The Shorter Working Week: A Radical And Pragmatic Proposal

Autonomy

DEMAND A 4 DAY WEEK

Edited by
Will Stronge and Aidan Harper

Contributors include:
Danielle Guizzo
Kyle Lewis
Madeleine Ellis-Petersen
Aidan Harper
Nic Murray
Will Stronge

With other contributions from:
Helen Hester
Matt Cole

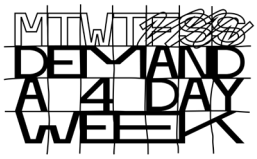
Published 2019 by:

Autonomy Research Ltd
Cranbourne
Pilcot Road
Crookham Village
Hampshire
GU51 1DY

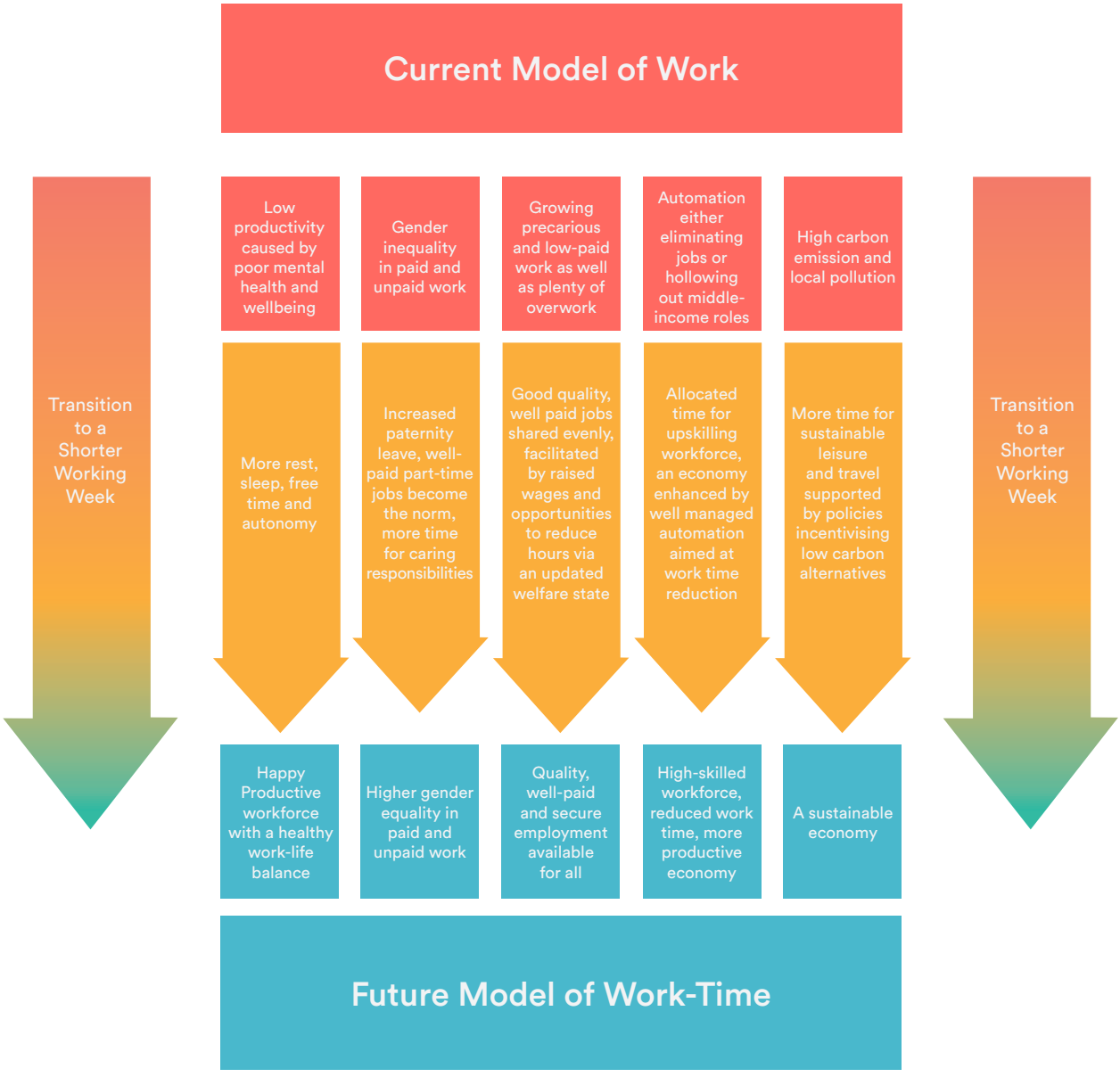
Cover photograph by Ryan Tang

Report design by Jack Haslehurst
for Autonomy

In collaboration with members
of the 4 Day Week Campaign



Transition to a Shorter Working Week



"This report is part of an important and growing body of research that is steadfastly putting paid to the idea that the length of the working week is set in stone. It's increasingly clear it is not. In fact, as this report demonstrates, working less may actually be the key to better distributed, sustainable economic prosperity. Whether the 4th industrial revolution and its implications for the future of labour happen as many predict or not, the issue of catastrophic climate and ecosystem breakdown is real and upon us now. The science tells we have around a decade to take radical action. Fail to do so and the implications for global civilisation are grim. Working fewer hours, reducing consumption for its own sake, expanding our free time, improving ourselves and moving towards a more post-material society maybe all that stands between a prosperous future and a dark, dystopian one."
Clive Lewis MP, for Norwich South

"This report clearly puts forward the case for a shorter working week as a realistic ambition, and the critical role of trade unions in helping to achieve it. From the eight-hour day to guaranteed bank holidays, the trade union movement has always stood up for working people's right to take time off. This report will help us to keep winning for workers in the 21st century."
Kate Bell, Head of Rights, International, Social and Economics at the TUC (Trades Union Congress)

"Workers in the UK have never been under more pressure to work harder and faster, for longer hours and for less. As this report underlines, with growing levels of workplace stress and a huge increase in mental health issues, this simply isn't a sustainable path and we need a radical change in direction. We have to get away from a low-investment, low-pay, low-productivity economy and a shorter working week should be at the heart of the fight for change. This is not a distant prospect – the Communication Workers Union has agreed a shorter working week in Royal Mail, one of the biggest employers in the country, which aims to take three hours off the working week thousands of postmen and women by the end of 2020. There are huge benefits from reducing working time for workers, employers and the country as a whole and the government should be driving this agenda forward now."
Dave Ward, General Secretary of the Communication Workers' Union (CWU)

"

More and more companies are implemented a shorter working week for the exact reasons this report outlines. Not only will help productivity, it could also help tackle the twin crises of air pollution and climate change (as the report says). If we're to meet the challenges of the 21st and create the future we need, want and deserve - policy makers must embrace this new way of thinking. The time has come for the shorter working week."

Jonathan Bartley, co-leader of Green Party

"The changing nature of work and increased automation poses big challenges but also huge possibilities for better ways of organising our economy. Any programme to achieving a radically fairer society must include a fundamental rethink of our relationship with work. This outstanding report is an essential contribution to that conversation."

Dan Carden MP, for Liverpool Walton

"Increasing social inequality and precarity, gender inequality, the climate crisis and the finite availability of natural resources call for a radical shift away from the paradigm of expansive production. One political approach is the radical reduction of wage labour while at the same improving social security and providing enough for all. On this path towards socio-ecological transformation, the reduction of weekly working hours together with other forms of reducing wage labour and increasing individual time sovereignty is an important step. For this and for the necessary redistribution of wealth from top to bottom, the progress in production achieved through automation and digitization could be used as a lever. The program of "The Shorter Working Week" in the UK is indeed a radical proposal and it is necessary. The special focus on the question of gender equality and the double burden of women is one of its key points. Shorter work hours are not only healthier for everyone, they also allow for a fair distribution of unpaid work between men and women."

Katja Kipping, co-leader of the Left Party (Die Linke) in Germany

"This excellent report sets the stage for a much needed change in our understanding of work and its role on modern societies. As policy-makers, we've been very interested in outlining a new progressive framework for employment policies, one that prioritizes above all the well-being of people and offers a vision for an engaging future. In this sense, we have closely followed Autonomy's work, and we are deeply convinced that shortening the working week is a desirable, practical and necessary first step. In the Valencian Country, we are strongly committed to foster a public debate about the future of work, and this report inspires us and invites us to go further."

Enric Nomdedéu, Vice-Minister of Employment (Compromís, Valencian Community)

"Working time is set to be the battleground of our generation – and this report from Autonomy and the 4 Day Week Campaign is an important and timely resource for the growing movement making a better work/life balance a reality for people across the country. At the New Economics Foundation we have long called for a shorter working week to tackle many of the societal problems we face – from gender inequality to overwork and stress. Today we recognise it as an attractive strategy for industries in transition, whether due to technological change, declining high-carbon industries or changes in international markets. The authors are right to highlight the role for unions, who have so far been leading the way to ensure that reduced working hours reach and benefit everyone and not just those who can currently afford it. We are pleased to be part of this broad alliance building a new consensus that more free time is an ambition that can and should be baked into the rules of our economy."

Alice Martin, Head of Work and Pay, New Economics Foundation.

"This report is an important intervention into a debate that is long overdue. The confluence of high inequality and long working hours is a bad bargain that should be rejected. A shorter workweek is a multiple dividend policy. At a time when wealthy countries must achieve rapid reductions in carbon emissions, there is no better way to supplement energy policy with a new approach to worktime. Reduced hours are highly correlated with lower emissions, and they also yield improvements in worker well-being, gender equity, and productivity. And a four-day workweek has long been the preferred way to reduce hours. Here's hoping this excellent report will help to reverse recent increases in UK hours, and get the country back on the pathway to shorter worktime."

Juliet Schor, Professor of Sociology at the University of Boston and author of The Overworked American (1992)

"This is a path-breaking report on one of the most promising ideas of our time"

Rutger Bregman, historian and author of Utopia for Realists (2016)

Report Contents:

1. Executive summary

2. Introduction: a shorter working week

3. Working in the UK: trends and transformations

4. Productivity

5. Mental health

6. Wellbeing

7. Towards a sustainable economy

8. Gender and the working week

9. Case studies

10. Transitional policies

11. Next steps

12. Existing businesses

13. Bibliography

1 Executive Summary

1. **We outline the nature of work in the UK,** noting the worrying trends of job polarisation, the explosion of precarious forms of work, gendered inequalities, stagnating productivity growth, the threat (and promise) of automation and the substantial inequality that exists in our society.

2. **Throughout the report, we make the case that the shorter working week is a powerful and practical response to some of these trends.** Importantly, it should be understood that the transition towards a shorter working week is possible now and is not an abstract utopia. Reducing the amount of hours that constitutes a full-time working week is shown to be beneficial to businesses, workers, and society as a whole. The report has been divided into various sections in order to cash out this claim. We recognise that while a shorter working week is one proposed way of improving the working culture in the UK, it is by no means the only possible policy in this direction. It should be also noted that the project of a shorter working week would be enhanced if it were combined with a set of other, broader economic policies.

3. **We show that there is no positive correlation between productivity and the amount of hours worked per day: working to the bone does not make 'business sense'.** Reducing workers' hours is therefore not necessarily detrimental to the success of an enterprise. A further implication of this is that in many cases there would be no justification for cutting wages in tandem with reduced working hours (as productivity can often be maintained or even increased).

4. **There are strong indications that reducing the working week can help reduce air pollution and our overall carbon footprint** through a change in consumer behaviour towards low-carbon 'soft' activities, as well as a general societal shift towards the use of low-carbon alternatives for daily activities such as eating and commuting. A reduction in the number of commutes can also reduce deadly levels of local air pollution in UK cities.

5. **We consider research concerning the importance of non-work time for our mental and physical health and for our sense of wellbeing in general.** We conclude that while holidays are one way in which workers rest and recuperate, more regular free time - beyond evenings and the current weekend - is needed to lighten the burden of work and increase the feeling of autonomy. A shorter working week could be a possible solution here.

6. **Waged work and unwaged work - such as that which is carried out in the home - should be considered as two sides of one ensemble.** Women are burdened with the vast amount of familial care and housework still to this day. In an age when dual-income households are common, this effectively constitutes a 'second shift'. Sedimented family obligations often mean that women are in more part-time jobs than men, which typically pay less relatively and offer fewer opportunities for career progression than full-time work. A shorter working waged week is a necessary (if not sufficient) condition for time equality between the genders, which in turn lays the groundwork for the possible transformation of some of these tendencies.

7. **We make the case that productivity should not be the burden of workers alone.** The UK economy is badly in need of a technological update and we suggest that the integration of automation devices can, if managed correctly, facilitate a shorter working week for workers. Thus, we must consider how automation can be a promise and not a threat.

8. **Sector-wide trade union coverage is an appropriate component of the decision-making around automation.** If the benefits from a more automated economy are to be felt and lived by workers across the UK, their voices need to be heard as part of the conversation and this in part means maximum union coverage.

9. **We consider various case studies where a shorter working week was implemented with varying degrees of success.** We note the problems faced by such schemes and some of the benefits that resulted.

10. **We argue that ultimately, a more universal approach to working time reduction is the best way to prevent a 'new dualism'** between those who can afford free time and those who cannot.

2 Introduction: A shorter working week

YOUR TIME IS POLITICAL

This report aims to demonstrate that the time we spend in work is neither natural nor inevitable. Instead, the amount of time we spend in work is a political question. One of the central aims of this report is to establish time itself as a site of political contestation – in the same vein as housing, healthcare, income, and national defence.

The time people spend in the workplace has varied dramatically throughout history, and still today varies widely between countries. What today we consider to be a 'natural' amount of time to spend at work is a relatively recent invention. The nine-to-five, five-days-a-week model for full-time work has been dominant for just 50 years, and even that is rapidly beginning to change. This report is contemporary with a number of innovative models of work-time reduction currently in practice within the UK and internationally (see section 9 for more details).

Our particular historical moment gives extra urgency to this report. Reducing the working week is a powerful and pragmatic response to a series of deeply embedded and interconnected problems within the UK economy that are set to be exacerbated in the coming decades. Phenomena such as the rise of zero-hour contracts, the impact of automation, gender inequality, stagnating productivity, continued job polarisation and vast income inequality require more than just cosmetic changes (see section 3 for more on the crisis of work). The shorter working week is one measure that can be taken to face some of these problems.

We do not claim that a reduction of working time for all will be easy, nor that it will be a silver bullet for all of society's problems. Indeed, a shorter working week available and affordable for all will require significant, institutional, financial, legal and cultural shifts. Ultimately, we argue that the potential benefits of a shorter working week are too important to be ignored, and that steps in this direction are urgently needed in order to futureproof the UK's economy and societal wellbeing.

HISTORICAL PRECEDENTS

The shortening of the working week - without a loss in pay - has been a demand (and achievement) of workers' movements, the ambition of enlightened employers, the utopia of intellectuals, and the prediction of economists for well over one hundred years. It was through their combined efforts that the five-day, 40-hour a week

model of work we know today was achieved.

In the 19th Century, the working day could range from 10 to 16 hours and was typically six days a week (Chase, 1993). This led to widespread worker dissatisfaction and a source of political organisation: in 1890, hundreds of thousands of demonstrators gathered in Hyde Park as part of the Eight Hour Day Movement to demand the government legislate for a reduction in work-time (Aveling, 1890).

The demand for shorter working hours was an international one: in 1856, stonemasons in Melbourne Australia were the first to win the eight-hour working day - realising Robert Owen's utopian dream of achieving 'eight hours labour, eight hours recreation, eight hours rest' (The Green Institute, 2016). It wasn't until 1948 however, that the whole of Australia gained its five-day week - thanks to sustained union pressure (ibid).

Forward-thinking employers also sought to reap the benefits of a shorter working week. In 1926, Henry Ford became one of the first employers to adopt a five-day, 40-hour week for workers in his automotive factories, increasing productivity and profits (Hunnicutt, 1984). In 1930, Kellogg's factories in the USA introduced a six-hour day and reduced accidents by 41 percent (Hunnicutt, 1996). Both employers were pioneers in adopting a new model of work-time and it resulted in an incredible amount of success whilst also demonstrating that a shorter working week was not just good for workers, but made good business sense too.

As technology advanced and productivity increased rapidly, John Maynard Keynes famously predicted in 1930 that by the beginning of the twenty-first century the working week could be reduced to 15 hours (Keynes, 1963). Although the increases in productivity and wealth creation did occur, the corresponding decrease in working time did not happen.

The idea of work-time as a site of political contestation had all but faded by the 1980s. This paper builds on a recent revival in interest around the nature of work, the promise (and threat) of automation, and the role of unpaid labour in society. In the UK, the Green Party included a four-day week pledge in its 2017 manifesto. A recent TUC report supporting the transition to a shorter working week, has also reopened the discussion within the labour movement on a national level. (TUC, 2018a).

INDIVIDUAL CHOICE?

One key message of this report is that the reduction of the working week in the UK cannot be achieved through individual choice alone. As things stand, only a few people can afford the luxury of reducing their hours (and income). If a shorter working week is only possible for a small proportion of people then there is a risk of a 'new dualism' emerging between those who can afford time-autonomy and those who cannot. An overall policy aim should therefore be to embed shorter working hours into the UK economy as a whole, in order to avoid this scenario.

A REDUCTION OF WAGES?

We argue that a reduction of work-time is desirable for all - but this claim comes with certain qualifications. For most people a reduction of working time will only be experienced as an improvement in wellbeing or increase in freedom if wage levels do not drop significantly with their hours. This is because time, space and a decent income are essential for freedom in an advanced capitalist society such as our own. A widespread reduction of working time with a corresponding reduction in income will most likely not produce the widespread health and wellbeing benefits that such a policy would be aiming for (particularly for those on low incomes to begin with).

Thus, we argue that an optimum outcome of shorter working week policies would be to minimise any wage reductions; as section 4 of the report shows, a reduction of working hours does not necessarily mean a drop in productivity, and so there is no automatic justification for businesses to reduce wages in line. Indeed, as other sections show (5 and 6) stress and burnout contribute to poor productivity and higher absenteeism; these 'externalities' of work need to be taken into account as factors in the debate around working time. Achieving the correct balance between time and income will require legislated cooperation between collective bargaining structures (e.g. unions), businesses and government (see section 4.5 and section 4 for more detail).

While the overall aim is to reduce the working week in a sustainable fashion across sectors for all, during the transition to such a situation various policies are available to encourage the voluntary reduction of working time for those that can afford it. A forthcoming policy review will aim to detail various proposals that can achieve both of these short-term and long-term goals.

2.1 International Comparisons:

International comparisons demonstrate that there is no clear positive correlation between working more hours, and creating a strong economy. In fact, the opposite appears to be the case: countries who work fewer hours tend to have higher levels of productivity, as well as greater amounts of wealth per person.

The amount of time we spend in work varies widely across countries, and has fluctuated widely over time. From working a similar number of hours per year, the amount of time workers in the UK, USA, Germany, and France spend in works has diverged significantly (see figure 1).

Crucially, there appears to be no direct line of causation between the number of hours worked in a particular country, and the strength of its economy. In fact, the opposite appears to be the case: countries working fewer hours tend to have higher levels of GDP per person (see figure 3).

Within Europe, countries such as Germany, the Netherlands and Norway work the fewest number of hours; Greece works the most number of hours (see figure 2). Currently, UK productivity is 26.7 percent below that of Germany, who work far few hours (ONS, 2017c). The difference in productivity is such that if German workers were to down tools and stop working early on Thursday lunchtime, they would have produced as much as a British worker would have by the end of the day on Friday.

Interestingly, despite dire comparisons to the likes of Germany and the rest of the G7, UK productivity is 10.6 percent higher than Japan (ibid.). Japan's stagnating economy is itself characterised by extreme working hours: an estimated 10,000 workers die every year from overwork (it even has its own name: karoshi) (Yamuchi, et al., 2017).

To conclude - international comparisons demonstrate that working more hours does not necessarily correlate with the relative strength of a particular economy. In fact the opposite appears to be the case: countries who work fewer hours tend to have stronger economies. Do we want to look to economies characterised by high working hours such as Greece and Japan, or should we look to replicate the success of countries such as Germany and the Netherlands, who work some of the smallest number of hours anywhere in the world?

Please see section 4 for further discussion of working time and productivity.

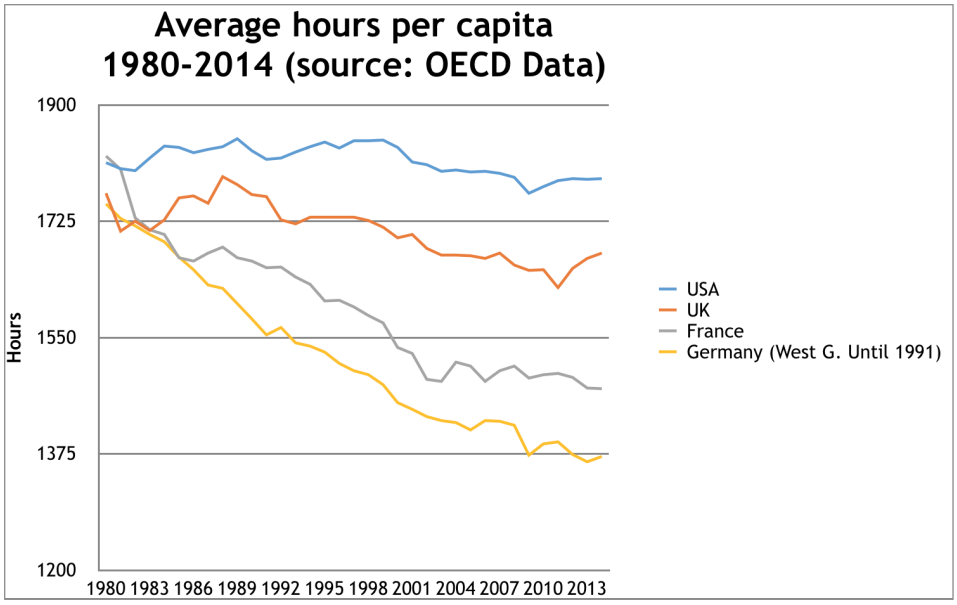


Figure 1: Average Hours per Capita. International Comparison. 1980-2014. (OECD. Dataset 1)

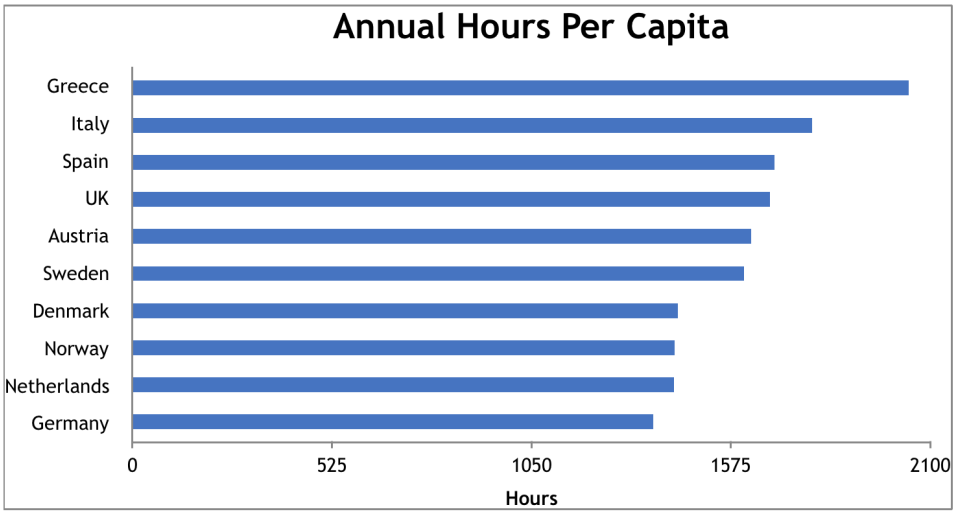


Figure 2: Annual Hours Per Capita. International Comparison. (OECD. Dataset 2)

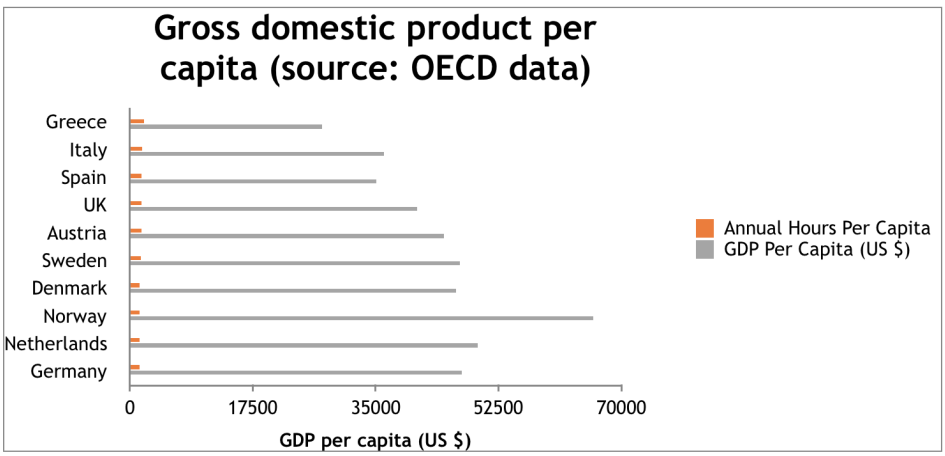


Figure 3: GDP per capita compared to annual hours worked. International comparison. (OECD. Datasets 1; OECD Dataset 2).

3 Working in the UK: trends and transformations

3. WORKING IN THE UK: TRENDS AND TRANSFORMATIONS

In this section we present some of the trends and transformations of work that are playing out within the UK's economy; the list is by no means exhaustive. As part of a substantial 'crisis of work', we highlight the declining share of national income going to labour, the growing phenomena of 'precarious work', the persistent gender inequalities dogging paid and unpaid work, the 'threat and promise' that automation poses, the long-term job polarisation of the labour market and the decline in the power of collective bargaining in the UK. These historical and contemporary trends provide the political and economic context and justification for shorter working week policies.

3.1 UK inequality and labour's share of income:

The UK has a severe problem of inequality. Ten percent of the population own forty five percent of the private wealth in the UK, while at the same time the poorest 50 percent own just nine percent (ONS, 2018a). The CEOs of British companies earn a far higher multiple of their workers' average earnings than in other European nations. By one estimate, the mean ratio in the UK in 2017 stood at 145:1 (CIPD 2018), meaning that for every £1 that an average employee of a FTSE 100 company earned, the CEO of that company earned £145. At this ratio, it would take a worker earning the UK median of £23,474 167 years to earn what a typical FTSE 100 CEO earns in just one year (ibid.). This is in contrast to a ratio of 45:1 that existed in 1998 (Simms, 2014).

The share of national income that goes to labour (in the form of wages, salaries and social contributions from employers) is in long-term decline in the UK and across the OECD, while the share going to capital is increasing. As the share proportions continue along this trajectory, improvements in macroeconomic measures most likely will not translate into improvements in personal incomes of households (OECD, 2015; Atkinson, 2009). The causes for this worrying trend are multiple: the decline in collective bargaining (Stockhammer, 2012), globalisation and technological change (e.g. Raurich et al., 2012; Bentolila and Saint-Paul, 2003) have all been put forward as explanations.

Research data has shown that over time and across many countries, a higher capital share (and lower labour share) is linked with higher inequality in terms of personal distribution of income (Piketty, 2014). Indeed, this must be put in the broader context

of a spike in inequality seen across the globe and particularly in Western Europe. In Piketty's famous analysis, for example, inequality under capitalism is now at a new peak (rivalling the pre-1914 period), after a century in which the 'settlement' between capitalism and social democracy had partially ameliorated some of the worst effects of capitalist economies (Piketty, 2014, p. 25).

3.2 Work intensity increasing

The speed and intensity of work in the UK economy is rising steadily. 46% of those questioned in 2017 'strongly agreed' that their job requires them to work very hard, compared to 32% in 1992 (Cardiff University, 2018). 31% of workers are now in jobs that require a 'very high speed' of work for most or all of the time, which is an increase of four percentage points over four years (Felstead et al., 2018). Workers are working harder while productivity stagnates, with 55% of women and 47% of men saying that they "always" or "often" go home exhausted from work (Felstead et al., 2018; O'Connor, 2018). Teachers and nurses in particular are under intense strain in their jobs, with 92% of teachers and 70% of nurses being required to work 'very hard' (ibid.). In a TUC poll, 40% said that 'high pressure on people and stress at work are one of their three biggest concerns at work' and one-in-four people work ten hours or more per week beyond what they would like (TUC, 2018a). These pressures are compounded by the widespread practice of unpaid overtime in our economy that push workers beyond contracted hours (TUC, 2017a).

3.3 The explosion of precarious work:

Precarious forms of work are now prevalent across employment sectors in the UK. On one definition, waged work is precarious if one of the following characterises the job (UCU, 2016):

A. The amount of weekly or monthly hours is uncertain and not set (including 'zero hours' contracts).

B. The contract is short term (e.g. 6 months), as is prevalent in, for example, university faculties (UCU, 2016).

As of May 2017, nearly a million workers in the UK are on 'zero hours' contracts, i.e. contracts that do not supply a minimum amount of hours (ONS, 2018c). This is in contrast with the year 2000, when only 225,000 of these contracts existed.

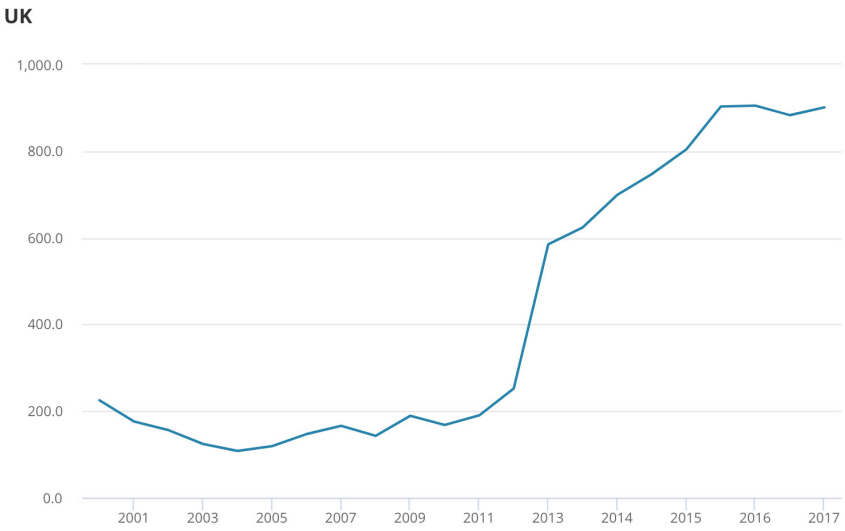


Figure 4: Number (thousands) of people in employment reporting they are on a zero-hours contract, October to December 2000 to October to December 2017 (Source: ONS, 2018c)

While the movement to a shorter working week does not directly or comprehensively answer the problem of precarious forms of work, indirectly it could lead to the creation of more secure, better-paid vacancies as individuals reduce their hours in roles across employment sectors – creating a demand for labour.

3.4 Gender inequalities

At present, the majority of unpaid domestic and care work in the UK is done by women. In 2015, women provided 74% of all childcare time in the UK (ONS 2016b) and spent, on average, 26 hours a week doing unpaid domestic labour, including cooking and cleaning (ONS 2016b). Since the 1990s, improvements in the gendered division of labour have stalled- the number of hours of unpaid work women do each week is roughly the same as it was 20 years ago (British Social Attitudes 30, 2013).

It is not only in childcare that women disproportionately shoulder the responsibility of care. 58% of those doing unpaid work caring for adults are women (ONS, 2011) and 60% of those who do over 50 hours caring a week are female (Carers UK, 2017a). 72% of recipients of carers allowance are women. Women are four times more likely than men to give up paid work to do unpaid care work (Carers UK, 2017a).

3.5 Automation: a threat and a promise

Automation – the carrying out of tasks by machinery and automatic programming that are usually done by human labourers – is a phenomena recurrent throughout the history of industrialism. That said, the capacity of current and near-future technologies to replace or radically change the nature of many jobs seems to be unprecedented. Researchers point to new developments in machine-learning and the invention of certain technologies that can carry out some cognitive and non-routine work (e.g. driverless cars) as examples of why automation is 'different this time'.

Various factors will determine if, when and how automation technologies will be integrated into employment sectors, including governmental policy, the nature of the work in question, the size of the enterprise, the level of wages in that sector, the cost of the technologies themselves and the strength of collective bargaining on behalf of workers.

These new technologies are 'both a promise and a threat'. In the context of the shorter working week, automation holds the promise of reducing work time, thereby opening up the possibility of the maximisation of autonomous time for individuals. However, this link between automation and freedom cannot and will not be facilitated without adequate state and policy intervention. The past century has shown us that automation technologies have more often than not been introduced by employers as a way of simply maximising productivity without sharing the surplus time and/or the profits with employees. This trend will continue unless a practical and enforced link between automation and free time is constructed.

All this amounts to saying that whether automation facilitates a new culture of freedom and wellbeing amongst the population, or on the contrary increases the record levels of inequality and precarity, is a political question and not a natural necessity.

Key predictions regarding automation:

- Michael Osborne and Carl Frey's study (Oxford, 2013) claims that nearly half of UK jobs will be potentially automatable in the next few decades.
- PwC (2017a) give a more conservative estimate: according to their research, 30% of current UK jobs will be at high risk of automation by the early 2030s. In the UK context, automation will likely affect those with non-degree education levels the most, due to the high proportion of automatable positions that this group occupies (see table).
- While the impact of automation on a global scale is predicted to have a more destructive impact upon job roles currently occupied by women than those of men (World Economic Forum, 2016), PwC predicts that due to the higher representation of men in automatable roles in the UK, it is this demographic that could be affected marginally more in terms of job displacement (2017a).
- In the UK automation will also affect diverse geographic regions differently, depending on the type of work carried out and where (Fenech et al., 2017).

Worker characteristics	Employment share (%)	Job automation (% at potential high risk)	Jobs at potential high risk of automation (millions)
Gender:			
Female	46%	26%	4.1
Male	54%	35%	6.3
Eduction:			
Low education (GCSE level or lower)	19%	46%	3.0
Medium education	51%	36%	6.2
High education (graduates)	30%	12%	1.2

Sources: PwC estimates using PIAAC data

Figure 5: Prediction regarding the demographics most likely to be affected by automation. (Source: PwC, 2017a)

Further reading

- Future Advocacy's 'The Impact of AI in UK Constituencies' report (Fenech et al., 2017).
- OECD's 'Automation, skills use and training' report (OECD 2018).
- Autonomy's 'Automation fact sheet' (Cole, 2017).
- IPPR's 'Managing Automation' discussion paper (Lawrence et al., 2017).

3.6 Job polarisation

Commentators, such as David B. Autor, are sceptical of the notion that there will be mass unemployment as a result of the next wave of automation (Autor, 2015). Instead, the more worrying trend for Autor and others is the 'hollowing out' or polarisation of the job market – whereby traditionally 'white collar', i.e. middle-income, jobs are steadily disappearing whilst low-income (including precarious or part-time) jobs and a proportion of high-income jobs are increasing in number. Job polarisation is a trend affecting many countries, including Japan (Furukawa and Toyoda, 2018), Sweden (Adermon and Gustavsson, 2015), the United States (Siu and Jaimovich, 2014), the UK (Goos and Manning, 2007) and elsewhere.

In the UK's context, between 1975 and 1999 there was a growth in what some authors call 'lousy jobs' (low-paying, mainly service occupations) together with a growth of 'lovely jobs' (high-paying, mainly professional and managerial occupations in finance and business services) and a decline in the number of 'middling jobs' (middle-income, mainly clerical and skilled manufacturing jobs) (Goos and Manning, 2007). One of the key causes of such polarisation, according to some interpretations, is technological change: workers in 'non-routine' manual jobs (i.e. those who tend to be in 'lousy' jobs, in the lower percentile of the wage distribution) and those in 'non-routine' cognitive jobs (those in 'lovely' jobs, generally concentrated in the top end of the wage spectrum) are either complemented or unaffected by automation technologies due to the 'non-routine' character of the tasks. Those jobs in the middle of the wage range, on the other hand, tend to be made up of routine tasks and therefore tend to be at much higher risk of automation (Goos and Manning, 2007; Autor, Levy and Murnane, 2003; OECD, 2017, 2018).

Thus, while automation may not eliminate as many jobs as predicted by some, it will most likely continue to change the overall makeup of the job market in this polarising direction. Therefore, we should be attentive to the quality of jobs that might be created (and eliminated) by automation as well as the quantity.

Job polarisation – and particularly the creation of 'lousy' jobs at the expense of middle-income positions – raises large political and economic questions that cannot be addressed comprehensively here. However, a policy strategy aimed at maximising wellbeing and economic equality could, as part of a broader set of moves, seek to partially counter this trend by reducing the waged working week. For those in low-wage, 'non-routine' sectors such as care

and education, i.e. for a large and growing proportion of the workforce (Kopf, 2017; O'Connor, 2017; Hester and Srnicek, 2019), this reduction in hours will help offset the often stressful and low-paid nature of the work itself. A shortened working week for those occupations in the lower end of the wage range would effectively provide these workers with time as a resource.

3.7 Decline in collective bargaining capacity

The collective bargaining power of workers in the UK has declined drastically over the past forty years. By 2011, it has been estimated that the UK was the country with the second lowest level of collective bargaining coverage in Europe (Fulton, 2013). Today, some have estimated that the coverage is less than 20%, in comparison to coverage above 70% in the 1960s and 1970s (Bogg et al., 2016: p. 4). This also contrasts with a 62% European average in 2011 (Fulton, 2013). This decline has been facilitated in large part by increasingly restrictive labour laws. Tony Blair once remarked that British law on trade unions is the 'most restrictive in the Western World' (quoted in Bogg et al., 2016: p. 4). This decline in collective bargaining coverage has come hand in hand with falling real wages: between 2007 and 2015, real wages in the UK declined by more than 10%, which was a drop only equalled by Greece (TUC, 2016a).

Unlike many parts of Europe such as Germany, Sweden and Denmark, the UK currently has an enterprise-based collective bargaining structure rather and a sectoral system (Bogg, et al., 2016). There is research to suggest that the broader, sectoral model achieves greater equality overall due to its greater reach of coverage. In 2014, a report by the OECD stated: 'There is consistent evidence…that overall earnings dispersion is lower where union membership is higher and collective bargaining more encompassing and/or more centralised/co-ordinated' (OECD, 2014).

The direction, capacity and composition of trade unions could also be a powerful factor in shaping the future of working time in the UK (see section 4 for more details). Research carried out by Alesina et al. (2005) investigated the differences between hours worked in the United States and Europe over approximately three decades. Their investigation centred on how, in the early 1970s, the hours worked in Europe and the United States were almost identical, but that in 2005 Europeans worked on average 50 percent less compared to their American counterparts (ibid., p.1). The authors' found that the reasons for these discrepancies in hours worked were due to labour regulations and union policies

(p.55). Their findings showed how union directives in Europe centred on demands that fought for reduced working hours for their members. These demands, coupled with stricter regulations around labour laws in the US, explained why the researchers found that Europeans worked almost 50 percent less than Americans in 2005 (p.55).

4 Productivity

4. PRODUCTIVITY AND THE SHORTER WORKING WEEK

A familiar response to the proposal of a shorter working week is the claim that such a reduction of labour will reduce productivity - either for a single enterprise or for the economy as a whole. The empirical research suggests otherwise. **Worker productivity relies not just on the sheer amount of hours put in, but on the wellbeing, fatigue levels and overall health of the worker**. Studies show that shorter working weeks (and/or greater worker control over working time) can mean fewer sick absences, fewer in-work accidents and mistakes, and higher worker motivation on the job, amongst other outcomes. Various case studies have demonstrated that a shorter working week can actually increase productivity per hour.

The burden of being productive should not lay on the shoulders of workers alone. The UK is lagging behind the international community in terms of its investment in robots, new ICT and labour technologies. A concerted effort to both update the UK economy and make sure that the time-benefits accrued from automation technologies are distributed to the workforce is drastically needed. A high-tech economy with shorter working weeks for all is a distinct possibility in the coming decades - but it will require a combination of considered governmental and organisational energy to fully realise the benefits.

4.1 UK productivity context:

The UK's economy has shown a weak productivity growth in the past 10 years, which can be partially explained by its move towards less traditionally productive sectors (such as services and hospitality) as well as its comparatively low level of investment in automation technologies (International Federation of Robotics, 2016, 2018; HMG 2017; Haldane 2017). This has contributed to its slow economic recovery since the 2007 financial crisis (ONS, 2018). In times of economic crisis or low economic growth, a policy that intends to increase productivity and employment levels can look to a shorter working week as an option.

Dominguez et al. (2011) show that employment levels, as well as consumption and productivity per hour could increase as a result of a shorter working week. This can be particularly beneficial in times of slow economic recovery, in which high unemployment and underemployment rates are a problem - as was the case in European countries such as Germany in the aftermath of the

Great Recession (ibid). A reduction in the number of working hours could mean that more work becomes available and therefore that the amount of work is shared out. In times of economic crisis or recovery, this would mean the valuable redistribution of (the means of) income and would facilitate an increase in consumption levels.

4.2 Productivity and a shorter working week

There are a number of reasons why a reduction of working hours is desirable and possible with productivity in mind. Past experiences have shown that when employees work fewer hours they tend to be more productive and take less sick leave. For example, this occurred when there was an imposed three-day week in the UK in 1974 (Worthington, 2014), and more recently in 2015 in the case of a care-home trial in Gothenburg, Sweden, where nurses reported less sick leave, better perceived health, and boosted productivity by organising 85 percent more activities for their patients (Savage, 2017).

Looking at the impact of working hours on productivity, a report for the Institute of Labor Economics (Pencavel, 2014) demonstrates that:

- Long weekly hours and long daily hours do not necessarily yield high output. This implies that for some employees engaged in certain types of work, their profit-maximizing employer should be indifferent to the length of their working hours over a day or week.

- Instead of seeing restrictions on working hours as damaging to productivity (either imposed by statute or collective agreements), a reduction of the working week should be seen as an enlightened form of improving workplace efficiency and welfare. The report points to the fact that across the world's richest countries, higher productivity correlates with lower working hours (see also: OECD Observer, 2012 and our above introduction).

- Productivity changes quite drastically per hour – quite often workers are significantly more productive in the first hours of their work day, and - above a particular threshold - become less productive as the day goes on. In an experiment with munitions workers, for example, the authors concluded that workers were most productive in the first five hours of their shift. At 35 hours a week, workers began to show a decrease in their labour input (Pencavel, 2014).

- Employees at work for a long time may experience fatigue or stress that not only reduces his or her productivity but also increases the probability of errors, accidents, and sickness that impose costs on the employer.

Working longer hours is also associated with other negative health and wellbeing effects that can affect productivity directly, such as poor worker performance, health problems, and lower employee motivation (Kodz, J. 2003). Studies on call centres conclude that as the number of hours worked increases, the average handling time for a call increases, meaning that agents become less productive as the day goes on (Collewet & Sauermann, 2017). This supports other research which demonstrates how fatigue can play an important role, even in jobs with mostly part-time workers. According to the researchers, their findings 'suggest that increasing the effective working time in these [service] occupations would cause individual workers, in particular the relatively inexperienced ones, to produce smaller quantities of output per hour, due to fatigue' (Collewet & Sauermann, 2017: p. 22).

4.3 Other factors

Fatigue stemming from working long hours, is linked with poor learning capacity and decreased productivity (Lee, D., and Lim, H., 2017). Adequate leisure and rest can improve a worker's mental and physical health, so that they will be more relaxed and alert during hours at work, thereby improving their productivity. Moreover, several studies point out that overwork can lead to serious accidents or diagnostic errors (Landrigan, Christopher et al. 2004.; Sparks, Kate et al. 2011). It can be deadly: researchers found that hospital interns make five times as many diagnostic errors when working excessively long weeks compared to normal working hours (Landrigan et al., 2004).

There is evidence that a shorter working week can have positive collective spillovers that affect the household – for example a reduction in the spouse's work hours can increase the family's overall wellbeing. A joint estimation model conducted in Korean households after the implementation of working hour regulations suggested that Korean married men's reduced hours of market work increased the wellbeing of their wives: "Even with no change in the spouse's time allocation, his/her satisfaction may be altered by the induced direct effect on the time allocation and/or life satisfaction of the spouse who was directly affected by the legislation." (Hamermesh, D.S. et al., 2014).

Effective control over working time reduces the adverse effect of work stress on sickness absence. A survey conducted in Finland between 2000-2001 with 16,139 workers concluded that there is a strong correlation between high stress and poor work time control, negatively affecting productivity (Mursula, L-A. et al., 2005). Workers who had little or no control of their working hours were more likely to experience work stress and sickness absence, which affected their labour input capacity, especially female employees.

4.4 Productivity and working time

As the above research demonstrates, productivity does not necessarily correlate with the amount of hours that workers put in. Therefore, even without the automation of labour processes, a reduction of working time could be enacted without necessarily negatively affecting an enterprise's performance (Autonomy, 2018).

However, a combination of a reduced working week (even without a loss in pay) and the introduction of automation technologies could further address both issues of worker wellbeing and enterprise productivity – thereby enabling the conditions for a happier, healthier workforce and a more productive, successful enterprise.

Famously, economist John Maynard Keynes predicted that by the year 2030, if contemporary trends of productivity were maintained, we would all be working fifteen hour working weeks; as a species we would then have to decide for ourselves what to do with our free time (Keynes, 2013 [1930]). In the past century, average working time has been incrementally reduced but this trend has in recent times stalled despite the increase in technical capacity for such reduction and despite the increases in productivity that Keynes predicted would occur (ONS, 2017a; ETUI, 2017).

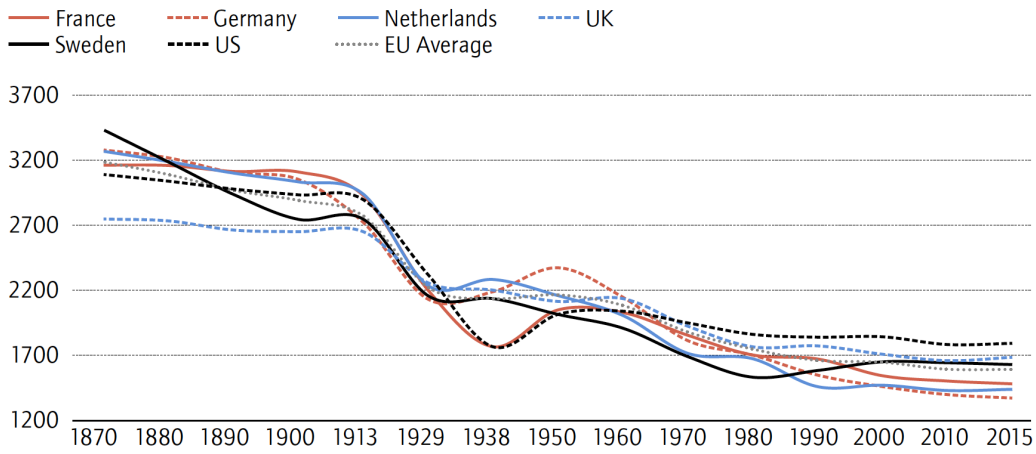


Figure 6: The historic trend in average annual working hours since 1870. (Source: ETUI, 2017, p. 12; Huberman and Minns, 2007)

That is to say, our economy currently has the technological and productive capacity to begin to move towards a significantly shorter week immediately. Since the 1970s, productivity has increased by a factor of nearly 2.5 and yet we have not reduced working hours by anything like what we are capable of (ONS, 2018b).

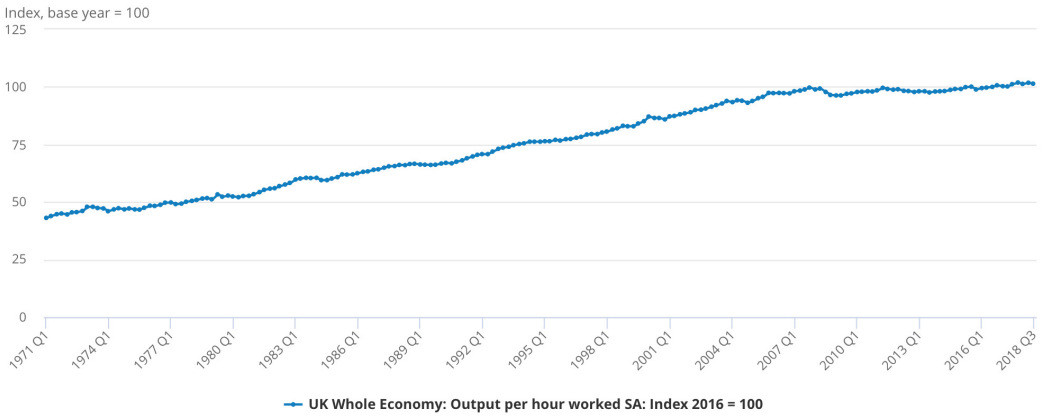


Figure 7: Since the 1970s productivity in the UK has increased while working time has barely changed (Source: ONS, 2018b)

4.5 Automation and democracy

While the question as to the relationship between productivity gains and the distributed benefits thereof is thoroughly political and often infused with ideology-driven policy strategies as well as workplace dynamics (Guizzo and Stronge, 2018), an important technical facet of the debate around the future of work regards the current state of automation across the UK economy. The UK has a much lower level of investment in machinery, robots and ICT than other countries such as France, Germany or Italy: in 2017 we had just 33 robot units for every 10,000 employees, compared with 93 in the US, 170 in Germany and 154 in Sweden (International Federation of Robotics, 2016).

As some have argued, improving this situation will require a broader adoption of technological innovation, beyond minority, 'frontier firms' (Haldane, 2017; Lawrence, et al., 2017). Furthermore, the Government's 'Made Smarter' review argued that should enterprises adopt industrial digitalisation technologies (IDTs) faster, industrial productivity could improve by as much, or more than, 25 percent by 2025 (HMG, 2017).

If we are to distribute the benefits of this increased productivity more equally, this should include time as well as income. Achieving such an automated and time-rich society overall will require

concerted institutional and organisational effort. To this end, researchers from IPPR have argued for the establishment of a body - 'Productivity UK' - to drive 'firm-level productivity across the country' by advising small and medium-sized businesses (i.e. those beyond 'frontier firms') on how automation technologies can work for them and by providing grants and loans for the necessary investment (Lawrence et al., 2017: p. 35). Importantly, the authors note that such processes of consultation should also involve both unionised and non-unionised workers in order to ensure that decent, well-paying jobs are produced as a result of automation (ibid.). Such consultations could – and should – also involve the possibility of working time reductions.

We suggest that such an initiative should be coupled with revised collective bargaining policies that move from an enterprise to a sectoral basis for worker representation (See: Bogg et al., 2016). This would ensure, for example, that the UK's transportation and storage sector – which has a high risk of being heavily impacted by automation technologies (PwC, 2017a) – would appropriately be represented as a whole (thereby benefiting all workers no matter which enterprise or particular union they belonged to). Through sector-level collective bargaining, a shorter working week could be agreed upon when coupled with the particular level of automation involved in the specific labour-process in question (as it has recently in Germany, see: Huggler, 2018). In a landmark report published in September 2018, the TUC declared that the UK should achieve a shorter working week by the end of the century, with trade unions playing a 'vital' role in this transition (TUC, 2018a). Their survey of over two thousand workers from various sectors found that eight in ten workers (81%) want to reduce working time in the future (ibid.). As argued above however, the aim of shorter hours is achievable sooner rather than later.

4.6 Updating skills in the face of change

The technological changes that face the labour market will require that individuals learn new skills both for their changed current roles and for the possibility that they will need to move into a different position elsewhere. Making sure that the workforce has the skills to adapt to new technologies will help ensure that workers are not left behind in the emerging technological milieu, whilst also updating the UK economy (TUC, 2018a).

Workers lower down the skills and education scale in the UK are set to lose out most over the next few decades (PwC, 2017a). 'Upskilling' should therefore be a high priority in order not to

exacerbate existing inequalities. We see movement in this direction with the government's 'Made Smarter' review, which calls for a large programme to re-skill and upskill one million workers (HMG 2017). This programme will need to be radically expanded and tailored to specific sectors.

4.7 Conclusion

While the automation of the UK's economy should already be an imperative for government if it wishes to achieve a more productive economy, the prospect of a more automated labour-process also holds out the promise of the reduction of toil in the day to day lives of workers, if said automation is specifically managed with this goal in mind and involving the right actors.

5 Mental Health

5. MENTAL HEALTH AND THE SHORTER WORKING WEEK

The move to a shorter working week could help the UK improve the health of workers, and the success of businesses. Poor mental health at work is estimated to cost employers between £33-42 billion, or almost 2% of UK GDP (Deloitte, 2017). Additionally, 300,000 people move out of work due to poor mental health on a yearly basis. A move towards a shorter working week could reduce stress and increase productivity, as well as enabling a better quality of rest and recuperation, which could in turn limit mental fatigue and lead to fewer sick days. Lower levels of work-related mental distress would also reduce associated burdens on healthcare services.

A shorter working week could reduce the current costs of mental health at work for employers and the government, improving productivity and reducing demand for already stretched mental health services.

5.1 The costs of the working week to workers and the economy

Good work improves mental health by providing increased income and a sense of purpose, and may also play a protective role against common mental disorders such as anxiety and depression (British Psychological Society, 2017). With a growing number of the labour force experiencing mental health problems, it is clear the stress associated with work also negatively impacts mental health - acting as a drain on productivity and increasing the need for government spending on benefits and healthcare. The annual cost for employers of poor mental health at work is estimated to be £33-42bn by Deloitte and £25.9bn by the government's independent review (Deloitte, 2017; Royal College of Psychiatrists, 2013). The social costs – falling on government, NHS and related services – is estimated to be much higher (Deloitte, 2017).

Whilst there has been a general downward trend in overall sick days, those related to mental health have increased slightly in recent years (Farmer and Stephenson, 2017). In 2018, the total number of days lost to work related stress, depression or anxiety stands at 15.4 million, an increase of nearly 3 million on the year before (HSE, 2018). Overwork is the major reason for sickness at work, with one-in-four of all sick days lost as a direct result of workload (HSE, 2018). This continues a worrying trend in recent years, whereby days lost to work related stress, depression or anxiety have been steadily increasing since 2014:

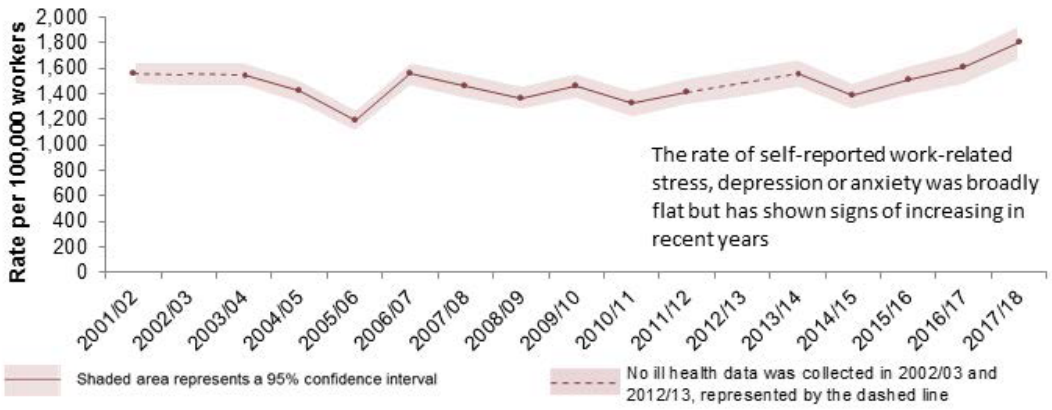


Figure 8: Days lost due to self-reported work-related stress, depression or anxiety, for people working in the last 12 months (Source: Health and Safety Executive, 2018).

The British Psychological Society (2017) emphasise a model of work and mental health that recognises both the beneficial aspects of a role and the "energy-sapping demands made by work". Longer working hours have the potential sap energy by increasing exposure to work-related stressors, and reducing the time needed for recovery (Bannai et al., 2014). The TUC (2017a; 2018a) recently found one in eight workers worked more than 48 hours a week last year.

A survey of workers across all industries by mental health charity Mind discovered that 70 percent found it more difficult to concentrate and 46 percent put off challenging work while working when experiencing poor mental health (Deloitte, 2017). These factors drastically reduce the productivity of workers, and increase costs to employers. The costs of presenteeism account for half of all costs (58%) faced by employers due to poor mental health (Royal College of Psychiatrists, 2017). The lack of time outside of work to recuperate can prolong poor mental health and hinder recovery, creating a persistent drag on workers' outputs (see section 6.3).

Extreme overworking has also been clearly linked with pronounced adverse mental health impacts later in life. A 1990s study of Whitehall British civil servants found that those working more than 11 hours a day were more than twice as likely to have major depression five years later than those working a regular 7-8 hours (Virtanen et al., 2012). Several studies using large nationally representative datasets from Australia, Germany and the UK have shown that any form of overwork has a negative impact on mental health (Angrave and Charlwood 2015; Otterbach et al., 2016). Overwork in these cases is characterised simply as the worker working more than four hours more than they would ideally like, meaning these negative impacts hold for those working what would be standard working weeks, or even part-time hours.

5.2 Overwork and mental health in healthcare

Levels of mental health and sickness absences as a result of overwork are not spread evenly across the labour market, with ill workers being considerably overrepresented in the public sector. The costs per employee of poor mental health across the public sector are highest amongst healthcare employees, at £1,794 - £2,174 per annum per employee (Deloitte, 2017). This may be due to the high levels of sickness absence in the healthcare sector. Healthcare employees take double the number of sick days as those in the private sector, and around 25 percent more than staff in other public sector organisations (ONS, 2017b).

Both the British Psychological Society (2017) and the Royal College of Physicians (2015) have raised concerns about the issue of overwork among their members and the risk of growing levels of staff burnout. Within healthcare burnout is a state that can involve emotional exhaustion and disengagement from both work and patients, and has been consistently associated with poorer patient outcomes and satisfaction (Johnson et al., 2017). For mental health nurses, there is a clear association between increased emotional exhaustion and the number of sick days taken (Sherring and Knight, 2009). NHS statistics support this link, with the percentage of staff reporting feeling unwell due to work increasing from 28 percent of all staff in 2008, to 37 percent in 2016 (figure 9a) (Johnson et al., 2017).

Emotional exhaustion and poor mental health can also push staff out of the NHS, with surveys finding both are good predictors of turnover intentions (Yanchus et al. 2016) and actual turnovers (Prosser et al., 1999). This could be in part contributing to the increasing number of staff citing lack of work-life balance as a reason for leaving their post, which has doubled in the last five years, (figure 9b, NHS Digital, 2017). Turnover among healthcare workers can also be associated with high costs to ensure workers with the necessary expertise are hired and brought up to speed, and the occasional need to hire temporary workers during this recruitment period.

A strategically managed rollout of a shorter working week for workers in the healthcare sector could reduce burnout and improve the standard of care received by patients. Healthcare workers shifting down their hours of work could achieve their desired work-life balance, reducing the risk of their departure and the loss of technical expertise. Reduced sick days and turnover could also promote greater cohesion and communication across staff, increasing overall patient satisfaction.

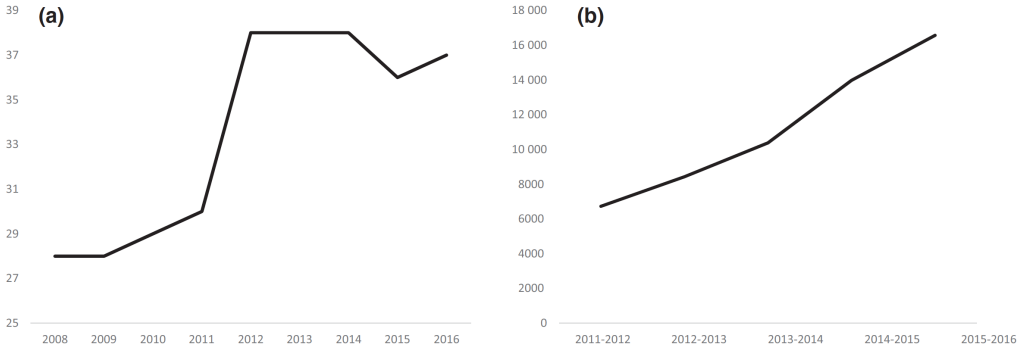


Figure 9: (a) Percentage of staff reporting having felt unwell due to work-related stress on the NHS staff survey and (b) number of staff citing poor work–life balance as their reason for leaving their NHS post (Source: Johnson et al., 2017)

5.3 Gendered impact of overwork on mental health

There are much stronger links between overwork and mental health for women. Over the last three years, reported levels of workplace stress have been around a third higher for women compared to men (Health and Safety Executive, 2017). Women in work are also twice as likely to have a diagnosable mental health problem compared to men (NHS Digital, 2016). Among women most at risk of experiencing workplace stress are those in the 35-44 age group, followed by ages between 45-54 (Health and Safety Executive, 2017).

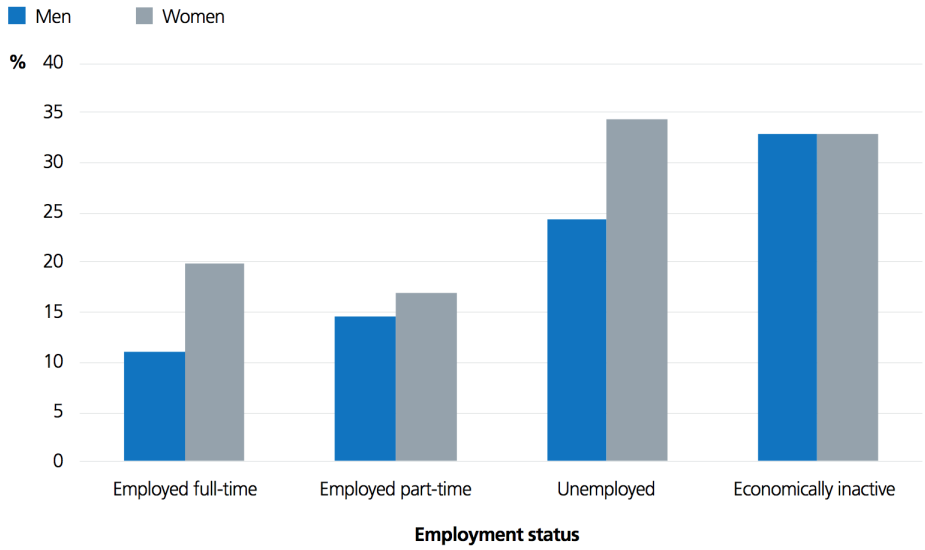


Figure 10: (Prevalence of common mental disorder (CMD), by employment status (age-standardised) and sex. Adults aged 16-64. Source: McManus et al. for NHS Digital, 2016)

Research using large, nationally representative datasets from Australia, Germany and the UK have consistently shown the negative impacts of overwork are more pronounced for women (Angrave and Charlwood 2015; Otterbach et al., 2016). Regardless of the hours spent in employment, or burden of unpaid labour, the feeling of time pressure is most strongly associated with poorer mental health for women (Strazdins et al., 2015).

5.4 Work-health threshold

A recent study used six years of nationally representative data from Australia to quantify the work-health threshold beyond which an extra hour of work negatively impacts on workers' mental health (Dinh et al., 2017). Taking into account a range of factors such as income, employment status, level of autonomy at work and work intensity the study produced a number of estimations of this threshold:

- **39 hours per week** for all workers
- **35 hours per week** for all workers who carry out high (28 hours or more) levels of unpaid labour
- **31 hours per week** for all female workers who carry out high (28 hours or more) levels of unpaid labour

These thresholds suggest that in the Australian labour market there are clear tipping points beyond which more work negatively impacts workers' mental health. These tipping points exist well below the regulatory standard of 48 hours. In the UK women also carry out the majority of unpaid labour - an average of 26 hours unpaid work a week (ONS, 2016b). This implies that the current UK labour market could be systematically disadvantaging women's mental health, with a trade-off between greater work and income on the one hand, and mental health on the other.

5.5 A shorter working week and improved mental health

Initial evidence is now emerging that a reduced working week can lead to sustained improvements in workers' stress levels (see also section 6.3). For 18 months between 2005-6 the Swedish National Institute of Working Life ran a randomized control trial of the impact of reduced working hours, while retaining pay in 33 workplaces across four sectors (social services, technical services, care and welfare, as well as in call centres). In the intervention group 17 randomly selected workplaces reduced workers' daily hours from 8 to 6 and received funding to recruit more staff with the workers signing an agreement not to carry out any other paid

work in their free time during the trial. Throughout the trial all the workers filled out a number of daily diaries, revealing the mental health benefits of the trial (Schiller et al., 2017):

- On working days, workers with reduced working hours reported greater quality of sleep, longer duration of sleep, lower daytime tiredness, and reduced stress (in particular reduced worry and stress at bedtime).
- During days off, all these positive adjustments, apart from greater sleep duration, were also found for workers in the reduced working hours group.
- There were no significant differences in the levels of all these measures between the control and intervention group at the start of the trial, and the level of these improvements found from reduced working hours didn't differ significantly based on the sector of the workplace.

6 Wellbeing

6. WELLBEING AND THE SHORTER WORKING WEEK

A reduction in work-time can lead to an increase in worker wellbeing. The relationship between work and wellbeing is something that normally escapes economic measurements or analysis. Whilst politicians focus on wage relations, unemployment levels and the productivity of a nation's economic output, very little in the way of policy is directed at improving the qualitative impact work has on people's day-to-day lives and how this contributes to a well-functioning society. This section outlines a number of empirical studies that have investigated the direct impact reducing the working week has had on people's wellbeing and their quality of life.

6.1 Wellbeing and health

A comparative study investigated the effects of a reduction to a six-hour day, 30 working week (down from 39 hours) on the health and wellbeing of Swedish childcare and health workers (Akerstedt et al., 2001). The study compared one experimental group - who had a nine-hour reduction in their working week - with a second control group who retained their normal working hours. The study was able to isolate the direct effects a reduced working week by financially compensating both the employee (who retained their original 39 hour salary) and the employer (who paid for additional staff to cover any loses in workloads). The study found that health related variables – including sleep quality, mental fatigue and heart/respiratory symptoms – improved significantly more in the experimental group than in the control group.

The most significant effect of the reduced working week concerned an increase in time for social activity and interaction with friends and family. For those whose hours decreased, this increased from "too little" to between "almost sufficient" and "completely sufficient", whereas the control group remained at "too little" (Akerstedt et al., p.200). The report concludes by stating, "a reduction of the working week from 39 to 30 hours greatly improves time for family/friends and social activities and results in a moderate improvement of fatigue, sleep and heart/respiratory complaints" (ibid., p.201). It also states that a decrease in workload would have positive economic effects by improving workers morale, and by reducing absenteeism, early retirement, and labour turnover (ibid.).

A meta-analysis carried out by Sparks et al. (1997) examined the relationship between the length of the working week and

health symptoms. The report itself involved a quantitative and qualitative review of existing literature on 21 sample studies. The report identified a small "but significant positive mean correlation between overall health symptoms, physiological and psychological health symptoms and hours of work" (ibid., p.401). Although the report advocates the need for further research in order to clarify the specific impact long working hours has on individual employees and the work organization, it concludes by supporting the hypothesis that working longer hours can be detrimental to health (ibid).

6.2 Occupational balance and autonomy

The length of the waged working week has direct of consequences upon workers' experience of autonomy. Within occupational therapy the concept of occupational balance is used to indicate how meaningful a particular activity is for an individual. Wilcock (2006) defines it as "a balance of engagement in occupation that leads to wellbeing. For example, the balance may be among physical, mental and social occupations; between chosen and obligatory occupations; between strenuous and restful occupations, or between doing and being" (ibid., p.343).

The effects of obligatory activities taking up a disproportionate amount of an individual's time and energy have been studied within the context of contemporary work-based societies. A study by Ryan et al. (2010) examined the psychological effects of weekend versus weekday and work versus non-work experiences had on wellbeing, by carrying out a qualitative analysis on a sample group of 74 men and women from a wide-range of occupations. The report concluded that the increased feeling of wellbeing experienced at weekends by the sample group was not necessarily due to a loathing of work itself, but because of the increased feeling of autonomy offered by non-obligated activity: "further, these effects were, as predicted, mediated by the satisfaction of the psychological need for autonomy and relatedness, supporting our view that weekends are beneficial in so far as they afford both greater volition and connectedness" (ibid., pp. 114-115).

The report therefore adds a new discussion point to debates around wellbeing and time away from work. Whilst the weekend provides an important outlet for rest and recuperation, it also offers an opportunity for people to engage in autonomous activity (activity that is free from external control and influence) and to spend time in relatable company (people you have intimate relationships with i.e. family and friends). The implication being that the expansion of this

'autonomous time', via a shortening of the working week should be a governance priority if the wellbeing of the workforce is valued.

A study carried out within the field of economic psychology by Kroll & Pokutta (2013), investigated what an optimal day's schedule would consist of in terms of maximising wellbeing, once variables such as decreasing marginal utility and scarcity were accounted for. The authors' modelling technique was applied to data collected from nine hundred and nine employed women's qualitative experience of their previous day. Once the model was applied, the authors were able to categorise various activities into hierarchical groups and demonstrate what a mean optimal day's schedule would consist of for the people who took part in the study. The study's findings showed that working activities occupied a mere 36 minutes within the 16-hour day; this is in comparison to spending 106 minutes in intimate relations and 82 minutes socialising (ibid., p.214).

Figure 11: The 'perfect day'. (Source: Kroll and Pokutta, 2013)

The authors' concluded that: "overall, comparing our results with the actual way people spend their time, the implications for higher wellbeing include spending a little more time with friends, a lot more time with relatives, and a lot less time with the boss and co-workers" (ibid., p.213). The report therefore adds weight to Ryan et al.'s conclusions that it is not work in and of itself that directly impacts on wellbeing, but rather the amount of time it occupies in restricting us from engaging in other, autonomous activities

and spending time in relatable company, and thus preventing us from achieving a form of occupational balance. This has further significance if we consider that in the UK the average worker spends 27 days a year commuting to and from work – time which could also be labelled as non-autonomous (TUC, 2017b).

6.3 The Time of Rest and Recovery

Burnout, exhaustion and stress are costly both for workers' health and for productivity (see also section 5). **The time of rest and recovery is essential for worker wellbeing, which itself is a necessary condition for improved productivity** (see also section 4). Across a number of studies, Sabine Sonnentag and her colleagues have studied clerical workers, paramedics, schoolteachers, civil servants, the self-employed and other job categories in order to gauge the importance of the quantity and quality of non-work time (Sonnentag, 2003; Fritz and Sonnentag 2005; Sonnentag et al., 2008; Sonnentag et al., 2014). Her findings show that if workers get a chance to get away mentally from their work (to 'psychologically detach'), they are generally more productive, engaged on the job and convivial with colleagues. On the other hand, if workers do not have the ability to 'switch off' mentally from their work, this is likely to 'drain energy resources and increase negative affect' (Sonnentag et al., 2008; for a gloss, see Soonjung-Kim Pang, 2017). She uses four categories to classify the benefits of non-work time that are crucial to employee recovery: relaxation, mastery, control, and psychological detachment (Sonnentag, et al., 2010).

In terms of recovery, a shorter working week is preferable to irregular holiday periods: healthy detachment requires regular time away from work and a culture where we can 'switch off' from work mentally. Importantly, research suggests that in order to facilitate effective, active rest-time, regular holidays are necessary. Empirical studies on vacations suggest that individuals who experience such a recovery period as a positive and satisfying event enjoy a higher degree of recovery than individuals who do not (Lounsbury & Hoopes, 1986; Westman & Eden, 1997). In their study of eighty workers (drawn mostly from the service and healthcare sectors), de Bloom et al. (2011) found that short vacations have a 'positive effect on [health and wellbeing]', but noted that this effect 'fades out three days after returning home' (2011, p. 317). Westman and Eden (1997) found similar results with their seventy six participants: workers' burnout 'returned to its prevacation [sic] level 3 weeks after the vacation' (ibid, p.524). They concluded their study by stating: 'Respite effects fade. Researchers need to find practical ways to prolong respite relief' (ibid., p. 526).

A shorter working week (in the form of a four day work week, for example) is a possible solution here. It would increase the possibility for workers to experience the positive effects that derive from extended periods away from work, and would equally decrease the time at work that makes this recovery so crucial in the first place. Unlike longer, annual holidays that are few and far between, a shorter working week would provide a regular recovery period wherein the positive effects of rest can be regenerated.

6.4 Implementation and Regulation

Critics of reducing the working week have tended to base their arguments on the impact and disruption that would be caused to the economy at both the macro level (expected losses in economic output) and the micro (increased workloads per worker). If this narrative is to be believed reducing the working week could in fact have negative consequences for workers wellbeing, resulting in falls to living standards and the supposed benefits of reduced working hours being undermined by increased workloads. In order to be implemented successfully it's important to recognise that any reduction in the working week must be accompanied with regulation that's geared towards improving both the macro level performance of the economy and the micro level experience of work itself. Below outlines ways in which wellbeing could be factored in to a broader regulatory framework that aides and supports its political and economic implementation.

6.5 Health and Safety

In 1998 a law was passed in France to reduce the working week from 39 hours down to 35. An article by authors' Prunier-Poulmaire and Gabbois (2001) investigated what the impact of the 35-hour week had on French working practices and examined whether the supposed benefits to wellbeing materialised as expected. The authors' findings show how a lack of foresight and regulation from the government – with regards to its impact on working practices – led to employers attempting to claw back the hours lost by implementing a new working culture of austerity and time saving: "by reducing or even eliminating previously tolerated breathers, chat and discussion of problems, and by stricter time management, this resulted in an intensification of work which is likely to counterbalance the shorter week's positive effects on fatigue, health and quality of life" (p.44).

The authors' also note how having to produce as much as before, but in less time, resulted in the creation of working practices that favour speed and meeting output targets over quality and taking

pride in one's work . In order to learn from the French experience the authors' recommend regulation that involves the use of health & safety and occupational health practitioners, so that working practices that aim at cost saving and increasing workloads can be countered from the very beginning (p.46). The authors' highlight the need to have a regulatory framework geared towards creating new working cultures that support rather than inhibit reduced working hours. Health and safety and occupational health practitioners could therefore play an important role in ensuring the wellbeing benefits that are gained from the reduced working week are not lost to punitive working practices.

6.6 Adjusting economic measurements

Any new policy around reducing the working week will have to identify ways in which its implementation will effect conventional economic measurements such as GDP. Whilst any policy proposal should attempt to minimise instability within the broader aspects of the UK economy, it should also not be unduly influenced or frustrated by it. According to research carried out by Kroll and Pokutta (2013), economic policies that centre on maximising workers wellbeing will likely result in people working and consuming far less than we do today (Kroll, Pokutta: p.215). If this is true, as GDP captures the amount we produce and consume as a national economy, economic policies designed at maximising wellbeing could well be interpreted – through conventional economic metrics – as having negative consequences for the UK economy. However, just in the same way you wouldn't measure your height when trying to lose weight, it would be a similarly futile experience using GDP as the single economic measurement through which the qualitative experience of societal wellbeing is interpreted.

In order to capture the full benefits of a shorter working week and its effects on societal wellbeing, we need to expand beyond narrow economic metrics such as GDP (Mazzucato, 2018; Meadway, 2014). For example, economist Abbas Ali (2010) argues that we need a multi-dimensional approach that captures the following aspects of a national economy: quality of, and access to, education at all levels; quality and affordability of healthcare; quality of the environment; access to economic opportunities and ease of social mobility; and political openness (ibid., p.4). Ali's central argument is that "the wellbeing of any society should reflect that of the majority of the population… focusing both on economic and social aspects, income, and consumption" (p.4). It is therefore important to frame policies of a reduced working week within a larger economic programme that attempts to directly improve people's daily lives. This, in turn, needs to be accompanied

by measurements that can accurately record and translate the benefits to wellbeing and social equality felt by the population at large.

7 Towards a Sustainable Economy

7. TOWARDS A SUSTAINABLE ECONOMY

A shorter working week carries a series of significant environmental advantages, which would help the UK transition towards becoming a sustainable economy. It would provide more time to engage in low-carbon alternatives – such as walking or cycling instead of driving, and cooking with fresh ingredients, rather than heating energy-intensive frozen food products. A reduction in the number commutes – and a reduction in the total number of car journeys – would drastically reduce deadly levels of local air pollution in UK cities. Additionally, the increase in time outside of work could help shift consumer behaviour away from carbon intensive consumption, towards low-carbon 'soft' activities such as exercising, socialising, and investing in personal education. This could have the added benefit of increasing levels of wellbeing as individuals invest time in personal growth and community connection, instead of material consumption.

Currently the UK is living well outside the limits of air pollution considered safe. Domestically, the UK regularly exceeds the legal limitations of air pollution within cities with deadly consequences: 40,000 people die in the UK each year because of conditions related to air pollution – and costs the UK economy some £40bn a year (Landrigan et al., 2017). This is particularly acute in London, where estimates are that up to 9,500 people die each year because of air pollution (Walton et al., 2015).

7.1 Link between working hours and high carbon emissions

There is a strong relationship between long working hours and high carbon emissions. Cutting down on the number of hours worked could help the UK drastically reduce its carbon emissions and move towards becoming a truly sustainable country.

There are a number of studies revealing a close link between high working hours and energy-intensive, environmentally-damaging patterns of consumption. High working hours encourage energy-intensive consumption and goods, and favour conspicuous expenditure and non-sustainable lifestyles. Examples include the buying of ready-made meals, weekend vacations, and household equipment. All of this consumer behaviour is particularly energy intensive and therefore ecologically damaging. The most systematic study to date – using fixed effects on panel data for 29 high-income countries, Knight et al. (2013) – found that shorter work hours tend to have lower ecological footprints, carbon footprints, and carbon dioxide emissions.

7.2 Impact of shorter hours on consumer behaviour

Reduced working hours could change the behaviour of households away from energy intensive behaviours, and toward more eco-friendly alternatives (Coote et al., 2010). Households could prepare home-made food instead of consuming energy-intensive ready-meals, and walk or cycle instead of drive (Jalas, 2002). This holds true even when controlling for income: those working longer hours have more environmentally damaging patterns of consumption (Devetter and Rousseau, 2011).

The creation of more free time outside of work creates the possibility for a general movement towards low-carbon 'soft' activities (Kallis et al., 2013). These include reading and playing, exercising, spending time with the family, relaxing, and investing in personal education amongst things. It must be noted however that these changes in consumer behaviour are also dependent on the relative prices of different leisure and consumption goods. Additional environmental regulation such as taxes on energy-intensive goods can provide incentives for more low-carbon forms of consumption and leisure (Van den Bergh, 2011).

With limited free time, there is an increased tendency to spend that time intensively on more consumer goods. Having less time outside of waged-work means people are not able to use their leisure time for time-intensive, but low-energy activities such as regular exercise, and cooking with raw ingredients.

7.3 Measuring the impact of reduced hours on carbon emissions

A number of studies have attempted to model the impact of reduced hours on carbon emissions. Rosnick and Weisbrot (2006) estimated that, if the US would follow EU trends in working time, its energy consumption could be reduced by as much as 20 percent. Nässén and Larsson (2015) looked at the relationship between working hours and greenhouse gas emissions and found that a 1 percent decrease in working hours could be followed by a 0.8 percent decrease in emissions. Based on this assumption, the general movement towards a four-day week would result in an accompanying reduction of 16 percent. More recently, using model estimation techniques, Fitzgerald et al. have shown that 'state-level carbon emissions and average working hours have a strong, positive relationship' (Fitzgerald et al., 2018). The authors conclude that working time reduction 'may represent a multiple dividend policy, contributing to enhanced quality of life and lower unemployment as well as emissions mitigation'.

7.4 Low-carbon activities, materialism, and wellbeing

In a happy coincidence, those environmentally friendly 'soft' activities - such as exercising, socialising, and investing in personal education - are also likely to improve wellbeing across the population (Shah & Marks, 2004; Fitzgerald et al. 2018). Research shows that people who are materialistic are less happy than those who value other things (Kasser, 2002). The focus on possessions, image, status and the receiving rewards and praise leads to unhappiness and discontent, whilst outcomes like personal growth and community connection are satisfying in and of themselves (ibid.).

In the US, despite having grown up with more affluence, young Americans are more likely to have slightly less happiness and much greater risk of depression and assorted social pathology than their grandparents (Myers, 2000). The same research concluded, "our becoming much better off over the last four decades has not been accompanied by one iota of increased subjective well-being" (ibid). This focus on material goods and short term reward has led to a form of consumer culture which has had a corrosive impact on our collective sense of wellbeing, as well as having a catastrophic environmental impact. There is an urgent case to be made for a major shift in consumer behaviour in the UK more broadly.

The move towards a shorter-working week would go some way to helping transition from a materialistic consumer culture which is damaging for both wellbeing and the environment, and create the space needed to take part in time-heavy activities relating to personal growth and community connection. This bolsters the substantial positive impact of a shorter working week on mental health, and wellbeing at work (see sections 5 and 6).

8 Gender

8. GENDER AND THE SHORTER WORKING WEEK

One of the advantages of a shift in the culture around hours of waged work would be the opportunity to address the current inequities in unpaid labour– most obviously, the (highly gendered) caring and maintenance work done in the home.

8.1 Unpaid care work

At present, the majority of unpaid domestic and care work in the UK is done by women. In 2015, women provided 74 percent of all childcare time in the UK (ONS 2016b) and spent, on average, 26 hours a week doing unpaid domestic labour, including cooking and cleaning (ONS 2016b). Since the 1990s, improvements in the gendered division of labour have stalled - the number of hours of unpaid work women do each week is roughly the same as it was 20 years ago (Park et al., 2013).

Caring labour still falls primarily to women, even as (in a welcome move) men have begun to take on more. In the case of parents, research suggests that fathers mostly engage in 'talk-based, educational, and recreational activities, rather than routine physical and logistical tasks' (Wajcman, 2015, p. 127). Notably, these are the kinds of activities that are higher status and most enjoyable – in other words, activities that are more likely to be freely chosen and less likely to be considered burdensome.

It is not only in childcare that women disproportionately shoulder the responsibility of care. 58 percent of those doing unpaid work caring for adults are women (ONS, 2011) and 60 percent of those who do over 50 hours caring a week are female (Carers UK, 2017a). 72 percent of recipients of carers allowance are women. Women are four times more likely than men to give up paid work to do unpaid care work (Carers UK, 2017a). Clearly, gendered attitudes to care work, and the disproportionate burden of unpaid labour shouldered by women, has a significant effect on women's participation in the labour market (IPPR, 2018, p. 123).

For women in paid employment, unpaid labour and the 'second shift' (Hochschild, 1989) results in acute time pressure as they "reduce their time in unpaid labour at home, but not remotely hour-for-hour for every hour they spend in paid labour" (Goodin et al., 2008, p. 75). In heterosexual dual-income households, 'the woman's total combined time in paid and unpaid household labour is substantially greater than is the typical non-employed

woman's in unpaid household labour alone' (Goodin et al., 2008, p. 75). Predictably enough, these pressures are further amplified for mothers, and for those heading up single parent households in particular. These women face a massive deficit in terms of discretionary time – so much so that it is no exaggeration to talk about temporal injustice and time inequality.

8.2 The economic cost

The unequal distribution of unpaid work is not only unjust, but hampers women's career progression and facilitates gender disparities in the workplace. Women's careers suffer as a result of the unequal distribution of care work.

A much higher proportion of women work part-time than men - 41 percent of women work part-time, compared to 12 percent of men (ONS, 2016c) - which has a significant impact on income and career progression. Those who work part-time are, hour-for hour, less well-paid than their full-time counterparts at every level of qualification (JRF, 2016). Research suggests there are over 200,000 well-qualified people living in poverty who would benefit from quality part-time work, with demand for good quality part-time work far outstripping supply (Stewart and Bivand, 2016). In terms of career progression, 77 percent of part-time workers feel trapped in their current job because of a lack of good quality part-time jobs to move in to (Timewise, 2017) and many part time workers feel that the status and recognition of their work within their organisation is less than that of their full time colleagues.

This is not only bad for women. The economic impact of gender disparities in the workplace are significant. The Women and Equalities Select Committee estimated that a failure to use women's skills was costing the country £36bn a year, equal to two-percent of GDP. A 2016 report estimated that bridging the UK gender gap in work has the potential to increase GDP by £150bn by 2025, and could translate into 840,000 additional female employees (Hunt et al., 2016).

It is not only women whose incomes and career progression are negatively impacted by the inflexibility of the UK labour market and the dearth of good quality part time jobs. Recent research has found that over one million over 50s are 'involuntarily workless' as a result of illness or caring responsibilities and that halving the "employment gap" between people in the 50 to pension-age group and those in their 40s would increase National Insurance receipts by one-percent to just under £3 billion, and GDP by one-percent up to £18 billion (Thompson, 2018).

8.3 A 30 hour work week

One option for greater equality would be for the standard working week to be reduced to 30 hours, with any extra hours worked over and above this limit classed as overtime. This overtime should always be optional, with employees deciding to work over and above the standard working week being paid at a substantially higher overtime rate. This would not only encourage businesses to reorient their dominant working cultures, but would also generate more tax revenue to help support the extension of shared parental leave schemes, initiatives such as a dedicated carers' allowance for those with adult dependents, or a supplementary income to be shared by all.

A shorter working week would potentially make employment more accessible, encouraging the creation of more jobs for people (in particular women) who might otherwise have to work part-time or not at all as a result of their caring responsibilities. It would enable those with caring responsibilities to progress in their careers and take up jobs appropriate for their level of qualification and could serve to redistribute unpaid labour more equally across genders.

8.4 Additional policy suggestions

Clearly, a reduced working week will not in itself revolutionise the distribution of unpaid labour across genders however. A recent study found that men in households where the woman was employed did not do more housework than men in households where the women were unemployed (van der Lippe and Norbutas, 2017) suggesting that more equal hours of employment will not be sufficient to redistribute unpaid labour. However, a shorter working week is a necessary step in the development of a legislative and public policy agenda that is maximally supportive of a new culture of work. This means the reorganization of waged work as one of the major underpinnings of perceived social roles and the gendered division of labour.

Research has shown that to tackle the gendered division of domestic labour there needs to be an "evolution in men's gender identity" (Breen & Cooke, 2005). Policies should be introduced challenging depictions of domestic labour as 'women's work' and an emphasis on 'degendering' perceptions of domestic labour, particularly amongst children. Paternity leave and shared parental leave schemes should be extended, starting with the introduction of 18 weeks of 'use it or lose it' caregiving leave reserved for fathers (or those in a comparable role) during the first two years of a child's life. This leave should be in addition to (and not at the expense of) existing maternity leave provision.

The move towards a shorter working week and a more flexible organization of hours, if handled correctly, would represent an important step in the right direction of a more equitable distribution of labour in general.

9 Case studies

9. CASE STUDIES

Throughout the report we have drawn on case studies, controlled experiments and telling comparisons that teach us something about the benefits of shorter working hours (and the damage that overwork can do). To this extent, the reduced working future is here already, but in partial and dispersed form, needing consolidation into a coherent and comprehensive programme of implementation. In this section we detail examples where a shorter working week has been implemented under various conditions. No case study provides a 'one size fits all' model, and each had its own obstacles and particular positive outcomes. Learning from these advantages and mistakes will be essential for policy makers in the years to come.

9.1 The 'President's shorter working week'

In 1933, during the Great Depression, American President F.D. Roosevelt instigated the 'President's Reemployment Agreement', encouraging firms to sign a 'blanket code' agreement to reduce the average workweek and raise hourly wage rates. At a time when the unemployment rate was 25 percent, it was hoped that by reducing the working week from 45-50 hours to 35 hours, work could be shared among more people. The simultaneous raising of hourly wage rates also aimed to boost employment, through increasing aggregate purchasing power, spending, and the resulting increases in production.

The agreement consisted of three parts: shortening working weeks to no more than 35 hours (40 hours for clerical and sales workers), raise minimum hourly wage rates (and for workers on wages already above this minimum: to not have theirs cut), and finally to recognise the rights of workers to bargain collectively.

Firms could voluntarily sign the agreement and as an incentive they were allowed to display a compliance emblem (a blue eagle) and advertise their commitment to the agreement in local papers and post offices. Failure to fully comply with the agreement once signed could result in fines and loss of the compliance emblem. Consumers were also mobilised to support compliant firms by pledging to support members of the programme and boycotting those that did not join. The National Recovery Association managed to mobilise a remarkable 1.5 million volunteers to go door to door and encourage the population to sign a 'Statement of Cooperation', signalling that they would only buy from businesses that were part of the agreement.

Over the four month period in 1933 for which the program was in place, the vast majority of firms signed up, though Ford Motor Company were a notable exception. Lyon et al. (1972) estimated that 1.72 million jobs were created by the widespread adoption of the scheme. A more recent, consolidated analysis of the program (Taylor, 2011) suggests that it got 1.34 million people into employment, a figure driven primarily by the increase in job-sharing but offset somewhat by the rises in wages that increased costs and may have hindered some job creation.

9.2 The 35-hour week in France

In 1998, the socialist coalition government came up with a bold proposal: official working hours would be reduced from 39 to 35 hours to reduce the unemployment rates (around 12 percent), making the French economy the first to decrease working hours via legal means to a 35-hour week (Estevao et al., 2008). The idea of job creation through work sharing was a flagship of the policy in an attempt to tackle unemployment and increase overall social welfare.

The working time reduction was introduced in two steps, depending on firm sizes. First, between 1998-2000 via the *Aubry I* law, where enterprises with more than 20 employees adopted the 35-hour week, and companies willing to reduce working hours earlier via a collective agreement could rely on considerable tax concessions. And later, between 2000-2002, via the *Aubry II* law, which reaffirmed the 35-hour week and gave the social partners (employers and employees) more freedom to negotiate. The social partners at company level gained considerable leeway in negotiating the practicalities; working time could be calculated on an annual basis (and could thus be transformed into additional leave) and, for managerial staff, a separate arrangement was provided. The policy recognized possible pressures on firms' profitability, hence additional measures were put in place to try to alleviate its costs.

According to the De Spiegelaere (2017), working time reduction in France was therefore characterised by the following elements: (1) a relatively substantial reduction in legal working hours, (2) a major role for, and freedom of, the relevant social partners, (3) a parallel reduction in tax contributions (especially for lower wages) and (4) increased flexibility for companies to arrange their working hours. While wages were not cut, a wage freeze of 18 months was implemented following the working time reduction: "the cost of the

shorter working week in France was therefore paid mainly by the government and the workers. This, combined with a slight increase in productivity, contributed to overall labour costs remaining relatively unaffected by the policy measure." (ETUI, 2017).

The findings of Prunier-Poulmaire and Gabbois (2001) show how a lack of foresight and regulation from the government – with regards to the policy's impact on working practices – led to employers attempting to claw back the hours lost by implementing a new working culture of austerity and time saving: "by reducing or even eliminating previously tolerated breathers, chat and discussion of problems, and by stricter time management, this resulted in an intensification of work which is likely to counterbalance the shorter week's positive effects on fatigue, health and quality of life" (ibid.: p.44). In order to learn from the French experience the authors recommend regulation that involves the use of health & safety and occupational health practitioners, so that working practices that aim at cost saving and increasing workloads can be countered from the very beginning (ibid., p.46). The authors' highlight the need to have a regulatory framework geared towards creating new working cultures that support rather than inhibit reduced working hours (see section 6, on 'wellbeing').

9.3 Utah's Public-Sector Experiment, or the "Huntsman Plan"

In 2009, amidst rising energy costs, former Utah Governor Jon Huntsman launched the "4/10" workweek — 10 hours a day, Monday-Thursday — for all 17,000 state employees to improve efficiency, reduce overhead costs and conserve energy at a time when budgets were tight.

The state's goal was to curb energy costs, improve air quality, ensure that needed services would still be available (for instance, garbage collection) and help to avoid layoffs by recruiting and retaining state employees (Peeples, 2009). Employees demonstrated excellent responses to the measure, often their days off volunteering or working second jobs (Loftin, 2011). Further, employees had fewer work-home conflicts and saved money on petrol.

In 2011, however, Utah reversed course due to two issues: first, by claiming that savings never materialize, partially due to a drop on energy prices; and secondly due to some complaints that public services were not available on Fridays. Nevertheless, the failure of Utah's state government to perceive such savings is not reflective

of what has been happening in other states and cities that have tried the alternative workweek.

For example, in the city of Provo (Utah), one of the state's largest cities with more than 100,000 inhabitants, the four-day workweek has been in place for years, with city offices open Monday through Thursday, 7 a.m. to 6 p.m. Mayor John Curtis said" the 4/10 system has improved employee morale and seems to save money. He said the four-day workweek may be more effective to implement at a local level. "Our residents see city employees working, and they know the city is responsive to them." (Loftin, 2011), suggesting how the project has enough potential and support to be revived in the future.

9.4 Sweden's Svartedalen experiment

From 2014, for a period of 23 months, Swedish nurses in a retirement home (Svartedalen) in Gothenburg worked six hour days, instead of traditional eight-hour shifts.

In April 2014, the city authorities of Gothenburg launched the experiment with the 30-hour week. The project started on February 1, 2015 and lasted until the end of December 2016. The explicit aim was to assess the long-term effects of the shorter working day. Over the 23 months, the nurses saw their working time reduced by two hours, to six hours per day. This was equal to 30 hours per week. To meet this reduction in hours, additional employees were recruited covering about 15 full-time equivalents. The wages of the nurses remained stable and the wages of the new recruits were paid using public money. The shorter working hours were, in other words, completely financed by the government, despite the political divergences about the experiment – the city is governed by a leftist coalition of Social Democrats, Greens and the "Left Party" - and the opposition in Gothenburg was strongly against the trial, trying to discontinue it, claiming it wasted public funds – (Pintelon, 2017).

The results are mainly based on questionnaires distributed among staff and residents of the nursing home. The first result indicates an improvement on nurses' health levels: there was a considerable health gain for the employees who worked a 30-hour week, in particularly for nurses aged over 50. General health indicators (perceived overall wellbeing, alertness, absence of stress and having an active lifestyle) are considerably better where the 30-hour working week was introduced. Moreover, nurses working the 30-hour week reported lower levels of blood pressure. This

improved health was also reflected in a decrease of sick leave during the experiment.

Productivity and quality of service in the retirement home also increased. Staff in the home had more energy to engage with more activities with the residents, reflecting an increase in productivity. Residents in turn reported more positive experiences of care. These activities included walking in the open air, singing, and dancing.

Finally, the cost of the experiment was relatively low at around SEK 12.5m (around £1m). Even though extra staff were recruited and salaries remained the same, there was a considerable reduction in long-term sick leave, compensating some of those expenses. However, researchers suggest that if the savings on unemployment benefits are taken into account, the net cost would drop to around SEK 6.5m (around £0.55m) (Pintelon, 2017). Other non-economic benefits were highlighted including broader health and wellbeing effects. (Bernmar, 2017).

9.5 Belgium's VRT Experiment

In 2016, the Belgian public broadcast organisation VRT (Vlaamse Radio en Televisie – Flemish Radio and Television) faced a reduction in its public grant and limits on staff spending. The first estimates envisaged reduced cutting 350 of its 2,200 employees. Wanting to avoid redundancies, the trade unions proposed a scheme of voluntary work redistribution or job sharing. By using voluntary cuts in working time (with proportionate, but not total, cuts to salaries), the organisation would be able to finalise its budget while avoiding lay-offs and understaffing in busy periods.

The agreement struck between the unions and management envisaged up to 22 days of additional leave for employees that voluntarily gave up their bonus. So, for about 1/14th of annual salary (12 months' pay + bonus + vacation bonus), participating employees would gain a reduction in working time of about 1/10th (22 days out of 220 working days) (Dierckx, 2017). Employees could freely choose the number of days of additional leave they took, with each day reducing pay by 1/22 of the bonus (thus giving up the whole bonus if they chose to take 22 extra days of leave).

Results show that the experiment had an additional advantage insofar as it did not impact on workers' pension rights, sick leave or "regular" annual leave. This is in contrast to, for example, part-time working systems where social rights are more or less reduced in proportion to the reduction in working time. Even though

organisational difficulties emerged for HR and for the planning department to ensure that the working time met the demands of both employees and employers, one solution presented by the HR department was to make sure "employees plan most of their leave more in advance, in a decentralised consultation with their direct supervisor" (Dierckx, 2017).

9.6 IG Metall and the 28-hour week (Germany)

In January 2018, workers of the IG Metall union - which represents about 3.9 million workers in Germany - went on strike at over 80 companies across the country. They demanded the option of reducing their working time to 28-hours per week for up to two years, with an automatic right to return to full-time employment afterwards. Members wanted more time to care for children, and sick or elderly relatives. According to a union spokesperson, they wanted employers to recognise the changing of traditional gender roles in families, and workers wanted "to have the chance to do work that is important to society" (Oltermann 2018).

Bosses initially rejected their demands, but workers eventually won a deal that covered nearly one million workers in Baden-Württemberg state and gave them a 4.3 percent pay rise. Workers who opted for a 28-hour week in order to take care of young children or ageing parents received an additional allowance of €200 per month from the state as a "parental benefit". Workers who wanted to take a break from doing shift work with a high health risk would be compensated with €750 per year.

9.7 Volkswagen shorter working week (Germany)

In 1993, the German works council of Volkswagen had to address over-capacity problems in the company. A third of the 100,000 jobs were at risk of redundancy. To prevent this, the IG Metall union achieved an unprecedented agreement with management: instead of redundancies, the working week was reduced from 36 to 28.8 hours per week. The reduction in working hours did come with a serious reduction in employees' earnings. However, IG Metall negotiated according to the rule that monthly wages must stay stable (Hans Böckler Stiftung, 1993). Hourly wages increased by one-percent and there were adjustments to holiday pay and bonuses.

The agreement was unique insofar as Volkswagen wages were much higher than the average and so a partial wage reduction was easier for VW employees to absorb than the average German

worker. Additionally, Volkswagen employees had an organisationally specific skill set, which meant they were hard to replace (Schulten, Seifert and Zagelmeyer, 2007). The agreement continued until 1999 and was generally regarded as having a positive effect (ETUI 2017). There were increases in workload for employees, but this resulted in productivity gains (Seifert and Trinczek, 2000). Additionally, the transition to a 28.8-hour week meant that many workers had increased leisure time for friends and family as well as to discover other cultural activities (Krull, 2010).

9.8 CWU - Royal Mail 35 hour week

Royal Mail workers in the Communications Workers Union (CWU) responded to the automation of parts of their job by demanding a shorter working week - so that increases in productivity are shared amongst workers and shareholders more evenly. In March 2018 they reached an agreement with Royal Mail for a transition to a 35 hour working week by 2022.

In 2015, Royal Mail introduced a new £20m parcel sorting system, which began automating large numbers of parcel sorting jobs (Logistics Manager, 2015). As a result of this, the amount of time postal workers will spend on delivery rounds would increase from four to seven hours (Harper, 2017). With an average age of 49, Royal Mail postal workers have claimed that the resultant changes pose a serious risk to their health and safety as they will now have to push round heavy loads for seven hours a day (ibid).

The CWU represent 134,000 postal workers and negotiated with Royal Mail to reduce the working week in response to these changes (Communication Workers Union, 2017). They made the case for a reduction in the working week for a full time job from 39 hours to 35 hours a week with no reduction in pay. They argued that the benefits of automation should be evenly shared between workers and shareholders. In February 2018 - and after a long campaign - the CWU reached an agreement with Royal Mail for a transition to a 35 hour week by 2022 (Communication Workers Union, 2018). This transition towards shorter hours began in September 2018 (Communication Workers Union 2018a).

9.9 Toyota Factory, Gothenburg

A shortening of working hours in a Toyota factory led to a dramatic increase in productivity: mechanics now produce, in 30 hours, 114 percent of what they used to produce in 40 hours. This has resulted in an increase in profits by 25 percent.

In 2002, Toyota service centres in Gothenburg began working shorter hours after moving to a six-hour day. Managing director Martin Banck said that the service centres had a number of issues before the change was made: customers were unhappy with long waiting times, while staff were stressed and making mistakes.

There were 36 mechanics on the scheme, and from working a 7am to 4pm day, the service centre switched to two six-hour shifts with full pay, one starting at 6am and the other at noon, with fewer and shorter breaks.

Banck reported a significant positive change as a result of the shift to shorter hours: "Staff feel better, there is low turnover and it is easier to recruit new people. They have a shorter travel time to work, there is more efficient use of the machines and lower capital costs – everyone is happy." (Crouch, 2015)

As a result of the change, Banck has said that profits have risen by 25 percent.(ibid). Since shortening working hours, productivity in the service centre has increased. Mechanics now produce, in 30 hours, 114 percent of what they used to produce in 40 hours (ibid).

Martin Geborg, 27, a mechanic, started at Toyota eight years ago and has stayed there because of the six-hour day. "My friends are envious," he says. He enjoys the fact that there is no traffic on the roads when he is heading to and from work. Sandra Andersson, 25, has been with the company since 2008. "It is wonderful to finish at 12," she says. "Before I started a family I could go to the beach after work – now I can spend the afternoon with my baby." (ibid).

9.91 Reykjavík city workplaces

The city of Reykjavík carried out a year-long experiment involving reduced work weeks at select workplaces in the city. Workers had their normal working hours cut by four or five hours and yet did not see a drop in their productivity.

From March 2015 to March 2016 an attempt was made to shorten work week at Árbæjar and Grafarholt Service Center and at the child protection organisation. These workplaces were chosen because the workloads for staff were considered heavy. In the child welfare workplace, the working week was shortened by four hours by closing after noon on Fridays. The service centre closed at three instead of four on each working day. "We immediately realized that it is important to fix this at every place of work," reported Sóley Tómasdóttir, who is the President of the City Council and Chairman of the Steering Group on Implementation of the Project (Gísladóttir, 2016).

Sóley concluded that "the project has gone smoothly. There have been very few obstacles in the road. Both workplaces took a closer look at their daily routines, they considered time management, the length of coffee breaks, and meetings' (ibid.).

10 Transitional Policies

10. TRANSITIONAL POLICIES

The overarching aims of these suggestions are to establish a range of practical work-time reduction policies which bolster and support:

- The practical transition to an economy of reduced working weeks over the period of a decade.
- The working needs of different employment sectors.
- Individual wellbeing and preferences.
- Uses of leisure time.

The policy proposals can be applied individually but are mutually reinforcing and designed to be most effective when deployed in conjunction with each other.

COLLECTIVE

- Adopt sectoral collective bargaining structures (as is the case in many parts of Europe) in order to expand worker representation in the effort to increase equality and security in the years to come.

- Establish a Ministry of Labour (Bogg et al., 2016, p. 16) which would oversee shorter working week policy, amongst other labour issues. The Ministry would manage the medium-term project of achieving a UK four-day full-time working week by 2025, regularly drawing on relevant expertise concerning the technological, financial and legal instruments that can be leveraged to facilitate this aim.

ESTABLISHING A DIRECTION OF TRAVEL

- Establish in law a new 'UK Working Time Directive' (based on the European Working Time Directive) that would decrease annually, with a medium-term target of achieving a full-time working week of 32 hours by 2025. This initiative could be managed by the newly founded Ministry of Labour. This is especially pressing as the UK moves out of the EU and therefore out of the remit of the European Working Time Directive.

INCREASED SUPPORT AND RIGHTS AT WORK

- The issuing of every new contract of employment must provide the worker with the right to shorter working hours if they so choose. This will allow workers who are able to afford it the opportunity to immediately move towards a shorter working week. A probationary period of 6 months would be included wherein the worker can opt to return to their standard hours.

- Any overtime should always be optional, with employees deciding to work over and above the standard working week being paid at a substantially higher overtime rate. This would not only encourage businesses to reorient their dominant working cultures, but would also generate more tax revenue which could be used to help support the extension of shared parental leave schemes. Higher overtime pay can also be understood as economic justice in response to the vast number of excess hours that currently go unpaid in the UK economy.

- A 'raise' can now be taken in the form of time as well as money: employees have the automatic right to take any rise in remuneration in the form of a reduced working week as an alternative to a raise in annual income. In practice, this would mean an increase in the hourly wage (and would be constitute a tangible increase in autonomous time).

- Increase the amount of bank holidays from eight (a relatively low amount globally and the lowest in Europe) to fourteen, in line with countries such as Malta and Spain.

- Introduce a new system of National Insurance contributions on behalf of employers so that businesses are not penalised for hiring additional staff on reduced hours - for example in the form of job shares or a National Insurance subsidy for employers should this issue involve over 50% of their workforce.

- For existing and new large firms (of over 250 employees) a non-compulsory option to reduce working hours to 28 hours per week (always with the option to return to full-time hours and pay) must be provided to all employees. If an employee has care obligations, this reduction could be accompanied by a temporary rise in wage or government subsidy.

EQUALITY

- Paternity leave and shared parental leave schemes should be extended, starting with the introduction of 18 weeks of 'use it or lose it' caregiving leave reserved for fathers (or those in a comparable role) during the first two years of a child's life.

- Community-run, but state financed, services geared towards gender equality, such as robust childcare services (possibly 24 hours), to be rolled out in order facilitate desired patterns of work within households.

DEMOCRACY AND AUTOMATION

- Following in the footsteps of the 'Ministry of Technology' (1964-1970), we suggest the establishment of an organisation named *Automation UK*, the board of which will be made up of trade unions, government (Ministry of Labour) and business leaders. The organisation would aim to increase productivity in sectors that have seen low-investment in technology and tie these gains - through agreements - to a tangible reduction in working hours for workers without a loss in pay. This would concretely link the prosperity resulting from an enterprise's growth with the individual prosperity of its employees.

  Automation UK would have branches for each employment sector and each branch would have specific expertise regarding the nature of the work in question and the labour-saving technologies coming onto the market. One branch of Automation UK would act along the lines of the planned 'European Agency of Robotics and AI', providing technical, ethical and legal expertise which can be brought to bear on developments in employment sectors (European Parliament 2017; Calo 2014; Lawrence, et al., 2017: p. 38).

- Sectoral Employment Commissions (SECs) would be set up in conjunction with the branches of Automation UK in order that agreements around the distribution of the benefits of automation can be sector-specific. The nature of automation technologies suggests that the effects on employment and on the nature of work could be sector-wide (and different according to sector), so this form of decision-making is appropriate.

- To maintain strong collaborations between government, trade unions, non-unionised workers and businesses, we suggest quarterly conferences on the topic of working time reduction and industry-worker partnerships. It would be a chance for feedback from trade unions on the ongoing collaborations facilitated by Automation UK with regards to the increasing reduction of necessary labour (and therefore regarding if and how this spare time is translating into worker wellbeing).

TRIAL IT

- We believe that UK's public sector can set a positive benchmark for shorter working week practice. Use the public sector as an innovator in adopting a shorter • working week without a reduction of pay, setting a benchmark for future labour legislations and improve collective wellbeing. This follows past policy examples where the public sector has acted as the primary adopter of better working conditions (such as equal pay and job security), later benefiting workers in the private sector. A shorter working week in the public sector will bolster staff wellbeing, job satisfaction and productivity, while also incentivising these occupations to applicants.

- Run controlled shorter working week trials in the public sector as experiments designed to improve wellbeing and productivity per job role. Public servants can act as positive examples for the other sectors of the economy where these improvements can be perceived and analysed effectively.

ENVIRONMENT

- To maximise the environmental benefits of a shorter working week, a number of environmental policies can applied. These include:

A. Decreasing taxes on low-carbon 'soft' activities to incentivise their take-up.

B. Increasing taxes on carbon-heavy forms of consumption to accurately reflect their negative environmental impact and so disincentivize their use.

C. A general carbon tax on forms of transportation to encourage low-carbon alternatives such as walking, or cycling. The increase in government revenue could be ring-fenced to partially fund UBS and UBI welfare services which would enable those on lower incomes to work a shorter week.

CHANGE THE METRICS

- Include worker wellbeing within economic measurements according to specific criteria (e.g. autonomy, equality, mental and physical health). This data could be recorded by establishing surveys (or other channels) for employees that can be translated into readable statistics for policy makers, and could be included as part of the Office for National Statistics work on time-use surveys.

- The OBR (Office of Budget Responsibility) is to include the impact of climate change and environmental damage into its long-term forecasts alongside the importance of growth and the wellbeing metrics mentioned above.

BOLSTER OUT OF WORK SECURITY

Acknowledging that, as things stand, a shorter working week is simply not possible for a significant proportion of the population, we suggest the adoption of various accompanying policies that would supply the material conditions necessary for a shorter working week that is affordable for all. In this way, a robust shorter working week policy can dovetail with other broad economic reforms:

- Calculate a minimum wage that takes into account a shorter working week. This would form a realistic 'living wage' (Living Wage Foundation) so that a shorter working week is an affordable option for all.

- An expansion of the welfare state along the lines of a Universal Basic Services model (UCL, 2017). The economic security of such a model effectively creates a 'social wage' (Seekings et al., 2015) which could allow for the voluntary reduction of working time on the part of individuals. This safety net would particularly benefit those on lower incomes and those who provide or receive care.

- As is suggested in the original UBS report (UCL, 2017: p. 50), a Universal Basic Income model could be used in combination with a UBS policy as part of an updated welfare state (Standing, 2017; Van Parijs, 2017; Downes and Lansley, 2018). Rather than prescribing who receives a disposable income, or what people should spend the money on, a decent UBI scheme set above current welfare receipts would potentially allow individuals to reduce their working week voluntarily. Such a capacity would give workers significantly more bargaining power with their employers. Possible funding options include certain forms of taxation (Miller, 2017) or a 'Social Wealth Fund' (Lansley, 2016; Lansley et al., 2018; Standing, 2017a).

11 Next steps

11. NEXT STEPS

This report has argued that a shorter working week is not only possible and desirable, it is also entirely necessary to address the deeply embedded and interconnected crises our economy faces today. It identified some of the worrying trends within the UK's economy: job polarisation, mental health and stress absenteeism, low productivity, gender inequality and the impact of present and future automation. It has offered the shorter working week as a powerful and pragmatic response to these phenomena.

The shorter working week is not a new idea - it has been the aim of worker movements, forwards thinking employers, governments, radical intellectuals and economists for well over a century. We have argued that it is time to revive it for a progressive 21st century politics. Looking to the future, as part of a long-term plan for a sustainable, healthy and productive economy, the shorter working week can be one measure that transforms our working lives for the good and saves on costs for public services (especially the NHS), as well as for businesses.

We propose a series of next steps for the government:

- **Launch a review of policy for working week reduction and establish a timeline for their implementation.** For example, the extension of paternity leave and the repurposing of the apprenticeship levy would be relatively easy to adapt accordingly.

- **Identify high-burn out, public sector roles, such as in the NHS, and design shorter working week trials,** both to reduce stress and other mental health problems, and to gather data on the outcomes of such a policy.

- **Establish an All Party Parliamentary Group on work time reduction.**

- **Reach out to pioneering companies across the UK and abroad who have adopted a shorter working week.** Learning from their examples will add nuance and detail to policy making in this area. As many of these companies are service-based, their models could possibly be transferred and adapted to service-based occupations in the public sector.

- **Propose that the Office of National Statistics (ONS) to collect and report regularly on levels of overwork as well as underwork.** This will allow policy makers to get a handle on the precise balance between healthy and unhealthy work cultures.

- **Establish a well-curated network of unions, researchers, local authority employees, activists and those who are engaged in relevant work or campaigns around issues raised in this report.** The idea is to bring together those working in different sectors, those fighting for worker rights and those who have a wider view of long-term trends in order to produce ideas and policies that can shape the direction of shorter working week legislation. By creating this platform, targeted policies can be formed that speak directly to felt needs. Quarterly seminars with dedicated working groups can act as idea labs in this regard.

12 Existing companies experimenting with a shorter working week

1) **Bright Horizon Cloud** are an accountancy firm based in Christchurch and Southampton. Following the Swedish study into the six-hour day, they introduced their own six-hour day in April 2016 (Daily Echo, 2016).

2) **IndyCube** is a company that support freelancers and self-employed workers in Cardiff. This year they have adopted a four day week (without a loss in pay) with very successful results. Employees noted a better work-life balance and increased energy at work as some of the benefits of the practice.
https://www.bbc.co.uk/news/business-45463868
https://www.indycube.community/

3) **Senshi Digital** are a marketing agency in Glasgow. Their typical working day sees employees in the office from 9:30am to 3:30pm - they work for 45 minutes and have a five minute break away from the desk and take 30 mins for lunch around quarter to 1. This was introduced and trialed in April 2016 and made permanent a year later as it worked well.
https://senshi.digital/

4) **Sleighdogs** are experimenting with a four-day week and have written extensively about the experience.
https://sld.gs/blog/working-four-days-instead-five/

5) **Perpetual Guardian** is a trustee company based in New Zealand that has experimented with a four-day week with five days pay. Employees have noted how, amongst other things, such a practice has allowed them to spend more time with their families and save on childcare costs. The results have been outstanding.
https://www.theguardian.com/world/2018/jul/19/work-less-get-more-new-zealand-firms-four-day-week-an-unmitigated-success

6) **the7stars** are a media agency in London, and have no fixed-time contracts, and unlimited holiday.
http://www.the7stars.co.uk/

7) **Pursuit Marketing** are a telemarketing consultancy firm in Glasgow. They operate a four-day week without a loss in pay for their staff (Mon-Thurs). If staff want to earn more towards their bonuses, they can come in on the Friday voluntarily.
https://www.pursuitmarketing.co.uk/

8) **KPMG** offered a four-day week during the financial crisis in 2009.

9) **Agent Marketing** are a marketing firm in Liverpool. They utilise a six-hour working day with a one hour lunch break. http://www.agentmarketing.co.uk/

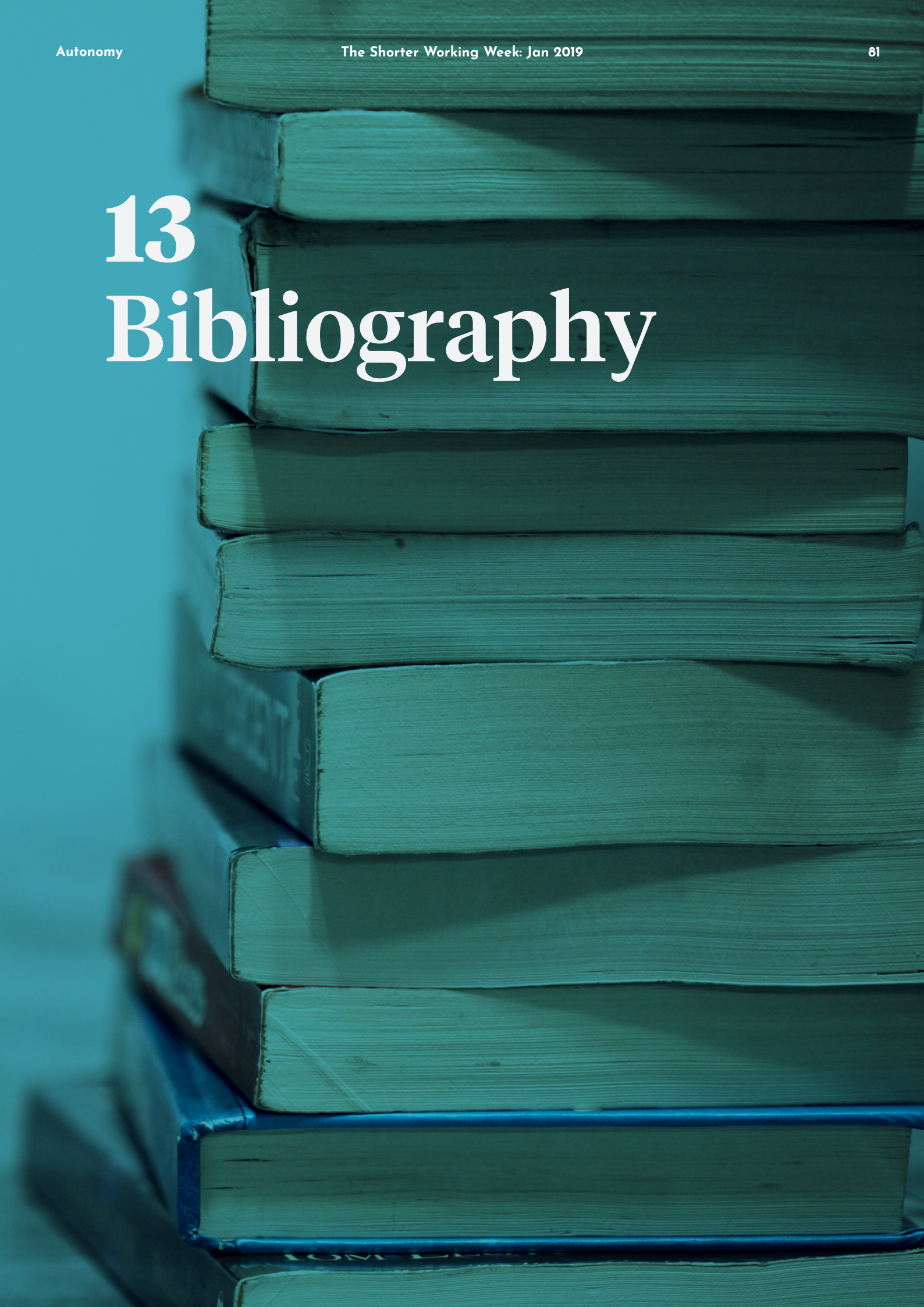
10) **Conversation Creation** are a PR and marketing agency in Bristol, and have been testing a six-hour day over five days a week, alongside eight-hour days across a four-day week. http://www.conversationcreation.com/

Autonomy is an independent, progressive think tank that provides necessary analyses, proposals and solutions with which to confront the changing reality of work today. Our aim is to promote real freedom, equality and human flourishing above all.

Autonomy.work

The 4 Day Week Campaign is an independent campaign group which is striving for a shorter working week so that we have more time for living, more time for each other, and more time to create a fairer, more sustainable, and more productive economy.

4dayweek.co.uk



13 Bibliography

Adermon, A., Gustavsson, M., (2015), 'Job Polarization and Task-Biased Technological Change: Evidence from Sweden, 1975–2005', Scand. J. of Economics 117(3), pp. 878–917.

Åkerstedt, T., Olsson, B., Ingre, M., Holmgren, M. & Kecklund, G. (2001), 'A 6-Hour Working Day-Effects on Health and Well-Being', Journal of Human Ergology, vol. 30, no. 1/2, pp. 197-202.

Alesina, A., Glaeser, E. & Sacerdote, B. (2005), 'Work and Leisure in the United States and Europe: Why So Different?', NBER Macroeconomics Annual, vol. 20, pp. 1-64.

Ali, A.J. (2010), 'Measuring societal well-being', Competitiveness Review: An International Business Journal, vol. 20, no. 1, pp. 4.

Angrave, D., & Charlwood, A. (2015), 'What is the relationship between long working hours, over-employment, under-employment and the subjective well-being of workers? Longitudinal evidence from the UK'. Human Relations, 68(9), pp. 1491-1515.

Anxo, D. (2009). "Working Time Policy in Sweden". The Japan Institute for Labour Policy and Training Report, 7 (1), pp. 55-70.

Ashford N. and Kallis G. (2013). "A four-day workweek: a policy for improving employment and environmental conditions in Europe", The European Financial Review, 30 April 2013. Available at: http://www.europeanfinancialreview.com/?p=902.

Atkinson, A. (2009). "Factor shares: The principal problem of political economy?" in Oxford Review of Economic Policy, Vol. 25, No. 1, pp. 3–16.

Autonomy (2018) 'Moving to a Four-Day Week: the Business Case'. Available at: http://autonomy.work/portfolio/moving-to-a-four-day-week-an-interview-with-perpetual-guardians-managing-director-andrew-barnes/

Autor, David B., 'Why Are There Still So Many Jobs? The History and Future of Workplace Automation', (2015) Journal of Economic Perspectives 29 (3), Summer 2015.

Autor, David H., Frank Levy, and Richard J., (2003), 'The skill content of Recent Technological Change: An Empirical Exploration" Quarterly Journal of Economics CXVII, 1279 - 1333.

Aveling, Edward. (1890). 'The Eight Hours Working Day'. Time. June, 1890, pp. 632-638. Available at: https://www.marxists.org/history/international/social-democracy/time/aveling-june.htm.

Bannai, A., & Tamakoshi, A. (2014). The association between long working hours and health: a systematic review of epidemiological evidence. Scandinavian journal of work, environment & health, 5-18.

BBC (2018). "German industrial workers win right to flexible hours". BBC News. Available at: http://www.bbc.co.uk/news/world-europe-42959155

Bentolila, S. and Saint-Paul, G. (2003). "Explaining Movements in the Labor Share", Contributions to Macroeconomics, Vol. 3, No. 1.

Bernmar, Daniel. (2017). Opinion: Why Sweden's Six-Hour Work Day Worked. The Local, Stockholm. Available at: https://www.thelocal.se/20170207/opinion-why-swedens-six-hour-work-day-trial-worked

Bogg, A., et al., (2016) A Manifesto for Labour Law: towards a comprehensive revision of workers' rights London. Institute of Employment Rights.

Breen, R., and Cooke, L., (2005). 'The Persistence of the Gendered Division of Domestic Labour', European Sociological Review, Vol 21, Issue 1, pp43–57

Calo R (2014) 'The case for a Federal Robotics Commission', Brookings Institute. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2529151

Cardiff University (2018) 'Harder work and less say – British workers under pressure'. Cardiff University. Available at: https://www.cardiff.ac.uk/news/view/1309395-harder-work-and-less-say-british-workers-under-pressure

Carers UK (2017), Older People and Employment: Response to Women and Equalities Committee. Available at: https://www.carersuk.org/for-professionals/policy/policy-library/response-to-women-and-equalities-committee-on-older-people-and-employment

Carers UK (2017a), 'State of Caring 2017'. Available at: https://www.carersuk.org/for-professionals/policy/policy-library/state-of-caring-report-2017

Chase, E. (1993) 'The Brief Origins of May Day'. Industrial Workers of the World. Available at: https://www.iww.org/history/library/misc/origins_of_mayday.

CIPD (2018) 'Executive Pay: review of FTSE 100 executive pay', London. Available here: http://highpaycentre.org/files/CEO_pay_report.pdf

Cole, M., 'Automation Fact Sheet', (2017) Autonomy, London: Autonomy.

Collewet, M., and Sauermann, J., (2017) 'Working hours and productivity', No. 9 Research Memorandum, Maastricht University, Graduate School of Business and Economics (GSBE)

Communication Workers Union. (2017). 'The Four Pillars of Security'. College Hill Press. Available at: http://www.cwunorthwest.org/pdf/TheFourPillarsOfSecurity.pdf.

Communication Workers Union. (2018). 'CWU Reaches Deal With Royal Mail'. Available at: http://www.cwu.org/wp-content/uploads/2018/02/LTB-59.18-Attachment-2017-18-Agreement-pre-ballot.pdf.

Communication Workers Union (2018a) 'Royal Mail "historic advance" in work-life balance'. Available at: https://www.cwu.org/news/royal-mail-historic-advance-in-work-life-balance/

Coote A., Franklin J. and Simms A. (2010) '21 hours: the case for a shorter working week', London, New Economics Foundation. Available at: http://neweconomics.org/2010/02/21-hours/.

Crouch, D., (2015). 'Efficiency up, turnover down: Sweden experiments with six-hour working day'. The Guardian. Available at: https://www.theguardian.com/world/2015/sep/17/efficiency-up-turnover-down-sweden-experiments-with-six-hour-working-day.

Daily Echo. (2016). 'Bright Horizon Cloud Accountants introduces six hour working days for staff'. Available at: http://www.dailyecho.co.uk/news/14454553.Boss_pays_staff_a_full_day_s_pay___for_just_working_six_hours/.

De Bloom, J., et al., (2012) 'Effects of Short Vacations, Vacation Activities and Experiences on Employee Health and Well-Being', Stress and Health, Volume 28, Issue 4, pp. 305 - 318.

De Spiegelaere, Stan. (2017). 'France'. The why and how of working time reduction, European Trade Union Institute Project, pp. 69-71.

Deloitte. (2017). Mental health and employers: The case for investment. Available at: https://www2.deloitte.com/uk/en/pages/public-sector/articles/mental-health-employers-review.html

Devetter François-Xavier. and Rousseau Sandrine. (2011). 'Working hours and sustainable development', Review of Social Economy, 69 (3), 333–355.

Dierckx, S., 'VRT'. (2017) in The why and how of working time reduction, European Trade Union Institute Project, pp. 75-77.

Dinh, H., Strazdins, L., & Welsh, J. (2017), 'Hour-glass ceilings: Work-hour thresholds, gendered health inequities', Social Science & Medicine, 176, pp. 42-51.

Dominguez, E. et al. (2011). Reduction of working hours as a policy of work sharing in the face of an economic crisis. Applied Economics Letters, vol. 18: pp. 683-686.

Downes, A., and Lansley, S., eds., (2018) It's Basic Income: The Global Debate. Bristol: Policy Press.

Dromey J, McNeil C. and Roberts C. (2017) Another lost decade? Building a skills system for the economy of the 2030s, London: IPPR. Available at: https://www.ippr.org/research/publications/skills-2030-Another-lost-decade

Estevao, Marcello, Sa, Filipa and Petrongolo, Barbara. (2008). 'The 35-Hour Workweek in France: Straightjacket or Welfare Improvement?' Economic Policy, Vol. 23, No. 55, pp. 417-463.

ETUI (European Trade Union Institute), (2017). "The why and how of working time reduction". Available at: https://www.etui.org/Publications2/Guides/The-why-and-how-of-working-time-reduction

European Parliament (2017) Recommendations to the Commission on Civil Law Rules on Robotics. Available at: http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+REPORT+A8-2017-0005+0+DOC+XML+V0//EN

Farmer, P and Stevenson, D (2017). Thriving at Work: The Stevenson/Farmer Review of Mental Health and Employers.

Felstead, A., Green, F., Gallie, D. & Henseke, G. (2018) Work Intensity in Britain: First Findings from the Skills and Employment Survey 2017. Cardiff: Cardiff University. Available at: https://www.cardiff.ac.uk/research/explore/find-a-project/view/626669-skills-and-employment-survey-2017

Fenech, M., et al. (2017) 'The Impact of AI in UK Constituencies: Where will automation hit hardest?' London: Future Advocacy.

Fitzgerald, J., Schor, J. & Jorgenson, K. (2018), 'Working Hours and Carbon Dioxide Emissions in the United States, 2007-2013', in Social Forces, February.

Frey C and Osborne M (2015) 'From brawn to brains: The impact of technology on jobs in the UK', Deloitte. Available at:https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/Growth/Deloitte-uk-insights-from-brawns-to-brain.pdf

Frey C and Osborne M (2013) 'The future of employment: how susceptible are jobs to computerisation'. Oxford University. Available at: http://www.oxfordmartin.ox.ac.uk/downloads/academic/The_Future_of_Employment.pdf

Fritz, C., and Sonnentag, S., (2005) 'Recovery, Health and Job Performance: Effects of Weekend Experiences', Journal of Occupational Health Psychology 10:3, pp. 187-199.

Fritza, C., et al., (2010) , 'The weekend matters: Relationships between stress recovery and affective experiences', Journal of Organizational Behavior, 31, pp. 1137–1162

Fulton, L., (2013) Worker Representation in Europe (Labour Research Department and ETUI)

Furukawa, Y., Toyoda, H., (2018) 'The recent process of job polarization in Japan: evidence from 1980 to 2010', Applied Economics Letters, 25:7, pp. 456-460

General Medical Council, (2016). 'National Training Survey: Key Findings'.

Available at: https://www.gmc-uk.org/National_training_survey_2016___key_findings_68462938.pdf.

Gísladóttir, S. (2016) 'Positive effect of shorter working day', Vísir. Reykjavík. Available at:
http://www.visir.is/g/2016160519695/jakvaed-ahrif-af-styttri-vinnudegi

Goodin,R., et al., (2008) Discretionary Time: A New Measure of Freedom, Cambridge: Cambridge University Press.

Goos, M. and Manning, M., (2007) "Lousy and Lovely Jobs: The Rising Polarization of Work in Britain", The Review of Economics and Statistics, Vol. 89, No. 1 Feb, 2007, pp. 118-133.

The Green Institute, (2016) 'Can less work be more fair? A discussion paper on Universal Basic Income and shorter working week', Canberra. Available at: https://www.greeninstitute.org.au/publications/less-work-more-fair/

Guizzo, D., and Stronge W., (2018) 'Keynes, Foucault and the "Disciplinary Complex"' (working paper), Autonomy, 02: March 2018.

Haldane A (2015) 'Labour's Share', Speech by Andrew Haldane, chief economist, Bank of
England, Trades Union Congress, London 12 November 2015. Available at: http://www.bankofengland.co.uk/publications/Documents/speeches/2015/Speech864.pdf.

Haldane A (2017) 'Productivity puzzles', speech by Andrew Haldane, chief economist, Bank of England, London School of Economics, 20 March 2017. Available at:
http://www.bis.org/review/r170322b.pdf

Hall, P.A., 1950, Soskice, D.W., 1942, (2001). Varieties of capitalism: the institutional foundations of comparative advantage. Oxford University Press, Oxford.

Hamermesh, D.S. et al. (2014) 'Does Labor Legislation Benefit Workers? Well-Being after an Hours Reduction' IZA Discussion Paper No. 8077, Institute for the Study of Labor.

Hans Böckler Stiftung (1993) Vier-Tage-Woche bei Volkswagen, WSI-Tarifbericht. https://www.boeckler. de/wsi-tarifarchiv_3267.htm

Harper, A. (2017). 'Royal Mail shareholders are making £500k a day now, so why can't workers receive some benefits too?'. The Independent. Available at: https://www.independent.co.uk/voices/royal-mail-shareholders-strike-workers-not-benefitting-from-automation-a8005326.html.

Health and Safety Executive, (2017), 'Work related stress, anxiety and depression statistics in Great Britain 2017'. Available at:
http://www.hse.gov.uk/statistics/causdis/stress/stress.pdf?pdf=stress

Health and Safety Executive, (2018), 'Work related stress, anxiety and depression statistics in Great Britain 2017'. Available at: http://www.hse.gov.uk/statistics/causdis/stress.pdf

Hester, H., and N. Srnicek, (2019). After Work: The Fight for Free Time. London, Verso.

HMG (2017) 'Made smarter'. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/655570/20171027_MadeSmarter_FINAL_DIGITAL.pdf.

Hothschild, A. (1989), The Second Shift: Working Parents and the Revolution at Home. Viking Penguin.

Huberman M. and Minns C. (2007) The times they are not changin': days and hours of work in Old and New Worlds, 1870-2000, Explorations in Economic History, 44 (4), 538–567.

Huggler, J., (2018), 'German workers win right to 28-hour working week' TheTelegraph, 2018. Available at: http://www.telegraph.co.uk/news/2018/02/07/german-workers-win-right-28-hour-working-week/

Hunnicutt, B.K. (1996). Kellogg's Six-Hour Day, Philadelphia, Temple University Press.

Hunnicutt, B.K. (1984) "The End of Shorter Hours," Labor History (Summer 1984), pp. 373-404.

Hunt, V. et al., (2016) The power of parity: Advancing women's equality in the United Kingdom, Mckinsey Global Institute. Available at: https://www.mckinsey.com/global-themes/gender-equality/the-power-of-parity-advancing-womens-equality-in-the-united-kingdom

International Federation of Robotics. (2016). Executive Summary World Robotics 2016
Industrial Robots. Available at: https://ifr.org/img/uploads/Executive_Summary_WR_Industrial_Robots_20161.pdf

International Federation of Robotics. (2018). Executive Summary World Robotics 2018
Industrial Robots. Available at: https://ifr.org/downloads/press2018/Executive_Summary_WR_2018_Industrial_Robots.pdf

IPPR (2018) Commission on Economic Justice. IPPR: London. https://www.ippr.org/files/2018-08/1535639099_prosperity-and-justice-ippr-2018.pdf

Ipsos Mori. (2012).' The State of Public Sector' - PPMA Seminar. April 2012.

Jaimovich, Nir; Siu, Henry E. (2014) : 'Demographics, job polarization, and macroeconomic analysis of labor markets', NBER Reporter, National Bureau of Economic Research (NBER), Cambridge, MA, Iss. 4, pp. 9-12

Johnson, J., Hall, L. H., Berzins, K., Baker, J., Melling, K., & Thompson, C. (2017), 'Mental healthcare staff well being and burnout: A narrative review of trends, causes, implications, and recommendations for future interventions'. International Journal of Mental Health Nursing,(1):20-32.

Jalas, M. (2002). "A time use perspective on the materials intensity of consumption", Ecol. Econ. 2002, 41, 109–123.

Joseph Rowntree Foundation (2016), 'UK Poverty: Causes, costs and solutions'. Available at: https://www.jrf.org.uk/report/uk-poverty-causes-costs-and-solutions

Kallis, G. Kalush, M. O'Flynn, H. Rossiter, J. Ashford, N. (2013)."Friday off: Reducing Working Hours in Europe". Sustainability 5, pp. 1545-1567.

Kasser, T. (2002). The High Price of Materialism. (MIT Press, Cambridge, MA).

Keynes, John Maynard. (2013) [1930]. Essays in Persuasion. In: The Collected Writings of John Maynard Keynes (volume IX). Cambridge: Cambridge University Press.

King, Lewis C. & van den Bergh, Jeroen. (2017). Worktime Reduction as a Solution to Climate Change: Five Scenarios Compared for the UK. Ecological Economics 132, pp. 124–134.

Knight, K.; Rosa, E.A.; Schor, J.B. (2012). "Reducing Growth to Achieve Environmental Sustainability: The Role of Work Hours"; Political Economy Research Institute Working Paper Series, Number 304; University of Massachusetts: Amherst, MA, USA.

Kodz, J. (2003), 'Working long hours: a review of the evidence: Volume 1 — Main report', in Employment Relations Research Series No. 16, The Institute for Employment Studies.

Kopf., D., 2017. "Aiding the Job Market: The Future of American Jobs is Taking Care of the Elderly."Quartz. Available at: https://qz.com/1114615/the-future-of-american-jobs-is-taking-care-of-the-elderly/.

Kroll, C. & Pokutta, S. (2013), 'Just a perfect day? Developing a happiness optimised day schedule', Journal of Economic Psychology, vol. 34, pp. 210-217.

Krull S. (2010) Radikale Arbeitszeitverkürzung – Zwischen Traum und Albtraum, LuXemburg, 5 (3). Available at: http://www.zeitschrift-luxemburg.de/radikale-arbeitszeitverkuerzung-zwischen-traum-undalbtraum/

Lacerda, E. (2014). 'The 6-hour journey is an issue of health and public efficiency'. JusBrasil, Brasilia. Available at: https://sindjufe-go.jusbrasil.com.br/noticias/116474865/jornada-de-6-horas-e-questao-de-saude-do-servidor-e-eficiencia-publica

Landrigan, C. et al., (2004), 'Effect of Reducing Interns' Work Hours on Serious Medical Errors in Intensive Care Units.' The New England Journal of Medicine.

Landrigan, Philip J et al. (2017). "The Lancet Commission on pollution and health". The Lancet, Volume 391, Issue 10119, 462 - 512.

Lansley, S., (2016), A Sharing Economy, Bristol: Policy Press.

Lansley, S., McCann, D. and Schifferes, S., (2018) 'Remodelling Capitalism: How Social Wealth Funds could transform Britain'. London: Friends Provident Foundation. Available here: http://www.friendsprovidentfoundation.org/wp-content/uploads/2018/05/Remodelling-Capitalism-Report-How-Social-Wealth-Funds-could-transform-Britain.pdf

Lawrence, M. and King, L., Roberts, C., (2017) Managing automation: Employment, inequality and ethics in the digital age, London. IPPR. Available at: http://www.ippr.org/publications/managing-automation

Lee, D., and Lim, H., (2017). 'Multiple thresholds in the nexus between working hours and productivity', in Contemporary Economic Policy, vol. 35, No. 4, pp. 716-734.

T. van der Lippe, J. Treas, L. Norbutas, (2017). 'Unemployment and the division of housework in Europe', Work, Employment and Society. Available at: http://journals.sagepub.com/doi/10.1177/0950017017690495

Loftin, Josh. (2011). 'Utah ends 4-day workweek experiment'. The Daily Caller, Salt Lake City. Available at: http://dailycaller.com/2011/09/04/utah-ends-4-day-workweek-experiment/

Lounsbury, J. W., & Hoopes, L. L. (1986). 'A vacation from work: Chances in work and nonwork outcomes.' Journal of Applied Psychology, 71, 392–401.

Logistics Manager, (2015). Royal Mail invests £20m in parcels automation at 20 sites. Available at: https://www.logisticsmanager.com/royal-mail-invests-20m-in-parcels-automation-at-20-sites/

Lyon, L. S., Homan, P. T., Lorwin, L. L., Terborgh, G., Dearing, L. and Marshall, L. C. (1972). The National Recovery Administration: An Analysis and Appraisal. New York: Da Capo Press (Reprint of 1935 first edition).

Mazzucato, M., (2018) The Value of Everything. London: Penguin.

McManus, S., Bebbington, P., Jenkins, R., & Brugha, T. eds. (2016), Mental health and wellbeing in England: Adult Psychiatric Morbidity Survey 2014. Leeds: NHS Digital.

Meadway, J., (2014), 'Economic Healthcheck: A Return To Growth But Not Recovery', London, New Economics Foundation. Available at: http://b.3cdn.net/nefoundation/4f95224c8c7e7ce5b2_3nm6benfa.pdf.

Miller, A., (2017) A Basic Income Handbook, Edinburgh: Luath Press Limited.

Mursula, L-A. et al., (2005), 'Employee worktime control moderates the effects

of job strain and effort-reward imbalance on sickness absence: the 10-town study', in Journal of Epidemiol Community Health, vol. 59, pp. 851-857.

Myers, D.G. (2000). 'The funds, friends, and faith of happy people'. American Psychologist, vol. 55, no.1, pp. 56-67.

Nässén, J., Larsson, J., (201 'Would shorter working time reduce greenhouse gas emissions? An analysis of time use and consumption in Swedish households', Environment and Planning C: Government and Policy 2015, vol. 33, pp. 726–745.

NHS Digital. (2017) NHS Workforce - Reasons for Leaving, Staff Movements

O'Connor, S., (2017). "Never Mind the Robots; Future Jobs Demand Human Skills." Financial Times. Available at: https://www.ft.com/content/b893396c-3964-11e7-ac89-b01cc67cfeec.

O'Connor., (2018). 'Exhausted UK staff work harder and faster "just to stand still"'. Financial Times. Available at: https://www.ft.com/content/75a20992-c330-11e8-95b1-d36dfef1b89a

OECD (2014) 'Wage-setting Institutions and Outcomes', in OECD, Employment Outlook, p. 160.

OECD (2015) The Labour Share in G20 Economies. Available at: https://www.oecd.org/g20/topics/employment-and-social-policy/The-Labour-Share-in-G20-Economies.pdf

OECD (2017) OECD Employment Outlook 2017. Available at: http://www.keepeek.com/Digital-Asset-Management/oecd/employment/oecd-employment-outlook-2017_empl_outlook-2017-en#.WhaojFVl_cs#page1

OECD (2018) 'Automation, skills use and training'. Available at: https://www.oecd-ilibrary.org/docserver/2e2f4eea-enpdf?expires=1532003387&id=id&accname=guest&checksum=EA29137A856DE3A0966D0C62E9504D67

OECD Observer (2012) 'Productive hours'. Available at: http://oecdobserver.org/news/fullstory.php/aid/3841/Productive_hours.html

Oltermann, Philip (2018). "German workers strike for right to two-year, 28-hour working week". The Guardian. Available at: https://www.theguardian.com/world/2018/jan/08/german-metal-workers-strike-in-bid-to-gain-28-hour-working-weeks.

ONS (2011), 2011 Census. Available at: https://www.ons.gov.uk/census/2011census

ONS (2016a), UK Labour Market: February 2016. Available at: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/uklabourmarket/february2016

ONS (2016b). Women shoulder the responsibility of 'unpaid work'. Available at: https://visual.ons.gov.uk/the-value-of-your-unpaid-work/

ONS. (2016c) Labour Force Survey Q4. Available at:

https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/uklabourmarket/dec2016

ONS (2017a)'Average actual weekly hours of work for full-time workers (seasonally adjusted)'. Available at: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/timeseries/ybuy/lms.

ONS (2017b). Sickness Absence in the Labour Market. Available at: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/labourproductivity/articles/sicknessabsenceinthelabourmarket/2016

ONS (2017c) 'International comparisons of UK productivity (ICP), final estimates: 2015'. Available at: https://www.ons.gov.uk/economy/economicoutputandproductivity/productivitymeasures/bulletins/internationalcomparisonsofproductivityfinalestimates/2015.

ONS (2018) Division level labour productivity estimates: February 2018. Available at: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/labourproductivity/articles/divisionlevellabourproductivityestimates/january2018

ONS (2018a) 'Wealth in Great Britain Wave 5: 2014 to 2016'. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/incomeandwealth/bulletins/wealthingreatbritainwave5/2014to2016.

ONS (2018b) 'UK Whole Economy: Output per hour worked SA: Index 2016 = 100'. Available at: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/labourproductivity/timeseries/lzvb/prdy

ONS (2018c) 'Contracts that do not guarantee a minimum number of hours: April 2018'. Available at: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/articles/contractsthatdonotguaranteeaminimumnumberofhours/april2018

Otterbach, S., Wooden, M., & Fok, Y., (2016), 'Working-time mismatch and mental health'. SOEP. Berlin: DIW.

Park, A., Bryson, C., Clery, E., Curtice, J. and Phillips, M. (eds.) (2013), British Social Attitudes: the 30th Report, London: NatCen Social Research. Available at: www.bsa-30.natcen.ac.uk

Peeples, Lynne. (2009).' Economic Pluses of the 4-Day Workweek'. Scientific American. Available at: https://www.scientificamerican.com/article/four-day-workweek-energy-environment-economics-utah/

Pencavel, J. (2014) 'The Productivity of Working Hours'. IZA Discussion Paper No. 8129, Institute for the Study of Labor.

Percy, A. et al. (2018) 'Social Prosperity Network Report'. Available at: https://www.ucl.ac.uk/bartlett/igp/sites/bartlett/files/universal_basic_services_-_the_institute_for_global_prosperity_.pdf

Piketty, T., (2014) Capital in the Twenty First Century. Harvard: Harvard University Press.

Pintelon, Olivier. (2017) in The why and how of working time reduction, European Trade Union Institute Project, pp. 71-73.

Plaisier, I., De Bruijn, J. G. M., Smit, J. H., De Graaf, R., Ten Have, M., Beekman, A. T. F., ... & Penninx, B. W. J. H. (2008). 'Work and family roles and the association with depressive and anxiety disorders: differences between men and women', Journal of Affective Disorders, 105(1), pp. 63-72.

Prosser, D., Johnson, S., Kuipers, E. et al. (1999). 'Mental health, "burnout" and job satisfaction in a longitudinal study of mental health staff'. Social Psychiatry and Psychiatric Epidemiology, 34, pp. 295–300

Prunier-Poulmaire, S. & Gadbois, C. (2001), 'The French 35-Hour Workweek: A Wide-ranging Social Change', Journal of Human Ergology, vol. 30, no. 1/2, pp. 41-46.

PwC (2017a) Will robots steal our jobs? The potential impact of automation on the UK and
other major economies. Available at:
https://www.pwc.co.uk/economic-services/ukeo/pwcukeosection-4-automation-march-2017-v2.pdf

PwC (2017b) The economic impact of artificial intelligence on the UK economy. Available at:
https://www.pwc.co.uk/economic-services/assets/ai-uk-report-v2.pdf

Raurich, X., H. Sala and V. Sorolla (2012), "Factor shares, the price markup, and the elasticity of substitution between capital and labor", Journal of Macroeconomics, Vol. 34, No. 1, pp. 181-198.

Rosnick, D., Weisbrot, M. (2007), 'Are Shorter Work Hours Good for the Environment? A Comparison of U.S. and European Energy Consumption', Center for Economic and Policy Research.

Royal College of Physicians (2015). Work and Wellbeing in the NHS: Why Staff Health Matters to Patient Care. London: Royal College of Physicians.

Royal College of Psychiatrists (2013) 'Mental Heath and Work'. London: DWP. Available at:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/212266/hwwb-mental-health-and-work.pdf

Ryan, R.M., Bernstein, J.H. & Brown, K.W. (2010), 'Weekends, Work, and Well-Being: Psychological Need Satisfactions and Day of the Week Effects on Mood, Vitality, and Physical Symptoms', Journal of Social and Clinical Psychology, vol. 29, no. 1, pp. 95-122.

Savage, Maddy. (2017), 'What really happened when Swedes tried six-hour days?', London. BBC. Available at:
http://www.bbc.co.uk/news/business-38843341

Schiller, H., Lekander, M., Rajaleid, K., Hellgren, C., Åkerstedt, T., Barck-Holst, P., & Kecklund, G. (2017). 'The impact of reduced worktime on sleep and perceived stress–a group randomized intervention study using diary data'. Scandinavian journal of work, environment & health, 43(2), pp. 109-116.

Schulten T., Seifert H. and Zagelmeyer S. (2007) Pacts for employment and competitiveness: Volkswagen AG, EurWORK. Available at: https://www.eurofound.europa.eu/fr/observatories/eurwork/casestudies/ pecs/ pacts-for-employment-and-competitiveness-volkswagen-ag

Seekings, J. et al. (2015). 'The Welfare State, Public Services and the 'Social Wage'' in Policy, Politics and Poverty in South Africa, pp. 162- 184.

Seifert H. and Trinczek R. (2000) 'New approaches to working time policy in Germany: the 28,8 hour working week at Volkswagen Company', WSI Discussion Papers 80, Düsseldorf, Wirtschaftsund Sozialwissenschaftliches Institut. https:// www.boeckler.de/pdf/p_wsi_diskp_080.pdf

Shah, H., and Marks, Nic. (2004), 'A well-being manifesto for a flourishing society', London, New Economics Foundation. Available at: http://b.3cdn.net/nefoundation/813660812dc0c82af5_vkm6vve98.pdf.

Shand, L. et al., (2017) 'Executive Pay: Review of FTSE 100 Executive Pay Packages', CIPD and Higher Pay Centre, London. Available at: http://highpaycentre.org/files/2016_CEO_pay_in_the_FTSE100_ report_%28WEB%29_%281%29.pdf

Simms, J., (2014) 'The Rise and Rise of Executive Pay', Economia. Available at: https://economia.icaew.com/features/may-2014/the-rise-and-rise-of-executive-pay

Sonnentag, S., (2003) 'Recovery, Work Engagement, and Proactive Behaviour: A New Look at the Interface Between Nonwork and work', Journal of Applied Psychology. 88:3, pp. 518-528.

Sonnentag, S., et al. (2008), 'Being engaged at work and detached at home: A week-level study on work engagement, psychological detachment, and affect', Work and Stress, Vol. 22, No. 3, July- September 2008, pp. 257- 276. London, Routledge.

Sonnentag, S., et al. (2014), 'Making Flow Happen: The Effects of Being Recovered on Work-related Flow Between and Within Days', Journal of Applied Psychology, 99: 4.

Soojung-Kim, P., (2017) Rest: Why You Get More Done When You Work Less, London: Penguin.

Sparks, Kate et al., (2011), 'The Effects of Hours of Work on Health: A Meta-Analytic Review', in Journal of Occupational and Organizational Psychology, vol. 70, no. 4, pp. 391-408.

Standing, G., (2017) Basic Income: And How We Could Make It Happen, London: Penguin.

Standing, G., (2017) The Corruption of Capitalism. London: Biteback Publishing

Stockhammer, (2012) Why have wage shares fallen? ILO.

Strazdins, L., Welsh, J., Korda, R., Broom, D., & Paolucci, F. (2016). 'Not all hours are equal: could time be a social determinant of health?'. Sociology of health & illness, 38(1), 21-42.

Stewart, E., Bivand, P., (2016) 'How flexible hiring could improve business performance and living standards', Joseph Rowntree Foundation. Available at: https://timewise.co.uk/wp-content/uploads/2016/01/JRF_Flexible_Hiring_Research_Summary.pdf

Taylor, J., (2011), 'Work-sharing During the Great Depression: Did the "President's Reemployment Agreement"' promote reemployment', Economica, Vol. 78, No. 309, pp. 133-158.

The British Psychological Society. (2017). Psychology at work: Improving wellbeing and productivity in the workplace. Available at: https://www.bps.org.uk/sites/beta.bps.org.uk/files/Policy%20-%20Files/Psychology%20at%20work%20-%20improving%20wellbeing%20and%20productivity%20in%20the%20workplace.pdf.

The Picker Institute. The NHS staff survey 2017. Available at: http://www.nhsstaffsurveys.com/Page/1056/Home/NHS-Staff-Survey-2017/

Thompson, P. (2018) A silver lining for the UK economy? The intergenerational case for supporting longer working lives, The Centre for Ageing Better. Available at:
https://www.ageing-better.org.uk/publications/silver-lining-uk-economy

TUC, (2015) '15 percent increase in people working more than 48 hours a week risks a return to 'Burnout Britain, warns TUC'
Available at:
https://www.tuc.org.uk/news/15-cent-increase-people-working-more-48-hours-week-risks-return-%E2%80%98burnout-britain%E2%80%99-warns-tuc

TUC, (2016a) 'UK workers experienced sharpest wage fall of any leading economy, TUC analysis finds'. Available at:
https://www.tuc.org.uk/news/uk-workers-experienced-sharpest-wage-fall-any-leading-economy-tuc-analysis-finds

TUC, (2017a) 'Workers in the UK put in £33.6 billion worth of unpaid overtime a year'. Available at:
https://www.tuc.org.uk/news/workers-uk-put-%C2%A3336-billion-worth-unpaid-overtime-year

TUC, (2017b) 'Average worker now spends 27 working days a year commuting finds TUC' . Available at:
https://www.tuc.org.uk/news/average-worker-now-spends-27-working-days-year-commuting-finds-tuc

TUC (2018). Living on the Edge: Experiencing workplace insecurity in the UK. Available at:
https://www.tuc.org.uk/living-edge

TUC (2018a) 'A future that works for working people'. Available at: https://www.tuc.org.uk/research-analysis/reports/future-works-working-people

The Timewise Foundation, (2013) 'The Flexibility Trap'. Available at: https://timewise.co.uk/wp-content/uploads/2014/05/Flexibility_Trap_Research.pdf

The Timewise Foundation (2017), 'Flexible Working: A talent imperative'. Available at: https://timewise.co.uk/wp-content/uploads/2017/09/Flexible_working_Talent_-Imperative.pdf

UCU (2016) 'Precarious Work in Higher Education', London. Available at: https://www.ucu.org.uk/media/7995/Precarious-work-in-higher-education-a-snapshot-of-insecure-contracts-and-institutional-attitudes-Apr-16/pdf/ucu_precariouscontract_hereport_apr16.pdf

Van den Bergh, J. (2011). "Environment versus growth - A criticism of degrowth and a plea for a-growth". Ecol. Econ. 2011, 70, pp. 881–890.

Van Parijs, P., and Vanderborght, Y., (2017) Basic Income: A Radical Proposal. London: Harvard.

Virtanen, M., Stansfeld, S. A., Fuhrer, R., Ferrie, J. E., & Kivimäki, M. (2012). 'Overtime work as a predictor of major depressive episode: a 5-year follow-up of the Whitehall II study'. PloS one, 7(1), e30719.

Wajcman, J., (2015) Pressed for Time: The Acceleration of Life in Digital Capitalism, Chicago: Chicago University Press.

Wall, M. (2016). "Public servants to pursue 30-hour working week". Irish Times. Available at: https://www.irishtimes.com/news/ireland/irish-news/public-servants-to-pursue-30-hour-working-week-1.2653769

Walton, H., David, D, Beevers, Williams, M., Watkiss, P., and Hunt, A. (2015). 'Understanding the Health Impacts of Air Pollution in London', London

Westman, M., & Eden, D. (1997). 'Effects of a respite from work on burnout: Vacation relief and fade-out'. Journal of Applied Psychology, 82, pp. 516–527.

Wilcock, A.A. (2006), 'An occupational perspective of health', 2nd edn, Slack, Thorofare, N.J.

Women and Equalities Select Committee (March 2016), 'Gender Pay Gap'. Available at: https://publications.parliament.uk/pa/cm201516/cmselect/cmwomeq/584/58402.htm

World Economic Forum, (2016) 'The Future of Jobs Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution'. Available at: http://reports.weforum.org/future-of-jobs-2016/.

Worthington, D. (2014). 'Looking back on the Three Day Week'. Available at: http://www.newhistorian.com/looking-back-three-day-week/2405/

Yamuchi, T., Yoshikawa, T., Takamoto, M., Sasaki, T., Matsumoto, S., Kayashima, K., Takeshima, T., Takahashi, M., 'Overwork-related disorders in Japan: recent trends and development of a national policy to promote preventive measures', Industrial Health, vol. 55, pp. 293-302.

Yanchus, N., Periard, D. & Osatuke, K. (2016). 'Further examination of predictors of turnover intention among mental health professionals'. Journal of Psychiatric and Mental Health Nursing, 24, 41–56

Data Sets

Dataset 1. OECD Stat. 'Average annual hours actually worked per worker'. Available at: https://stats.oecd.org/Index.aspx?DataSetCode=ANHRS.

Dataset 2. OECD Stat. 'Level of GDP per capita and productivity'. Available at: http://stats.oecd.org/index.aspx?DataSetCode=PDB_LV.