings from the skills and employment survey 2017.* London: Centre for Learning and Life Chances in Knowledge Economies and Societies, UCL Institute of Education.

3 For example, Freeman, R. B. and Medoff, J. L., 1984. *What do unions do?* New York, NY: Basic Books.

4 For example, Appelbaum, E., *et al.*, 2000. *Manufacturing advantage: Why High-Performance Work Systems Pay Off*, Administrative Science Quarterly, Vol. 46, No. 4, pp. 781-783, 2001

5 Financial Reporting Council, 2018. *The UK Corporate Governance Code.* London: Financial Reporting Council.

6 Reeves, R., 2019. *Government's Industrial Strategy must not shut the door to 'neglected' industries.* Chair of the Department for Business, Energy and Industrial Strategy, 19 March. Available from: https://www.parliament.uk/business/committees/committees-a-z/commons-select/business-energy-industrial-strategy/news-parliament-2017/industrial-strategy-report-published-17-19/ [accessed October 2019]

18. How can we ensure more workers drive and benefit from productivity gains?

1 International Trade Union Confederation, 2016. *Scandal! Inside the global supply chains of 50 top companies.* Available from: https://www.ituc-csi.org/IMG/pdf/pdffrontlines_scandal_en-2.pdf [accessed October 2019]

2 See, for example, Low Pay Commission, 2019. *A response to the government on one sided flexibility.* Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/765193/LPC_Response_to_the_Government_on_one-sided_flexibility.pdf [accessed October 2019]

3 Coyle, D, *Making the Future Count*, Available from https://indigo.testudo.goodcaesar.org/wp-content/uploads/2017/10/making-the-future-count.pdf [accessed December 2019][accessed October 2019]

4 Global Commission on the Future of Work, 2019. *Work for a brighter future.* Geneva: International Labour Organization. Available from: https://www.ilo.org/wcmsp5/groups/public/---dgreports/---cabinet/documents/publication/wcms_662410.pdf [accessed October 2019]

5 Belton, P., 2019. How does it feel to be watched at work all the time. *BBC Business*, 12 April. Available from: https://www.bbc.co.uk/news/business-47879798 [accessed October 2019]

6 Trades Union Congress, 2018. *I'll be watching you: a report on workplace surveillance.* Available from: https://www.tuc.org.uk/research-analysis/reports/ill-be-watching-you [accessed October 2019]

7 See, for example, BBC News, 2018. Uber loses latest legal bid over employment rights. *BBC News*, 19 December. Available from: https://www.bbc.co.uk/news/business-46617584 [accessed October 2019]

8 Organisation for Economic Co-operation and Development (OECD), 2019. Facing the future of work: how to make the best of collective bargaining. *In: OECD*

employment outlook 2019: the future of work. Paris: OECD. Available from: https://www.oecd-ilibrary.org/sites/9ee00155-en/1/2/5/index.html?itemId=/content/publication/9ee00155-en&_csp_=b4640e1ebac05eb1ce93dde646204a88&itemIGO=oecd&itemContentType=book [accessed October 2019]

9 The research is summarised in Bryson, A. and Forth, J., 2017. *The added value of trade unions: new analyses for the TUC of the Workplace Employment Relations Surveys 2004 and 2011*, London: Trades Union Congress; and Bryson, A. and Forth, J. 2017. *Work/life balance and trade unions: evidence from the Workplace Employment Relations Survey 2011*, London: Trades Union Congress.

10 Askenazy, P. and Forth, J., 2016. Work organisation and HRM – does context matter? *In:* T. Amossé, A. Bryson, J. Forth and H. Petit, eds. *Comparative workplace employment relations: an analysis of Britain and France.* Basingstoke: Palgrave Macmillan.

11 The 2011 Workplace Employment Relations Study: first findings. Available from: https://www.gov.uk/government/publications/the-2011-workplace-employment-relations-study-wers [accessed December 2019}

12 The Smith Institute, 2016. *The productivity puzzle: a view from employees*. London: The Smith Institute.

13 European Trade Union Institute, 2019. *Benchmarking Working Europe 2019*. Available from: https://www.etui.org/Publications2/Books/Benchmarking-Working-Europe-2019 [accessed December 2019]

14 Trades Union Congress, 2019. *A stronger voice for workers.* Available from: https://www.tuc.org.uk/sites/default/files/2019-09/Astrongervoiceforworkers.pdf [accessed October 2019]

19. Afterword

1 Submission by Nancy Hey, Director of What Works Wellbeing, to the Carnegie UK Trust, Sept 2017, see https://whatworkswellbeing.org/product/job-quality-and-wellbeing/ for more information

Carnegie UK Trust
The Carnegie UK Trust works to improve the lives of people throughout the UK and Ireland, by changing minds through influencing policy, and by changing lives through innovative practice and partnership work. The Carnegie UK Trust was established by Scots-American philanthropist Andrew Carnegie in 1913. **www.carnegieuktrust.org.uk**

These collected essays were reviewed and edited for the Carnegie UK Trust by Gail Irvine, Carnegie UK Trust, January 2020.

CarnegieUK TRUST

CHANGING MINDS • CHANGING LIVES

Carnegie United Kingdom Trust
Registered Charity No: SC 012799 operating in the UK
Registered Charity No: 20142957 operating in Ireland
Incorporated by Royal Charter 1917

ISBN 978-1-912908-27-1
9 781912 908271